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Evaluation of a Compassionate Mind Training Intervention with School Teachers and Support Staff

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Abstract

Objectives Teacher retention is a key issue facing schools, with stress, student behavior, current competitive policies, and practices resulting in many leaving within the first 5 years of qualification. Consequently, recent in-school research initiatives have focused on resilience training, although the quality of such conducted studies is debated. Drawn from compassion-focused therapy (CFT), this study set out to explore a six-module compassionate mind training (CMT) program with school staff to improve well-being.

Methods As part of their continued professional development, over 70 teachers and support staff took part in the CMT, with a mixed-measures AAB quantitative and qualitative design employed. This enabled us to explore both implementation effectiveness and outcome effectiveness in terms of parameters of well-being.

Results The initiative was well received with the majority of staff reporting positively on their experiences of the curriculum and practices. Additionally, exercise practice was associated with significant increases in self-compassion ($p < 0.01$) and significant decreases in self-criticism ($p < 0.05$). Thematic analyses further revealed benefits of CMT for dealing with emotional difficulties.

Conclusions As a feasibility study, our results demonstrate many benefits of CMT in educational settings. CMT may hold promise as a way of helping those in education counteract the current competition-based nature of education, especially that which contributes to negative changes in well-being. Given this, future research should employ a control group design, a larger sample size, and a range of well-being measures at follow-up, to fully evaluate the utility of CMT in educational settings.

Keywords Compassionate mind training · Implementation · Well-being · Mixed-methods · Education · Retention

Schools are becoming increasingly stressful environments for teachers. Carmichael (2017) reported that 30% of UK teachers leave the profession within the first 5 years citing excessive workload and bureaucracy. The National Association of Schoolmasters Union of Women Teachers (NASUWT 2016) further suggested that teacher stress and problematic pupil behavior are endemic; 60% of teachers reported effects on their mental health within the previous 12 months and 55% reported effects on their physical health. An additional 77% of teachers felt that there were widespread behavior problems in schools with over half (51%) suggesting they are not given appropriate training information or advice to help them deal with difficult pupil behavior (ibid). Most recently the Educational Support Partnership (ESP 2018) in its review of 1076 education professionals working in primary, secondary or further education in the UK found that 67% described themselves as stressed by their work, with these health pressures leading to a 35% increase in teachers calling the ESP emotional support helpline in the past year. Therefore teaching is facing an unprecedented recruitment and retention crisis and one that is not limited to the UK (see Harris et al. 2016 for similar reports of stress in US educators).

Furthermore, a pressured environment exists within schools in which the main sources of stress for teachers/educators

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include longer working hours, heavier workloads, and "target setting" as well as "achieving results", with the latter taking no account of the learner or their educational context (ESP 2018). This focus on academic achievement, partly via the introduction of open performance league tables in some countries (see for example: https://www.gov.uk/school-performance-tables, Gov.uk, 2017) pushes both parents and teachers to reward and prioritize students' academic success above other skills and qualities. However, this type of competition can have negative ramifications, leading individuals to become vulnerable to criticism and rejection (Gilbert et al. 2007). Indeed, Gilbert et al. suggested that as compared to secure competition (where failure is socially acceptable and socially supported), competitive stress and fear of failure increase hostile forms of self-criticism and shame, and poor emotion regulation, all of which are major contributors to mental health problems for staff and students alike.

Recognizing the growing problems of competitive stress in schools, there are now a number of projects to address this and improve resilience training in teachers (see Hanh and Weare 2017, for review). For example, in a recent review of mindfulness interventions for teachers, Hwang et al. (2017) reported beneficial psychological health effects, in that the interventions led to reductions in burnout, depression, and anxiety. However, they questioned the fidelity of the majority of studies cited as well as research rigor, especially those where only qualitative data was reported.

Of note, compassionate mind training (CMT) has been highlighted as an antidote to competitive stress and the challenges schools face (see Al-Ghabban 2018; Lavelle et al. 2017). Unlike other types of interventions, CMT is based on developing compassion motivation for self and others with concomitant styles of thinking, feeling, and behaving (Gilbert 2010; Singer and Bolz 2012). In CMT, mindfulness and compassion are regarded as separate processes that need to be explicitly cultivated in their own ways. According to Gilbert and Choden (2013), only when mindfulness and compassion are pursued together can they bring about lasting change. They stated that "Without the anchoring of compassion there is a risk that mindfulness practice can become a subtle way of avoiding difficulties by trying to keep one's mind in 'observing' or 'breath-focusing' mode and not engaging with painful things" (p139).

There is now good evidence that compassion-focused therapy (CFT), from which CMT is derived, has a range of beneficial effects including the promotion of prosocial behavior in clinical and non-clinical populations (e.g., see Kirby and Gilbert 2017 for review); improved social relationships (e.g., Weng et al. 2013); cultivating compassion for self and others (e.g., Gilbert 2010; Kirby 2016; Leaviss and Uttley 2015; Neff and Germer 2013); and stress reduction (e.g., Allen and Leary 2010; Weng et al. 2018). In CMT, as compared to CFT, psychoeducation serves as a key element that underpins and

informs specific practices and exercises, and it is this training/psychoeducation that is key. As a comparison, CFT additionally involves assessment of psychological difficulty and formulation development for a specific problem, as well as a treatment plan and the formation of a client-practitioner therapeutic relationship. Thus, while both CFT and CMT involve practices based on grounding (e.g., soothing rhythm breathing) and compassionate imagery (e.g., imagining compassion for oneself as well as others), CMT is much more appropriate for larger group settings, where a particular problem (e.g., stress) may be endemic across that population, rather than bespoke to an individual.

Importantly, the value of CMT is in its broad applicability to a diverse range of populations including the armed forces (Lee and James 2012), maternity nurses (Beaumont and Martin 2016), and fire services (Beaumont et al. 2016). Moreover, a recent meta-analysis (Kirby et al. 2017) revealed moderate effect sizes for CMT in reducing symptoms of depression, anxiety, and stress, as well as increasing individuals' levels of compassion, mindfulness, and well-being in both clinical and non-clinical populations. Hence, there is good reason to believe that CMT may provide a good approach to manage teacher stress.

