

IMPROVING TEACHER WELLBEING: A RANDOMIZED PILOT STUDY OF AN ONLINE  
SELF-GUIDED SINGLE SESSION CONSULTATION INTERVENTION

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## ABSTRACT

Teaching is a stressful job, that often presents with limited time and high job demands. However, the vast majority of the interventions tailored to help mitigate this stress and increase wellbeing are very time consuming and not tailored to meet the specific needs of teachers. To address this gap, this paper utilizes a randomized study design and pilots an online-self guided single session consultation (OSG-SSC) intervention aimed at improving wellbeing. Specifically, in a sample of 122 teachers (intervention group,  $n = 61$ ; wait-list control group,  $n = 61$ ) the fidelity, acceptability, and effectiveness of the OSG-SSC across a variety of indicators (i.e., teacher self-efficacy, school connectedness, positive emotions, hope, and burnout) was examined. The results suggests that the OSG-SSC was implemented with a high level of fidelity and found to be a useful and acceptable intervention by teachers. In addition, the OSG-SSC was also found to significantly reduce one aspect of burnout, emotional exhaustion with a large effect ( $F [1,78] = 12.26, p < .001, \eta_p^2 = .14$ ; Cohen, 1988). As a result, the findings from this study were able to show preliminary evidence that the OSG-SSC could be a useful and time-sensitive tool to improve teacher wellbeing. Given that this was a pilot study, future investigations should build upon these results to better understand the full utility of the OSG-SSC.

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## INTRODUCTION

It has often been commonly stated that teachers are the “backbone of society”. They can serve as highly influential role models to children and be an important source of support for many years beyond their initial relationship (Delpit, 2006). However, despite their importance within society, the teaching profession has one of the highest rates of burnout in the United States (Marken & Agrawal, 2022). In addition, teachers are commonly embedded in school systems that lack the programs, resources, and tools needed to mitigate burnout and improve their wellbeing (Lever et al., 2017). As such, high rates of burnout among teachers persist, as well as contributes to a host of negative outcomes in schools, such as high teacher attrition, negative student outcomes (e.g., academic achievement), and low teacher work motivation (Harmsen et al., 2018; Madigan & Curran, 2021).

Given these circumstances, examining ways to improve teacher wellbeing through various interventions have recently become more popular despite still being an area of limited research (Cann et al., 2023; Hascher & Waber, 2021). For example, in one systematic review of teacher wellbeing interventions that examined articles from 2000 to 2020, only 23 articles were included and 61% of those articles were published in the last seven years (Cann et al., 2023). As such, given this limited data, clear conclusions on the key components of teacher wellbeing interventions have not been determined; although, a variety of factors have been hypothesized as potentially important considerations (Cann et al., 2023; Hascher & Waber, 2021).

One factor in the current research literature that has been discussed, is the consideration of a teacher’s work environment (e.g., school context, intense time-consuming schedule) and its alignment to the purpose of the intervention (Cann et al., 2023; Maas et al., 2021). This is a current gap in the research literature as the vast majority of teacher wellbeing interventions are

not synergetic with their work context (e.g., they are lengthy [i.e., 1-8 hours] and require multiple sessions; see Table 1 for a review). Therefore, given this gap, designing an intervention with a shorter duration might be beneficial for two reasons. First, it is one possible way of adding to the current research literature on teacher well-being interventions, specifically highlighting the role that their environment plays in attempting to improve their well-being. Second, teachers may find a shorter intervention to be more pragmatically useful, which has been linked in the research literature to increased intervention effectiveness (Witt & Elliott, 1985).

One type of intervention design that might be feasible for a teacher population and fill this gap, is a specific type of single-session intervention (SSI), called the Single Session Consultation (SSC; Schleider et al., 2021). Specifically, the SSC may prove to be the flexible option needed for teachers because it is only one session, rooted in theory hypothesized to improve teacher wellbeing, and has a simple, flexible structure and design to meet the unique aspects of teachers' work environments (Bannink, 2007; Falecki & Mann, 2021; Schleider et al., 2021). Therefore, while it is likely that the SSC could be a feasible intervention for teachers, additional practical adaptations to the SSC might also yield greater intervention effects for a more comprehensive intervention (Witt & Elliott, 1985). As such, one adaptation that could maximize intervention flexibility to meet a teacher's unique needs, such as a lack of free time, are self-guided interventions (Carolan et al., 2017). In the research literature, it has been found that there are no significant differences between the effects of self-guided interventions and other traditional in-person modalities (Carolan et al., 2017). Therefore, the adaptation of the SSC to a self-guided version might prove to be an acceptable and effective adaptation for a comprehensive teacher wellbeing intervention.

Additionally, although there is evidence to support the above considerations as reasonable and potential considerations to address the current gap in the teacher wellbeing research literature, there is also a lack of established empirical data to support further conclusions in improving teacher wellbeing. Thus, given these circumstances, Bowen and colleagues (2009) recommend the utilization of a pilot study that focuses on the acceptability, fidelity, and limited efficacy to better understand if these ideas are relevant, sustainable, and appropriate for further testing. Thus, the primary aim of this study is to examine the acceptability, fidelity, and effectiveness of an adapted, online, self-guided version of the Single Session Consultation (OSG-SSC) aimed at improving teacher wellbeing. This paper first begins with a discussion of wellbeing in general and teacher wellbeing. Then, a discussion of the negative and positive indicators of teacher wellbeing. Next, it turns to a discussion on teacher wellbeing interventions, single session interventions, the single session consultation model, and self-guided interventions. Finally, the discussion ends with the examination of a pilot study to assess intervention acceptability, fidelity, and effectiveness.

## LITERATURE REVIEW

### Wellbeing

In the research literature, general wellbeing has been defined in a variety of ways (e.g., subjective wellbeing, psychological wellbeing, PERMA model (positive emotions, engagement, relationships, meaning, accomplishment); Diener & Ryan, 2009; Ryan & Deci, 2001; Seligman, 2011). Nonetheless, most definitions typically reflect two related, but distinct perspectives: hedonic and eudaimonic viewpoints (Ryan & Deci, 2001). In the hedonic perspective, wellbeing is generally defined as a person's overall evaluation of his or her life and can include cognitive states (e.g., satisfaction), ongoing affect (e.g., subjective happiness, positive and negative emotions, absence of unpleasant affect), and/or social states (e.g., interest and engagement; Diener & Lucas 1999; Diener & Ryan, 2009). In contrast, wellbeing from the eudaimonic perspective, extends the hedonic perspective further by including similar constructs, but expanding their breadth (Ryan & Deci, 2001). As such, the eudaimonic perspective is generally conceptualized by six constructs that altogether indicate positive functioning: self-acceptance (i.e., positive affect towards self), personal growth (i.e., interest in new experiences/learning), positive relatedness (i.e., positive engagement with others), life purpose (i.e., goals and meaning), autonomy (i.e., independence), and environmental mastery (i.e., competence in managing an environment (Ryff, 1989). Although the hedonic and eudaimonic perspectives are frequently contrasted in the literature, previous research suggests that these two theories overlap considerably (Deci & Ryan, 2008) and are highly correlated (e.g.,  $r = .59$ ;  $p < .001$ ; Keyes et al., 2002). Thus, given the considerable overlap, the usage of one perspective over the other has been largely determined by discipline (e.g., education, psychology) and population (e.g., health care workers, education), with research focusing on teachers primarily utilizing the hedonic



perspective. For example, in a systematic review of teacher wellbeing across 98 studies, Hascher and Waber (2021) found that the majority of studies based their conceptualization of wellbeing in teachers on the hedonic perspective. As such, given this review, this paper will conceptualize wellbeing in teachers from the hedonic perspective.

### **Teacher Wellbeing**

Studying teacher wellbeing as its own distinct concept apart from the general wellbeing literature is a relatively novel concept in the literature. However, it has become more popular in recent years due to its hypothesized relationship with a host of important factors unique to teachers (e.g., student achievement, teacher retention, class and school climate; Turner & Thielking, 2016). Given its relatively short research history, there is understandably considerable debate in the research literature as to how to define teacher wellbeing beyond the general direction of the hedonic perspective (Hascher & Waber, 2021). For example, despite numerous articles citing the importance of further conceptualizing teacher wellbeing as a dual factor model that includes both positive and negative indicators (Fernandes et al., 2019; Greenspoon & Saklofske, 2001), several different articles indicate that teacher wellbeing should be conceptualized as only the absence of negative indicators (e.g., stress and burnout) or only the presence of positive indicators (e.g., self-efficacy, positive relationships, positive emotions (Breeman et al., 2015)). Further, a small minority of studies grounded their definitions of teacher wellbeing around the specific environment of the teaching profession. This latter point is importance as Skaalvik & Skaalvik (2018) found that 78% of the variance in teacher wellbeing can be explained by job variables that are specific to the teaching profession. Thus, to accommodate the majority of the different perspectives of teacher wellbeing, in this paper teacher wellbeing will be defined as a teacher's evaluation of their healthy and successful

functioning in the teaching environment, as indicated by both positive and negative indicators (Collie et al., 2015; Renshaw et al., 2015).

### **Teacher Wellbeing Indicators**

Teacher wellbeing is multi-dimensional (Hascher & Waber, 2021). However, the research literature varies widely in describing the specific indicators that make up its multi-dimensional nature. For example, various theories have indicated that key aspects of teacher wellbeing could include factors such as (a) cognitive and affective indicators (e.g., self-efficacy, happiness, negative emotion; Diener et al., 2018), (b) motivation and psychosomatic symptoms (e.g., engagement, exhaustion, irritability; van Horn et al., 2004), and (c) workaholism and burnout (Bakker & Oerlemans, 2011). Given this wide-ranging variation, Hascher and Waber (2021) recommend that indicators of teacher wellbeing should be split into two general categories, positive and negative factors that include cognitive (e.g., self-efficacy, motivation, poor emotion regulation) and affective (e.g., positive emotions, exhaustion, positive relations with others, burnout) aspects. As such, the following sections discuss the most salient constructs within these two categories: positive indicators of teacher wellbeing and negative indicators of teacher wellbeing.

#### ***Positive Indicators of Teacher Wellbeing***

**Teacher Self-Efficacy.** Teacher self-efficacy (TSE) is a construct within the broader self-efficacy literature, which is well conceptualized within the framework of Social Cognitive Learning Theory (SCLT; Bandura, 1977). Specifically, SCLT posits that learning occurs in a social environment through the reciprocal interaction of the person, environment, and behavior (Bandura, 1977). One dimension of SCLT is self-efficacy, or one's level of confidence in their ability to successfully perform the necessary steps to complete a task or behavior (Bandura,

1977). Within this framework, TSE can be defined as a teacher's belief in their own ability to carry out the necessary steps required to attain various educational tasks or outcomes (Skaalvik & Skaalvik, 2007). Several literature reviews indicate that TSE is positively related to teacher wellbeing. For example, in a systematic review, Zee and Koomen (2016) cited 42 studies that found a positive relationship between TSE and positive teacher wellbeing. These studies employed a variety of different methodologies, included participants from across grades, and were conducted in a variety of different contexts. Similarly, in a more recent literature review on teacher wellbeing that included 98 studies, Hascher and Waber (2021) concluded that "feelings of competence and teaching efficacy univocally showed positive correlations with teacher wellbeing".

Several empirical studies support the conclusions of the above reviews across a variety of statistical analyses. First, Capone and Petrillo (2020) examined the relationship between teacher wellbeing and teacher self-efficacy through a correlational analysis. Specifically, they found that the correlation between these constructs was positive with a large effect size ( $r = .62$ ;  $p < 0.01$ ), suggesting a strong relationship between the two variables. Secondly, in another study utilizing a hierarchical linear regression to examine how various constructs (e.g., self-efficacy, school support, resources) relate to teacher wellbeing, teacher self-efficacy was found to be the largest predictor of teacher wellbeing for teachers of K-12 students ( $\beta = .338$ ;  $p < .001$ ; Ortan et al., 2021). In a third study, Liang and colleagues (2022) found that teacher self-efficacy acted as a key mediating factor in improving a teacher's wellbeing via teachers' participation in a professional learning community (i.e., a group of teachers who come together as a team to help each other in a reflective, collaborative, and inclusive way). Specifically, they found that teacher self-efficacy accounted for 28.4% of the impact that participating in a professional community

has on a teacher's wellbeing. Lastly, in a study aiming to test the effects of a professional development intervention on teacher self-efficacy and teacher wellbeing across time, significant and moderate relationships were found (Tanaka et al., 2020). Specifically, teacher self-efficacy at Time 1 correlated with negative teacher wellbeing (e.g., burnout, stress) at Time 1 ( $r = -.23; p < .05$ ) and Time 2 ( $r = -.26; p < .05$ ). Additionally, teacher self-efficacy at Time 2 correlated with positive teacher wellbeing (e.g., happiness) at Time 2 ( $r = .41; p < .01$ ). As such, the current literature conceptually and empirically, across a variety of statistical analyses, suggest self-efficacy as a key positive indicator of teacher wellbeing in schools.

**School Connectedness.** Another factor that has been found to be a positive indicator of teacher wellbeing is school connectedness. School connectedness is a broad term that can be defined as the extent to which teachers relate to and feel supported by others within their school community (Renshaw et al., 2015). In the research literature, school connectedness has been most commonly conceptualized within the self-determination theory framework (Deci & Ryan, 1985). Self-determination theory proposes that one is only able to become motivated after their basic psychological needs are met (Ryan & Deci, 1985). One of the basic psychological needs is connectedness to others (Ryan & Deci, 1985). Consistent with this theoretical framework, self-determination theory suggests that teachers with a strong sense of school connectedness (i.e., they feel connected to their students, their peers, and the larger school community) are more likely to be motivated in their teaching and thus, have higher levels of wellbeing (Hodges et al. 2018). In the research literature, the relationship between teacher wellbeing and school connectedness has been explored both broadly and within specific relationships (e.g., students, principals), conceptually and empirically. Focusing first on the conceptual relationship, Hascher and Waber (2021) concluded that connectedness is a major indicator of teacher wellbeing, given

that it was the most frequently cited predictor of teacher wellbeing, with 36 of the 98 articles referencing this factor. Furthermore, in a different literature review focused on the importance of teacher-student relationships for teacher wellbeing, Spilt and colleagues (2011) argued that because teachers are likely to be drawn to their students to fulfill their psychological need of connectedness, a teachers need for relatedness becomes frustrated when a poor teacher-student relationship occurs; and thus, psychologically, their wellbeing is undermined.

In addition to the conceptual relationship between teacher wellbeing and school connectedness, an empirical relationship is also supported by the research literature across a variety of research studies and analyses. For example, in one study exploring supportive measures for teacher wellbeing, Chan and colleagues (2021) found a moderately positive relationship between teacher wellbeing and school connectedness ( $r = .53, p < .001$ , path analysis,  $\beta = .34, p < 0.01$ ). Similarly, Collie and colleagues (2012) studied 485 teachers aiming to better understand factors that contribute to their wellbeing. They found that teacher wellbeing was moderately related to both connectedness to colleagues ( $r = .45, p < .01$ ) and students ( $r = .26, p < .01$ ). Furthermore, in a meta-analysis of 51 studies exploring the effect of a principal's behavior on various outcomes, a pooled medium effect of principal support and teacher wellbeing was also found ( $d = 0.34, p < .001$ ; Liebowitz & Porter, 2019). Thus, school connectedness, both broadly and within specific relationships (e.g., students, principals) is supported by the research literature as a positive indicator of teacher wellbeing.

