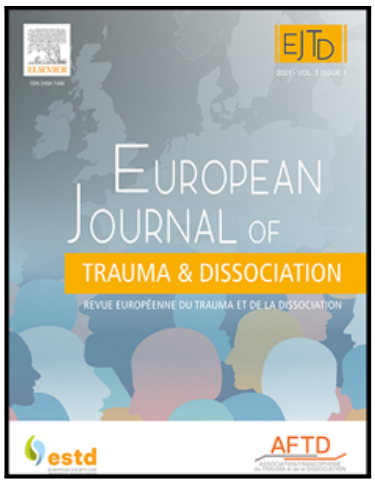

Combining mindfulness and compassion in the treatment of complex trauma – a theoretical exploration

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Combining mindfulness and compassion in the treatment of complex trauma – a theoretical exploration.

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Abstract

Trauma exposure is widespread in the general population. Despite the proposal that mindfulness practice could be beneficial for treating persons exposed to traumatic events who go on to develop PTSD and/or correlates of past trauma, there are very few mindfulness-skills programs that directly target trauma survivors. This paper seeks to use existing empirical research and theory to explore the potential and challenges of using mindfulness-based interventions to treat trauma-related problems. Through the lens of the group program, *Mindfulness and Compassion: the path to growth after trauma* (TMC), we explore the potential of integrating trauma-sensitive mindfulness explicitly with compassion training for trauma survivors. This paper seeks to contribute to development of psychological treatment by the methods of mindfulness and compassion training and how they may be used as a complementary or a stand-alone treatment option in phase-based treatment for complex PTSD.

Keywords: PTSD; complex trauma; mindfulness; compassion

Introduction

Exposure to potentially traumatic events (PTE) is pervasive across societies and is a major public-health issue worldwide (Magruder et al., 2017; Boyd et al., 2018). As many as 70.4% of the population has experienced one or more PTEs during their lifespan (Kessler et al., 2017), and such exposure is associated with an increased risk for a range of somatic and mental-health problems, as well as risky behavior and premature death (Felitti et al., 1998). Research shows that such exposure is associated with a high risk for Post-Traumatic Stress Disorder (PTSD), characterized by re-experiencing, avoidance, and hypervigilance (Kessler et al., 2017; WHO, 2018), as well as a broader range of problems. Trauma-related disorders cause significant impairments in personal, family, social, educational, occupational, and other areas of functioning (WHO, 2018). About 30% of individuals exposed to PTEs develop trauma-specific symptoms, like PTSD (National Institute Clinical Excellence, 2005), with a substantial subset (15-30%) of individuals with PTSD also suffering from symptoms of dissociation, such as depersonalization and derealization (Boyd et al., 2018). Yet many trauma survivors are resilient and do not develop mental-health problems (Kelly, 2015). The type of trauma exposure partially determines the range of problems experienced in the aftermath of the trauma (Felitti & Anda, 2010; Herman, 1992a, 1992b, Spinazzola et al., 2018).

The prevalence and consequences of trauma exposure is making it a major public-health service concern, and many trauma survivors seek help from healthcare providers, whether or not trauma is the identified reason for referral (Noel et al., 2012). There is a compelling need for more research on treatment options (Hilton et al., 2016). More than a decade ago, it was proposed that mindfulness practices could be beneficial in the treatment of persons exposed to traumatic events who develop PTSD and/or related consequences of trauma (Follette et al., 2006). The theoretical rationale for mindfulness that it modifies pathological processes that maintain trauma-related symptomatology and increasingly supported by research (Banks et, al, 2015; Boyd et al, 2018), highlights the need to understand the potential of adapting this approach to populations exposed to traumatic stressors (Smith et al., 2011)

This theoretical paper seeks to use existing empirical research and theory to explore the potential and challenges of using established mindfulness-based interventions, including the principles of trauma-sensitive mindfulness, to treat problems following exposure to complex trauma. The potential of an explicit combination of trauma-sensitive mindfulness and compassion when treating trauma survivors is then explored using the group program *Mindfulness and Compassion: the path to growth after trauma* (TMC; Salvesen & Wästlund, 2015) as an example. The group program is an example of a relatively new approach to mindfulness meditation combined with an explicit focus on compassion training, which consists of exercises particularity adapted and developed for trauma survivors. The program is embedded in a trauma-informed framework based on modern trauma theory, with a specific focus on neurophysiology combined with elements of phase-based complex-trauma treatment.

Complex trauma: what is it and what should be treated?

Childhood experiences, both positive and negative, have a great impact on lifelong mental and physical health. Interpersonal trauma and particular early, repeated interpersonal trauma (i.e. complex trauma) have severe and wide-ranging adverse effects on children's psychosocial functioning and neurodevelopment. When exposed to complex trauma, children are entrapped in situations where their resources are exceeded, with their life or bodily integrity and support system being threatened over an extended period (Spinazzola et al., 2018; WHO, 2018). The Adverse Childhood Experiences Study (ACE) found that the negative health consequences of interpersonal trauma exposure equal the cumulative effect of four other PTEs (Felitti et al., 1998; Felitti & Anda, 2010). To mirror the range of problems often developing following such exposure, including problems with emotion regulation, relationships, and self-image, Judith Herman proposed the diagnosis of Complex Post Traumatic Stress Disorder (c-PTSD) in 1992 (Herman, 1992a, 1992b), and the diagnosis was formally included in the ICD-11 in 2018 (WHO, 2018).

How, then, do researchers, clinicians and theorists understand the differentiated impact of different types of trauma exposure, and why is early, complex trauma so toxic? Attachment theory (Bowlby, 1969, 1973, 1980) proposes that children develop mental representations based on the quality of their

infant-caregiver interactions, which result in mental working models that organize cognitions, emotions, and behaviors in later relationships. These representations have an effect on self-worth and others' reactions to the self. Complex childhood trauma and attachment issues (e.g., insecure, fearful, avoidant, and unresolved attachment styles) can negatively affect the development of compassion and empathy and lead to poor interpersonal functioning, particularly problems with close relationships (O'Connor et al., 2018; Lord, 2013). This point to the potential of self-compassion focus in trauma treatment. Moreover, trauma survivors often have a high degree of avoidance of and limited awareness and contact with their inner experiences, as these are often overwhelming. As a result, trauma survivors often alternate between feeling too little (detached) and being overwhelmed (re-experiencing), with limited resources and strategies available to regulate arousal. This point to the potential in increased awareness of and contact with inner experiences for trauma survivors, where mindfulness can be one potential gateway to achieve this.

The expression of regulation difficulties is thought to be the consequence of a sensitized alarm system in combination with a weakened regulation system due to few experiences of successful regulation, resulting in a narrow window of tolerance (Herman, 1992b; Ogden et al., 2006; van der Hart et al., 2006). The polyvagal theory proposes that the human nervous system consists of three neural circuits associated with a distinct autonomic subsystem in an organized hierarchy and is phylogenetically ordered. The newest – the social engagement system — is the first line of defense in threatening situations and is linked to the social vagus suppressing sympaticus activation. It requires a sense of safety in order to be activated and is behaviorally linked to social communication. If the situation cannot be solved socially, the second line of defense - sympaticus activation (i.e., flight/fight and freeze/submission) – is activated. If resources are depleted or this line of defense fails, the last line of defense - parasympaticus activation (immobilization with vasovagal syncope and behavioral shutdown) – is engaged (Porges, 2007; 2009). When exposed to repeated experiences of being trapped in situations that cannot be solved or controlled (i.e. complex trauma), the defense system can be conditioned into automatic responses to danger, where a sensitized alarm system triggers the defense system, which skips the sequential engagement of systems described by Porges (2007), go straight to

the response being most successful in reducing danger in the past (i.e. submission; van der Hart et al., 2006; Ogden et al., 2006).