Although there is growing agreement that problems of teacher (competitive) stress are systemic and require systemic solutions (McLaughlin 2015), more exploration of interventions to support teachers in these stressful environments, especially those with a compassionate/emotion-based focus, is warranted. This is especially important as research has demonstrated social-emotional competences of educators protects them from burnout, including emotional exhaustion and a deteriorating classroom climate (Abenavoli et al. 2013; see also Jennings and Greenberg 2009). For example, Abenavoli et al. (2013) found that educators' mindfulness had strong negative associations with emotional exhaustion, depersonalization, and personalization, and Roeser et al. (2013) found that mindfulness training was associated with increased occupational self-compassion, decreased occupational stress, and decreased burnout as compared to wait-list control.

Considering initiatives anchored in a compassion-based approach, as of yet, no formal evaluation has been pursued. However, these are important to explore, as not only does a compassion focus add a further dimension to such interventions, but compassion and mindfulness training have different neurological effects (Valk et al. 2017; Vrtička et al. 2017). Indeed, while Welford and Langmead (2015) outlined a case for compassion-based initiatives in educational settings, informed by CFT/CMT, the primary purpose of their paper served to highlight the potential for compassion-based approaches in schools (as did Al-Ghabban 2018; Coles 2015). To elucidate, Welford and Langmead described key components of their approach in schools, including informal feedback received from staff as to outcomes achieved (e.g.,

informal reports of increased well-being and decreased fixed term exclusions), but highlighted that a rigorous evaluation of compassion-based approaches in schools is now necessary.

Thus, given CMT is rapidly accumulating evidence of helpfulness and effectiveness across a range of populations, we sought to investigate it in a school setting. Importantly, as Durlak and DuPre (2008) have observed that the level of implementation affects outcomes obtained, and Wilde et al. (2019) that high-quality implementation is an essential condition of effective social and emotional learning programs, we sought not just to explore outcomes of the intervention but also aspects related to its implementation. We identified a private school (specializing in the education of 11–18-year-olds excluded from mainstream education because of social, emotional, and/or behavioral issues) interested in participating in a short CMT program as part of their continuing professional development (CPD) for *all* staff. Our specific aims were to, firstly, develop a short six-session CMT intervention that captured the essential ingredients of CMT training, and could be conducted during the course of one term. Secondly, evaluate implementation effectiveness in respect to feasibility, quality, acceptability (i.e., participant responsiveness), and reach and, thirdly, evaluate effectiveness via quantitative and qualitative indices of well-being. It was hypothesized that should the initiative be effective, well-being improvements would be observed via both quantitative and qualitative measures. We further hypothesized that individuals who practiced the exercises introduced would report the biggest improvements in well-being.

Methods

Participants

All teaching staff, support workers, managerial staff, and counselling staff employed at the school ($N = 78$), were expected to attend the six-session CMT as part of their CPD. All sessions were well-attended with absences reflecting illness or school emergency situations. Participating in data collection (i.e., completing session evaluation materials, quantitative measures, and/or qualitative measures), however, was not a prerequisite to receiving the CMT, in accord with the ethical principle of informed voluntary consent. As such, demographic data for the 78 staff sample at large is unavailable. This stated, for those who provided informed voluntary consent for the quantitative measures and/or qualitative measures, demographic data is reported in the relevant "Results" sub-section. Additionally, and as an average, $n = 34$ (43%) staff consented to and completed session evaluation materials; $n = 29$ (37%) consented to and completed standardized questionnaire measures and/or associated open-ended qualitative questions; and 8% (i.e., six staff members) took part in the focus group.

Procedure

CMT Intervention Overview

The intervention consisted of six sessions, each lasting circa 2.5 h and was conducted over one school term (12 weeks). Sessions 1, 2, and 6 were conducted as part of all staff CPD time on Friday afternoons and sessions 3, 4, and 5 as part of an inset day prior to the half-term break. Those who produced all session materials and led them (PG, MW, and WW) were either qualified clinical/doctoral psychologists or held a PGCert in CFT. In addition, between them, the intervention leaders had over 40 years of experience in leading compassion-based initiatives. A brief description of session content is described below (but see also Supplementary Table 1).

The aim of the first session was to introduce participants to the basic concepts of compassion, why we need compassion, and to the concept of "Tricky Brain"; this included ways of understanding the nature of the evolved human mind, its emphasis on threat, and how this can create unhelpful loops between thinking, feeling, and behavior. This psychoeducational aspect was then followed by the introduction of two short exercises: grounded soothing rhythm breathing and kind warm facial expression/voice tone. In the latter, participants compare and contrast having brief internal self-talk, but with either a critical or supportive voice tone/facial expression.

The second session aimed to "apply" the CMT model to educational settings and for staff to consider the model in relation to their own experiences. The focus on the staffs' own experiences was progressed through psychoeducation as well as experiential exercises. For example, awareness of shame and self-criticism, the critical vs. compassionate self, and how an emotion processing model can be applied to individuals themselves. These exercises were aimed at raising awareness/insight of emotional experiences and behaviors in relation to ourselves and others, increasing the likelihood of the material having personal impact and allowing individuals to share insight concerned with how the information presented may be helpful for themselves, each other, and their students.

Sessions 3, 4, and 5 focused on providing participants with opportunities to practice compassionate mind exercises together and for the staff to share their experiences in a supportive and reflective environment. The sessions took place over one whole day at a local venue, not associated with the school. The CMT exercises were delivered using recordings to maintain consistency. These were soothing rhythm breathing and introduction to compassionate mind imagery (session 3), developing compassionate self-imagery (session 4) and developing ideal compassionate self (session 5). After each exercise, time was provided for participants to work in small groups to share their experiences, followed by whole group opportunities for questions and answers.

The aim of the final session was to overview the program and in particular focus on fears, blocks, and resistances to compassion and compassion-based practices (e.g., Duarte et al. 2015; Gilbert et al. 2011). A presentation on fears, blocks, and resistances was given, after which staff worked in small groups to consider their own fears, blocks, and resistances and how they might manage them. This final session was brought to a close with time/the opportunity for whole group questions and answers.