**Positive Emotions.** In the research literature, positive emotions are hypothesized as another positive indicator of teacher wellbeing (Hascher & Waber, 2021). Specifically, positive emotions are a broad term that is not clearly defined but is typically characterized by terms such as joy and contentment (Seligman, 2011). In the research literature, Fredrickson's (2001)

broaden-and build theory of positive emotion helps to conceptualize the relationship between positive emotions and wellbeing. Specifically, this theory states that positive emotions help to broaden one's interest in new experiences which then helps to build and develop an individual's personal resources (i.e., social support, skills, knowledge, resilience) that are later utilized as positive supports to contribute to a higher level of wellbeing (Fredrickson, 2001). As such, the inclusion of positive emotions in relation to the teacher wellbeing research literature has since been further explored and investigated (Sutton & Wheatley, 2003).

One example of such work is Dreer (2021), who conducted a research study examining the relationship between various positive indicators of teacher's wellbeing (i.e., engagement, relationships, meaning) and job satisfaction. Utilizing stepwise regression, Dreer found that positive emotion (a composite of contentment, joy, and general positivity) was the largest contributor ( $\beta = .34, p < .001$ ) within this model. Similarly, in a study exploring the relationship between various factors (i.e., positive emotions, subjective happiness, teaching praxes) and one's passion for teaching, Moe (2016) found that positive emotions were the second largest significant contributor to the model ( $\beta = .23, p < .001$ ) after job satisfaction ( $\beta = .38, p < .001$ ). In another article exploring the relationship between positive emotion and teacher wellbeing within a structural equation model, Manasia and colleagues (2020) found that positive emotions are both moderately related to teacher wellbeing ( $\beta = .41, p < .001$ ) and a larger contributor to teacher wellbeing than job tasks and autonomy. As such, these findings help to highlight positive emotions as another critical and positive construct to indicate the wellbeing of teachers.

**Hope.** In the research literature, hope is related to positive emotions and hypothesized as a key indicator of teacher wellbeing. Specifically, hope consists of two components and is defined as one's perceived ability to produce and utilize pathways to achieve desired goals

(Snyder, 2002). The first component is pathways, which is one's perceived ability to envision path to one's future goals. The second component is agency, which is one's belief, along with their motivation and persistence, that they can follow their envisioned path to reach their goals. As such, within hope theory, positive emotions have been found to be an influential construct. Snyder (2002) postulates that one's positive emotions can influence one's goal pursuit activities by acting as a positive reinforcer that elicits a positive feedback loop along the goal pursuit process. As such, given this salient connection between hope and positive emotions, it is not surprising that hope has also been examined in the wellbeing research literature and found to be a key indicator. Specifically, in a meta-analysis that consisted of 45 studies and over 11,100 employees from a range of occupations (including teachers), a moderate and positive effect between hope and wellbeing was found (mean  $\rho = .44$ ; Reichard et al., 2013).

In addition to hope being found as a key indicator in the general wellbeing literature, it has also been explored within the teacher wellbeing research literature. For example, in a research study examining the relationship between a teacher's level of hope and wellbeing, hope was found to negatively relate to teacher burnout ( $r = -.31, p < .001$ ; Kumarakulasingam, 2002). Similarly, in a different study exploring hope and its relationship to stress, coping, and wellbeing, hope was found to have a large, positive correlation with teacher wellbeing ( $r = .69; p < .01$ ) while also having a small, negative correlation with stress (a negative indicator of teacher wellbeing,  $r = -.22; p < .01$ ; MacIntyre et al., 2022). Lastly, in another study investigating hope and other wellbeing factors (i.e., academic optimism, zest for work), hope was found to have a medium effect size correlation with "zest for work" ( $r = 0.51, p < .01$ ) and perceived success ( $r = .57, p < .01$  Sezgin & Erdogan, 2015). Thus, these findings taken together support hope as a positive indicator of teacher wellbeing.

### *Negative Indicators of Teacher Wellbeing*

In the research literature, the most salient negative indicators of teacher wellbeing are stress and burnout (Acton & Gaslow, 2015; Hascher & Waber, 2020; Renshaw et al., 2015). Specifically, teacher burnout has been clearly defined in the literature, as a teacher's prolonged response to chronic emotional and interpersonal stressors on the job (Maslach & Leiter, 2016). While on the other hand, teacher stress has not been clearly defined, with definitions ranging from a teacher's experience of unpleasant negative emotions resulting from work to a heightened level of pressure and demands made on an individual (Kyriacou, 2001). Additionally, teacher stress has also been characterized as being unstable over time, given that it is often situated as sporadic response to a specific critical incident, while teacher burnout has been characterized as a reliable and easily identifiable symptom of occupational-based stress (Maslach & Leiter, 2016, pg. 351). As such, even though there are distinctions between the two terms, there is also still considerable overlap and thus, the research literature often uses the terms interchangeably to represent a negative indicator of teacher wellbeing (Belcastro & Gold, 1983; Bottiani et al., 2019). Therefore, given that burnout is a more well defined, reliable, and consistent indicator, only teacher burnout will be discussed in this paper as a negative indicator of teacher wellbeing.

**Teacher Burnout.** Burnout theory as conceptualized by Maslach (1976) is considered the most widely accepted theory in the burnout research literature (Edu-Valsania et al., 2022). Maslach argues that burnout is comprised of three core dimensions: (a) emotional exhaustion, the extent to which a person feels emotionally overextended and exhausted of their emotional resources, (b) depersonalization, the extent to which a person experiences a negative or detached response to other people, and (c) reduced personal accomplishment, the extent to which a person experiences a decrease in their feelings of competence and productivity at work (Maslach &



Jackson, 1981). Maslach theorizes that high levels of emotional exhaustion led to high levels of depersonalization, which in turn reduces feelings of personal accomplishment (Maslach, 1998). Additionally, it is further hypothesized that the formation of these three core dimensions often results from a person's inability to effectively cope with their current situation, which is a key determinant to factor into burnout (Cherniss & Cherniss, 1980; Hobfoll & Freedy, 1993). In the research literature, burnout theory has been applied to a variety of occupations, including teaching, which has been found to have a relatively high prevalence of burnout (Iwanicki & Schwab, 1981; Lanners, 2019). For example, in a meta-analysis that consisted of 14,410 teachers focused on burnout, Garcia-Carmona and colleagues (2019) found that 28.1% of the sample met criteria for high levels of emotional exhaustion, 37.9% met criteria for high levels of depersonalization, and 40.3% met criteria for low levels of personal accomplishment. As such, given this level of prevalence, teacher burnout has been widely studied in the burnout research literature (see Hascher & Waber, 2021 for review).

Teacher burnout has been found to be a key construct within the teacher wellbeing research literature. First, in a research study focused on the relationship between teacher burnout and teacher self-efficacy, Lauermann and Konig (2016) found that all three dimensions of teacher burnout were meaningfully associated with teacher-self efficacy (i.e., emotional exhaustion,  $r = -.44, p < .01$ ; depersonalization,  $r = -.47, p < .001$ ; reduced personal accomplishment,  $r = -.62, p < .001$ ). Second, teacher burnout has also been explored longitudinally in the research literature. For example, Burić and colleagues (2019) examined the relationship between teacher burnout, resilience, and psychopathological symptoms (i.e., anxiety, depression, somatization) over the course of 6 months. They found that teacher burnout at Time 1, predicted teacher burnout ( $\beta = 0.80, p < .001$ ), psychopathological symptoms ( $\beta = 0.20, p$

<.01), and negative emotions ( $\beta = 0.27, p <.01$ ) six months later. Lastly, teacher burnout has also been studied in relation to negative teacher outcomes, such as teacher attrition. For instance, in a meta-analysis examining teacher burnout, teacher attrition, and teacher job satisfaction in a sample of over 6,600 teachers, Madigan and Kim (2021b) found a significant and moderate mean effect between teachers' intention to quit and two of the burnout dimensions (i.e., emotional exhaustion,  $r = .41, p < .05$ ; depersonalization,  $r = .32, p < .05$ ). In addition, Madigan and Kim found that burnout and job satisfaction explained 27% of the variance in teachers' intention to quit, with about 17% of the variance being explained by the three burnout dimensions. As such, these findings help to highlight teacher burnout as a key negative indicator of teacher wellbeing.

### **Intervention Research**

As has been outlined above, previous research indicates that there are various positive (i.e., teacher self-efficacy, school connectedness, positive emotions, hope) and negative (i.e., burnout) indicators of teacher wellbeing. However, the studies cited above are all correlational, thus precluding the ability of one to infer directionality or causality with regards to these teacher wellbeing indicators. As such, in order to better understand the relationship between the previously established indicators of teacher wellbeing, a host of interventions studies focused on teacher wellbeing have been conducted. Leveraging experimental and quasi-experimental research designs, these studies provide additional insight into both understanding how teacher wellbeing indicators relate to one another, as well as how teacher wellbeing indicators can be leveraged to increase teacher wellbeing. In addition, these studies can also give insight into whether interventions targeting teacher wellbeing are acceptable (i.e., appropriate, well received) and have high fidelity (i.e., executed as planned; Bowen et al., 2009) within teacher populations.

### ***Teacher Wellbeing Interventions***

After a systematic review of the recent research literature, only eight intervention studies were found that focused on teacher wellbeing employing a quasi-experimental or experimental design (Hascher & Waber, 2021; Hayes et al., 2020; Tamasch, 2020; See Table 1). Specifically, of these eight studies, seven showed significant effects of a teacher wellbeing intervention on various outcomes. Additionally, while two of the studies did not include any indicators of acceptability or fidelity, for those that did, ratings of acceptability and fidelity were found to be high and acceptable. Furthermore, the interventions were primarily delivered using an in-person modality and across a range of intervention durations. In the research literature, a relationship between practical intervention considerations, such as intervention duration and modality, intervention usage, and intervention effectiveness has been found (Witt & Elliott, 1985). Therefore, for teachers, who are known to have demanding and inflexible schedules, it is plausible that an increased likelihood of intervention usage and, thus positive effects could occur, by changing an intervention to be more practical (e.g., shorter duration, online, self-paced; Eckert & Hintze, 2000).

In addition to the considerations around intervention modality and duration, intervention type also varied widely across the eight intervention studies, including types such as, skill and psychoeducational based (e.g., social-emotional skills training; Talvio et al., 2013) and positive psychology (e.g., gratitude journal; Chan, 2013). However, notably missing, were interventions of a cognitive-behavioral type, which have been cited as an important framework in the teacher wellbeing literature (FlaECKi & Mann, 2021). Specifically, in a conceptual article authored by FlaECKi and Mann (2021) on intervention design for building teacher wellbeing in schools, it was proposed that understanding the relationship between thoughts and actions is a key concept for

teachers in changing their behavior and improving their wellbeing. As such, this framework is a cognitive-behavioral approach to behavior change, which emphasizes the connections between one's thoughts, actions, and feelings in efforts to change behavior (Beck, 1970). Thus, testing an intervention that incorporated these elements (e.g., shorter duration, online, cognitive-behavioral) could prove to be an acceptable and effective alternative in helping to improve a teacher's wellbeing.

### **Single Session Interventions**

One particular type of intervention that may prove to be pragmatically useful and effective for increasing teacher wellbeing is single session interventions (SSIs). SSIs can be defined as “specific, structured programs that intentionally involve just one visit or encounter with a clinic, provider, or program” (Schleider et al., 2020, pg. 265). Additionally, SSIs do not reflect a specific theoretical orientation, the “client” may be an individual, a family, or a group, and the session may occur in a variety of settings (e.g., school, home, office; Schleider et al., 2020). As such, the use of SSIs is not intended to replace traditional, longer intervention models and/or be a “magic bullet” solution to various presenting problems. Instead, they are meant to serve as a flexible option, particularly in spaces where the alternative interventions may be difficult to access and/or nonexistent (e.g., schools; Schleider et al., 2020; Sung et al., 2020). Thus, given the inherent flexibility of SSI's, adapting a SSI for teachers that aims to improve their wellbeing may prove to be a successful model of intervention.

Although there has been very little recent research utilizing SSIs with teachers, several studies have found them to be well received and effective with adult participants across a variety of concerns. For example, in a study investigating an SSI for adults at-risk for depression and anxiety, Bentley and colleagues (2018) found that 82% of the study's participants rated the SSI

as very or extremely useful and 69% of the participants stated that they were either very satisfied or extremely satisfied with the SSI. Similarly, in a systematic review of 16 SSIs focused on a wide range of concerns (e.g., emotional, stress, depression), Hymmen and colleagues (2013) found that participants rated SSIs as a useful intervention option more than 60% of the time.

SSIs have also been found to be effective. First, in a study aiming to improve wellbeing for caregivers through a behavioral activation SSI, reductions in stress ( $d = .53, p < .001$ ) and increases in “living with values” ( $d = .13, p < .001$ ) were found (Read et al., 2016). Second, in a study examining the effectiveness of a 45-minute, self-guided Dialectical Behavior Therapy SSI, medium effects in stress reduction ( $\eta^2 = .13; p < .001$ ; Lee et al., 2022) and increased anxiety self-efficacy ( $\eta^2 = .13; p < .001$ ; Lee et al., 2022) were found. Third, in a study aimed at increasing hope in adults through a 90-minute SSI, a medium effect of the hope intervention at post-test was found (hope agency,  $\eta^2 = .07, p = .02$ ; hope pathways,  $\eta^2 = .13, p = .003$ ; Feldman & Dreher, 2012). Furthermore, at one month follow up, significantly more progress on goals was also found ( $\eta^2 = .12, p = .02$ ). Last, in a 30-minute online SSI aimed at reducing parental accommodation for parents with anxious children, significant reductions in accommodation behavior ( $d = .61, p < .001$ ) and increases in distress tolerance ( $d = .43, p < .001$ ) after 2 weeks were found (Sung et al., 2023). Thus, SSIs have not only been found to be effective for participants, but also practically useful across a variety of concerns. As such, given the unique considerations of teachers that need flexible interventions (e.g., shorter duration, online, self-paced) one specific type of SSI, the Single Session Consultation (SSC; Schleider et al, 2020), may prove to be an even more effective and acceptable intervention for teachers.

### *Single Session Consultation*

The Single Session Consultation (SSC) was developed by Schleider and colleagues (2020) as a flexible, one-hour therapeutic intervention for use with adolescents and adults, regardless of problem type or severity. The SSC is rooted in Solution-Focused Brief Therapy principles (Bannink, 2007), a strengths-based, patient centered therapeutic approach, focused on a patient's goals, hopes, and strengths (Bannink, 2007; Schleider et al., 2021). As such, through one, one-hour session, the SSC aims to empower the participant by helping them to realize and utilize their existing resources to cope more effectively. Specifically, this is accomplished through an 8-step process (see Table 2) that identifies: (a) a specific, modifiable problem and associated hope; (b) a "smallest-possible step" that one can take toward overcoming a problem; and (c) an action plan that helps to identify the potential inner obstacles of the participant and any external resources that will help them enact the "smallest-possible step" (Schleider et al., 2021).

To date, the SSC has only been piloted in two samples: an in-person sample (Schleider et al., 2021) and a telehealth sample (Sung et al., 2023). In the original study, the SSC was piloted with 30 individuals at two university-based clinics (Schleider et al., 2021). Participants participated in one, one hour session of the SSC and completed measures before the SSC (i.e., overall psychological distress, hopelessness, hope-agency), immediately after (i.e., hopelessness, hope-agency, acceptability), and two weeks after (i.e., overall psychological distress). Results from this study found large post intervention effects of increased hope-agency ( $d = 1.11, p < .001$ ; Schleider et al., 2021) and decreased hopelessness ( $d = 1.43, p < .001$ ; Schleider et al., 2021) while also finding a large effect size reduction in psychological distress ( $d = .73, p = .002$ ) two weeks later (Schleider et al., 2021). Additionally, the SSC was found to be acceptable and

well received, with 96% of participants reporting they would “mostly” or “very much” recommend the SSC to others (Schleider et al., 2021).