A substantial subset of individuals with PTSD/c- PTSD also suffer from symptoms of dissociation, characterized by depersonalization and derealization (Boyd et al., 2018; van der Hart et al., 2006), where the fragmentation of memories and experiences interfere with the ability to reliably access experiences and memories and staying present. Increasing the ability to stay with moment-to moment experiences is therefore seen as an antidote to dissociation – pointing to the potential of mindfulness within the field of trauma treatment (Zerubavel & Messman-Moore, 2013). It has also been proposed that there is a continuum of dissociative symptoms, with opposite poles ranging from dissociation and disconnection to openness and a sense of connectedness with the self and others (Corrigan, 2002; Boyd et al., 2018). Dissociation is thought to develop to avoid unacceptable, overwhelming emotions and knowledge that threaten the psychological and/or physical survival of the person and may become habitual or chronic (Zerubaval & Messman-Moore, 2013; Herman, 1992b). By targeting aversive internal experiences and absorption and compartmentalization, mindfulness may enable the development of volitional processes that enhance psychological safety, as opposed to the involuntary nature of dissociation (Zerubavel & Messman-More, 2013; Boyd et al., 2018); it may also be integral for facilitating the reintegration of somatosensory and emotional awareness of the self (Frewen & Lanius, 2015). Developing awareness through mindfulness practice is thought to enhance the ability to respond mindfully to the experiences of daily life, providing an alternative to intervene in situations where dissociation occurs (Sharma et al., 2016).

One objective of trauma therapy is to facilitate the reconnection and reorganization of feelings, thoughts, and body sensations (Ogden et al., 2006; Gilbert & Choden, 2013), including trauma-based dissociation (van der Hart et al., 2017). Therefore, effective complex trauma therapy should be both "bottom up" and "top down." This entails physiological (i.e., somatic), affective and cognitive (Ogden et al., 2006; van der Kolk, 2014; Fosha, 2003), and integration of these three levels of processing is essential for trauma recovery (Ogden & Minton, 2000). Existential approaches and aspects of common

humanity - such as change, uncertainty, death, and existential anxiety, as a given of existence - may be of great assistance for trauma survivors on determining how life and pain is interpreted and experienced (Briere, 2015; Harris, 2013). In addition, the interpersonal context needs to be healed as dissociation and c-PTSD after interpersonal traumatization mainly is a consequence of interpersonal experiences (Liotti, 2013).

Mindfulness and Compassion in modern psychology: potential and challenges

Eastern influences and contemplative practices are not new in psychology, originating with William James' phenomenology of "pure experience" (Holder, 2013). Since then, scientific writers from a broad range of approaches to clinical psychology, including psychoanalysis, cognitive behavioral therapy, and humanistic approaches have addressed aspects of Buddhist psychology (Grepmair et al., 2006). Mindfulness, in modern psychology is an "umbrella" term with no broad agreement to the aspects underpinning the definition whether referring to psychological states, traits or practices (Van Dam et al., 2017), although the definition by Kabat-Zinn (2003) "the awareness that emerges through paying attention on purpose, in the present moment" is widely used in the literature. In a non-formal sense, mindfulness practice can be cultivated through different daily activities, by being present with thoughts, feelings, and body sensations connected to the present moment (Hahn, 1991). Movement meditation consists of breathing and physical poses, e.g., yoga, tai chi and qi gong, and are further techniques that emphasize attention to emotional and physical stimuli (Hilton et al., 2016). Mindfulness meditation includes 'focused attention', 'attention on an object', and 'open monitoring' (Hilton et al., 2016; Lutz et al., 2008). Focused attention/concentration meditation, typically the breath, is directed toward present moment awareness in order to avoid or having a choice regarding reacting to stressful stimuli and/or rumination, while loving-kindness meditation, in addition to increase concentration, is intended to foster acceptance directed toward oneself and others (Brewer et al., 2011). Open monitoring/choiceless awareness is bringing mindfulness to all aspects of experience by directing attentions to whatever rising and leaving in conscious field of awareness (Brewer et al., 2011; Hilton et al., 2016).

Mindfulness training teaches perceptual decoupling, the capacity to disengage attention from perception, and meta-awareness, the ability to take explicit note of the current contents of consciousness (Schooler et al. 2011; Dunne et al., 2019). Mind wandering is most pronounced when one lacks meta-awareness (Christoff et al., 2009) and the mind is only intermittently aware of engaging in mind wandering (Brewer et al., 2011). The neural mechanisms underlying mindfulness training are associated with differential activation and connectivity of the default-mode network. The default mode network (DMN) is normally active during rest and is implicated in rumination and perceived unhappiness play a role with increased default-mode functional connectivity during rest (Luo et al., 2015). Mindfulness meditation cultivates insight into the nature of one's personal condition and the nature of mental reality (Diadonna, 2009), which involves a fluid regulation of attention and the capacity to rest in awareness that stabilizes the mind (Malinowski, 2013). Through a combination of meta-awareness and focused attention, psychological phenomena can be investigated and processed more fully, and thereby better regulated and transcended – a process that is sometimes referred to as "integrated wise attention" (Brown & Cordon, 2009). From this perspective, moment-to-moment awareness - the antidote of dissociation - is the subjective experience of training the basic capacities of consciousness, a phenomenon that has received relatively little attention in psychological scholarship (Brown & Cordon, 2009).

Compassion is a psychological construct obtained from Buddhist contemplative psychology defined as 'openness to suffering with the desire to relieve it' (Dalai Lama, 1995) while self-compassion is derived from loving-kindness meditation in Buddhism, which directs people to have compassion toward all living beings, including oneself (Zeng, Weil & Liu, 2016). Self-compassion has more recently been adopted as a construct in modern psychological treatment (Germer & Neff, 2015). Whereas mindfulness focuses on acceptance in moment-to-moment contemplative experience, self-compassion broadens the experience to include acceptance of the personal and shared human condition in the face of sorrow and pain. The impact of self-compassion on mental health has received increasing attention the past decade. MacBeth & Gumley (2012) carried out a meta-analysis on self-compassion and found a large effect size for the relationship between compassion and

psychopathology, with higher levels of compassion being associated with lower levels of mental health symptoms. A meta-analysis of compassion-based interventions (Kirby et al, 2017) highlighted that the current state of evidence highlights the potential benefits of compassion-based interventions on a range of outcomes, but called for improved methodological rigor, larger scale RCTs and increased specificity on the targets of compassion. Another meta-analysis (Wilson et al., 2019), found that self-compassion-related interventions had moderate effects on self-compassion, depression and anxiety outcomes across 22 RCTs.