Of note, and in accord with BPS (2018) guidance on maximizing benefit and minimizing harm, all staff were advised that should the content or discussions of any session raise particular issues for them, they could speak with the intervention leads confidentially after the sessions. Alternatively, the school's own clinical psychologist, who was independent of the research project, was available.

Data Collection Overview

In order to explore implementation effectiveness, after each CMT session, or day, individuals were provided with a single-sided form to enable evaluation of the session. In addition, a questionnaire pack, containing standardized measures, outlined below, as well as questions pertaining to age, gender, and ethnicity, was provided to all staff to complete at three time points. These were 2 months prior to the first session (i.e., at the end of the previous academic year), 1 week prior to the first session (i.e., at the beginning of the current academic year) and one month post the intervention (i.e., mid-way through that current year). These are referred to as T1, T2, and T3, respectively. Of note, the practice scale element was only incorporated at T3 (post-intervention). Additionally, T3 data was collected 1 month post the final session, in order to establish intervention effectiveness, by asking specifically if staff were continuing with the practices introduced.

Finally, in order to provide more detailed information relating to the staff members' everyday school experiences following the intervention, a focus group was conducted 2 weeks after the final CMT session. It lasted just under 2 h.

Measures

We utilized similar key measures as found in two fairly recently published mindfulness interventions with school teachers (i.e., Flook et al. 2013; Roeser et al. 2013).

The Maslach Burnout Inventory (MBI; Maslach et al. 1996)

This 22-item scale is used to assess three dimensions of burnout: emotional exhaustion, depersonalization, and personal accomplishment. Emotional exhaustion is characterized by feeling emotionally overextended and fatigued by one's work. Depersonalization involves impersonal and unfeeling responses towards others. Personal accomplishment entails feelings of competence and productivity at work. The MBI is considered the "gold-standard" of burnout measures with established clinical validity (Schaufeli et al. 2001). The current study's Cronbach's alphas were $\alpha = 0.91$, $\alpha = 0.65$, and $\alpha = 0.82$ for emotional exhaustion, depersonalization, and personal accomplishment, respectively.

The Depression, Anxiety and Stress Scale (DASS-21; Lovibond and Lovibond 1995)

This 21-item shortened version of the DASS-42 consists of three subscales measuring depression, anxiety, and stress. Participants are asked to rate how much each statement applied to them over the past week, on a Likert scale 0–4. Current study Cronbach's alphas were 0.77 for depression, 0.76 for anxiety, and 0.86 for stress, and validity has been supported through its correlation with other measures of depression and anxiety (Lovibond and Lovibond 1995).

Forms of Self-Criticism and Self-Reassuring Scale (FSCRS; Gilbert et al. 2004)

This 22-item scale assesses participants' thoughts and feelings about themselves during a perceived failure. Two subscales measure forms of self-criticizing (inadequate self and hated self) and one subscale measures tendencies to be reassuring to the self (reassured self). Items are rated on a 5-point Likert scale. In the current study, Cronbach's alphas were 0.91 for inadequate self, 0.84 for hated self, and 0.91 for reassured self. Validity has been supported through correlation with further measures of self-criticism and depression in the expected directions (i.e., positive for inadequate self and hated self, negative for reassured self; Gilbert et al. 2004). To establish self-criticism levels, a composite score comprising inadequate and hated self-scores was used (Duarte et al. 2015).

The Self-Compassion Scale Short-Form (SCS-SF; Neff 2003)

This 12-item self-report measure is a shortened version of the 26-item Self-Compassion Scale (Neff 2003), comprising six subscales: self-kindness, self-judgment, common humanity, isolation, mindfulness, and over-identifying. As Cronbach's alphas for the subscales of SCS-SF are low (between 0.54 and 0.75; Raes et al. 2011), the total score is recommended and was the focus of analysis (current study $\alpha = 0.91$). As a demonstration of validity, it positively correlates with measures of social connectedness and emotional intelligence, and negatively correlates with measures of self-criticism, anxiety, rumination, etc. (Neff 2003).

CMT Practice Scale

This was an eight-item scale adapted from Matos et al. (2017), which queried frequency, nature, and intensity of participants' imagery experiences and practice over the past 2 weeks (i.e., post-intervention). After reporting the specific exercises participants engaged in (i.e. type and frequency), they scored how often they felt or acted in a compassionate way using a 10-point Likert scale and the item scores were summed. Items included "How often did you act as your compassionate self?"; "How powerful were your compassionate feelings?"; How easy was it to feel as your compassionate self? etc. There are currently no psychometric properties available for this scale, but in the current study, Cronbach's alpha was 0.98.

Open-ended Questions

Appended to the quantitative questionnaires were three detailed open-ended questions; these were designed to more fully access the everyday experience of the full range of school staff. The questions focused upon any positive and/or negative experience that stood out to staff within their school role (question 1), the impact of work experiences on their general well-being (question 2) and any support encountered in their working life (question 3). These questions were included pre- and post-intervention, with wording subtly changed pre vs. post to reflect the time frame of response.

Focus Group

Opening questions were centered upon the staff team members' overall experiences of the initiative, their engagement with the specific exercises and practices, and how well the intervention addressed issues encountered in their working lives. The focus group was audio recorded for transcription purposes.

Data Analyses

To enable analysis of implementation effectiveness, the single-sided form included six questions relating to pace of delivery, material presented, exercises introduced, interaction, interest, and motivation. For each question, three anchor points were utilized (e.g., too much, acceptable, too little; somewhat motivated, motivated, unmotivated) and staff were asked to "please circle the response that best reflects your evaluation of the session provided today.". For example, "The amount of interaction was: too much; acceptable; too little.". Staff were also asked to rate whether they would recommend the training to others (maybe, yes, not really), and if there was anything they had particularly enjoyed or found useful (open-ended response). Finally, they were asked if there was anything they did not particularly enjoy or find useful (open-ended response). Descriptive statistics were used to explore this data.