The SSC has also been adapted and studied in a telehealth format (telehealth-SSC; Sung et al., 2023). Specifically, 60 individuals participated in one, one hour Zoom session and completed measures before the telehealth-SSC (i.e., anxiety, depression, hopelessness, present readiness to change), immediately after (i.e., hopelessness, present readiness to change, clinician alliance, acceptability), and two weeks after (i.e., depression and anxiety). Results from this study found a large post-intervention effect of reduced hopelessness ( $d = .91, p < .001$ ; Sung et al., 2023), a medium post-intervention effect of increased “readiness for change” ( $d = -0.49, p < .001$ ; Sung et al., 2023), and a medium effect size reduction in anxiety symptoms two weeks after completing the telehealth-SSC ( $d = .40, p < .001$ ; Sung et al., 2023). The telehealth-SSC was also found to be acceptable and well received, with an average acceptability rating of 4.35 out of 5 (which was comparable to the in person-SSC; Sung et al., 2023).

As such, the SSC is hypothesized to be an acceptable and effective intervention for teacher wellbeing for three reasons. First, the SSC’s theoretical framework of Solution-Focused Brief Therapy incorporates elements of Cognitive-Behavior Therapy (CBT; Bannik, 2007), which has been hypothesized as a key framework for teacher wellbeing interventions (Falecki & Mann, 2021). Second, the SSC can be completed in one, one-hour session, which might prove to be particularly useful for teachers given their unique work demands (e.g., limited free time, inflexibility in schedule). Last, the direct, but flexible 8-step process, allows for adaptation of the SSC to new populations and various concerns (i.e., teacher wellbeing; Sung et al., 2023) while still offering an easy-to-follow structure. Thus, for these reasons the SSC is hypothesized to be a useful intervention for teachers; however, given the flexibility of the SSC in addition to the need

for maximum flexibility for teachers, further adaptations that will likely meet the unique demands of teachers are considered.

### **Self-Guided Interventions**

One adaptation to interventions that has been found to maximize flexibility, while also delivering effective results, are online-based, self-guided interventions. Specifically, self-guided interventions typically serve as an adaptation of supported face to face interventions and aim to influence cognitive, affective, and behavioral changes through the completion of various self-guided activities or steps (Beatty & Binnion, 2016). In the research literature, online self-guided interventions have found to have many benefits, including increased access and flexibility, cost-efficiency, and the capacity to reach various types of participants (Beatty & Binnion, 2016). Additionally, online, self-guided interventions have been found to be effective in the literature, particularly as a tool for improving wellbeing. Specifically, two recent meta-analysis reported positive effects of online, self-guided interventions on improving workplace wellbeing. In one meta-analysis of 21 digital occupational mental health interventions, a medium post-intervention effect of increased wellbeing, regardless of intervention guidance style (i.e., self-guided, clinician guided;  $g = 0.37, p < .001$ ; Carolan et al., 2017) was found. In another meta-analysis examining effects of self-guided interventions, increased positive work outcomes ( $g = 0.24, p < .001$ ; Donaldson et al., 2019) and reduced negative work outcomes ( $g = -0.28, p = 0.15$ ; Donaldson et al., 2019) were also found. Therefore, it is the hope that with this adaptation, teachers will find an adapted, online, self-guided SSC to be a practically useful and thus, an effective tool to help improve their wellbeing.



## **Utilizing a Pilot Study to Assess Acceptability, Fidelity, and Effectiveness**

When there is limited data available for the setting and population of interest in a study, a pilot study is recommended as an appropriate and useful study method (Bowen et al., 2009). As such, given that the SSC has limited preliminary data to suggest its acceptability, fidelity, and efficacy (Schleider et al., 2021; Sung et al., 2023) and has not been tested with teachers or been administered via an online, self-guided method, a pilot study is theorized as an appropriate design choice. Additionally, given that “pilot study” is a broad term that includes a multitude of specific designs (e.g., focus group, pre-post-design, or case-control design), Bowen and colleagues (2009) also recommend various study designs depending on the focus area of the pilot study (e.g., acceptability, practicality, adaptation). Thus, in line with the focus of the two published SSC studies on acceptability, fidelity, and outcomes, (Schleider et al., 2021; Sung et al., 2023) one study design that is recommended as an appropriate design choice, is called a “randomized pilot study”. Specifically, a randomized pilot study is a small-scale experimental, pre-post design, that typically serves a dual purpose: (a) to measure the implementation of an intervention (i.e., fidelity, acceptability) and (b) to measure the potential effects of implementing an intervention (Eldridge et al., 2016; Pearson et al., 2020).

## **Current Study**

The purpose of this study is to examine the fidelity, effectiveness, and acceptability of an adapted, online, self-guided version of the Single Session Consultation (OSG-SSC) aimed at improving teacher wellbeing. More specifically, this study employed a randomized pilot study design across a variety of positive (i.e., self-efficacy, school connectedness, positive emotions, hope) and negative (i.e., burnout) indicators of teacher wellbeing. The research questions and hypotheses for this study are described in more detail below and in Table 3.

## **Research Questions and Hypothesis**

***Question 1.** Can the OSG-SSC and OSG-SSC action plan be implemented with fidelity by participants?*

Fidelity is a key measurement in intervention studies because without assessing fidelity, it is difficult to ascertain whether intervention effects can be attributed to the intervention itself or to the variability in the implementation procedures of the intervention (Toomey et al., 2020). The 8-step design of the SSC can be considered a natural fidelity checklist, in which completion of the 8 steps would indicate whether or not the intervention was completed with fidelity. This procedure was utilized to assess fidelity in the telehealth-SSC session (i.e., Sung et al., 2023) and it was found that all participants completed the telehealth-SSC with at least 70% fidelity (i.e., at least 70% of the 8 steps were completed). As such, given the novelty of the OSG-SSC, in which a clinician is not present to assess the fidelity, a fidelity checklist was created for this study (see Appendix A) will be utilized to measure the fidelity of the OSG-SSC and will be completed by participants after each step. In addition, questions measuring the fidelity of the OSG-SSC action plan after two weeks will also be evaluated (see Appendix A). In the research literature, positive treatment results have often been obtained with 60% fidelity, with very few studies attaining fidelity higher than 80% (Durlak and Dupre, 2008). Thus, it is hypothesized that the OSG-SSC and the OSG-SSC action plan will be implemented with at least 70% fidelity.

***Question 2.** Does participation in the OSG-SSC significantly change the positive indicators of teacher wellbeing (i.e., teacher self-efficacy, school connectedness, positive emotions, hope) immediately following and/or two weeks after the completion of the OSG-SSC compared to a control group?*

Previous research suggests teacher self-efficacy (Zee & Koomen; 2016), school connectedness (Chan et al., 2021), positive emotions (Dreer, 2021), and hope (Reichard et al., 2013) are positive (proximal and distal) indicators of teacher wellbeing. Furthermore, previous intervention studies aimed at improving wellbeing have also utilized these factors to indicate increased improvement in the level of a teacher's wellbeing across a range of positive effects (Chan, 2013; Rahm & Heise, 2019; Tarrasch et al., 2020). Therefore, given that high levels of these variables are associated with positive teacher wellbeing, it was hypothesized that a meaningful (i.e., at least a medium effect size) increase in the proximal indicators (e.g., positive emotions, hope) would occur from pre to post and be maintained through follow-up, while there would also be a meaningful increase in distal indicators (e.g., school connectedness, teacher self-efficacy) from pre to follow-up.

***Question 3.*** *Does participation in the OSG-SSC significantly change the negative indicator of teacher wellbeing (i.e., burnout) two weeks after the completion of the OSG-SSC compared to the control group?*

Previous research suggests burnout as a negative and distal indicator of teacher wellbeing (Lauermann & Konig, 2016). Additionally, in teacher wellbeing intervention studies, teacher burnout has also been utilized as a factor to indicate the reduction or improvement of one's level of a teacher's wellbeing after the implementation of an intervention (e.g., Hayes et al., 2020). Therefore, given that high levels of teacher burnout are associated with low teacher wellbeing, it was hypothesized that teacher burnout will meaningfully decrease from pre-intervention to follow-up.

***Question 4.*** *Do teachers find the OSG-SSC to be an acceptable, useful, and satisfactory intervention?*

The OSG-SSC was specifically adapted to meet the needs of teachers and thus, it is critical to understand how they perceive the intervention. Furthermore, given the connection in the research literature between acceptability and increases in treatment effects (Witt & Elliott, 1985), assessing treatment acceptability is critical. In both versions of the SSC (Schleider et al., 2021; Sung et al., 2023), the treatment acceptability was measured through the Consultation Feedback Form (Schleider et al., 2021), a questionnaire designed specifically for the SSC. In the original SSC (Schleider et al., 2021) an acceptability rating of 3.5 out of 5.0 was hypothesized and in the telehealth-SSC, a 3.0 out of 5.0 was hypothesized (Sung et al., 2023). As such, it is hypothesized that teachers will find the OSG-SSC an acceptable and useful intervention, as measured by a score of 3.0 out of 5.0 on each question on an adapted version of the Consultation Feedback Form (OSG-SSC Feedback Form).

For pilot intervention studies, the usage of qualitative data to inform quantitative findings has also been found particularly useful in the research literature (Baldeh et al., 2020). As such, to further inform the acceptability of the OSG-SSC, teacher interviews will be informally assessed for this study. In the telehealth-SSC (Sung et al., 2023) limited responses from a qualitative open-ended question was provided and determined to be mostly positive or neutral, with no negative feedback given. Thus, it is further hypothesized that the qualitative data will positively (e.g., majority positive and/or neutral qualitative responses) corroborate the quantitative results of the OSG-SSC as an acceptable and useful intervention for teachers.

## METHODS

### Participants

Participants were recruited from school districts and teacher-based non-profit organizations in the state of Michigan between February 2023 and May 2023. As shown in Figure 1, 135 participants were assessed for eligibility for this study and 13 were excluded for either not meeting eligibility criteria (i.e., full time K-12 Michigan teacher, computer/internet access, 6 or less on single item coping question;  $n = 8$ ) or not signing the consent form for the study ( $n = 5$ ). 122 participants were then randomized to either the intervention group (e.g., OSG-SSC;  $n = 61$ ) or the wait list control group (e.g., WLC;  $n = 61$ ). 22 participants in the OSG-SSC group and 18 participants in the WLC group were emailed the intervention or first survey and at least 2 reminders, but never responded. Intervention and survey data across each time point was collected for all participants, except for one Time 3 survey from an OSG-SSC group participant.

This study's sample consisted of 38 teachers in the OSG-SSC (81.6% *female*) and 43 teachers in the WLC group (88.4% *female*). The self-reported racial groups were: 73.7% (OSG-SSC) and 86% (WLC) *White*, 7.9% (OSG-SSC) and 0% (WLC) *Black*, 0% (OSG-SSC) and 2.3% (WLC) *LatinX*, 2.6% (OSG-SSC) and 4.7% (WLC) *Asian*, and 15.8% (OSG-SSC) and 7.0% (WLC) *Bi/Multi-Racial*. 81.6% (OSG-SSC) and 72.1% (WLC) of the sample attained at least a *master's degree*. Teachers who taught at *least 12 years or more* made up 57.9% (OSG-SSC) and 51.2% (WLC) of teachers in the current sample. 42.1% (OSG-SSC) and 53.6% (WLC) of the sample taught at *least one elementary grade level* (Kindergarten through 5<sup>th</sup> grade). Teachers in the sample reported their school types as 65.8% (OSG-SSC) and 69.8% (WLC) urban (i.e., contained within a city of a population of 50,000 or more). See Table 4 for a more detailed breakdown of this study's sample demographics.

### ***Inclusion Criteria***

In order to be found eligible for this study, participants had to be a full-time PK-12<sup>th</sup> grade teacher in the state of Michigan and have access to a computer with internet. Additionally, they had to demonstrate some need for an intervention aimed at increasing wellbeing by answering the following question, “How well are you coping in your job as a teacher?”. To be included in the study, a “moderate” (i.e., 6 or lower) level of coping had to be endorsed on a 11-point scale, ranging from 0 (*not well*) to 10 (*very well*). In previous research, one’s level of coping has served as proximal indicator of one’s level of wellbeing (Meng & D’Arcy, 2016). Furthermore, single item scales have also been used previously to assess functioning in teachers (e.g., Eddy et al., 2019; von der Embse, 2012). In this sample, teachers in the OSG-SSC group self-reported an average coping score of 5.6 and teachers in the WLC group self-reported a 4.7 ( $p >.05$ ; See Table 4).

### **Design**

Given the novelty of the OSG-SSC, along with the current study’s focus on examining its acceptability, fidelity, and efficacy, a randomized pilot study design was utilized for this study, as recommended by Bowen and colleagues (2009). As such, this study randomly assigned participants to either the OSG-SSC group ( $n = 38$ ) or WLC group ( $n = 43$ ) and data was collected from both groups across 3 time points: pre-intervention, post-intervention, and at a two-week follow-up. The treatment group received the OSG-SSC and the WLC group did not receive any intervention during the study but was offered access to the OSG-SSC upon completion of the study. The timeline for data collection was modeled after the timeline utilized by the developers of the intervention (i.e., Schleider et al., 2021).

## Measures

### *Treatment Fidelity*

Overall treatment fidelity of the OSG-SSC was measured using an OSG-SSC Treatment Fidelity Checklist (See Appendix A) created by the principal investigator of this study. Through 3 items, the OSG-SSC Treatment Fidelity Checklist measures the implementation integrity of the OSG-SSC intervention (e.g., “I read all of the information given to complete this step”).

Response options were indicated using a 3-point Likert scale (i.e., 0 [*no*], 1 [*to some extent*], and 2 [*yes*]) and was completed after each step of the OSG-SSC. Fidelity scores from each step was totaled for each participant and then averaged across all participants for an average fidelity percentage for each step and a total treatment fidelity score. In addition, fidelity of the OSG-SSC action plan was measured through one question on the 2-week follow-up survey (i.e., “Since completing the online module, have you initiated at least one part of your action plan?”). A fidelity OSG-SSC action plan score was calculated from the total percentage of “yes” responses on this question.

### *Teacher Self-Efficacy*

Teacher self-efficacy was measured using the teaching efficacy subscale from The Teacher Subjective Wellbeing Questionnaire (TSWQ-TE; Renshaw et al., 2015; see Appendix A). Through four items, this subscale measures one’s level of teaching efficacy (e.g., “I feel like my teaching is effective and helpful”). Response options were indicated using a 4-point Likert scale ranging from 1 (*almost never*) to 4 (*almost always*). An average teaching efficacy score was calculated for each teacher. A higher score represented a greater level of perceived teaching efficacy. In previous research, support for adequate reliability on the teaching efficacy subscale was indicated (e.g.,  $\alpha = .89$ , Renshaw et al., 2015). Additionally, in previous samples, evidence

of adequate structural validity (*EFA range* = .81 to .84; Renshaw et al., 2015) was indicated. Convergent validity between teaching efficacy and a supportive student environment ( $r = .33$ ; Renshaw et al., 2015) and supportive teacher environment ( $r = .25$ ; Renshaw et al., 2015) was also concluded. In the current sample, alpha estimates for teaching efficacy were .86 (WLC) and .91 (OSG-SSC) at Time 1 and .87 (WLC) and .92 (OSG-SSC) at Time 3.