Mindfulness-based interventions (MBIs), which are widely studied approaches to meditation (Cebolla et al., 2017), have also increasingly been prescribed as treatments for a variety of psychological illnesses and disorders (e.g., Kabat-Zinn et al., 1985; Segal et al., 2013). Mindfulness has mainly been integrated as a treatment option with empirically based third-wave cognitive behavioral therapies (Baer, 2003), such as Dialectical Behavior Therapy (DBT), Mindfulness-based Cognitive Therapy (MBCT), and Acceptance and Commitment Therapy (ACT), but elements of mindfulness are also combined with body-centered therapies, such as sensorimotor psychotherapy (Ogden et al., 2006). Research has shown potential for mindfulness-based practices in reducing a range of mental health problems (Goldberg et al., 2018; Khoury et al., 2015; Spijkerman et al., 2016; Zoogman et al., 2015). However, recent meta-analysis' have pointed to the potential adverse events experienced by some clients during meditation practices, pointing to the need for a nuanced and humble discourse on the potential of mindfulness-based practices in the treatment of mental health problems (Farias et al., 2020).

Mindfulness- and compassion-based interventions to treat trauma related problems

Currently, different third-wave CBT address various aspects of symptomatology and various treatment needs that are often highly relevant for trauma survivors. Educational and skill training programs such as Mindfulness-based stress reduction (MBSR) and mindfulness-based cognitive therapy (MBCT), emphasizing relatively extensive formal meditation practice, address certain classes of symptomatology associated with exposure to PTE, such as depression and anxiety (Follette et al.,

2006). Acceptance and Commitment therapy (ACT) is used with a variety of diagnoses, but specifically also target core PTSD symptomatology (Orsillo & Batten, 2005) and Dialectical behavioral therapy (DBT), developed for treatment of borderline personality disorder (BPD; Linehan, 1993), often following an etiology of trauma and neglect in the childhood experience (Sabo, 1997). There have also been attempts to adapt current MBSR explicitly to trauma populations and PTSD, for example Trauma-Informed Mindfulness-Based Stress Reduction (TIMBSR; Kelly, 2015). TIMBSR is a trauma-informed framework with a focus on self-regulation and self-containment techniques to counter the neurophysiological and emotional effects of reactivity to past traumatization (Kelly, 2015). Treleaven (2018) has also developed a trauma-informed framework and practice principles for trauma-sensitive mindfulness. Trauma-sensitive mindfulness conceptualizes trauma beyond individual symptomatology and calls for understanding of how social context, privilege, oppression, and power play out in an individual's life. It seeks to understand the social context of the lived experiences of individual and to actively avoid re-traumatization in the treatment context (Treleaven, 2018). Moreover, it is a matter of ethics to provide treatment options that best benefit people and avoid harm (Baer et al., 2019).

Empirical studies on the efficacy of MBI's in treating symptoms of traumatic stress has given cause for optimism. In a systematic review Banks and colleagues (2015) found that, despite limited research with varying quality, results with regard to MBIs ability to treat PTSD symptoms were encouraging. Particularly regarding the domain of avoidance results were promising, with participants reporting only limited adverse effects. Moreover, they found no significant differences in the effectiveness of mindfulness interventions with respect to type of trauma exposure. Other reviews that have examined meditation interventions to treat trauma-related difficulties have also reported promising results but have not been able to establish the efficacy of meditation for treating PTSD, possibly because of the wide variations in study design and quality (Hilton et al., 2016; Lang et al., 2012; Vujanovic et al., 2013; Kim et al., 2013; Wahbeh et al., 2014). A more recent review by Boyd and colleagues (2018) reported significant improvements in PTSD and related symptomatology with low dropout rates, which indicates the acceptability of mindfulness-based treatments. Most studies did not report on

changes in specific PTSD symptoms domains, but those that did pointed to reductions in re-experiencing, avoidance, numbing and hyperarousal (Hilton et al., 2016; Boyd et al., 2018).

The majority of research on MBI's in trauma treatment report on treatment of veterans with war-related trauma. Given the broader range of problems often developing following exposure to complex trauma (Herman, 1992a; WHO, 2018), these results cannot automatically be generalized to survivors of interpersonal trauma. Although scarcer there are some studies reporting on MBIs and interpersonal trauma. Goldsmith and colleagues (2014) found that MBSR significantly increases acceptance and decreases shame-based trauma appraisals among survivors of interpersonal abuse, in addition to reducing PTSD symptoms and depression. Kimbrough and colleagues (2010) found reductions in depression and PTSD symptoms, particularly avoidance, among adult survivors of childhood sexual abuse. Gallagos and colleagues (2015) found potential beneficial effects of MBSR on psychological functioning, including decreased depression and posttraumatic stress symptoms among women with histories of interpersonal trauma. Earley and colleagues (2010) found significant reduction in avoidance and numbing, re-experience and hyperarousal symptoms in survivors of childhood sexual abuse. Further, a study by Kelly & Garland (2016) found that female survivors of interpersonal violence significantly decreased PTSD symptoms, depressive symptoms and anxious attachment with Trauma Informed-MBSR treatment.

Despite promising results, critics have recently started to point out the lack of methodological rigor in past studies, which might have led to a possible underestimation of adverse effects in MBI's (Cebolla et al., 2017; Lindahl et al., 2017; Lindahl, 2017). Further, researchers within the field of mindfulness have called for nuanced reflection on the adequacy of current mindfulness-based interventions for trauma survivors (Briere & Scott, 2012). The "U-shaped curve principle" highlights how a range of factors, including dose and conditions of practice, can interact to determine the effect of an intervention (Britton, 2019). For example, the same neurobiological correlates that create mindfulness' detached perspective may simultaneously activate dissociative functions such as out-of-body experiences and depersonalization. Equally, relatively long meditation and/or body scan practice may be indicative and acceptable to those with low body and emotional awareness while the same practice

may trigger flashbacks and anxiety among trauma survivors with high body and emotion awareness (Britton 2019). As contemplative practice may increase trauma symptoms and exposure to traumatic re-experiences, trigger flashbacks and intrusive thoughts and memories (Lustyk et al., 2009; Lindahl, 2017, Frewen & Lanius, 2015), exacerbate trauma-related problems, and/or lead to dissociation (Castillo, 1990), it is necessary to balance and find the optimal level of practice for trauma survivors with different symptoms and challenges. For example, MBI's such as MBSR and MBCT may not necessarily be tailored to the specific treatment needs of all trauma survivors, for example by emphasizing relatively extensive meditation and body scan practices (Briere & Scott, 2012). Frewen and Lanius (2015) called for a cautious approaches based on informed consent, particularly for survivors of physical or sexual abuse, when performing exercises related to the body. Müller-Engelmann and colleagues (2017) addressed the need for psychoeducation, information and flexible adaption regarding the exercises, including shorter duration to reduce the risk of inducing distress for trauma survivors in MBSR.