In quantitative evaluation, we employed an AAB design to control for natural variations in mood and well-being. Informed consent to take part in the quantitative evaluation aspect of the research was given by 29, 37, and 21 participants at T1, T2, and T3, respectively. Initial screening of responses revealed four participants (three at T1 and one at T2) displayed acquiescent behavior (i.e., providing the same pattern of responding to all questions including those which were reversely worded). Following removal of this data, this left a final sample of 26 participants for T1 ($m = 11, f = 12$, 3 = not reported; mean age = 40.5 years); 36 participants for T2 ($m = 16$, $f = 19$, 1 = not reported; mean age = 38.1 years); and 21 participants for T3 ($m = 11, f = 10$, mean age = 36.1 years). We were able to match 20 participants' data for T1 and T2, 20 participants' data for T2 and T3, and 13 participants' data across all three time points. Analysis began by examining patterns of missing questionnaire data. There was very little missing data (between 0 and 2 items, 0.0 to 0.6%, for each subscale at each time) and no evidence of any specific pattern; accordingly, missing data were imputed based on mean scores (and item analysis) for subscales of questionnaires. Comparisons were then made between T1 and T2 using t tests. These revealed no significant differences in self-compassion (SC-SF), self-criticism and self-reassurance (FSCSR), or depression, anxiety, and stress (DAS) before the intervention took place. Thus, to increase power and sample size (i.e., from 13 to 20), data for these measures were averaged over the two pre-intervention time points and pre-post intervention analyses pursued. As data met parametric assumptions, paired t tests were used to compare well-being measures pre vs. post the intervention. t tests were further used to examine MBI differences, albeit between each time point. Finally, to establish the effectiveness of practicing the CMT intervention, we examined the relationships between practice and change in well-being measure (i.e., post-intervention–pre-intervention average) using Pearson's correlations and partial correlations (to adjust for pre-intervention values). All analyses were conducted using IBM SPSS (Version 25) with an alpha set as $p < 0.05$.

In qualitative analysis, handwritten answers from the three open-ended questions across all time points were typed up, and the focus group recording transcribed verbatim. In all cases, identifying details of the participants were removed during the transcription process and pseudonyms added. Data were then analyzed using a six-stage thematic analysis process (Braun and Clarke 2006).

Results

Staff Evaluation of Initiative

In total, 132 evaluation forms were completed across the six CMT sessions. This comprised 23 forms from session 1, 36 from session 2, 35 from the full CMT day (i.e., sessions 3, 4,
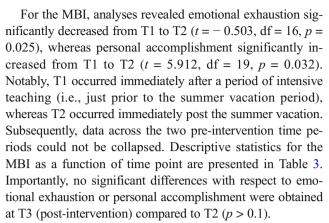
and 5), and 38 from session 6. Quantitative data pertaining to staff evaluation of each specific CMT session are presented in Table 1. In summary, this demonstrated that the majority of staff (79%) would recommend the training to others, and that session content was rated as "highly acceptable" (% in parentheses) in terms of delivery pace (85%), material covered (92%), interactivity (91%), and practice (88%). This is despite 1 in 4 staff indicating they were not always motivated to attend this enforced CPD. Indeed, across sessions 1–5, reports of interest held were high (averaging 84%), although notably, this dropped in the final session, when motivation to attend was also at its lowest (i.e., 50%).

Quantitative Well-being Indicators

For the DAS, FSCSR, and SCF-SF, descriptive statistics are presented in Table 2 and demonstrate most measures changed in the expected direction, albeit without reaching criteria for statistical significance (all $p > 0.1$). In some cases, namely self-compassion and reassured self, effects were large (Cohen 1988) and subsequent sample size calculations indicated that fewer than 50 participants would be needed to detect effects in depression, self-compassion, reassured self, and hated self in future studies.

Table 1 Staff evaluation (in percentage) of the CMT initiative on a session by session basis and as a whole

	Session 1	Session 2	Session 3-5	Session 6	Mean
Motivated to attend					
Motivated	91	92	68	50	75
Somewhat	9	8	26	30	18
Unmotivated	0	0	6	21	7
Pace of delivery					
Acceptable	91	94	77	76	85
Too fast	9	6	9	3	7
Too slow	0	0	14	21	9
Material covered					
Acceptable	96	100	86	87	92
Too much	4	0	14	3	5
Too little	0	0	0	10	3
Level of interaction					
Acceptable	100	94	91	79	91
Too much	0	6	9	3	5
Too little	0	0	0	18	5
Practice sessions					
Acceptable	78	98	94	82	88
Fair	22	2	6	13	11
Poor	0	0	0	5	1
Interest held					
Yes	96	86	71	40	73
Sometimes	4	11	26	37	20
Not really	0	3	3	24	8
Recommend training					
Yes	96	86	71	63	79
Maybe	4	14	26	21	16
Not really	0	0	3	16	5

For the MBI, analyses revealed emotional exhaustion significantly decreased from T1 to T2 ($t = -0.503$, df = 16, $p = 0.025$), whereas personal accomplishment significantly increased from T1 to T2 ($t = 5.912$, df = 19, $p = 0.032$). Notably, T1 occurred immediately after a period of intensive teaching (i.e., just prior to the summer vacation period), whereas T2 occurred immediately post the summer vacation. Subsequently, data across the two pre-intervention time periods could not be collapsed. Descriptive statistics for the MBI as a function of time point are presented in Table 3. Importantly, no significant differences with respect to emotional exhaustion or personal accomplishment were obtained at T3 (post-intervention) compared to T2 ($p > 0.1$).

Finally, Pearson correlation coefficients revealed that practice of the exercises introduced was associated with increased self-compassion ($r = 0.61$, $p < 0.01$) and decreased self-criticism ($r = -0.49$, $p < 0.05$), even after controlling for pre-intervention values.