### ***School Connectedness***

School connectedness was measured using the school connectedness subscale from the TSWQ-SC (Renshaw et al., 2015; See Appendix A). Through four items, this subscale measures one's level of connection to the school (e.g., "I feel like I belong at this school"). Response options are indicated using a 4-point Likert scale ranging from 1 (*almost never*) to 4 (*almost always*). An average school connectedness score was calculated for each teacher. A higher score represented a relatively greater level of school connectedness. In previous research, support for adequate reliability on the school connectedness subscale was concluded (e.g.,  $\alpha = .82$ , Renshaw et al., 2015). In addition, evidence of satisfactory structural validity (*EFA range* = .54 to .87; Renshaw et al., 2015) was indicated. Convergent validity between a supportive student environment ( $r = .58$ ; Renshaw et al., 2015) and supportive teacher environment was also indicated in previous samples ( $r = .72$ ; Renshaw et al., 2015). In this study, alpha estimates obtained for school connectedness was .86 (WLC) and .81 (OSG-SSC) at Time 1 and .89 (WLC) and .86 (OSG-SSC) at Time 3.

### ***Hope***

Hope was measured using the Adult Hope Scale (AHS; Snyder et al., 1991; see Appendix A). This 12-item scale measures one's level of hope and is divided into two subscales: agency (e.g., "I meet the goals that I set for myself") and pathways (e.g., "There are a lot of ways around



any problem”). Each subscale contains four items, with the other four items being filler statements. Response options are indicated using an 8-point Likert scale ranging from 1 (*definitely false*) to 8 (*definitely true*). A higher agency score is indicative of a higher amount of one’s perceived belief in their ability to accomplish their envisioned goals. A higher pathways score is indicative of a higher perceived ability to envision paths to one’s goals. For each teacher, a separate average agency and average pathways score was computed.

Scores on these subscales have previously been found to be reliable with alpha estimates ranging from .97 – .99 across four samples (Babyak et al., 1993) in previous samples. Additionally, in previous research, evidence of adequate structural validity has also been concluded (agency *CFA range* = .73 to .94; pathways *CFA range* = .62 to .95; Babyak et al., 1993). Evidence of convergent validity has been indicated in previous samples with higher hope scores significantly predicting greater positive affect ( $r = 0.39$ ; DiGasbarro et al., 2020), optimism ( $r = 0.55$ ; DiGasbarro et al., 2020), and quality of life ( $r = .56$ ; DiGasbarro et al., 2020). In the current sample, hope scores were concluded to have acceptable reliability for hope pathways, across both groups ( $\alpha = .68$ ; WLC;  $\alpha = .78$ , OSG-SSC) at Time 1, Time 2 ( $\alpha = .88$ , WLC;  $\alpha = .86$ , OSG-SSC), and at Time 3 ( $\alpha = .84$ , WLC;  $\alpha = .76$ , OSG-SSC). Adequate reliability for hope agency, across both groups, was also indicated in the current sample ( $\alpha = .81$ , control group;  $\alpha = .79$ , treatment group) at Time 1, Time 2 ( $\alpha = .78$ , WLC;  $\alpha = .74$ , OSG-SSC) and at Time 3 ( $\alpha = .85$ , WLC;  $\alpha = .86$ , OSG-SSC).

### ***Positive Emotions***

Positive emotions was measured using the positive emotion subscale from the Workplace PERMA Profiler (PERMA-PE; 2014; See Appendix A). With 3 items, this subscale measures one’s general tendencies toward feeling contentment and joy in their workplace (e.g., “At work,

how often do you feel positive?”). Response options are rated on a 11-point Likert scale ranging from 0 (*never*) to 10 (*always*). A higher score on this measure indicates a higher level of positive emotions in the workplace. For each teacher, an average positive emotions score was calculated. In previous samples, adequate evidence of reliability was concluded for this subscale in an occupational setting ( $r$  range = .77 - .86; Watanabe et al., 2018). Evidence of convergent validity has been indicated in previous samples with life satisfaction ( $r = .65$ ; Butler & Kern, 2016). Additionally, adequate evidence of structural validity was also previously found (*CFA range* .51 to .89; Butler & Kern, 2016) in prior samples. In the current sample, the following positive emotions alpha estimates were found: .88 (WLC) and .95 (OSG-SSC) at Time 1, .90 (WLC) and .96 (OSG-SSC) at Time 2, and .92 (WLC) and .83 (OSG-SSC) at Time 3.

### ***Teacher Burnout***

Teacher burnout was measured using The Maslach Burnout Inventory for Educators (MBI-ES; Maslach et al., 1996; See Appendix A). This 22-item scale measures the level of burnout across three separate scales: emotional exhaustion (e.g., “I feel emotionally drained from my work”), depersonalization (e.g., “I worry that this job is hardening me emotionally”), and personal accomplishment (e.g., “I feel like I’m positively influencing other people’s lives through my work”). The emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA) scales contain 9, 5, and 8 items, respectively, with response options being indicated using a 7-point Likert scale ranging from 0 (*never*) to 6 (*every day*). For each scale, a total scale score is calculated by adding up the responses from each scale’s items. Each scale was interpreted separately, consistent with the developers’ instructions for the MBI-ES (Maslach et al., 1996). A higher degree of burnout is indicated by a higher score on the emotional exhaustion and depersonalization scales and a lower score on the personal accomplishment scale. In

previous research, evidence of good internal consistency was indicated for each of the scales (e.g., EE,  $\alpha = .87$ ; DP,  $\alpha = .76$ ; PA,  $\alpha = .84$ ; Chang, 2013). Additionally, in previous samples, acceptable evidence of convergent validity was also indicated through teachers of children with behavior problems (e.g., EE,  $r = .36$ ; DP,  $r = .20$ , PA,  $r = .27$ ; Lambert et al., 2009). Evidence of adequate structural validity was also indicated (EE *factor analysis range* = .43 to .78; DP *factor analysis range* = .62 - .82; PA *factor analysis range* = .67 - .85; Koeske & Koeske, 1989) in previous samples. In the current sample, alpha estimates at Time 1 for each subscale, across both groups, were concluded to be adequate (EE,  $\alpha = .89$ ; DP,  $\alpha = .72$ ; PA,  $\alpha = .83$  [WLC]; EE,  $\alpha = .93$ ; DP,  $\alpha = .81$ ; PA,  $\alpha = .87$  [OSG-SSC]). At Time 3, reliability for each subscale, across both groups, was also indicated in the current sample (EE,  $\alpha = .92$ ; DP,  $\alpha = .60$ ; PA,  $\alpha = .73$  [WLC]; EE,  $\alpha = .93$ ; DP,  $\alpha = .75$ ; PA,  $\alpha = .89$  [OSG-SSC]).

### ***Treatment Acceptability***

To measure acceptability, all participants in the treatment group were given the OSG-SSC Feedback Form (See Appendix A), an adapted version of the feedback form developed by Schleider and colleagues (2021) in the original pilot study of the SSC. This form was completed directly after completing the intervention and contained 5 questions on a 5-point Likert scale ranging from 1 (*not at all*) to 5 (*very much*). A higher score indicates a greater perceived usefulness of the OSG-SSC. For each question, an average score was calculated across all participants. Given the adaptation of the original intervention to an online format, the questions were slightly adapted to reflect this change (e.g., “Would you recommend the online program to others?”; “Did you find the online program helpful in addressing a problem related to your occupational wellbeing?”).

**Teacher Interviews.** In order to measure further themes of intervention acceptability from participants, brief interviews with teachers were conducted. Through 6 interview questions (See Appendix A), the interview probed the overall acceptability (e.g., “Would you recommend the module to other teachers?”) and feasibility of the OSG-SSC (e.g., “How could the online module be improved?”). The interview questions were created by the principal investigator of this study. The interview was conducted by a research assistant, recorded over Zoom, and offered to all participants in the intervention group after completing the two-week follow up measure. 22 teachers participated in the interview.

## **Procedures**

Data collection for this study was submitted to the Michigan State University’s Institutional Review Board and approved. Teachers were then recruited throughout various Michigan school districts and other targeted outlets (i.e., teacher network non-profits, teacher education program alumni list serves; see Appendix B). Interested participants completed a screening consent form (see Appendix C) and a brief questionnaire to determine if they met the eligibility requirements for the study (see Appendix C). Teachers that were found eligible signed a full study consent form (see Appendix D) outlining the specifics of the study and data collection timeline. Teachers that were not found eligible for the study were immediately informed of their status after completing the screening survey and given a list of relevant resources (e.g., teacher wellbeing resource websites). Once the consent form was signed by eligible participants, participants were randomized into two groups and sent an introductory email that included detailed next steps to either completing the intervention or the wait-list surveys. The entire study was conducted online. Teachers could receive up to \$45 in Amazon gift cards, depending on which group they were randomized into, and the payment was

distributed after completing milestones in the study. Specifically, \$10 was distributed to teachers in the treatment group after they completed the pre-survey, intervention, and post-survey. For teachers in the WLC group, \$10 was distributed after the teacher completed each of the two surveys. For both groups, another \$10 was distributed after teachers completed the 2 week follow-up survey. Teachers in the treatment group were sent an additional \$25 after completing an optional follow up interview.

### ***Conditions***

**Online Self-Guided Single Session Consultation (OSG-SSC).** Participants randomly assigned to the OSG-SSC group completed an adapted version of the Single Session Consultation (SSC) developed by Schleider and colleagues (2021). The OSG-SSC retains the framework of the SSC as developed, but it was adapted for this study to be completed as an online, self-guided version focused on improving teacher wellbeing. Specifically, the SSC is a flexible, 8-step program used to help participants identify: (a) a specific, modifiable problem and associated hope; (b) a “smallest-possible step” that one can take toward overcoming a problem; and (c) an action plan that helps to identify the potential inner obstacles of the participant and any external resources that will help them enact the “smallest-possible step” (Schleider et al., 2021). Thus, in the OSG-SSC, the participant was prompted to self-guide through the 8-steps, with the goal of them realizing their inner strength and mobilize their existing resources to manage more effectively (see Appendix E). The OSG-SSC was designed and implemented through the Computerized Intervention Authoring System (CIAS; 2021), a free research resource developed by Dr. Steve Ondersma that facilitates the development of interactive and sophisticated digital behavioral health interventions. The OSG-SSC was completed in one single session and did not take any participant longer than 60 minutes to complete.

**Waitlist Control.** Participants randomly assigned to the WLC group completed three surveys over the course of a two-week period. After the first survey was completed, an email with a link to complete the second survey was automatically sent after one hour. Participants completed the second survey and two weeks after they completed a third survey. Once participants completed all three surveys, they received a final email with a link to complete the OSG-SSC.

### *Treatment Phases*

This study collected data from participants across four phases: (a) pre-intervention; (b) intervention; (c) post-intervention; and (d) 2-week follow up. In the pre-intervention phase, participants in the OSG-SSC and WLC groups completed an initial survey (see Table 5) for measures). During the intervention phase, participants in the OSG-SSC group completed the intervention online in a one, single session immediately following the completion of the initial survey. On average, participants took 31 minutes to complete the intervention (see Table 4). During the intervention phase, participants were also prompted to complete the OSG-SSC Treatment Fidelity Checklist after every step of the intervention. During the post-intervention phase, the OSG-SSC group completed the post-intervention survey (see Table 5) immediately following the completion of the intervention. Additionally, the WLC group completed a second survey (see Table 5), which was automatically sent to their emails 1 hour after completing the initial survey. Lastly, after two weeks, participants from both groups completed a 2-week follow up survey (see Table 5). Participants in the OSG-SSC group could also optionally participate in an informal follow up interview, which was completed by a research assistant and recorded. After completing the follow up survey, teachers from the WLC group had the opportunity to begin the OSG-SSC intervention.

## **Data Analysis**

### ***OSG-SSC Fidelity Analysis***

Fidelity of the OSG-SSC (i.e., Research Question 1) was analyzed using the OSG-SSC Treatment Fidelity Checklist and items from the follow-up survey. Consistent with previous research (Durlak & Dupre, 2008), a high level of fidelity was determined by completing the OSG-SSC and OSG-SSC action plan with at least an average fidelity score of 70% or higher. Specifically, the OSG-SSC fidelity was determined by calculating an average total fidelity percentage from each step completed of the OSG-SSC. On the follow-up survey, the fidelity of the OSG-SSC action plan was also calculated as a total percentage of “yes” responses from the OSG-SSC action plan question.

### ***ANOVA Outcome Analyses***

Outcome effects of the OSG-SSC (i.e., Research Question 2 and 3) were analyzed using repeated measures ANOVA analyses. In the research literature, this method has been shown to be appropriate for analyzing intervention data over time and across conditions with small sample sizes (e.g.,  $n = 50$ ; Singh et al., 2013; Liu et al., 2012). In the ANOVA analyses, time was entered as a within subject factor (i.e., Time 1, 2, and/or 3) and treatment condition (i.e., OSG-SSC, WLC) was entered as a between subject factor. Immediate intervention effects (i.e., positive emotions, hope) were examined across both groups at Time 1, 2, and 3; while the distal intervention effects (i.e., school connectedness, teacher self-efficacy, burnout) were examined across both groups at Time 1 and Time 3. A missing data analysis in SPSS was performed and it was determined that the data was missing completely at random (MCAR; chi-square = 173.90,  $p = .38$ ). Thus, given that only very small amounts of missing data (<10 scores across the total sample) were found in this sample, listwise deletion was used for any missing data values

(Allison, 2009). T-tests and chi-square analyses were used to examine any differences on demographics and outcome variables between the two groups and no significant between group differences were found (See Table 4). As such, this result indicates there are balanced groups within this dataset and thus, the inclusion of covariates was not needed for these analysis (Pocock et al., 2002).

### *OSG-SSC acceptability analysis*

Acceptability of the OSG-SSC (i.e., Research Question 4) was analyzed using the OSG-SSC Feedback Form and brief teacher interviews. From the feedback form, a high level of acceptability was determined by a score of 3.0 or higher out of 5.0 across each question on the form (Schleider et al., 2021; Sung et al., 2023). For each question, an average score was calculated across all participants. In addition, follow-up teacher interviews were qualitatively assessed for further themes related to acceptability.



## RESULTS

### **Research Question 1: Can the OSG-SSC be Implemented with Fidelity by Participants?**

The overall total average self-reported fidelity rating for all participants who completed the OSG-SSC was 95.8% (see Table 6). In addition, the average fidelity rating for each step of OSG-SSC was above 95%, except for one, which fell at 89% (i.e., Step 4). After two weeks, participants also reported an 83.35% fidelity rating for initiating at least 1 step of their action plan (see Table 6). In the research literature, fidelity ratings over 70% are considered high (Perepletchikova & Kazdin, 2005). Thus, it was concluded that the OSG-SSC module and the OSG-SSC action plan were implemented with high fidelity.

### **Research Question 2: Does Participation in the OSG-SSC Significantly Change the Positive Indicators of Teacher Wellbeing (i.e., hope, positive emotions, school connectedness, teacher self-efficacy) Immediately Following and/or Two Weeks after the Completion of the OSG-SSC Compared to the Control Group?**

#### *Hope*

Across all time points, no significant interaction between time and group for hope pathways or agency was found ( $F [2, 78] = .452, p = .64, \eta_p^2 = .006$ ; Cohen, 1988; See Table 7). As such, these results indicate that the intervention did not increase the hope of treatment teachers, relative to control group teachers, within this study. In addition, these results also indicate that hope did not increase across time over the course of this study.

#### *Positive Emotions*

A significant, small-medium main interaction effect between time and group for positive emotions was found ( $F ([2, 79]) = 3.02, p = 0.05, \eta_p^2 = .047$ ; Cohen, 1988; See Table 7).

However, the main effect comparing the teachers across groups was not significant ( $F [1, 79] =$

1.16,  $p = .284$ ,  $\eta_p^2 = .015$ ; Cohen, 1988). Specifically, a post-hoc test revealed a significant increase of positive emotions for both groups of teachers across time ( $M$  difference T1-T3 = .99,  $p = .01$ ,  $d = .52$  [intervention group];  $M$  difference T1-T3 = 1.10,  $p < .001$ ,  $d = .59$  [control group]; See Table 8). Thus, these results indicate that for the treatment and control group, a teachers' feelings of positive emotions increased over the course of the study; however, this increase cannot be attributed to the teacher's group condition.

