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Chapter 7

COMPASSION CULTIVATION TRAINING (CCT): PROGRAM DESCRIPTION, RESEARCH, AND POTENTIAL BENEFIT FOR HEALTH CARE AND PALLIATIVE CARE PROFESSIONALS

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ABSTRACT

Although compassion has been recognized as a key element of high quality healthcare and palliative care by patients, their families, and health care institutions, little is known about how individuals can be effectively trained in the quality of compassion. This chapter introduces Compassion Cultivation Training (CCT), an 8-week psychoeducational group program designed to train individuals to cultivate compassion for oneself and others using formal and informal mental training, group dialogue, and relational exercises. This chapter outlines the structure and core elements of CCT, summarizes existing research on the program's impacts, and explores its potential benefits for healthcare professionals in general and palliative care professionals in particular. The extant research on CCT suggests the protocol may enhance self-reported self-compassion, compassion for others, and several domains of well-being while decreasing empathic distress.

Keywords: compassion, compassion cultivation training, CCT, empathy

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INTRODUCTION

Developed at the Center for Compassion and Altruism Research and Education (CCARE) at Stanford University, Compassion Cultivation Training (CCT) is an 8-week contemplative group education protocol based on traditional Tibetan Buddhist teachings and contemporary psychology delivered in secular language and format. In this chapter, we provide an overview of the CCT course, including its weekly themes and practices. Next, we review the quantitative and qualitative research on the effects of CCT. Finally, we draw connections to compassion training in the context of healthcare and palliative care.

Overview of CCT

Compassion Cultivation Training (CCT) is an 8-week course combining insights from world wisdom traditions, meditation practices, and scientific research on psychology, neuroscience, meditation, and compassion.

The curriculum gradually moves participants through experiential training to develop intention, mental focus and awareness of mental habits, and to cultivate compassion – defined as an awareness of others' suffering with a motivation to alleviate their suffering (Jazaieri et al., 2013). Thupten Jinpa, the lead author of the curriculum, describes the course in these words: "What CCT aims to do is to make people become more aware and more connected with their compassionate nature so that their instinctive response to a given situation will come from that compassionate, understanding standpoint rather than negative, excessive judgment" (Jinpa, 2011).

CCT employs an inquiry-based model of teaching and learning that emphasizes discovery, contemplation, and reflection (Jinpa, 2010). CCT instructors function as co-creators, exploring meaningful questions together with students. Students are likewise encouraged to engage actively with the material and concepts, as well as with fellow classmates throughout the course. CCT comprises:

- 2-hour weekly classes that include discussion, in-class partner and small-group listening, and communication exercises,
- Daily guided meditation practices to develop kindness, empathy, and compassion for self and others, and
- Informal practices – "homework" assignments to practice compassionate thoughts and actions.

The CCT program consists of six steps (Jinpa 2010; Jazaieri et al. 2013, 2014). Step 1 involves settling the mind and learning to focus one's attention. Steps 2 through 5 are

devoted to cultivating compassion. They include loving-kindness and compassion for a loved one (step 2); loving-kindness and compassion for oneself (step 3); establishing the basis for compassion toward others by embracing shared common humanity and appreciating the deep interconnectedness between self and others (step 4); and compassion for others, including all beings (step 5).

These five steps are followed by active compassion practice (step 6) – imagining alleviating others' pain and sorrow and offering them one's own peace and happiness. Finally, in week eight, CCT participants learn an integrated compassion practice, a combination of the preceding steps, which may be adopted as a daily practice following the end of the course (for a summary, see Table 1).

Table 1. Compassion Cultivation Training (CCT) Protocol

Week	Compassion Cultivation Training (CCT)
1	Step 1. Settling and focusing the mind. Introduction of basic skills to still and focus the mind through breath focused meditation. This step is considered foundational for all subsequent practices in the program.
2	Step 2. Loving-kindness and compassion for a loved one Learning to recognize how the experiences of love and compassion feel when they occur naturally. Meditation and practical exercises aim to help practitioners recognize the physical and physiological feelings of warmth, tenderness, concern, and compassion.
3	Step 3a. Compassion for oneself. Learning to develop qualities such as greater self-acceptance, tenderness, nonjudgment, and caring in self-to-self relations. Connecting with one's own feelings and needs, and relating to them with compassion is the basis for developing a compassionate stance toward others.
4	Step 3b. Loving-kindness for oneself. Learning to develop qualities of warmth, appreciation, joy, and gratitude in self-to-self relations. While the previous step focused on self-acceptance, this step focuses on developing appreciation for oneself.
5	Step 4. Embracing shared common humanity and developing appreciation of others Establishing the basis for compassion toward others by recognizing our shared common humanity. Appreciating the kindness of others and how human beings are deeply interconnected.
6	Step 5. Cultivating compassion for others Based on the previous step, participants begin to cultivate compassion for all beings by moving progressively from focusing on a loved one, to a neutral person, difficult person, and finally, all beings.
7	Step 6. Active compassion practice This step explicitly evokes the altruistic wish to alleviate others' suffering. In formal sitting practice, this involves a visualization practice where the practitioner imagines taking away the suffering of others and giving them what is beneficial in oneself. This practice is known as tonglen or "giving and taking" in Tibetan Buddhism.
8	Integrated practice The core elements of all six steps are combined into an integrated compassion meditation practice that can be practiced daily by participants who choose to adopt it.