Qualitative Analyses

In keeping with Braun and Clarke (2006), all transcripts were inductively coded for meaning and patterns enabling a set of overarching themes to be identified; these were refined into two overarching themes with several subthemes. For the purposes of this paper, only the first theme is explored: "The potentials of using CMT to deal with emotional difficulties" (comprising four sub-themes outlined below). The underlying message from this analysis is that participants encountered a number of different levels of stress, each contributing to their overall experience of work and family life, but that CMT was beneficial in counteracting these stresses. The second theme "Barriers to engaging with CMT" is reflected on elsewhere, although pertinent aspects drawn from this theme are reflected on in the "Discussion" section.

The potentials of using CMT to deal with emotional difficulties

Several participants talked about the conflicts they encountered in their everyday working lives and the benefits they had begun to feel in trying to incorporate the CMT techniques into their day. However, their inclusion was not always straightforward within the busy working day and some participants made suggestions for how they had dealt with this.

Conflict with Colleagues and the Benefits of CMT

Within their written comments, participants reported a range of conflicts with colleagues that were experienced before engaging in the CMT intervention and that contributed to their lack of self-confidence. These included instances of unprofessional behavior (Sandra and Zoe), being blamed for the faults

Table 2 Pre- vs. post-intervention descriptive statistics and effect sizes for measures of compassion, self-criticism, and depression, anxiety, and stress

	Pre-intervention mean (SD)	Post-intervention mean (SD)	Sample size*	Effect size (d)	Sample size needed**
Self-compassion	18.8 (4.4)	19.8 (5.3)	18	0.77	20
FSCRS—inadequate self	13.1 (7.3)	12.5 (8.8)	18	− 0.19	293
FSCRS—reassured self	22.9 (7.1)	19.7 (7.9)	18	0.80	19
FSCRS—hated self	3.9 (7.8)	2.1 (3.6)	18	− 0.53	40
FSCRS—critical self	15.5 (10.5)	14.5 (11.8)	18	− 0.26	158
DASS—anxiety	2.9 (3.9)	3.0 (4.5)	20	0.15	469
DASS—depression	3.6 (4.1)	4.2 (4.6)	20	0.49	46
DASS—stress	6.6 (3.8)	6.5 (4.1)	20	0.02	> 25,000

*2 participants did not complete the OCS and FSCRS (one at each time point). **Sample size needed to detect reported effect size based on a power (1-β) = 0.9 and α = 0.05, two-tailed

of others (Fiona, Sophie, Gemma, and Fatimah), talking behind each other's backs (Gemma) and pressures from other staff members (Mark, Gemma, Carol and Zoe). Sandra outlined the impact of staff conflicts on her emotional wellbeing:

> Continuous suspicion about who has been talking about me and what others think based on false knowledge. Feel insecure and isolated. Constantly feeling under threat and criticized means I have lost confidence in myself. I have high anxiety and find it difficult to experience joy. (Written Comment (WC))
> Difficult to remain professional and supportive. I have to refer them to [a colleague]. (WC)

Emphasizing the continuous nature of this conflict Sandra highlighted the difficulties she felt in being supportive towards her colleagues, particularly detailing specific emotional effects of insecurity, isolation and feeling criticized. This resulted in a lack of confidence that affected her ability to carry out her duties as fully as expected. Gemma also mentioned the impact of staff conflict on her emotional wellbeing:

> There is often bitchiness/back stabbing/blame culture – all day, every day because people are afraid of making mistakes and being punished/exposed publicly… I am afraid of showing/speaking openly with many people/

management as I feel I will be judged, looked down on and that it would not stay private and other people will end up talking about it/me which has happened before. (WC)

Emphasizing the "*blame culture*" in the school Gemma reported being afraid to speak openly which in turn hampered her ability to perform her role successfully. Similarly to Sandra, Gemma felt that things she might talk about would not be kept confidential. The reported lack of trust in their colleagues by the majority of participants undermined their performance within the school.

Participants reflected on noticeable changes following the intervention. For example, Dan reported his ongoing relationships with others and how CMT helped him develop a compassionate approach that allowed him to be "able to respond to clients/children's distress efficiently" (WC). Similarly, Hannah mentioned positive effects of CMT:

> I am able to respond to support from colleagues openly and thoughtfully and am more able to reflect and meditate afterwards. I am more confident in seeking support from one colleague in particular in understanding a difficult family situation and exploring ideas for my effective response to it. I feel more able to express my emotions with colleagues yet I feel more in control of the issues and experiences which drive these… I find that I

Table 3 Pre- (time 1; time 2) and post-intervention (time 3) means ± S.D. for emotional burnout subscales

	Depersonalization	Accomplishment*	Exhaustion*
Time 1	4.30 ± 0.97 (n = 20)	36.94 ± 1.67 (n = 17)	26.25 ± 2.37 (n = 20)
Time 2	3.60 ± 1.08 (n = 20)	40.47 ± 1.025 (n = 17)	23.15 ± 2.79 (n = 20)
	Depersonalization	Accomplishment	Exhaustion
Time 2	5.21 ± 1.26 (n = 19)	37.47 ± 1.61 (n = 19)	22.21 ± 2.68 (n = 19)
Time 3	5.53 ± 1.45 (n = 19)	37.21 ± 1.40 (n = 19)	24.05 ± 2.55 (n = 19)

*Results significant at $p < 0.05$

am able to listen to and support others more effectively and that I respond more positively in enablement in my support of colleagues and students. (WC)

Both Dan and Hannah reported a change post-intervention, with Hannah reflecting on her growing confidence in approaching others for help, alongside acknowledging her own, and others, emotions. For her, CMT resulted in more positive relationships with colleagues and students. This development of compassion towards others was also discussed in the focus group where Jane reflected on conversations with colleagues who showed little compassion towards others in the team:

Sometimes teachers say "why they don't just pull themselves together?" And I say, if you were in their place you would be off sick for six months, we would be bringing you flowers. (Focus Group (FG))

She illustrates the type of conversation she might find herself part of; however, she then continues to include herself as someone who finds it difficult to be compassionate indicating she is perhaps as much at fault as others. At other times suggestions were made which would enhance compassion within the team. On integrating CMT into the working day, Harry said:

I think that in this school we could suggest an optional five minutes at the beginning of the session, because I think (a) it will help people clear their heads, get them more focused on themselves, and it will make the sessions more meaningful. (FG)

Harry's suggestion of practicing CMT techniques in the beginning of morning meetings echoed others from the focus group and written comments.