### ***School Connectedness***

No significant main interaction effect between time and group for school connectedness was found ( $F [1, 79] = .702$ ,  $p = .41$ ,  $\eta_p^2 = .009$ ; Cohen, 1988; See Table 7). These results suggest that the intervention did not increase the school connectedness of treatment teachers, relative to control group teachers, within this study. In addition, these results also indicate that the school connectedness of teachers did not increase across time over the course of this study.

### ***Teacher Self-Efficacy***

A significant and small-medium interaction effect between time and group for teacher self-efficacy was found ( $F [1, 77] = 3.97$ ,  $p = 0.05$ ,  $\eta_p^2 = .050$ ; Cohen, 1988; See Table 7). However, a post-hoc analysis revealed that the self-efficacy of study teachers decreased over the course of the study ( $p = .05$ ,  $d = .25$ ; see Table 8), which was not the expected direction for this variable. As such, these results indicate that the intervention did not increase the treatment group teacher's self-efficacy, relative to control group teachers, within this study. In addition, these results also indicate that a teacher's self-efficacy decreased across time over the course of this study.

**Question 3: Does Participation in the OSG-SSC Significantly Change the Negative Indicator of Teacher Wellbeing (i.e., burnout) Two Weeks After the Completion of the OSG-SSC Compared to the Control Group?**

***Burnout – Depersonalization***

No significant main interaction effect between time and group for depersonalization was found within this study ( $F(1,78) = 3.65, p = 0.60, \eta_p^2 = .045$ ; Cohen, 1988; See Table 7). This indicates that the intervention did not significantly change the treatment group's feelings of depersonalization relative to control group teachers, within this study. In addition, these results also indicate that a teacher's feelings of depersonalization did not change across time over the course of this study.

***Burnout – Emotional Exhaustion***

A significant and large main interaction effect between group and time for emotional exhaustion was found ( $F(1,78) = 12.26, p < .001, \eta_p^2 = .14$ ; Cohen, 1988; See Table 7). Additionally, a significant and medium main effect of time and group was also found for emotional exhaustion ( $F(1,78) = 4.49, p = .037, \eta_p^2 = .055$ ;  $F(1,78) = .160, p = .045, \eta_p^2 = .057$ ; Cohen, 1988). Post-hoc tests further examining this effect revealed a significant decrease in a teacher's feeling of emotional exhaustion for those in the intervention group from Time 1 to Time 3 ( $M$  difference = .49,  $p < .001, d = .36$ ; See Table 8), while those in the control group experienced an increased feeling of emotional exhaustion over the same time period ( $M$  difference = .12,  $p = .28, d = .09$ ; See Table 8). This indicates that the intervention did significantly decrease the treatment group's feelings of emotional exhaustion relative to control group teachers, within this study, across time.

### ***Burnout – Personal Accomplishment***

No significant interaction between time and group for personal accomplishment was found ( $F(1,73) = .709, p = .403, \eta_p^2 = .010$ ; Cohen, 1988; See Table 7). These results indicate no significant differences in a teacher's feelings of personal accomplishments across group condition (i.e., treatment or control group) or across time over the course of the study.

### **Research Question 4: Do Teachers Find the OSG-SSC to be an Acceptable, Useful, and Satisfactory Intervention?**

Total mean scores for each question from the OSG-SSC feedback form are shown in Table 9. On a scale of 1 (*not at all*) to 5 (*very much*) teachers rated their acceptability of the OSG-SSC through 5 questions. First, teachers reported that the OSG-SSC was “helpful in addressing a problem” ( $M = 3.50$ ). Second, teachers reported that they found the “OSG-SSC helpful in developing an action plan that addressed their concerns” ( $M = 3.53$ ). Third, teachers also indicated that they were “hopeful of the usefulness of their action plan” ( $M = 3.53$ ). Fourth, teachers reported that they “feel motivated to use their action plan” ( $M = 3.82$ ). Last, a majority of teachers also indicated that they would “recommend the online module to others” ( $M = 3.79$ ). In the previous trials of the SSC, a high level of acceptability was previously determined by having a mean score of a 3.0 or higher out of 5.0 across each question on the SSC feedback form (Schleider et al., 2021; Sung et al., 2023). Thus, it was concluded that the OSG-SSC was found to be acceptable, useful, and satisfactory intervention for teachers.

### ***Qualitative Acceptability Findings***

To informally enhance the quantitative acceptability data of the OSG-SSC as an aid in informing future research, qualitative data from 22 teacher interviews were analyzed and categorized across 4 categories: (a) *overall impressions of the OSG-SSC*; (b) *impact of the OSG-*

*SSC on the teacher's job; (c) action plans usage and barriers; (d) improvements to the OSG-SSC.* Table 10 further summarizes the qualitative findings into subthemes and the frequency of participants who agreed with the subtheme.

**Overall Impressions of the OSG-SSC.** Out of the 22 teachers interviewed, 18 teachers had an overall positive impression of the module, as indicated by their response to the question, “What was your overall impression of the module?”. Within this line of questioning, teachers then further elaborated on the specific elements of the module that they enjoyed. Specifically, out of the 18 teachers who found the OSG-SSC to be a positive experience, 16 participants praised the OSG-SSC for its simple and easy to use design, which they found manageable for their demanding schedules, while 15 teachers praised its utility as a tool to encourage reflection. Seven of the 18 teachers also enjoyed the OSG-SSC because it created a space for them to focus and reflect on themselves. Additionally, four of the 18 teachers highlighted the usage of a stepped process and the creation an action plan as positive components of the OSG-SSC, while two teachers felt that their participation made their goals more attainable.

Conversely, four teachers either had a mixed or negative overall impression of their participation in the intervention. Specifically, all four of these teachers felt that the module was not helpful in addressing the external problems causing them stress in their jobs. In addition, three of the four teachers also felt as no new information was presented in the module and two of the four teachers felt the module was too simplistic. Despite these negative impressions, all teachers who were interviewed stated that they would either recommend the module to other teachers (i.e., 19 teachers) or recommend it only to a specific group of teachers because they thought the information would be more applicable to that group (i.e., three teachers; e.g., new teachers, teachers without established coping skills).

**Impact of the OSG-SSC on the Teacher's Job.** After participating in the OSG-SSC, 17 of the teachers interviewed cited some type of positive impact the module had at their job. Nine teachers stated that the OSG-SSC increased their level of awareness during subsequent situations at their jobs and/or produced an external action that led to internal positive feelings at work. Moreover, seven teachers described seeing positive shifts in how they framed and thought about their challenges at work, in addition to having an increased focus on controlling the things that are within their control. Additionally, five of the teachers interviewed also felt that their participation in the OSG-SSC kept them more accountable to themselves and the goals they set. On the other hand, five teachers did not feel as if their participation in the OSG-SSC led to any positive impact at their jobs.

**Action Plans Usage and Barriers.** At the time interviews were being conducted, 18 teachers (81%) had initiated at least one part of their action plan. Nonetheless, various barriers that either completely hindered teachers from initiating their action plan and/or made it difficult to follow through with their other steps were stated. Specifically, 10 teachers discussed various external reasons (i.e., other people, school events) that hindered successful momentum with their action plans. In addition, four teachers each either stated internal reasons (i.e., motivation, laziness) and/or that their identified problem was “too big” to tackle with such an action plan. Two teachers also cited time as an additional barrier either implementing or continuing their action plans.

**Improvements to the OSG-SSC.** Participants of the OSG-SSC cited a variety of ways OSG-SSC could be improved if utilized in the future. Suggestions to improving the content were given by 12 teachers (i.e., adding videos, scenarios, research facts, other teachers' stories) and technical improvements were reported by nine teachers (i.e., module design, saving material

within the module). Additionally, eight teachers stated they would have liked to have more frequent reminders to check-in on their action plans and four teachers thought the follow-up period should have been longer than two weeks. In future sessions, three teachers stated that they thought additional accountability within their school community would be a great improvement to the OSG-SSC. Lastly, more clarity of some of the questions in the OSG-SSC (two teachers) and more security or anonymity for answers/input (one teacher) were cited as other improvements to make to the OSG-SSC.

## **DISCUSSION**

The goal of this study was twofold. The first goal was to pilot an online, self-guided version of the Single Session Consultation (OSG-SSC) intervention. The second goal was to examine the fidelity, effectiveness, and acceptability of the OSG-SSC intervention. While previous versions of the SSC have been investigated, this study extends prior research by adapting it to an online self-guided format focused on supporting teacher wellbeing. This is important because it offers an easily accessible and brief intervention for members of the teaching profession, who are often busy and suffering from burnout. This study had four hypotheses.

### **Fidelity**

In this study, it was hypothesized that the OSG-SSC module and action plan would be implemented with high fidelity (i.e., 70% or higher). This hypothesis was supported. Results indicated that both the implementation of the OSG-SSC module (i.e., 95.8% of teachers implemented the intervention as directed) and its accompanying action plan (i.e., 83.3% of teachers initiated at least one step of action plan) were carried out with high fidelity. These findings are consistent with previous research which found high fidelity (i.e., >70% of all participants implementing an intervention as directed) ratings from the telehealth-SSC and other teacher wellbeing interventions (Hwang et al., 2017). Additionally, the fidelity percentages found for this study are also higher than other self-guided interventions, which struggled to maintain high intervention fidelity across time (i.e., 56% of participants typically completed an intervention as directed; Waller & Gilbody, 2009).

These fidelity findings are particularly important because they indicate that the OSG-SSC module was easy to understand and follow for busy teachers, a main aim of this intervention. The



action plan findings are also important because they indicate that the findings of this intervention can engender lasting change in participants. As such, for teachers who have demanding schedules, it is encouraging that a self-guided, single session intervention was successful in motivating them to implement a plan that could put them on a path toward better mental health despite their intense profession. In sum, the OSG-SSC intervention and action plan was implemented as intended by participants, indicating a well-designed intervention for teachers.

## **Effectiveness**

### *Hope*

In this study, hope was hypothesized to significantly increase over time in the intervention group with at least a medium effect size. This hypothesis was not supported. This study did not find a significant interaction or main effect of time or group for pathways or agency. As such, it can be concluded that the OSG-SSC intervention had no effect on a teachers' level of hope across time. This finding is surprising for a variety of reasons. First, the theoretical base of the SSC (i.e., solution-focused brief therapy) is intertwined with hope theory as they both aim to motivate clients to achieve their goals through their own unique pathways (Bannink, 2007; Snyder, 2002). Second, other studies have established hope as an important proximal indicator of teacher wellbeing (e.g., Kumarakulasingam, 2002, Macintyre et al., 2022). Last, these results are also misaligned with the original pilot study's results, which found significant pre to post-intervention increases in hope-agency with a large effect (i.e.,  $d_z = 1.43$ ; Schleider et al., 2021).

One plausible reason for the differences found in this study's results compared to the research literature is the self-guided aspect of this intervention, which inherently lacked a social component. Specifically, hope has been theorized to be inexplicably intertwined with social

interaction. These constructs are so interrelated that one researcher asserted, “to not connect with others, is to not hope” (Synder, 2002, pg. 264). As such, the lack of a social component might have resulted in a lack of change in teachers’ hope for the treatment group teachers. This point is further highlighted by the fact that many hope interventions include an in-person component (e.g., Schrank et al., 2012). Thus, even though the theoretical base of this intervention is so closely aligned with hope theory and hope has been found to be an important factor in teacher wellbeing, the lack of a social component might make its inclusion in this inappropriate.

### ***Positive Emotions***

This study hypothesized that positive emotions would significantly increase over time in the intervention group with at least a medium effect. This hypothesis was not found to be supported, as both groups exhibited a significant increase of positive emotions from pre- to post-intervention. This finding was unexpected as previous research indicates that positive emotions are engendered when teachers have intentional time to reflect and generate solutions to improve their wellbeing (Berti et al., 2019; Bradley et al., 2018). As such, given these results, continued exploration of positive emotions in future teacher wellbeing studies may be indicated.

### ***School Connectedness***

In this study, it was hypothesized that school connectedness would significantly increase over time in the intervention group with at least a medium effect. This hypothesis was not found to be supported, as the results showed no significant effects of the OSG-SSC on a teacher’s level of school connectedness over time. These results are misaligned with previous research literature which has found significant positive increases in a teacher’s connectedness with others at their school after participation in teacher wellbeing interventions (e.g., Cann et al., 2023). Although misaligned, these results do make sense given the context of the OSG-SSC intervention.

Specifically, the OSG-SSC was completed independently and focused on self-reflection and self-improvement, lacking explicit content or activities regarding one's connection with others at their school. As a result, it is unlikely that significant improvements to how a teacher feels connected to others in their school would be found given this lack of focus which has been more explicit in other teacher wellbeing interventions (Cook et al., 2017; Fernandes et al., 2019). Additionally, it is also possible that changes in school connectedness could likely take longer than two weeks to manifest. This assertion would be consistent with other teacher wellbeing intervention studies that found positive effects after longer follow-up times (e.g., 4 weeks or more; Sharrocks, 2014; Taylor, 2018). Therefore, considerations around the inclusion of school connectedness in future studies is warranted given the adaptations and follow up period.

### ***Teacher Self-Efficacy***

This study hypothesized that teacher self-efficacy would significantly increase over time in the intervention group with at least a medium effect. This hypothesis was not found to be supported, as the OSG-SSC intervention had no effect on a teacher's self-efficacy over time. This result is surprising given the strong link between teacher self-efficacy and wellbeing as indicated by a robust review (i.e., Zee & Koomen, 2016; 165 studies) and other teacher wellbeing intervention studies that have shown positive increases in a teacher's self-efficacy after participation in an intervention (Cann et al., 2023). However, notably in some of these intervention studies, the focus of the intervention was to improve teacher wellbeing through a focus on improving a teacher's teaching practice (e.g., Berti et al., 2019; Wolf et al., 2019), which was not the focus of the OSG-SSC intervention. Therefore, it is possible that the insignificant results found in this study are due to the broad nature of the OSG-SSC intervention which was intentionally developed to tackle a variety of concerns (Schleider et al., 2021). Thus,

given these results, consideration of the inclusion of teacher self-efficacy without a more explicit focus on teaching practices may be warranted in future studies of the OSG-SSC.

## **Burnout**

In this study, it was hypothesized that burnout (i.e., emotional exhaustion, depersonalization, personal accomplishment) would significantly decrease over time in the intervention group with at least a medium effect. This hypothesis was partially supported. Emotional exhaustion significantly decreased in the intervention group over time, with a large effect. However, depersonalization and personal accomplishment exhibited no significant changes. The emotional exhaustion finding is consistent with previous research, which has highlighted emotional exhaustion as the core and often first presenting factor of burnout at work and thus sensitive to intervention changes (Edú-Valsania et al., 2022). As such, this finding is important because it provides significant evidence to support the OSG-SSC as an intervention to improve some aspect of teacher wellbeing. In addition, although insignificant, this study's finding of depersonalization is also consistent with previous research. Specifically, in a meta-analysis (i.e., 23 studies examined) examining interventions aimed at reducing teacher burnout, virtually null effects of these intervention on depersonalization was found ( $d = 0.03, p > 0.05$ ; Iancu et al., 2018). Therefore, it is possible that depersonalization may be very insensitive to changes from interventions and thus, the consideration of including depersonalization in future studies is warranted.