The finding that mindfulness and compassion interact mutually, that is; compassion training increases mindfulness and mindfulness training increases compassion (Shapiro et al., 2005; Shapiro et al., 2007; Kuyken et al., 2010; Dunn et al., 2012; Germer & Neff, 2012), has sparked discussions on the benefit of a combined focus for trauma survivors. The Mindfulness Self-Compassion Program (MSC; Germer & Neff, 2012) directly focusses on compassion training while compassion is indirectly addressed in most MBI's such as MBSR and MBCT. Several studies show how loving-kindness approaches are beneficial to trauma-related problems and that higher symptom severity is associated with reduced self-compassion (Hiraoka et al., 2015). Studies show that loving-kindness meditation enhance activation of brain areas that are involved in emotional processing and empathy, promote acceptance and psychological flexibility (Frewen et al., 2015; Hinton et al., 2013; Hofman et al., 2011), while increased self-compassion mediate symptoms of shame and guilt, symptoms often present with trauma survivors (Kearney et al., 2013; 2014; Marcela et al, 2017). When combined with empirically supported therapies, compassion and loving-kindness meditation are beneficial and provide useful

strategies for psychological problems that involve interpersonal processes, e.g mitigating relationship conflict (Hofman et al., 2011).

Kearney and colleagues (2013; 2014) found that loving- kindness meditation appeared safe and acceptable for most trauma survivors, although research has shown that trauma survivors often respond with distress and negative affect and feeling unworthy of positive intentions (Marcela et al., 2017; DePierro et al., 2014; Frewen et al., 2012). For example, Frewen and colleagues (2015) found that directing positive affirmation towards self and others appeared distressing, particularly for trauma survivors with high symptom severity, but had the potential to become more accepting of loving kindness practice and change with time and through sustained practice.

The abovementioned research shows how mindfulness can contribute to improvement among trauma survivors, including survivors of interpersonal trauma. At the same time, the literature underlines the need for adaptation of mindfulness practices to ensure that the specific needs of trauma survivors are met. Moreover, the potential of compassion focus in treating trauma survivors, and the interplay between compassion and mindfulness, point to the significance of exploring how the combination of these perspectives can facilitate trauma recovery. This paper seeks to contribute in this direction, by using the program *Mindfulness and Compassion: the path to growth after trauma* (TMC; Salvesen & Wästlund, 2015) as a starting point to explore the potentials and challenges in combining trauma-sensitive mindfulness with an explicit focus on self-compassion in treating complex trauma.

Mindfulness and Compassion: the path to growth after trauma (Salvesen & Wästlund, 2015) – an exploration of potentials and challenges in adopting mindfulness and compassion to treat complex trauma

Given the challenges outlined above, the following sections will use existing research and theory to discuss the potential benefits and challenges in using mindfulness combined with compassion as a gateway to trauma recovery following complex trauma. First, the TMC program will be presented shortly, then the potentials and challenges of mindfulness-based practices in treating symptoms of c-

PTSD will be discussed, and finally, the added potential benefits and challenges of adopting an explicit focus on compassion in treating c-PTSD will be discussed.

Presentation of the TMC program

TMC is embedded in a trauma-informed framework based on modern trauma theory, with a specific focus on neurophysiology combined with elements of phase-based complex-trauma treatment. The program consists of 15 sessions, with an explicit focus on building capacity for moment-to-moment awareness, acceptance, and kindness. The program is organized with an alteration between psychoeducation, reflection, guided exercises, and training between sessions, and stresses the significance of approaching new themes and exercises in the mode of exploration and curiosity. The first 10 sessions emphasize mindfulness training with the gradual introduction to self-compassion exercises, and the last 5 sessions focus on how to build self-compassion and compassion with others (Salvesen & Wästlund, 2015). Table 1 outlines the focus in each of the 15 sessions. Each session has the same structure, starting with a grounding exercise for the participants to tune into the body and present moment and to regain focus, attempting to safeguard the participants' need for regulation support. Participants are then invited into reflection and exchange of experiences with training or discoveries made the past week. The theme of the week is then introduced by the two instructors, and the participants are invited to explore the new theme within the framework of a laboratory to facilitate activation of the exploration system. Participants are then invited to participate in a guided exercise – but with emphasis on the participant's choices and control in how they want to participate in the exercise. The session is ended with suggestions on continued work on the theme of the week and the introduced exercises, including a discussion of common obstacles encountered in working with the theme and the exercises. To support the participants in their training between sessions, audio files with guided exercises are available (Salvesen & Wästlund, 2015).

Place table 1 about here

TMC as a gateway to discuss potentials and challenges of mindfulness-based practices in treating symptoms of c-PTSD

Meditation practices potentially strengthening regulation skills and facilitating integration. Regulation difficulties and alterations in attention and consciousness (dissociation) have been proposed as the key problem areas for conceptualizing the effects of exposure to complex trauma on trauma survivors (see e.g., van der Hart et al., 2006). Historically, the field of trauma has been divided in the view and emphasis of dissociation in trauma treatment. However, over the past years one has seen movements of integration within the field of trauma, with the DSM-5 clearly stating flashbacks and re-experiencing as a dissociative symptom, and the diagnosis of PTSD with prominent dissociative symptoms being added (APA, 2013). Phase-based trauma treatment highlights the need to establish safety and stabilization and increase integrative capacity prior to and parallel with working with and integrating traumatic memories (Herman, 1992b, van der Hart et al., 2006). Mindfulness training is a potential way to stabilize dysregulated arousal and increase the capacity to integrate traumatic memories. For reintegration of traumatic memories to occur, it is vital to be able to maintain dual awareness, i.e., the senses remain within the present simultaneously, while old and fragmented memories are retained for processing and integration (Rothschild, 2000). Working with dual awareness is also important when dealing with dissociative experiences. By learning to balance exteroceptive and interoceptive sensations, one progressively increases the capacity to hold and maintain multiple sensations simultaneously (Treleaven, 2018), a dual awareness is established.

In order to facilitate trauma-sensitive practice, it is necessary to understand the neurobiology underlying common trauma responses, particularly the role of arousal and dysregulated arousal. Trauma survivors experience a number of challenges to developing mindfulness skills, stemming from the primary effect of traumatic stress on the brain and nervous system (Treleaven, 2018). Trauma survivors often alternate between states of hyper- and hypoarousal of the nervous system in their daily lives, which is known as dysregulated arousal. Capacities, such as thinking and emotion regulation, are compromised over time (Layne et al., 2014). Learning to observe, tolerate, and label physical reactions in a state of regulated arousal in the present moment is a prerequisite for safely visiting past

experiences without being dysregulated and overwhelmed. Practitioners, therefore, need to be aware of the regulation problems that occur in the aftermath of trauma, and practice mindfulness in a safe and stabilizing way, keeping 'the window of tolerance' (Siegel, 1999) in mind in order to avoid recreating traumatic states (Van der Kolk, 2014, Treleaven, 2018). However, this also points to the importance of, and potential in, helping trauma survivors strengthening their regulation skills. Practitioners therefore equally need to pay attention to skill building and the building of capacity to stay in touch with inner states without being dysregulated (i.e., integrative capacity; van der Hart et al., 2006; Ogden et al., 2006).