In sum, many of the staff reported difficulties with colleagues which undermined their confidence in themselves and their ability to carry out their roles within the school. For some of them, there was a notable shift as they began to incorporate the CMT techniques into their working lives. This conflict was also evident in comments focusing on their students as discussed in the next sub-theme.

Coping with students' behavior

Participants described an intensity of negative emotions as a result of coping with the challenging behaviors displayed by students, predominantly involving verbal and physical abuse. Dom reported the constant verbal abuse he received from one student in particular:

The pupil would try to run around constantly and also be verbally abusive to me every second of the day. This

didn't affect me really I shrugged it off but sometimes it would make me feel self-conscious. (WC)

Denying a substantial effect on his wellbeing, Dom suggested that the behavior of the student was generally "*shrugged*" off. The minimized effect (making him "*feel self-conscious*") was negative despite his denials. In addition to the emotional repercussions that resulted from students' challenging behaviors, incidents of physical abuse were also recalled by several participants. Hannah wrote:

I have encountered a particularly distressing incident of physical abuse from a student which has left a permanent flesh scar. I have been trying to manage many negative emotions resulting from this trauma. I feel disgust, self-criticism, anger and frustration. (WC)

Hannah included this event at three points in her questionnaire responses, thus foregrounding its effect on her overall perception of her experience at work. It was a major negative event in her life that had a "traumatic effect" (WC) on her emotional wellbeing. She recalled a number of negative emotions in response to this incident, internalizing its effects, and was not alone in reacting negatively to physically violent incidents involving students. Sandy shared a similar experience of an "incident that saw a youngster lashing out in frustration" (WC) which was directed towards her. Events involving physical abuse had a wider impact, too, such as reported by Felicity:

Although I have not been involved personally in any violent/aggressive incidents with students, when these occur they affect the whole staff team and the general atmosphere. I absorb much of these stories and this is concerning to me. (WC)

Although Felicity did not explain what it was that she absorbed from the stories she heard, the implication was that the effects were largely negative and affected not only the individuals themselves but also the "*atmosphere*" within which they worked. She reported her concern, recognizing the way that these aggressive outbursts very subtly permeated the working day, even for those not directly involved. Jane also referred to physical abuse being a dominant concern for staff members:

If you are somebody who is anxious about receiving harm from the role, which I think is very prevalent at the moment these can be self-protective strategies too. These can be used to sort of galvanize our own resilience. They can allow us to look inwardly. Helping to make ourselves become stronger, help to repel harm, deal with it, transfer it, whatever. So we're having the threat system activated but we have to transfer that into

something that is more useful and nurturing in our selves. So, it can be that as, well-protection. (FG)

Referring explicitly to the learning she gained from the psychoeducation aspects of the CMT, Jane discussed the ways that self-protective strategies could be used to help deal with the negative emotional impacts of physical abuse transferring emotions into something more nurturing.

The psychoeducation aspect of the CMT also helped other staff members to understand the reasons behind students' negative behaviors. Sam wrote:

Remembering that most of our students' communication, verbal and non-verbal, are rooted in the threat system, allows for compassion more readily." (WC)

Sam mentioned how CMT helped him to be more compassionate towards the students, because it helped him to understand why they behave negatively. His reference again to the "*threat system*," a key element considered within this approach, demonstrates his engagement with the techniques and theoretical background of CMT.

Participants who engaged regularly with the techniques began to identify situations where their knowledge could be applied more widely, demonstrating their effectiveness within the school setting; however, the negative emotions reported highlight the challenging nature of their roles.

The Role of Self-Compassion

Participants captured the complexities of the school environment in both their written comments and the focus group discussion. Reflecting on the impact of their emotionally demanding roles they highlighted the necessity and difficulties of being compassionate to themselves. Dan recalled feeling "*drained*" because of the "nature of the job and seriousness of case load" (WC). Sandy also focused attention on the emotional demand of working in school:

Due to the high level of empathy required in the job, results can sometimes have quite a large effect on my mood and it can sometimes take quite a bit of time and effort to rebalance myself. (WC)

Reflecting on the consequences that providing constant support in her job had on her own emotional wellbeing, Sandy cited the effects on her mood and the activity needed to regulate it. Recognition of their own emotional state is important when working in such a demanding environment and discussion in the focus group elaborated on how the CMT training helped participants to understand the importance of paying attention to this. Jane said:

If you had a broken leg or a broken arm you would have to accept that you could not use it, you have to let it heal. You can see it, it would be there in plaster and you would have to wait for it to heal." (FG)

Using a recognizable analogy—observable physical rather than hidden emotional effects—Jane discussed how the CMT helped her to understand why she should look after her emotions; referring to the psychoeducation aspects of CMT she highlighted the necessity to "soothe" them.

Participants also described the "guilt" that they felt in looking after their emotional needs, which CMT helped to take away. Sophie, talked about her role in "giving support and giving behavior management, give, give, give and not to ourselves" (FG) also saying:

I can really understand more now than I have ever had the chance, or given myself the chance to work out, that unless I do address my own needs, and value, have compassion for them, then I won't be effective in supporting other people anyway." (FG)

She found the concept of self-compassion particularly useful: it gave her the chance to concentrate on herself for a while. She focused on the importance of self-compassion in making her more effective in her role as a teacher. Similarly, Ronald shared how self-compassion helped him:

My approach has always been man up, get on with it, don't spend time on yourself, stop whinging, you know when something is wrong, get on with it and I wouldn't have engaged with it. (FG)

Ronald also cited feeling guilty in focusing on his emotional well-being—his typical approach would be to just "*get on*"; however, he found CMT particularly helpful in changing his usual manner, giving him a chance to focus on his own emotional well-being.

Other staff members engaged with self-compassion in different ways. Fatimah reflected on how CMT helped her to intuitively "cut myself some slack" (WC). Dan engaged with several aspects of self-compassion to improve his emotional wellbeing. He shared the following experience.