On the other hand, this study's insignificant findings of personal accomplishment are inconsistent with the previous research literature. For example, in the same meta-analysis cited above, significant, small effects of personal accomplishment were found ( $d = 0.14; p < 0.01$ ; Iancu et al., 2018). In addition, these effects only became stronger over time (i.e., 3 months,  $d =$

0.29,  $p < 0.05$ ; Iancu et al., 2018). As such, it may be plausible that the insignificant results found for personal accomplishment in this study could be due to the short follow up time of the OSG-SSC intervention (i.e., 2 weeks). As such, given these results, it can be concluded that the OSG-SSC significantly decreased one aspect of burnout (i.e., emotional exhaustion) while it had no effect on the other aspects (i.e., depersonalization, personal accomplishment).

### **Acceptability**

This study hypothesized that teachers would find the OSG-SSC to be both an acceptable and useful intervention (i.e., average score of a 3 or higher for each question). This hypothesis was supported, as the average teacher rating ranged from a 3.5 to 3.8 for each acceptability question. In addition, the results also indicated that on average, 90.4% teachers who participated in the OSG-SSC found it to be a helpful and useful tool to address problems of teacher wellbeing and would recommend it to others. These findings were found to be consistent with previous research, which found good acceptability ratings in both the original and telehealth versions of the SSC (i.e., range = 4.07 to 4.56 out of 5; Schelider et al., 2021, Sung et al., 2023). Additionally, to provide further insight into the good quantitative acceptability of the OSG-SSC that was found, additional qualitative insights gained from teacher interviews are discussed in more detailed below.

Overall, a vast majority of teachers reported very positive impressions of the module for a variety of reasons (e.g., simple, easy to follow, reflective tool) while the negative impressions were mostly tied to the OSG-SSC doing little to address the external factors that contribute to negative teacher wellbeing. These impressions are consistent with previous research. Specifically, in the research literature generally positive impressions of online based interventions have been found in teacher (Cook et al., 2017) and non-teacher populations

(Scheutzow et al., 2022). In addition, there is research literature that also aligns with the critique of teacher wellbeing interventions inability to tackle larger external issues (Brandt et al., 2023). Given that the purpose of the OSG-SSC was to encourage participants to focus on selecting actions steps that the participant could control, it is not unexpected that some participants felt the OSG-SSC was not helpful in addressing systematic external factors that were outside of their control. Thus, although the negative impressions of the OSG-SSC are valid, the OSG-SSC was positively received by a vast majority of teachers interviewed.

Moreover, teachers also offered several recommendations for the future implementation of the OSG-SSC. These recommendations included improvements to the module content (e.g., increased visual content, more scenarios/examples), technical improvements (e.g., back button, ability to re-start), increased frequency of check-ins, and a longer follow-up period. These recommendations are consistent with previous research on web based interventions which highlighted intervention functionality and interactiveness as critical components to increase participant acceptability and engagement (Scheutzow et al., 2022). Unfortunately, this current trial of the OSG-SSC was severely limited by the design limitations of the online platform utilized to deliver the intervention. As such, future trials could utilize a more content engaging and technically savvy platform to possibly increase acceptability as outlined by the above recommendations. Thus, overall, the high acceptability of the OSG-SSC not only provides evidence to support the utility of the adaptations made specifically for teachers but when coupled with the above fidelity and preliminary efficacy results, also gives some support of the future use of the intervention with teachers, with improvements.

## **Limitations**

This current study is limited by the following factors: (a) racial diversity, (b) self-report fidelity, and (c) a short follow-up period. First, this study's sample lacked racial diversity. Despite being a very diverse sample across a range of other demographic markers (i.e., years/grade level taught, education level, school type) the racial makeup of the teachers in this study was overwhelming white (i.e., 73.7% [intervention group]; 86% [WLC group]). This limitation is significant because it may highlight a potentially bias sample of those who self-selected to participate in this study. Specifically, this lack of diversity could be indicative of teachers of color deciding to opt out of this study due to the unique job stressors they face (e.g., racial discrimination, discussion of political issues, lack of supportive environments; Cormier et al., 2021; Doan et al., 2023) that they perceived the OSG-SSC to be insufficient to address. Thus, further adaptations of the OSG-SSC should intentionally consider and include the experiences of teachers of color to better address the totality of experiences contributing to levels of teacher wellbeing.

Second, although all measures included in this study were self-reported, the use of only a self-report fidelity measure (e.g., checklist, self-report survey) is not an ideal way to measure fidelity (Breitenstein et al., 2010). Specifically, the use of a self-report fidelity measure in addition to other measures such as, technological intervention records (e.g., how long a user stayed on one question, start/end time) or audio/video recordings in which a third-party rater could also assess fidelity, would likely provide a more accurate and robust assessment of fidelity than a single self-report measure (Schultes et al., 2015). While these options were explored for this study, they were unable to be implemented due to the technological limitations of the platform used. As such, the usage of a variety of fidelity measures (e.g., self-report,

technological intervention records) with a compatible system would likely be ideal in future studies.

Last, this study had a short follow up period of only two weeks. In order to be consistent with previous research on the SSC (Schleider et al., 2021; Sung et al., 2023) the two week follow-up period was selected as appropriate for this pilot study. However, in light of the adaptations made for this study, it is possible that the two week follow up period limited the effects of the results found for variables such as personal accomplishment and school connectedness. Specifically, for these variables, previous teacher wellbeing intervention research indicated significant effects with longer follow up times (Iancu et al., 2018; Sharrocks, 2014; Taylor, 2018). Additionally, a longer follow up window may have also contributed to increased acceptability as indicated through the teacher interviews conducted. Thus, given that this study was a pilot, investigating preliminary effects with limited time and resources, future studies should explore longer follow up times, such as one month, to see if has an impact on the effects found in this study.

### **Implications & Future Directions**

The findings from this study have a variety of implications for future research and practice. First, it is the first study to adapt the SSC model to an online, self-guided model focused on teacher wellbeing. This is significant because these findings extend the research of the SSC as a flexible, adaptable program, while also adding a potentially beneficial self-guided online intervention for busy teachers. Specifically, this study preliminarily showed that the OSG-SSC was a simple, feasible, practical, and effective tool for improving some aspects of teacher wellbeing (i.e., emotional exhaustion). Given these results, future studies could build upon this novel model as a targeted tool to help curb a teacher's emotional exhaustion. Second, the OSG-



SSC utilized technology which could easily be adapted in future studies to boost engagement and potentially effectiveness. For example, in future studies, teachers could opt to re-engage with the module as needed when various situations arise by simply re-logging into their accounts and completing the intervention again as a refresher. Future adaptations could also extend the OSG-SSC by adding on additional modules to help target specific problems teachers may be facing. In addition, the OSG-SSC could also be adapted to be utilized school-wide, whereas one school wide professional development session is dedicated to introducing the intervention and then the technology is used in subsequent meetings to quickly monitor, troubleshoot, and collaborate on actions plans to ensure optimal success. Last, this study showed that a single session approach for interventions may be a suitable solution for busy teachers. A teacher's time is valuable and in our current system teachers spend an average of 19, 8-hour school days doing professional development sessions (Jacob & McGovern, 2015). As such, there is potentially a high utility of a single session intervention for teachers that can be completed in less than an hour. Future research should continue to explore how single session interventions can be helpful for teachers across a variety of domains, given their job demands, which could make single session interventions ideal.

## CONCLUSION

Teachers are an invaluable resource in our community and a focus on their wellbeing is paramount to the health of schools and students. As such, this study aimed to offer a novel approach to help improve teacher wellbeing that was a feasible and practical option for the time intensive schedules of teachers. The findings from this study were able to show preliminary evidence that the OSG-SSC could be such a tool for teachers. In addition, the OSG-SSC could also likely offer a good return on investment for individual teachers and schools interested in implementing this intervention due to the flexibility of the OSG-SSC and it's easily accessible and easy to use online platform. For example, schools would only need to invest minimal time resources when first implementing this intervention, but due to the intervention's flexibility, could use it a variety of ways for the remainder of the school year (e.g., whole school monthly check ins, individualized coaching, goal setting). Thus, future investigations should build upon the results found in this study, with a larger, more diverse sample, and including some of the recommendations given to better understand the full utility of the OSG-SSC

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## APPENDIX A: Tables and Figures

**Table 1**

*Teacher Wellbeing Intervention Studies*

Authors	Total Sample Size	Modality	Duration	Focus of Intervention	Indicators of Interest	Effects	Acceptability	Fidelity
Beshai et al., 2016	$N = 89$	In person	9 sessions, 75 mins	Mindfulness	Stress, teacher wellbeing, mindfulness, and compassion	Small ( $\eta^2 = .30$ )	78 % of participants reported that they enjoyed the course “a lot”, 20 % responded “quite a lot”	Did not measure
Chan, 2013	$N = 78$	Hybrid	8 weeks. 15 mins/week	Gratitude journal	Life satisfaction, positive affect, negative affect, and gratitude	Medium to Large (Range $d = -.38 - .85$ )	Did not measure	Fidelity was only evidenced by teachers’ self-reports in summary statements about their listing of events, their journaling, and their reflections on their meditations

**Table 1 (cont'd)**

Cook et al., 2017	<i>N</i> = 44	Online	5 sessions: 2.5 hours/session	Psychoeducation of stress, wellbeing concepts and wellness plan	Stress, self-efficacy, and work satisfaction	Medium ( <i>d</i> = .57 – .69)	The results from a questionnaire indicated that participating teachers found the intervention to be reasonable, acceptable, and effective	Did not measure
Fernandes et al., 2019	<i>N</i> = 59	In person	9 sessions: 2 hours/session, once a week	Professional development series (topics: resilience, building relationships, effective teaching)	Positive experiences, negative experiences, work meaning and wellbeing	Small ( $\eta^2 = .22 - .25$ )	Did not measure	Did not measure
Hayes et al., 2020	<i>N</i> = 80	In person	6 full days over 7 months	Classroom management training	Burnout, self-efficacy, positive affect, negative affect	No significant effects found	Teachers reported that they were able to identify positive changes as a result of the intervention	Developers were confident in the group leaders delivering the intervention with fidelity to the model



**Table 1 (cont'd)**

Rahm & Heise, 2019	<i>N</i> = 89	In person + journal (self-guided)	5 weeks, 13 hours	Psychoeducation, positive psychology interventions (emotions diary and gratitude)	Positive emotions, negative emotions, life satisfaction, thriving	Medium to Large (Range <i>d</i> = .31 – .65)	Participants reported a high personal benefit (M = 5.68 out of 7 - highest agreement) and increase in knowledge (M = 5.44) from the intervention	Did not measure
Talvio et al., 2013	<i>N</i> = 43	In person	4 days/full school day	Social Emotional Skill Training	Wellbeing, coping	Large ( <i>d</i> = 3.58)	Participants reported positive reactions to the intervention (Mean average of 4.13 out of 5 - highest agreement)	Did not measure
Tarrasch et al., 2020	<i>N</i> = 44	In person	20 weekly sessions <sup>1</sup> and ½ hours per session	Mindfulness/Social Emotional Skill Training	Self-efficacy, mindfulness, anxiety, stress, burnout, compassion, reactivity, anxiety	Large (Range <i>d</i> = .62 – 1.20)	Did not measure	Did not measure

**Table 2**

*8 Steps of the Single Session Consultation*

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Step #	Summary of Step
Step 1	Establish shared purpose for being here
Step 2	Identify a client's top problem
Step 3	Identify client's top hope
Step 4	Pose the miracle question
Step 5	Create a scale based on the miracle question
Step 6	Explore expectations to the problem
Step 7	Construct an action plan
Step 8	Wrap Up

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**Table 3***Research Questions, Hypotheses, and Measures*

Research Questions	Hypotheses	Measure(s)
<i><b>Question 1:</b> Can the OSG-SSC and OSG-SSC action plan be implemented with fidelity by participants?</i>	It is hypothesized that the OSG-SSC and OSG-SSC action plan will be implemented with at least 70% fidelity	OSG-SSC Treatment Fidelity Checklist; OSG-SSC Action Plan Fidelity
<i><b>Question 2:</b> Does participation in the online self-guided Single Session Consultation (OSG-SSC) significantly change the positive indicators of teacher wellbeing (i.e., self-efficacy, school connectedness, positive emotions, hope) immediately following and two weeks after the completion of the OSG-SSC compared to the control group?</i>	It is hypothesized that self-efficacy, school connectedness, positive emotions, and hope will increase from preintervention to postintervention and follow-up with at least a medium effect	Teacher Subjective Wellbeing Questionnaire – Teacher Efficacy Scale; Teacher Subjective Wellbeing Questionnaire – School Connectedness Scale; Adult Hope Scale; PERMA- Positive Emotions
<i><b>Question 3:</b> Does participation in the online self-guided Single Session Consultation (OSG-SSC) significantly change the negative indicator of teacher wellbeing (i.e., burnout) immediately following and two weeks after the completion of the OSG-SSC compared to the control group?</i>	It is hypothesized that teacher burnout will decrease from preintervention to postintervention and follow-up with at least a medium effect	Maslach Burnout Inventory for Educators

**Table 3 (cont'd)**

*Question 4: Do teachers find the OSG-SSC to be an acceptable, useful, and satisfactory intervention?*

It is hypothesized that teachers will find the OSG-SSC an acceptable and useful intervention, as measured by a mean score of 3.0 out of 5.0 across the variety of items on the OSG-SSC Feedback Form

OSG-SSC Feedback Form; Teacher Interviews

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**Table 4***Demographic Variables for the Intervention and Waitlist Control (WLC) Groups*

Variable	Intervention <i>M(SD)</i>	WLC <i>M(SD)</i>	<i>p</i>
Gender			.30
% Male	13.2	11.6	
% Female	81.6	88.4	
% Non-Binary	5.3	-	
Race			.18
% White	73.7	86	
% LatinX	-	2.3	
% Black	7.9	-	
% Asian	2.6	4.7	
% Bi/Multi-Racial	15.8	7.0	
Education			.26
% Bachelors	18.4	20.9	
% Master's	81.6	69.8	
% MD/JD/PhD	-	2.3	
% Other	-	7.0	
Year(s) Taught			.66
% 1 yr	2.6	4.7	
% 2 yrs.	2.6	-	
% 3 yrs.	15.8	14	
% 6-8 yrs.	10.5	9.3	
% 9-11 yrs.	10.5	20.9	
% 12-14 yrs.	18.4	9.3	
% 15+ yrs.	39.5	41.9	
Grade(s) Taught			.44
% Pre-K	7.9	9.3	
% K-2 <sup>nd</sup>	21.1	14	
% 3-5 <sup>th</sup>	10.5	16.3	
% 6-8 <sup>th</sup>	26.3	18.6	
% 9 <sup>th</sup> - 12 <sup>th</sup>	18.4	18.6	
% Mixed Elem	10.5	23.3	
% More than 2 grades	5.3	-	
School Type			.77
% Rural	2.6	4.7	
% Urban	65.8	69.8	
% Suburban	31.6	25.6	
Coping with Stress	5.4 (1.86)	4.7 (1.94)	.11
Time to Complete Intervention (mins)	31.12 (12.11)	-	

*Note.* *p* = significance of the mean difference between the two conditions

**Table 5***Data Measures Utilized by Phase and Group Condition*

Group Condition	Treatment Phases and Measures			
	Pre-Intervention	Intervention	Post-Intervention	2 Week Follow Up
OSG-SSC	Demographics, TSWQ-TE, TSWQ-SC, MBI-ES, AHS, PERMA-PE	OSG-SSC Treatment Fidelity Checklist	OSG-SSC Feedback Form, AHS, PERMA-PE	OSG-SSC Action Plan Fidelity, TSWQ-TE, TSWQ-SC, MBI-ES, AHS, PERMA-PE, Follow-Up Interview
WLC	Same as above	None	AHS, PERMA-PE	TSWQ-TE, TSWQ-SC, MBI-ES, AHS, PERMA-PE,