If we return to the TMC -program (Salvesen & Wästlund, 2015), we see that this dual focus is present to a large degree. Sessions are organized to facilitate feelings of safety and control, for example by building all sessions over the same template and framing the new theme and exercises as entering a laboratory, stressing the clients' autonomy and choice in finding their way to enter and utilize the potential resources introduced during the program. Regulation support is also built into the structure of sessions, including the grounding exercise in the start of every session. Moreover, the idea of capacity building and skill building is evident in the gradual succession of themes and exercises, where safety issues and focus on stability are addressed in the early sessions as a foundation for further practice in the intervention. Psychoeducation is also used deliberately to help trauma survivors understand what happens to them and why, thereby empowering them to cope with their symptoms differently. However, the program also has a firm focus on the role of the instructors, and how their understanding and attunement is key to successful processes of change (see table 2). The authors stress the importance of instructors actively performing the mindfulness and compassion exercises themselves to gain better understanding of the inner experience of each exercise. This will help instructors in developing a higher sensitivity to the reactions of participants, including facial expressions, posture, skin color, etc. that can indicate meditation-related adverse effects, including dissociation (Salvesen, 2014; Salvesen & Wästlund, 2015).

Place table 2 about here

Trauma survivors often need the regulation support of interpersonal connection, including the focus of shared attention, during mindfulness meditation practice to regulate arousal (Baldwin, 1995; Treleaven, 2018). Survivors of early complex trauma have often gotten insufficient developmental support to develop effective regulation capacities. They therefore need to get support to build this capacity while simultaneously struggling with dysregulated arousal. That means that both experiences of being abandoned (loss of connectedness) or losing control (instructions experienced as intruding) during exercises can be triggering strong reactions. Trauma is embodied and the body is often the primary source of re-experiencing. This does not mean that a mindful focus on the body cannot be useful and important for trauma survivors. In trauma-sensitive yoga, for example, the first step is to attend to the tolerance of having a body and feeling safe to engage in what is physically possible in the moment (Emmerson & Hopper, 2015). Moreover, trauma survivors may be particularly vulnerable to specific exercises, depending on the type of trauma exposure, and may benefit from specific, individually tailored and supervised instruction (Dutton et al., 2011; Banks et al., 2015). Trauma-sensitive mindfulness highlights the need for being flexible with individual options (Treleaven, 2018).

To safeguard this principle and create room for self-exploration and self-agency in TMC, all instructions are introduced as invitations, and they emphasize the significance of instructors using neutral body language and speech to create opportunity for control while in a state of self-exploration (see table 2). Soft and inviting expressions may lead to retriggering among the group of survivors of complex trauma who have had their intimate boundaries violated, and in some cases need to work on decisiveness (Salvesen, 2014; Salvesen & Wästlund, 2015). Introducing choice helps participants avoid the feeling of being trapped, which characterizes both PTE and trauma-specific symptoms, like c-PTSD. Trauma-sensitive mindfulness thus emphasizes creating space that can facilitate healing and transformation, including respect for personal space. This points to the challenge instructors face in facilitating experiences of connectedness and co-regulation during exercises, while at the same time facilitating the client's experience of agency and control, but also to the potential in these kinds of exercises when instructors succeed in finding this fine balance.

Attentional control and embodied awareness as an antidote to avoidance. Mindfulness training is considered a skill-based approach (Briere & Scott, 2012). Follette and colleagues (2006) discuss the importance of developing psychological flexibility and attentional control rather than being trapped in the loop of dealing with recurring stimuli, avoidance, and suppression. The capacity for dual awareness is strengthened in the process by being able to shift attention away from trauma-related stimuli to the present moment. To balance the effect of encountering traumatic stimuli during practice, it is necessary to learn to shift attention to support stability (Treleaven, 2018). Mindfulness and meditation training increase awareness of internal states and contemplative practice thus increase trauma survivors' access to negative internal states, which may include traumatic memories, negative thoughts, and intense feelings (Briere & Scott, 2012). On one hand, it is necessary to observe and tolerate traumatic stimuli as part of recovery, but on the other hand, too closely attending to such stimuli may intensify trauma symptoms and re-trigger traumatic states (Briere & Scott, 2012). Mindfulness practices need to be balanced while repeating and maintaining a certain level of exposure. In turn, this help participants widen the window of tolerance throughout sustained practice. In the TMC program, this is for example explored through the "90 second rule". The underpinning rationale is that participants have to learn to consolidate stimuli gradually for extended periods, thereby stimulating and strengthening new neurological pathways that may be important in recovering from c-PTSD.

Teaching trauma survivors to recognize and switch between attentional states to increase self-regulating abilities, i.e., regain control over their symptoms, is considered an important aspect of TMC (Salvesen & Wästlund, 2015). Practicing settling skills originating in the body in a safe context is important for regulating arousal (Briere, 2015). Salvesen & Wästlund (2015) emphasize how a focus on the body and traditional mindfulness practices of using the breath as an anchor can be triggering to survivors of complex trauma. TMC therefore adopts a gradual approach towards the body and breath, and stresses the participants' choices in finding their own stabilizing anchors, e.g. body parts, senses, inner images, etc. When approaching breath as a potential resource for embodied awareness, the participants start by observing the wave of the breath, while progressively expanding to different

options of interoceptive and exteroceptive exploration, such as keeping an outward point of attention while breathing. As in cases of body phobia, participants learn to direct attention toward outer edges and limbs, which often entails the least fear, before moving gently towards the whole body. Body scans are first introduced as a "friendly body journey," which focuses on the functions of the body and how it helps people in daily life, rather than focusing directly on the bodily sensations that have thoughts and emotions associated with them. Body scans in TMC are much shorter than in other MBI's, and often lasts no longer than 5-10 minutes. Because lying down may trigger vulnerability and powerlessness for some survivors, e.g survivors of sexual trauma, while sitting may mobilize embodied self-agency and greater control, body scans are carried out while sitting (Salvesen & Wästlund, 2015).

Another example of adaptation in TMC in order to facilitate recovery processes following complex trauma, is found in the focus on 'awake rest' to support trauma survivors, who frequently alternate between hyper- and hypoarousal, in getting experiences with being relaxed while being within the window of tolerance (Salvesen & Wästlund, 2015). Within the window of tolerance, processing and integrating mental and bodily information is possible, unlike the dissociative experience and bodily shutting off characterizing the collapse in states of hypoarousal. Consequently, many trauma survivors perceive rest as an equivalent of losing control, and therefore avoid it (Salvesen, 2014; Salvesen & Wästlund, 2015). In TMC the authors suggest that learning the skill of awake rest may be best approached through the body, where exercises enables participants to gain firsthand experience with exploring interoceptive muscular feelings. Muscular exploration ranges from deactivating superficial muscular tension, as experienced in states of hyperarousal, to learning to mobilize underactivated muscles as a means to enter the window of tolerance from a state of hypoarousal (Salvesen & Wästlund, 2015).

The above-mentioned examples show the significance of having trauma-informed mindfulness practices and the thoughtfulness required while adapting mindfulness practices to survivors of complex trauma, where instructors again are balancing on a fine edge of overwhelming the

participants by forcing a premature focus on the body and breath and building capacity dual awareness and contact with inner experiences, thereby decreasing avoidance.

The added potential for treatment of c-PTSD by adopting an explicit focus on compassion

Gilbert and Choden (2013) argue that mindfulness creates stability and is the foundation for insight, whereas Germer and Neff (2013) argue that compassion training is essential for reorganizing feelings, thoughts, and motives. Schanche and colleagues (2011) found that willingness to experience and stay with sadness, anger, and closeness led to an increase in self-compassion, followed by a decrease in shame and guilt. This demonstrates how developing compassion for the self and others and being present with difficult emotions can be important in breaking the habitual trauma-related spiral of guilt, shame, anger and inability to feel positive emotions (Boyd et al., 2018; Herman, 2011). In the following we will discuss some of the potential benefits gained by adding an explicit focus on compassion in the treatment of c-PTSD.