CMT exercises enhance my well-being by enabling me to engage with self-dialogue that is far more supportive and encouraging (both in terms of tone and content). They help me to **feel** good about myself (the majority of the time). Particularly like reflecting on the compassionate other in a safe place and using that other to help remind me of my natural character strengths. (WC)

Dan underlined and emphasized the word "feel" in his comment, indicating the importance he placed on CMT practices to make him feel good about himself. Feelings, especially negative, were also discussed in relation to their effects on participants' personal lives.

Difficulty in disengaging from the school role

Throughout the written comments participants emphasized their struggle to balance home and work life because of their high workload. Reports of working late evenings, weekends and holidays were common and disengagement seemed extremely difficult. Zoe, who often continued her work during evenings and school holidays reported feeling "mentally, physically and emotionally drained." Similarly, Sandra, whose workload also spilled into evenings, mornings and weekends, found it extremely difficult to switch off at home, reflecting "I end up burnt out and never present at home, merely thinking about 'what's next' and 'what I have to do'" further explaining: "[I] find it difficult to start tasks because I feel so overwhelmed." The repercussions of the constant demands of the role both within and outside of the working context and hours meant that Sandra, along with others, felt there was no space to properly finish anything.

The unpredictable nature of the demands, along with their incessant inevitability was also referred to by Carol for whom the emotional demands of work made it difficult to set up and maintain any distance from it:

At times the intense nature of my role creates a great deal of demand of time and above all my mental and emotional wellbeing. As a result, I have found to disengage from work on returning home (if something has encountered in my personal life that is challenging) I have found the separation more difficult to adhere. (WC)

Echoing comments from others, Carol referred to the intensity of her role. Unlike others, she had made some attempt to try to separate the two aspects; however, if something difficult occurred in her personal life the impact of work was felt more keenly and hampered her ability to adhere to this separation. Following introduction of the CMT intervention, however, Carol stated she had "taken time to do some basic CMT-type personal imagery, breathing" (WC) to help her disengage from school.

It seemed that the emotional challenges presented by their school roles were not limited to participants' waking lives and both Naomi and Gemma reported having dreamt about work-related stresses. Gemma reported how work-related problems affected her at home:

I dream about work every night and wake up in a panic that I have forgotten something that would affect me the

next day. We joke about alcohol at work but it is really my coping mechanism to relax and forget about work. I am very snappy and judgmental and frustrated when I get home after work which has affected relationships/friendships a lot. (WC)

Referring to her dreams about work, Gemma outlined the impact her work had on her ability to cope with difficulties in her personal relationships and reported using alcohol as a means of coping with the pressures. It seemed, however, that forgetting was impossible and merely delayed the inevitable stress which then occurred at a different time, in this case in her dreams.

Several staff members reported using the CMT exercises to help them disconnect from their school stresses. Hannah found the breathing exercises "very valuable in returning to myself at the end of each day" (WC) while Dan wrote about the way he had used CMT to disconnect from specific events:

At times some critical incidents still ruminate in my mind, this is particularly true with some of the children that talk about suicidal feelings. To cope I ensure I have followed the safeguarding policy carefully. I then often engage in exercise or a mini rest. I do also engage in simple CMT imagery exercises. (WC)

In relation to his ruminative thoughts, Dan found that the CMT imagery exercises were useful to add to his existing portfolio of tools. He made use of the standard safeguarding policy as well as other, more personal strategies, and found that imagery fitted into this package. In contrast to Dan and others who incorporated the CMT exercises into their own practice, Mandy took the compassionate exercises a step further: in the focus group she discussed using CMT to help other staff: "I used the breathing, and a little bit of the visualization and sold it as a way to draw a line under the day rather than to try to get them more involved." (FG)

Within the focus group some discussion focused on the benefits of practicing CMT at the end of school meetings, when staff are "absolutely fraught by the end of the day" to help them disconnect from school. Participants felt this would allow staff "to recognize at the end of the day we need to focus on ourselves and come back to ourselves from all the giving, giving physically and emotionally."

Jane summarized the benefits of CMT for staff members:

I am looking at people's body language and it's screaming. I see a lot of very wired, depleted people, who have given everything that they can and what they need at that point is a big hug. (FG)

The recognition of the impact that CMT might have on the staff team was reflected by many of the participants. Their

inability, much of the time, to separate themselves from their work meant their emotional distress was often taken into their homes and personal lives. The written and verbal qualitative elements demonstrated agreement that the CMT interventions and techniques provided them much benefit. However, this was not easy, and they were met with challenges in being able to fully implement CMT in the way they felt would be most beneficial for their wellbeing.

Discussion

The purpose of the present research was to investigate effects of CMT in a school setting. We developed and delivered a six-session intervention that captured the essential aspects of CMT training using a mixed-methods approach to evaluate its effectiveness in terms of implementation and potential impact. We adopted a whole-school approach working with all staff within a school specializing in educating 11–18-year-old children/adolescents excluded from mainstream education. Many of the staff (circa 43%) participated in the evaluation of the intervention and a fair number of them reported practicing the exercises.

Results demonstrated that, generally, implementation effectiveness was met. For example, the materials and interactivity of the six-session CMT initiative were well received and the majority of staff reported that they would recommend the training to others. In terms of impact, quantitative data revealed that those who practiced the CMT exercises demonstrated significant increases in self-compassion and significant decreases in self-criticism. Qualitative exploration of written comments and focus group contributions revealed a similar pattern with staff indicating satisfaction with the CMT activities despite finding it difficult to sustain their implementation within the normal school day. The qualitative findings therefore provide a supplementary source of support for our evaluation of the intervention. These results will now be discussed in more detail, in turn.