**Table 6***Intervention and Action Plan Fidelity (n = 37)*

Intervention Fidelity	
Intervention Step	Percentage
Step 1	96.5%
Step 2	98%
Step 3	98%
Step 4	89%
Step 5	95.5%
Step 6	96.5%
Step 7	97.5%
Total	95.8%
Action Plan Fidelity	
At least 1 step of action plan initiated after 2 weeks	83.3%

**Table 7***Interaction Effects of Study Variables*

Variable	Time 1		Time 2		Time 3		Group by Time Interaction			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>F</i>	<i>p</i>	$\eta_p^2$
Hope Pathways								.897	.40	.01
Intervention	6.21	.85	6.33	.94	6.07	.90	36			
WLC	6.17	.88	6.13	1.04	6.09	1.11	43			
Hope Agency								.452	.64	.01
Intervention	6.46	1.04	6.58	1.03	6.31	1.12	36			
WLC	6.42	1.26	6.47	1.13	6.35	1.13	43			
Positive Emotions								3.02	.05	.05
Intervention	5.78	2.15	6.06	2.36	6.77	1.66	37			
WLC	5.90	1.80	6.97	1.87	7.01	1.96	43			
School Connectedness								.702	.41	.01
Intervention	2.84	.66	-	-	2.70	.70	37			
WLC	2.74	.76	-	-	2.69	.69	43			
Teacher Self Efficacy								3.97	.05	.05
Intervention	3.02	.65	-	-	3.09	.73	36			
WLC	3.30	.63	-	-	3.14	.62	42			
Burnout - DP								3.65	.06	.05
Intervention	1.96	1.39	-	-	1.65	1.19	37			
WLC	1.72	1.19	-	-	1.84	1.09	42			
Burnout - EE								12.26	<.001	.14
Intervention	4.19	1.37	-	-	3.69	1.42	36			
WLC	3.99	1.24	-	-	4.12	1.39	43			
Burnout - PA								.709	.40	.01
Intervention	4.29	.88	-	-	4.32	.74	33			
WLC	4.44	.95	-	-	4.33	.75	41			

Note. Effect size in  $\eta_p^2$  with .02, .06, .14 corresponding to small, medium, and large effect size, respectively; Cohen, 1988; DP = depersonalization; EE = emotional exhaustion; PA = personal accomplishment



**Table 8***Post Hoc Analyses of Mean Differences Between Time 1, Time 2, and Time 3*

Variable	<u>Treatment</u>									<u>Control</u>								
	Time 1 - Time 2			Time 2 - Time 3			Time 1 - Time 3			Time 1 - Time 2			Time 2 - Time 3			Time 1 - Time 3		
	<i>MD</i>	<i>SE</i>	<i>p</i>	<i>MD</i>	<i>SE</i>	<i>p</i>	<i>MD</i>	<i>SE</i>	<i>p</i>	<i>MD</i>	<i>SE</i>	<i>p</i>	<i>MD</i>	<i>SE</i>	<i>p</i>	<i>MD</i>	<i>SE</i>	<i>p</i>
Hope Pathways	.12	.09	.57	.26	.13	.19	.14	.14	.98	.04	.09	1.00	.05	.10	1.00	.09	.13	1.00
Hope Agency	.12	.07	.34	.28	.16	.25	.16	.15	.89	.047	.10	1.00	.12	.10	.86	.07	.13	1.00
Positive Emotions	.29	.16	.32	.70	.30	.08	.99	.32	.01	1.06	.17	<.001	.04	.23	1.00	1.10	.23	<.001
School Connectedness	-	-	-	-	-	-	.14	.07	.07	-	-	-	-	-	-	.05	.07	.44
Teacher Self-Efficacy	-	-	-	-	-	-	.08	.09	.39	-	-	-	-	-	-	.16	.08	.05
Burnout - DP	-	-	-	-	-	-	.31	.16	.07	-	-	-	-	-	-	.11	.15	.44
Burnout - EE	-	-	-	-	-	-	.49	.14	<.001	-	-	-	-	-	-	.12	.11	.28
Burnout - PA	-	-	-	-	-	-	.03	.13	.81	-	-	-	-	-	-	.11	.11	.31

Note. *MD* = mean difference; DP = depersonalization; EE = emotional exhaustion; PA = personal accomplishment

**Table 9***Average OSG-SSC Intervention Acceptability Ratings*

Question	<i>N</i>	<i>Min</i>	<i>Max</i>	<i>Mean (SD)</i>	<i># of participants with a rating of 3 or greater</i>
Did you find the module helpful in addressing a problem related to your occupational wellbeing?	38	2	5	3.50 (.83)	33
Did the module help you develop an action plan to address your concern?	37	2	5	3.81 (.94)	34
How hopeful are you that the action plan will be useful?	38	1	5	3.53 (.95)	33
How motivated do you feel to use your action plan?	38	2	5	3.82 (.87)	36
Would you recommend the online module to others?	38	2	5	3.79 (.88)	35

**Table 10***Teacher Interview Themes about OSG-SSC*

Theme/Subthemes	Example Excerpts	Frequency (n = 22)
<b>Module Impressions</b>		
Positive Impression	N/A	18
<i>Simple &amp; manageable</i>	“No, I actually think because we're educators and teachers, I think it was just enough, where again, you felt like you could be successful, you can answer the questions. It wasn't cumbersome. I liked the breaks in between”	16
<i>Reflective tool</i>	“Like it did make me self-reflect and help, like, changed how I approached. Like communicating with other teachers and that”	15
<i>Created a space to focus on yourself</i>	“So, I think oftentimes, as teachers, we do that for others and our students and our families, and we don't necessarily do it for ourselves. So, I really enjoyed that the focus was actually on me and how I felt instead of suppressing certain things, and just putting on that brave face and doing what you're supposed to do”	7
<i>Applicable</i>	“I thought it made a lot of sense. It resonated with me, that uhh it wasn't, you know, toxically positive, but I think it took the, I think it left the problem and the solution in the hands of the teacher herself, or the person himself. And I thought it was well done”	7
<i>Stepped process</i>	“Yes, it helped me. But when you ask, step that I can do, or I can, it kind of help me. It's kinda like, have you Okay, step, what steps you can do, because when we are in a mode of, of stress, we really don't think of how we can slow down and then kinda of gets some level first steps “I need to do this”. So that was good. I kinda like that”	4
<i>Creation of action plan</i>	“Well, I think I liked [that] you actually did help guide through like creating an action plan, that might, you know, help you overcome some of the stress, anxiety or, you know, any of those other negative feelings that we get right now”	4
<i>Made goals feel attainable</i>	“I found that they were very helpful for kind of giving you a way to compartmentalize your ideas and set those goals”	2
Mixed Impression	N/A	2
Negative Impression	N/A	2

**Table 10 (cont'd)**

<i>Not helpful for external problems at work</i>	“But again, a lot of the stresses that I am feeling this year are more from the top down and not things I'm able to address directly because they're more policies, than day to day issues”	4
<i>Too simple</i>		2
<i>No new information presented</i>	“...when I did the module, it felt too simplistic...there are multiple things that surround most from personal experience. If I'm feeling stressors, there are multiple things that surround that. It's not just one thing. “...because a lot of things I spoke about are, again, tools that I've used in the past. So there really hasn't been to any new ones.”	3
<b>Module Impact At Work</b>		
Positive Impact	N/A	17
<i>Increased awareness</i>	“Yeah. So um, like, part of my, my thing was, for my wellbeing was just about like taking things off your plate, right, sort of kind of making those decisions about things that you kind of have to let go. And so it just made me more aware of that maybe like, what are things that I need to keep doing because it's best for my students versus what are things I need to keep doing because it's some district mandated data collection? And like, like, can I still do that, but not put as much time into it so that I have more time to spend with my students working with colleagues like things that I know benefit their growth? So I think just going through the questions kind of made me empowered me a little bit to be able to think like, okay, I can try this”	9
<i>External impact</i>	“I will say like, I've been really intentional with that fifth hour prep time that I had set. Like, this is when I'm gonna get my tasks done. So even if I haven't been scheduling meetings, I do feel like I have been more intentional with that time with contacting the parents with whom I work. So I hope that they appreciate that and I feel like I can like still check something off a to do list that makes me feel good, like things are being accomplished”	9

**Table 10 (cont'd)**

<i>Reframing of situations</i>	“...I've been reframing instead of thinking about the challenges I've been trying to think about the kids who are just lovely human beings who love coming to my class and are positive and I've been trying to focus on them rather than the kids who are difficult”	7
<i>Mindset shift to things within my control</i>	“...I was so focused on things that were out of my control because they just felt like they do. I mean, they have a big impact. But it was so frustrating because I can't control them. But to like, frame it as things that I can control and think about and do. I thought it was really helpful, because that was just not where I was putting my effort before.”	7
<i>Created accountability</i>	“Yes, I think it could be a really helpful tool, especially because you put those actionable steps in there. And so you can set up ways to hold yourself accountable”	5
No impact at work	“Sadly, no, that particular strategy was unable to help me with the things that are causing me the most stress right now.”	5
<b>Action Plans</b>		
<i>Initiated at least one part of plan</i>	“Yeah, yeah for the action plan. Some things I wrote down were to, like things I could do, I could change my pay grade, for example, as a teacher, by continuing my education, I applied for school for a master's program and was just accepted.”	18
<b>Barriers in Implementing Action Plans</b>		
<i>External reasons</i>	“I tried, I think for like a week and a half, two weeks, really being diligent and following through, and then it kinda went to crap. And I'm trying to get back on following through on my action plan a little bit more. So that way, I can figure out different ways. We just had a really rough state testing, and it felt like it never was going to end”	10
<i>Internal reasons</i>	“...sometimes the motivation after dealing with exceptionally difficult situations, which seem to happen way too frequently, is down. And so there are definitely times when I've like, gotten to my room for that fifth hour time when I intend on getting things done. And I just like, sit and like have to do some deep breathing.”	4

**Table 10 (cont'd)**

<i>Problem “too big”</i>	“I try, I try, but I can't use this to solve the district problem.”	4
<i>Time</i>	Yeah, I mean, time, I think like uh yeah, like, just within the school day, like that's hard-to-find time, right? Like, there's just like, there's not time to, to do things to even stop and reflect. Like doing the module kind of made me stop and reflect which we don't often have time to do. So, I think time is a big one, like, taking time to think, how do I redo some of these systems? How do I make the system more efficient? Like, do I have time to reach out to colleagues and ask them how they're doing it? Like, I think time is a huge barrier.”	2

**Module Improvements**

<i>Content</i>	“...maybe to learners who learn with visually, like a visual word wall, even have an encouraging mantra, like, how can I make this problem smaller? How can I make this more manageable, even like a graphic of a large problem breaking it down to small problem. People love graphs. I think that that might be useful.”	12
<i>Technical</i>	One thing that was a little difficult was that nothing was really saved. So, like, I went ahead, and I made my own document, so that way, I could look back at it. I was fine. Not sure about everyone else. So if this was to be scaled up, or if more people answered, there might be some a little bit of difficulty.”	9
<i>More reminders/check-ins</i>	“I think one thing that I think would be helpful is maybe doing like, almost like a reminder check in. One week might be better and consistent, like, how is it going? Like, not even a whole thing, but like one question. Have you been implementing your plan? Yes, no. So, like kinda thing might help.”	8

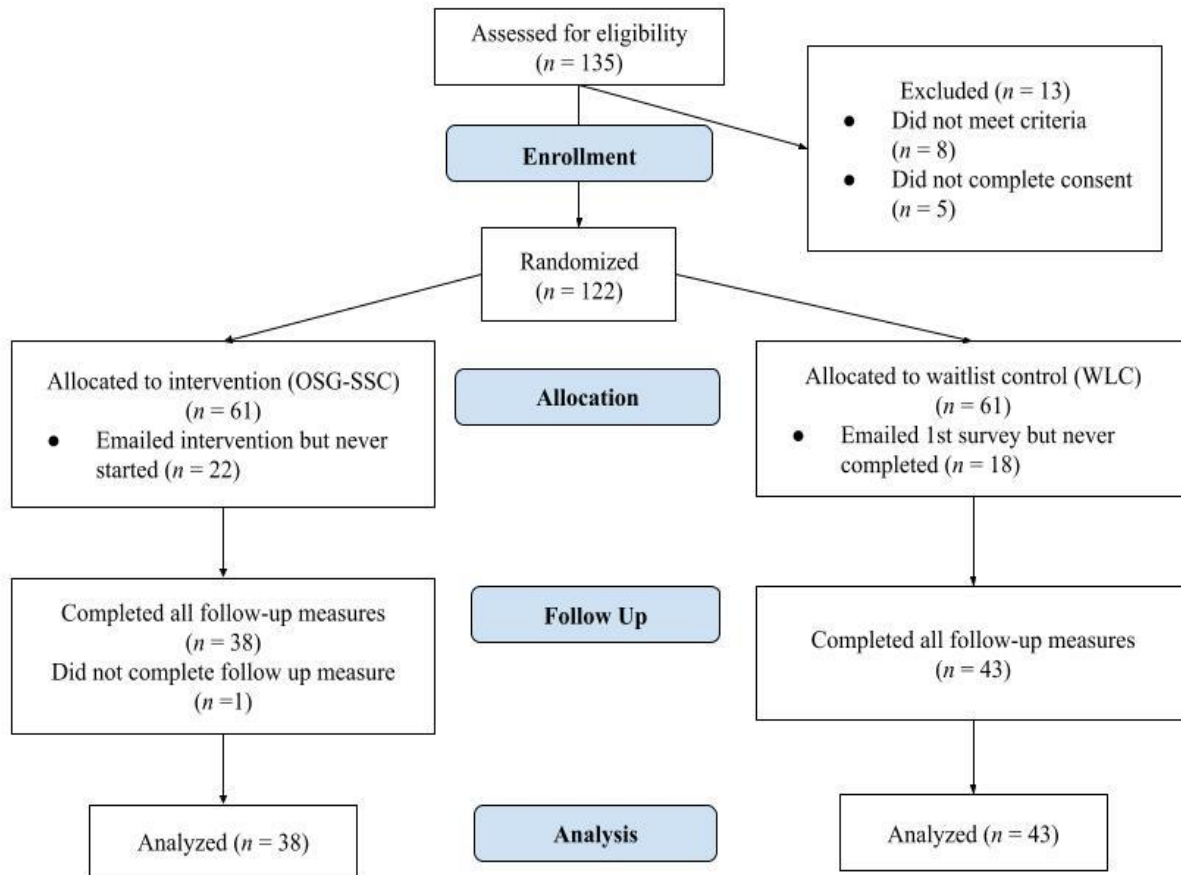
**Table 10 (cont'd)**

<i>More time before follow-up</i>	“It would be it will probably be helpful to follow up on like a year from now to see how that went. Like, because it's a mindset shift. I think it'd be helpful to get data over a long period of time. So I can see how it can be life changing.”	4
<i>Colleague accountability</i>	“But I think that, like doing this at a school wide level, might be very beneficial. You know, having your coworkers be like, hey, did you remember to write in your journal or meditate or whatever their goal is? I think that the having someone else there to kind of be your buddy with it is beneficial”	3
<i>Question clarity</i>	I think, some clarity with that one miracle question rating would be helpful	2
<i>Security</i>	“...the ID that was put there in the module can be easily used to assess our emails	1
<b>Recommend to Others</b>		
<i>Would recommend</i>	“I had a positive impression overall, and I would recommend it to somebody else”	19
<i>Would recommend to a specific group</i>	“I would recommend it, especially someone who had 10 years or under”	3

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*Note.* Some quotes were minimally edited for grammar and clarity.