Compassion and emotional regulation. Combining trauma-sensitive mindfulness with explicit compassion training may be particularly useful for trauma survivors struggling with hypersensitive neurobiological regulation. Self-compassion is important for deactivating the threat system, including insecure attachment and autonomic arousal (Gilbert & Proctor, 2006; Kirschner et al., 2019). This psychophysiological response system is associated with reduced arousal, such as reduced heart rate and skin conductance (Kirschner et al., 2019), lower levels of stress hormones (Rockcliff et al., 2008), increased parasympathetic activity (Kirchener et al., 2019), heart rate variability (Porges, 2007; Kirchener et al., 2019), and a feeling of safety associated with the oxytocin-opiate system (Gilbert & Proctor, 2006). Research by Kirchener and colleagues (2019) offers partial evidence that decreased physiological arousal and increased parasympathetic activity impacts on social connection and safety and therefore precede effective emotion regulation in the face of difficulty. The subjects in that study reported feeling more self-compassion and interpersonal connected while exhibiting neurological and bodily responses of relaxation and safety (Kirchner et al., 2019). The result is consistent with previous findings where self-compassion is thought to mediate the association between childhood trauma and

later emotional dysregulation (Vettese et al., 2011), and may buffer against the short-term and long-term effects of exposure to trauma (Seligowski et al., 2015). These findings point to the potential in adapting an explicit focus on self-compassion in trauma treatment.

Germer and Neff (2015) have pointed out that self-compassionate behavioral self-care is often safer than meditation for trauma survivors, and describe self-compassion as being both a challenge and an opportunity for trauma survivors: "a double-edged sword" (p. 50) that cuts through the pain of the present and opens up the pain of the past. Working with compassion, particularly generating feeling associated with affiliation, connectedness and attachment, may trigger wounds in attachment history to caregivers and significant others and may activate the threat system – thus calling for instructors' sensitive attunement to how a focus on compassion influences trauma survivors during exercises. Survivors of interpersonal trauma and attachment-based difficulties, holding emotional memories of being abused, neglected and shamed by significant others, may experience that directing compassion to self and others and receiving compassion reactivates difficult attachment patterns (Marcela et al., 2017). It is therefore necessary to incorporate this "backdraft" (Germer & Neff, 2013) when integrating a focus on compassion in treatment of complex trauma. For example, in approach-avoidance conflict as observed in disorganized attachment, withdrawal and avoidance become safer in seeking resolution than soothing, and as a consequence the system of comfort seeking is blocked (Liotti, 2004). Facilitating exposure to avoided feelings through compassion training may also reactivate frozen grief in which the feeling of loneliness and feeling unworthy of compassion become overwhelming (Gilbert & Irons, 2005). Research also indicate that compassion training may elicit fear in people with a poor attachment experiences and a history of abuse (Marcela et al., 2017; Gilbert et al., 2014). Despite this, increasing the capacity for self-compassion is regarded an important therapeutic target (Gilbert et al., 2014), and a possible path towards recovery from childhood trauma (Barnard & Curry, 2011; Hofman et al., 2011; Gilbert et al., 2014). Germer & Neff (2013) highlight how working with backdraft as a process, understood as "compassionate exposure therapy", is a vital component towards emotional transformation. As people learn to embrace to embrace fears and wounds with compassion, difficult experiences may start to lose its hold and creating a space for

safety in which a new internal dialogue and patterns of relating to self and others may be explored and modified.

Compassion and interpersonal connection. People exposed to complex trauma in childhood, such as neglect or abuse — defined by lack of warmth and affection from caretakers — often have poor self-soothing abilities (Gilbert & Proctor, 2006). The trauma experience may be isolated without ability to activate the support system. This may lead to problems in emotion regulation and lack of trust in support seeking. Traumatic interpersonal experiences have profound effects on the capacity to sustain mutually reciprocal and supportive adult relationships. Trauma survivors may keep an emotional distance from people close to them in relationships, while attending to the needs of others at the expense of their own sense of autonomy and agency (Lord, 2013).

Buddhist psychology implies, and subsequent psychological research demonstrates, that self-compassion fosters social connectedness (Barnard & Curry, 2011) and developing compassion for the self and others is thought to increase psychological flexibility through developing the ability to contemplate different mindsets (Boyd et al., 2018). Gilbert and Proctor (2006) emphasize that self-compassion facilitate emotional resilience by activating the caregiving system of secure attachment. Self-compassion also plays a role in interpersonal functioning (Schanche et al., 2011) and may contribute to healthier psychological functioning (Germer & Neff, 2015). Common humanity, being with each other's pain and recognizing that you are not alone in suffering, is therefore a facet of normalization in change processes and id one gateway compassion can target symptoms of c-PTSD, by facilitating feelings of interpersonal connectedness.

The TCM program offers different exercises that target interpersonal difficulties for survivors of complex trauma. Loving-kindness meditation, used as a pathway for building self-compassion (Kearney et al., 2013), is the intentional development of kindness and compassion toward oneself and others through verbal and visual exercises (Boyd et al., 2018). In the TMC program, examples of exploring common humanity in adjunct to compassion can be found in exercises, e.g. where

participants start with an object that is easy to extend compassion toward, while exploring the vulnerability of every being in meeting life's challenges and their wish to be safe and happy. Participants may want to explore widening their circle of beings whom they may want to direct compassion towards before the same intention is directed toward oneself. Equally, facilitation of self and other awareness is important as survivors of complex trauma may be particularly vulnerable for experiencing emphatic stress (Salvesen & Wästlund, 2015). Some may have developed strong sensitivity as a survival mode to navigate prolonged uncertainty and may attend to others' needs on expense on their own (Lord, 2013; Salvesen & Wästlund, 2015). One exercise, for example, focusses on exploring how each individual is responsible for themselves and their own life journey. This perspective is held while attending to one's own bodily reactions, exploring how embodied self-care is important for being present with oneself and keeping boundaries intact, while letting go of personal responsibility for other peoples' pain (Salvesen & Wästlund, 2015). Such exercises may help build interpersonal skills necessary for engaging in healthy relationships.

It is also interesting to explore the added benefit of an explicit focus on compassion in the context of group treatment. By engaging with and integrating the group experience, the group in itself may offer opportunities to negotiate the self-concept and exploring personal recovery relationally. Stige and colleagues (2013) emphasized normalization and the *realization* that one was not alone in one's struggle following trauma exposure as key mechanisms in therapeutic change for survivors of complex trauma within a group setting. Even though the TMC group do not emphasize sharing of their individual traumatic memories and story, the participants get firsthand experiences in exploring ambivalence and uncertainty while moving into uncharted psychological terrain together through common exercises while observing and relating to each other's reactions and challenges. This provides opportunity for experiencing interpersonal connectedness, and to explore interpersonal interaction among group members with the instructor being a coping role model.