After each session we explored implementation of the initiative using a brief single-sided form. This form explored staff perceptions of the content of the CMT in relation to material presented, pace of delivery, actual practice exercises, interaction, interest, and motivation, as well as the recommendation of the training to others. The majority of staff (i.e., over 90% of the 23–38 who completed this form on a session by session basis) found the core curriculum and delivery pace acceptable. In addition, over three quarters suggested that they would recommend the training to others, found the actual practices acceptable and were motivated to attend. The latter is noteworthy given the enforced nature of this specific intervention. Taken together, this demonstrates high-quality implementation was achieved. Thus, from this feedback, we tentatively suggest CMT interventions are feasible in school

settings. Indeed, in this specific case, the intervention was well received by participating staff, which is an essential condition of effective social and emotional learning programs (Wilde et al. 2019). This potential utility of CMT outside of clinical settings is consistent with research in other stressful employment settings where compassion-focused interventions are beginning to engender more wide-spread support (e.g. Beaumont and Martin 2016; Beaumont et al. 2016).

In relation to indicators of well-being, we found no significant pre- vs. post-intervention changes in well-being as a consequence of the CMT intervention, although changes in some measures (self-compassion and reassured-self) were large (Cohen 1988). Moreover, sample size calculations indicated that for some measures, in particular self-compassion and depression, fewer than 50 participants would be required to detect the effects we reported in a future study assuming a power of .9 and alpha level of .05. However, when we analyzed change in well-being associated with CMT practice, we did observe significant changes in self-compassion and self-criticism. To expand, the more often participants practiced the exercises and engaged with compassion practice outside of the sessions, the greater the increase in their self-compassion post intervention, and the greater the decrease in their self-criticism over the same period. These findings are notable as self-criticism is a major source of vulnerability to psychopathology (Kannan and Levitt 2013; Zuroff et al. 2005) and self-compassion has previously been found to exhibit a range of beneficial mental (e.g. Kirby et al. 2017) and physiological (e.g. Matos et al. 2017) well-being effects. With 60% of teachers reporting that working in education had adversely affected their mental health within the prior 12 months (NASUWT 2016), and 67% describing themselves as stressed by their work (ESP 2018), our results suggest that compassion-based interventions could prove useful in providing some relief from these negative well-being factors teachers experience. Thus, we suggest utilizing CMT to improve staff well-being in school settings now needs further examination.

The findings from the quantitative research were supported via our qualitative data, generated through three open-ended questions and a focus group of six school staff. Here, thematic analysis revealed two themes, one of which "*The potentials of using CMT to deal with emotional difficulties*" is discussed in depth in this paper. Within their written contributions and their focus group discussion, school staff focused on various negative aspects of their working lives. In a school such as the one included here, coping with students' aggressive, and sometimes violent, behavior is to be expected; however, conflict with colleagues was also reported as contributing to negative work experiences and as having a detrimental impact on overall staff well-being. The highly stressful environment in which staff reported they were working was indicated in both written comments and the focus group to have negatively affected relationships within the staff team, as well as between staff
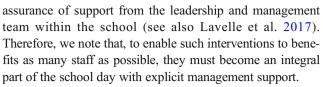
and students. Some participants internalized the effects of this, reporting a number of negative emotions including feeling self-critical. Their reflections on the different stressors encountered across their very busy working week conceptualized the guarded positivity with which they discussed the different CMT activities.

All staff who engaged with the open-ended questions or the focus group acknowledged the benefits of the majority of CMT activities and practices, and relayed instances in which they had been able to implement some of the aspects they had learnt, thus supporting our quantitative findings. However, though they reported seeing and feeling the benefits of the CMT activities, the analyses revealed that they found it difficult to integrate practices into their working lives. They also voiced some initial doubt about the benefits they might derive from being self-compassionate, particularly as they felt overall that they should be able to cope with the challenges of their roles. For some, taking explicit steps to consider themselves and their own well-being seemed to be seen as a sign of weakness. It became clear, however, that for those participants engaging in self-compassionate exercises/practices, there were many benefits. Some perceived a positive effect on their lives outside school: self-compassion and the CMT exercises helped them to turn their attention away from incidents at school and engage more positively with their families, thus potentially improving their overall wellbeing. In sum, as the first study attempting to investigate the application of CMT in a school setting, results appear promising.

Limitations and Future Research

As this was a feasibility study that examined whether CMT would be acceptable to teachers, no control group was recruited. Accordingly, despite employing an AAB design, changes in well-being we observed may have resulted from changes within the school year, placebo effects and/or a Hawthorn effect or other unmeasured variables. Thus, future studies should employ a suitable control group in order to establish causality. Taking a mixed-methods approach provided us with a range of information relating to the appropriateness of the intervention; however, we suggest that future studies should aim to engage more staff in the focus group element of the research in order to supplement the in-depth understanding of the impact of the intervention.

Moreover, it should be acknowledged that the second theme of our qualitative analyses (to be reported elsewhere), revealed a number of inhibitors to engaging with CMT, located at both the individual level (in relation to the perceived negative attitudes of some of the school staff towards the intervention), and the structural level (in relation to the incessant demands of the school day). Staff felt that to derive the most benefit from the intervention they would also need

assurance of support from the leadership and management team within the school (see also Lavelle et al. 2017). Therefore, we note that, to enable such interventions to benefits as many staff as possible, they must become an integral part of the school day with explicit management support.

Finally, analyses of the implementation data revealed that for session six, reports of interest held and motivation to attend were low as compared to all previous sessions. Notably, for this session, 10% of staff further reported material covered was "too little." On reflection, therefore, our recap of the program may have been a little too repetitive and, at this stage in the initiative, the focus on fears, blocks, and resistances to compassion/compassion-based practices a little too late in the curriculum. This is something that should be addressed in future iterations of the initiative (i.e. content revision).

Author Contributions FM designed and executed the study, oversaw both the CMT intervention and quantitative data collection/analyses, and wrote the paper. JM and HA conducted qualitative data collection/analyses and contributed to the writing of the paper. PG and MW wrote intervention session materials, conducted the intervention, and contributed to the writing of the paper. CB contributed to study design, oversaw aspects of the intervention conduction, and contributed to the writing of the paper. DS contributed to study design, conducted quantitative data analyses, and contributed to the writing of the paper. WW conducted the intervention and contributed to the writing of the paper. All authors approved the final version of the manuscript for submission.

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