Figure 1. *Participant Flow Diagram*





## APPENDIX B: Study Measures

### OSG-SSC Feedback Form (adapted from Schleider et al., 2021)

Scale: 1-5; Not all – Very Much

- Did you find the OSP-SSC helpful in addressing a problem related to your occupational wellbeing?
- Did the OSP-SSC help you develop an action plan to address your concern?
- How hopeful are you that the action plan will be useful?
- How motivated do you feel to use your action plan?
- Would you recommend the online module to others?

#### Open ended question

- Are there any other comments or feedback you'd like to share about the OSG-SSC?

### OSG-SSC Treatment Fidelity Checklist

Scale: 1-3; No, To Some Extent, Yes

- I read all of the information given to complete this step
- I understood all of the information given to complete this step
- I completed this step

### OSG-SSC Action Plan Fidelity

- Since you completed the online module, have you initiated at least one part of your action plan? [Yes or No]
  - If no, what has been preventing you from initiating your action plan? [open ended question]

### Teacher Subjective Wellbeing Questionnaire (Renshaw et al., 2015)

#### School Connectedness Subscale

Scale: 1-4; Almost Never – Almost Always

- I feel like I belong at this school
- I can really be myself at this school
- I feel like people at this school care about me
- I am treated with respect at this school

### Teacher Subjective Wellbeing Questionnaire (Renshaw et al., 2015)

#### Self-Efficacy Subscale

Scale: 1-4; Almost Never – Almost Always

- I am a successful teacher
- I am good at helping students learn new things
- I have accomplished a lot as a teacher
- I feel like my teaching is effective and helpful

### Adult Hope Scale (Synder et al., 1991)

Scale: 1-8; Definitely False to Definitely True

- I can think of many ways to get out of a jam
- I energetically pursue my goals
- I feel tried most of the time
- There are a lot of ways around my problem
- I am easily downed in an argument
- I can think of many ways to get the things in life that are important to me
- I worry about my health
- Even when others get discouraged, I know I can find a way to solve the problem
- My past experiences have prepared me well for my future
- I've been pretty successful in life
- I usually find myself worrying about something
- I meet the goals that I set for myself

**MBI for Educators Survey** (Maslach et al., 1996)

Scale: 0-6; Never to Every Day

How often...

- I feel emotionally drained from work
- I feel used up at the end of the workday
- I feel fatigued when I get up in the morning and have to face another day on the job
- I can easily understand how my students feel about things
- I feel I treat some students as if they were impersonal objects
- Working with people all day is a really a strain for me
- I deal very effectively with the problems of my students
- I feel burned out from my work
- I feel I'm positively influencing other people's lives through my work
- I've become more callous toward people since I took this job
- I worry that this job is hardening me emotionally
- I feel very energetic
- I feel frustrated by my job
- I feel I'm working too hard on my job
- I don't really care what happens to some students
- Working with people directly puts too much stress on me
- I can easily create a relaxed atmosphere with my students
- I feel exhilarated after working closely with my students
- I have accomplished many worthwhile things in this job
- I feel like I'm at the end of my rope
- In my work, I deal with emotional problems very calmly
- I feel students blame me for some of their problems

**Positive Emotions Subscale from PERMA** (Kern, 2014)

Scale: 0-10; Never to Always

- At work, how often do you feel joyful?
- At work, how often do you feel positive?
- At work, to what extent do you feel contented?

### **Teacher Interview Questions**

- What was your overall impression of the online module?
- Did your participation in the online module help you at work?
- Did you follow through with your action plan?
- How could the online module be improved?
- Would you recommend the module to other teachers?
- Is there anything else you would like to tell us about your interaction with the online module?

## APPENDIX C: Recruitment Email

Hi teachers,

Have you been feeling a little stressed at work? Are you experiencing any symptoms of burnout because of work-related factors? Would you like to learn a new way of problem solving while contributing to novel research adapted by a former teacher?

If the answers to these above questions are yes, please consider participating in this research study.

Your total participation in this study would take no longer than 75 minutes total across a two-week period. After an initial screening, you will be randomly assigned to two groups and asked to complete:

- An online module, that can be completed at a time most convenient for you
- Three brief surveys

You can also receive up to \$45 in gift cards for your participation in this study. Participants will be eligible to receive compensation for the following tasks:

- \$10 for completing the first two surveys and/or online module
- \$10 for completing a third survey
- \$25 for completing a 30-minute follow up interview about your experience [OPTIONAL]

If you are a full time, PK-12th grade teacher and are interested in contributing to this important research, please click on the following link to learn more and complete a <5 minute screening survey:

Thank you for your time and consideration of this research. If you have any questions, please contact the primary research investigator via the information below.

Joi Claiborne, M.A.  
Michigan State University  
School Psychology, Doctoral Student  
xxx@msu.edu

Note: This study has been approved by Michigan State University's Institutional Review Board [STUDY00007543]

## APPENDIX D: Screening Form

Hello!

Thank you for visiting this survey link regarding the teacher wellbeing study. This screening survey includes some questions to determine if you are eligible for the study.

The survey will take 5 minutes and you may stop at any time. Your participation in the screening is completely voluntary. Your answers will be confidential. No one will know your answers except for the research team.

At the end of this survey, you will receive a message indicating if you have met the qualifications for the research study. At that time, if you would like to continue in the study, you will be prompted to read and sign a consent form. You will also be asked to provide an email address, so that a member of the research team can follow up with you via email regarding next steps in the research study.

If you do not meet the qualifications of this study, your information will be destroyed, and you will be provided with teacher wellbeing resources. Alternatively, if you qualify for the study, decide to participate, and sign the research informed consent form, your survey data will be kept with the research record in an encrypted location until the completion of the study.

At this time, would you like to proceed with the screening? Please indicate your response below.

Are you currently employed as a PK-12 teacher in a school?

- Yes
- No [If answered no, the survey will be terminated and given the “End of Survey for Ineligible Participants” response]

Do you currently have access to a computer with reliable internet access?

- Yes
- No [If answered no, the survey will be terminated and given the “End of Survey for Ineligible Participants” response]

Stress at work could be tied to a host of other factors happening outside of work (e.g., family, life, home). The focus of this intervention is to focus on mitigating solely workplace wellbeing.

- At this time, do you believe you are experiencing symptoms of stress and/or burnout due to work related factors?
  - Yes, a majority of my stress at work is due to work related factors. [in the box below please briefly describe symptoms]
  - No, not a majority. But I am able to identify some significant work based factors. [in the box below please briefly describe symptoms]
  - No, my stress at work is primarily due to outside factors

In the past two weeks..

- How well have you coped with your job related stress as a teacher?" [0-10 scale]

### **End of Survey for Eligible Participants**

Thank you for answering the screening questions. Based upon the answers you provided, you have been found eligible to participate in our study!

If you would still like to participate in the the full study:

1. Please provide an email address in the box below. One of our study researchers will email you at this address regarding next steps.
2. Continue on to the next page to read and agree to the consent form. A copy of the form will be sent to your email.

Email address: \_\_\_\_\_

### **End of Survey for Ineligible Participants/Those that do not wish to continue**

Thank you for participating in the screening process for our research study. Unfortunately, you are either not eligible to be a participant for the research study or you have chosen to not continue in the process.

We appreciate your interest and time. To ensure privacy and confidentiality, any screening data you provided will be destroyed. For additional resources on teacher wellbeing, please refer to the following sites:

- <https://resilienteducator.com/collections/wellbeing/>
- <https://positivepsychology.com/category/stress-burnout-prevention/>

If you have concerns or questions about this study, such as how to do any part of it, please contact the researcher, Joi Claiborne, 442 Erickson, College of Education, Michigan State University, East Lansing, MI 48824, xxxx@msu.edu, or at xxx-xxx-xxxx.

If you have questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complaint about this study, you may contact, anonymously if you wish, the Michigan State University's Human Research Protection Program at xxx-xxx-xxxx, Fax xxx-xxx-xxxx, or e-mail irb@msu.edu or regular mail at 4000 Collins Rd, Suite 136, Lansing, MI 48910

## **APPENDIX E: Study Consent Form**

### **Research Participant information Consent Form**

Study Title: An Online Module to Improve Teacher Wellbeing  
Department and Institution: Department of Counseling, Educational Psychology, and Special Education at  
Michigan State University  
Contact Information: xxx@msu.edu

#### **BRIEF SUMMARY**

You are being asked to participate in a research study. Researchers are required to provide a consent form to inform you about the research study, to convey that participation is voluntary, to explain risks and benefits of participation including why you might or might not want to participate, and to empower you to make an informed decision. You should feel free to discuss and ask the researchers any questions you may have.

You are being asked to participate in a research study to determine if a single session, interactive, self-paced online module is an effective, acceptable, and feasible intervention for teacher wellbeing. The content of the module is self-help in nature and not considered to be any form of psychotherapy. If you volunteer for this study, you will be randomly assigned to one of two possible groups. You will be asked to complete various measures before the module begins, immediately after, and two weeks after the module is complete. Your total participation in this study should take no longer than 75 minutes across a two-week period.

While the foreseeable risk is likely minimal to absent, given that the focus of the study is on increasing teacher wellbeing, it is possible that you may feel moments of emotional stress when participating in this study due to its reflective nature. If this happens, all modules are self-paced and thus, you will be able to stop the module at any time and return to it at your leisure. You may also be worried about your answers not being private and confidential. The researchers will do everything they can to make sure that your answers stay confidential and private.

You can receive up to \$45 for your participation in this study. Your participation may also stimulate positive feelings and emotions and give greater understanding to the researchers on how to support teachers better.

#### **PURPOSE OF RESEARCH**

The purpose of the research is to determine if a single session, online self-help module to address teacher wellbeing is effective, acceptable, and feasible for teachers. Your participation in the entire study will take approximately two weeks if assigned to the first group and four weeks if assigned to the second group.

#### **WHAT YOU WILL BE ASKED TO DO**

You will first be asked screening questions to determine whether you may be eligible for the research. If you are found eligible and volunteer for this study, you will then be randomly assigned to one of two possible groups: an online module group or waitlist control group.

**Online Module Group:** Upon consent of the study, participants in the online module group will be sent an email that includes all relevant instructions, materials, and survey links. At your convenience, you will be asked to watch and participate in an interactive self-paced, self-help online module. This module is not a form of psychotherapy. You will also be asked to complete a survey directly prior to and after your participation in the module. Two weeks after you complete the module and surveys, you will be contacted one more time to complete another survey. After completing all surveys and the module, participants in this group will also have an opportunity to volunteer to participate in a 30-minute follow up interview with the primary researcher or research assistant over Zoom. Not every participant in this group will be asked to complete an interview, it will be on a volunteer basis and limited in number.

**Waitlist Control Group:** Upon consent of the study, participants in the waitlist control group will be informed via email they were added to a waitlist and asked to complete questionnaires over the course of a two-week period. After the initial two-week period, you will receive a link to participate in the same online module that the other group completed. This module is not a form of psychotherapy.

The information that participants provide during the screening process and study surveys will be used for research analysis. Qualitative answers provided while completing steps of the online module will not be used for analysis.

**POTENTIAL BENEFITS**

You can receive up to \$45 in gift cards for your participation in this study. Your participation may also stimulate positive feelings and emotions and give greater understanding to the researchers on how to support teachers better. Specifically, the participants will receive compensation for the following tasks:

<b>Task</b>	<b>Online Module Group</b>	<b>Waitlist Control Group</b>
Completion of initial surveys	\$10 Amazon Gift Card	\$10 Amazon Gift Card
Completion of intervention		--
Completion of 2-week survey	\$10 Amazon Gift Card	\$10 Amazon Gift Card
Completion of a 30-minute interview	\$25 Amazon Gift Card	--

**POTENTIAL RISKS**

While the foreseeable risk is likely minimal to absent, given that the focus of the study is on increasing teacher wellbeing, it is possible that you may feel moments of emotional stress when



participating in this study due to its reflective nature. If this happens, the online module and surveys are self-paced and thus, you will be able to stop the module survey at any time and return to it at your leisure. You are also allowed to discontinue your participation in the study at any time. You may also be worried about your answers not being private and confidential. The researchers will do everything they can to make sure that your answers stay confidential and private.

### **PRIVACY AND CONFIDENTIALITY**

Your privacy is incredibly important to the research team. The information that participants provide during the screening process and study surveys will be used for research analysis and thus, in order to make sure that your answers are kept private and confidential, you will be completing all surveys, online through a safe and secure link. The only people who will have access to your screening and study survey data once you submit it is the research team, who cannot identify which survey is yours. This consent form and your screening and survey data will be kept for a minimum of 5 years in the research lead's office. This is in order to make sure the researchers have access to your screening and study survey data while they interpret the results and complete the research report. The report will not talk about your individual responses but will instead talk about trends that occur across all of the participant screening and study survey data. Additionally, the research report will not identify you or your school, so your information will be kept strictly within the research team.

### **YOUR RIGHTS TO PARTICIPATE, SAY NO, OR WITHDRAW**

You have the right to say no to participate in the research. You can stop at any time after it has already started. There will be no consequences if you stop. You will not lose any benefits that you normally receive. If you choose not to participate, or you begin to participate but choose to stop, you will not receive any penalty from the researchers.

### **RESEARCH RESULTS**

As previously mentioned, the final research report will not discuss your individual results but will discuss patterns and trends identified across all research participants. However, if you do wish to read the final report after it is completed, you are free to contact the research team at the email address or telephone number listed at the top of this form.

### **CONTACT INFORMATION**

If you have concerns or questions about this study, such as scientific issues, how to do any part of it, or to report an injury, please contact the researcher, Joi Claiborne, 442 Erickson, College of Education, Michigan State University, East Lansing, MI 48824, xxxx@msu.edu. If you have questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complaint about this study, you may contact, anonymously if you wish, the Michigan State University's Human Research Protection Program at 517-355-2180, Fax 517-432-4503, or e-mail irb@msu.edu or regular mail at 4000 Collins Rd, Suite 136, Lansing, MI 48910. Your endorsement below means that you are voluntarily agreeing to participate in the research study [There will be a place to electronically consent on the Qualtrics survey]

## APPENDIX F: OSG-SSC Module Flow Summary

1. Pre-Test [demographics + all Time 1 Measures]
2. OSG-SSC Module
  - Step 1: Establish shared purpose for being here
    - Introduction to module
  - Step 2: Identify the teacher's top problem
    - Teachers are provided a series of probing questions to help them reflect on what their top problem or reason that disrupts their wellbeing at their school.
  - Step 3: Identify the teacher's top hope
    - Teachers are provided a series of probing questions to help them reflect on what their top hope is related to their stress at work.
  - Step 4: Miracle question
    - Teachers are provided with this scenario: suppose that while you are sleeping tonight, a miracle occurs and the problem that led you to complete this module today completely disappears. Because this miracle happened when you were asleep, you don't know it's occurred right away. So, you wake up and go into work and....
      - Teachers are then provided a series of probing questions to reflect on what they may notice, think, or feel if their miracle was actualized
  - Step 5: Miracle question scale
    - A visual scale numbered from 1-10 was shown to teachers and they were asked to think back to the miracle question and choose a number on the scale that indicates where they are at now
      - Teachers are provided a series of reflective questions to analyze the number they selected and reflect on what they can continue to do to stay at this number or improve to one number higher
  - Step 6: Explore expectations to the problem
    - Teachers are provided a series of probing questions to help them reflect on days or moments when their lives may have been closer to their solution (even if it was just a little bit)
  - Step 7: Construct an action plan
    - Teachers are asked to come up with three concrete, specific actions (including when and where they can do these actions) that they can take to make a small change and bring them closer to a "10" on their scales
    - Teachers are asked to identify two people who can help them take these steps
    - Teachers are provided a series of probing questions to help identify obstacles to their action plan and how they would overcome it
  - Step 8: Wrap Up
    - Closing
3. Post-Test [OSG-SSC feedback form + All Time 2 Measures]
4. End of Module – Thank you's!