Compassion and self-concept. For the trauma survivor, survival has often depended on the fight, flee, freeze, or collapse response when exposed to traumatic experiences. But the feeling of threat may be

integrated internally permanently by emotions such as self-criticism, self-isolation, and self-absorption (Germer & Neff, 2015). Research has, for example, shown that having critical mothers and insecure attachment pattern is associated with lower levels of self-compassion (Neff & McGehhe, 2010; Wei et al., 2011). In many survivors of childhood abuse, shame has become a dominant factor in the formation of their personality, and they remain in a constant state of self-criticism and self-blame or become sensitive and defensive to criticism (Barnard & Curry, 2011). A study by Kearney et al (2013) also found loving-kindness meditation to be safe and acceptable for veterans with a significant reduction in shame and self-criticism, demonstrating that self-soothing techniques and compassion may be relevant for trauma survivors. The TMC program addresses compassion as an antidote to self-criticism through gradual integration over several stages, similar to the way the body and breathing are approached (Salvesen & Wästlund, 2015). The principle of common humanity is important when working with self-compassion in order to separate it from self-pity and self-centeredness (Barnard & Curry, 2011). Common humanity and mindfulness are thought to separate self-compassion from self-pity, self-centeredness and self-complacency (Barnard & Curry, 2011). Common misconceptions about self-compassion are discussed as barriers to self-compassion in the TMC program so that participants can identify the issues that block an integrated self-compassionate attitude.

Learning to meet one's failings without being defensive is explored further in TMC. Compassionate self-correction is introduced as constructive friendly feedback with the intention of growth rather as opposed to damaging self-criticism. The participants learn to approach and befriend their inner critic by challenging and understand its function and motivation in order to decenter and contain it. For example, the inner critic might have been protective and important in order to survive the traumatic past. By acknowledging how one tried to protect oneself as a child, one can explore how to develop new supportive cognitions and feelings to adapt to one's current life situation (Salvesen & Wästlund, 2015). This treatment principle is described as internal communication among the various ego states to help achieve better adaptive functioning in Ego-state theory (Abramowitz & Torem, 2018), or to help facilitate recovery of the emotional memories connected to schema described by Schema therapy (Young et al., 2003). Further, in the TMC meditation lab, the participants practice finding their

compassionate inner voice. The TMC program offers modifications to help replacing self-criticism with friendly cognitions or feelings when it is too difficult for the participant, such as pausing for a moment on acceptance or resting with friendly inner images, such as a self-selected peaceful color (Salvesen & Wästlund, 2015). Hypnotherapeutic techniques focusing on providing the emotional distance necessary to deal with difficult trauma-related stimuli through making comforting suggestions, symbolism, and metaphors, can be a useful adjunct to treatment of PTSD (Rhue & Lynn, 1991; Lynn et al., 2012), as incorporated into Acceptance and commitment therapy (ACT; Hayes & Lillis, 2012) and Eye movement desensitization and reprocessing (EMDR; Coubard, 2016). Hoffart and colleagues (2015) employed self-compassion components to decrease self-judgment, isolation, and over-identification, in addition to increasing the self-kindness of patients with PTSD, with self-judgement being the most important component.

Accordingly, components of compassion, together with mindfulness, are potentially important for the emotional and cognitive processing of trauma memories (i.e. integration) and rehabilitation after trauma, corresponding to the second and third phase of treating complex trauma. Scholars have noted that a personal growth perspective to compassion approaches contribute to existential insights by adopting an overarching wisdom perspective on how life and different forms of pain are experienced and interpreted by changing the perspective about situations and events that have produced great distress in the past (Briere & Scott, 2012). For example, a study that included metta (loving-kindness) mindfulness approaches identified self-compassion as a driver of changes in feelings of mastery, personal growth and life purpose (Kearney et al., 2014). Adopting this perspective may facilitate meaningful integration of traumatic memories (Katonah, 2015; Briere, 2015).

The above-mentioned examples show the significance of emphasizing the interpersonal context in treatment. Complex trauma happens in an interpersonal context. In the TMC program participants progressively learn to self-correct and process difficult early experiences with the attitude of kindness and self-compassion in a new and different interpersonal context. This may potentially modify their negative self-concept and integrate a sense of identity, lead to increased self-respect and better

interpersonal functioning and intimacy. The group format thus also provides an opportunity for participants to experience interpersonal connection and common humanity; not being alone with their difficult experiences and symptoms of c-PTSD and dissociation.

Discussion

Above we have explored the potentials and challenges in adapting a combination of mindfulness and compassion in the treatment of c-PTSD, using TMC (Salvesen & Wästlund, 2015) as an example. Table 3 sums up how the different sessions in TMC relates to the symptom categories in c-PTSD (WHO, 2018).

Place table 3 about here

The objective of trauma therapy to facilitate physiological, affective and cognitive integration through reconnection and reorganization of feelings, thoughts, and body sensations. There is consensus within the trauma treatment literature that treatment for complex trauma should be phase oriented, where the initial phase of treatment focus on safety issues and stabilization and tolerating ego capacities, e.g. learning to tolerate and modulating strong affect (Lord, 2013). The TMC-program (Salvesen & Wästlund, 2015) particularly attend to first phase complex trauma treatment, by emphasizing and addressing safety through a "bottom up" approach using embodied mindfulness in a stabilizing way in order to avoid recreating traumatic states (Van der Kolk, 2014, Treleaven, 2018). Learning the capacity to hold and maintain multiple sensations simultaneously and affect tolerance and capacity to mindfully observe their experience without becoming overwhelmed and dysregulated (Treleaven, 2018), a dual awareness is established. This is particularly important for trauma related stimuli and phobias of inner experiences, where there is a potential risk of being overwhelmed and resorting to old, maladaptive defense patterns. It is important to modify exercises in a trauma-sensitive manner to fit the specific needs of the trauma survivor involving choice and options, e.g. modification of body scans and shorter meditation practice. Focus on addressing phobias of inner experience and attachment

issues are considered among some scholars to be part of first phase trauma treatment (Steele et al., 2005), a focus that is mirrored in the TMC program (Salvesen & Wästlund, 2015).

Working with trauma survivors may require sufficiently trained and experienced therapists in order to understand and control the adverse effects of treatment (Lustyk et al., 2009; Banks et al., 2015). On the other hand, as mindfulness and compassion-based therapy has Buddhist roots, it has been argued that in clinical and secular settings, where contemplative practices are divorced from their philosophical roots, difficult meditation-related experiences might be misinterpreted as psychological symptoms of illness (Lindahl et al., 2014), rather than as a byproduct of practice. This point to the potential benefit for mindfulness instructors to have a personal experience and insight into meditation related phenomena in order to navigate carefully when confronted with adverse effects. The instructor may play a vital role in establishing a shared attention, providing the participant experiences of connecting to another person, and constituting a coping role model in embodying the skills of mindfulness and compassion. Establishing interpersonal connection while accessing emotions and traumatic memories is a stabilizing factor in addition to serving as a preparation for second phase treatment – the processing of traumatic memories (Korn, 2009).

Effective complex trauma therapy should also entail top-down approaches. The default network connected to mind wandering is most pronounced when it lacks meta-awareness (Christoff et al., 2009) Meta-awareness - decentering and metacognitive insight - is central to therapeutic effects of mindfulness training (Dunne et al., 2019). Decentering and metacognitive insight is attended to after safety is established in the TMC program. It has been suggested that mindfulness-based approaches does not include direct exposure work and therefore would be more acceptable to survivors of e.g. domestic violence and abuse (Pitt et al., 2020). The TMC program incorporate therapeutic exposure – reducing reactivity to trauma-related stimuli and thereby facilitating an innate processing of trauma memories (Salvesen & Wästlund, 2015). Briere and Scott (2012), however, highlight the potential risk of not attending to the trauma history of the survivor, the main focus of second phase of treatment. This component is not incorporated into the TMC program. Therefore, screening for the

appropriateness of mindfulness-based and compassion trauma group programs is important. In addition, the program may have the potential of being offered as a complement to other standardized treatments where processing of individual trauma memories is the focus, or the program could be adapted to offer psychotherapy tailored to the individual needs of the trauma survivor.

Targeting the three PTSD criteria re-experiencing, avoidance, and hypervigilance (Jowett et al., 2020) may be comprised through first phase stabilization and trauma-sensitive mindfulness practice, while the three disturbances of self-organization (DSO), emotional dysregulation, interpersonal difficulties, and negative self-concept (Jowett et al., 2020) may mainly be targeted through compassion training. Third phase complex trauma treatment should facilitate increased self-respect and interpersonal connections and intimacy, and integrating a sense of identity (Korn, 2009). Phase based trauma treatment is not linear in the sense that one moved through the phases progressively, but rather the various skills and themes are revisited and explored further while processing (Korn, 2009). As the effects of mindfulness and compassion interact mutually, combining the approaches, as part of a comprehensive treatment model for complex trauma treatment will possibly enlarge the effect. One way of utilizing the mutual interaction effect of combing trauma-sensitive mindfulness and compassion training thoughtfully is illustrated by the TMC program (Salvesen & Wästlund, 2015), which has served as a gateway to discussing potentials and challenges of including a combined focus on mindfulness and compassion in the treatment of c-PTSD in this article. Research is needed to explore how the potential and challenges discussed above translates into clinical practice, therapeutic processes and outcome.

Conclusion

As mindfulness is being incorporated into psychotherapy the cultural mainstream of the Western world and, there is a need for a debate about how the widespread effect of trauma should inform current mindfulness practices. This issue requires ethical consideration about what constitutes current mindfulness practice and how to act skillfully when confronted with trauma-related problems in order to help people with a trauma history and prevent harm and re-traumatization. The principles of trauma-

sensitive mindfulness provide a framework to guide practices in accordance with the ethical responsibility of healthcare and trauma professionals to inform and develop a safe and sustainable practice. Our theoretical exploration has pointed to how meditation practices bear the potential of strengthening regulation skills and facilitate integration in trauma survivors. Mindfulness practices also hold the potential for building capacity for attentional control and embodied awareness, an important antidote to avoidance in trauma survivors. We have also explored how combining trauma-sensitive mindfulness with explicit compassion training may provide opportunities for strengthened emotion regulation, experiences of interpersonal connection and redefinition of ones' self-concept – all important areas for clients struggling with c-PTSD. Even though the combination of mindfulness and compassion clearly holds potential for the treatment of c-PTSD our discussion has pointed to the several challenges facing instructors and therapists when working with mindfulness and compassion with trauma survivors and the key significance of having a thorough and sound knowledge base and understanding of trauma and trauma reactions in order to navigate this landscape successfully. Research on the combination of mindfulness and compassion in the treatment of c-PTSD is needed.

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Mindfulness and Compassion: the path to growth after trauma (Salvesen & Wästlund, 2015) - thematic outline of sessions

Session	Theme/focus	The session at a glance
1	Mindfulness	Principles of mindfulness practice: circle of attention. Psychoeducation on the neurobiology and the window of tolerance.
2	Safety first	Safety through anchoring (body, inner pictures, safe place) and balancing safety vs. challenges.
3	Awake rest	Psychoeducation on the heightened alarm system. Exploring regulation through the breath and muscular tension vs relaxation.
4	Approching the body	Activate muscular tension and release. Avoidance and the first steps towards listening to and exploring body signals. A friendly body scan.
5	First step toward self kindness	Activate muscular tension and release. Self kindness; exploring a kind attitude toward a self critical internal dialogue. Exploring self kindness when approaching the body and breath.
6	Stability	Activate muscular tension and release. The role of attention in strenghtening stability. Exploring a resting, will-directed attention and stability. Attention on breath.
7	Your thoughts are not necessarily true	Breath as anchor. Psychoeducation on thoughts and internal dialogue. Attention to sounds and thoughts. Attention on breath.
8	Strengthening the good	Breath as anchor. Trust and psychoeducation on common reactions from early break of trust. Exploration of training in trust and strenghtening the good. Attention on breath.
9	The importance of continous practice	Breath as anchor. Motivation and the importance of repetition. Establishing a daily practice. Attention on breath.
10	Looking back	Breath as anchor. Repeating principals of mindfulness practice and circle of attention, the importance of rest, kindness and stability and of thoughts in making good choices. Attention on breath.
11	Compassion	A compassionate pause. Compassion. Psychoeducation on compassion and defence reactions. How to approach compassion. Exercise on compassion directed at oneself and others.
12	Obstacles for compassion	A compassionate pause. Exploring common obstacles for compassion (I don't deserve it, I don't want to feel sorry for myself, compassion makes me selfcentered etc.). Exercise on how to meet difficuly with compassion. A protective color.

13	Compassion and the inner critic	A compassionate pause. Psychoeducation on the inner critic and how to use compassion as self-correction. Exercise on finding a compassionate voice.
14	Compassion towards difficult feelings	A compassionate pause. Psychoeducation on difficult feelings and how to avoid maintaining them. Exercise on the "90 sec. rule" for creating new neurological pathways. Exercise on greeting a difficult feeling with common humanity.
15	The road ahead	A compassionate pause. Welcoming and exploring new possibilities. Making a practice plan.

Table 1: Overview of focus in each of the 15 sessions.

Guiding principle for instructor / therapist	Function
Keeping a personal mindfulness (and compassion) practice.	Gaining better understanding of and experience with the specific exercises, including benefits and challenges that might occur during practice
Embodying mindfulness and compassion and serving as a role model.	Allowing participants to mirror instructor behavior and learn how to cope with difficulty from an instructor/therapist that is able to respond mindfully and with compassion toward experiences occurring in the group
Having substantial knowledge and understanding of trauma, c-PTSD symptoms, and dissociation	Enables instructor communicate knowledge and analyze situation to adapt and balance practice to meet individual and group needs to avoid adverse effects of practice

Table 2. Guiding principles for the role of the instructor / therapist in the TMC-program

Symptom of complex PTSD	Session in TMC targeting symptom*
Re-experiencing	1, 2, 3, and 6
Hypervigilance	1, 2, 3, and 6
Avoidance	4, 5, 6, and 12
Emotional dysregulation	5, 7, 8, and 13
Interpersonal difficulties	7, 11, and 14
Negative self-concept	4, 7, 11, 12, and 13

Table 3. Overview of symptoms of complex PTSD and how TMC-sessions targets them.

* Placement of sessions is based on personal communication with Wästlund & Salvesen (2020) and the authors' interpretation of the program based on Salvesen & Wästlund, 2015.