From the second step onward, participants are exposed to images of suffering in the guided meditations and invited to reflect on them. While this strategy may seem

counterintuitive for a meditation program meant to generate well-being, it is consistent with the understanding of compassion as awareness of suffering accompanied by a sincere motivation to relieve it. By consciously connecting with images of and generating the desire to relieve suffering in meditation, participants train themselves to change the reactive habit of avoiding suffering, and rather, develop tolerance to distress and the inner strength to face suffering with a constructive, stable and proactive attitude.

The tools for learning in CCT consist of a combination of meditative practices (concentration, open awareness, compassion meditation, and loving-kindness meditation); imagery (e.g., developing an ideal image of a compassionate being); relational exercises in dyads, triads, and the whole group (e.g., mindful conversation, empathic listening, non-reactivity); reflections on a theme; and informal practices (e.g., in everyday life, identifying the suffering behind the negative attitudes of others, or reflecting on the fact that "just like me" this person also wants to be happy and free from suffering).

Because compassion is fundamentally relational, the group learning environment, relational exercises, the instructor's modeling of compassionate interactions, and the experiential nature of the course are crucial components of learning.

Goals of CCT

In CCT, a core objective is to offset self-oriented, individualistic drives that can create feelings of isolation, separation, competition, and meaninglessness.

In an interview, lead author Thupten Jinpa explained his hopes for the course in response to the question, "What would you like to see from a graduate of the compassion training?":

> A couple of things. One is that I think individuals who take the course probably will feel a greater sense of ease within themselves, a kind of settledness, of becoming more friends with themselves, which then creates an oasis of settledness and expresses itself in the way you treat the intimate people around you. It also hopefully creates a more optimistic perspective on the world on a day-to-day basis; though I don't expect people to come out and start joining the Peace Corps. We did not make a strong connection between action and state of mind in this particular protocol, because that can be quite problematic. But the idea is that people will feel a greater sense of well-being within, which will then naturally translate into ways they will treat or interact with others, ways in which they will see the world and act within it (Jinpa, 2011).

In what follows, we describe each step of CCT in detail, including key teaching points and themes, as well as informal practices offered to participants.

CCT Steps in Detail

Step One: Settling the Mind

Compassion arises with more ease when one is in a calm and relaxed mental state. Step one involves cultivating a stable and focsued mind where love and compassion can arise naturally. More specifically, step 1 introduces practices for cultivating stable and focused attention. CCT presupposes that attention is the gateway to compassion – as one has to notice suffering in oneself or others in order to work to reduce it.

Breath focus meditation helps the participant to settle and focus the mind, building the skill to control where one places one's atttention and to build the meta-cognitive awareness required to observe one's internal mental and emotional processes, in order to become less prone to be unconsciously driven by them. The practice often surfaces the insight, 'I am not my thoughts' and guides the practitioner to observe rather than over-identify with them.

Informal Daily Practices:

1. Use the breath to connect to the present moment and find peace or focus.
2. Choose an activity to practice and enjoy with full attention. For example, you could choose to wash the dishes mindfully - notice the temperature and feel of the water on your hands and bring your full attention to the task.
3. Connect to the expansive quality of mind by spending time in nature or quiet.

Step Two: Cultivating Compassion for a Loved One

Meditation on a loved one can help individuals to recognize how the experiences of love and compassion feel when they occur naturally. The meditation and practical exercises offered in this step aim to help practitioners identify the physical and physiological signs of the feelings of warmth, tenderness, concern, and compassion.

Informal Daily Practices:

1. Notice when you spontaneously feel kindness, peace, and compassion, as well as anger, jealousy, envy, irritation, disgust, or judgment. Notice what these emotions feel like, and when they tend to arise. What thoughts are happening when you experience negative emotions, tension, or peacefulness?
2. Practice choosing the mindset of kindness or compassion. Look for an opportunity to interpret an experience compassionately or offer acceptance to someone.
3. Decide to practice an action of intentional kindness or compassion once a day, looking for an opportunity to help, show appreciation, or otherwise support someone.

Step Three (a): Self-Compassion

In this step, the participant practices offering oneself the same tenderness and concern that one might more easily offer a loved one, developing qualities such as greater self-acceptance, nonjudgment, and caring in self-to-self relations. Connecting with one's own feelings and needs and relating to them with compassion is the basis for developing a compassionate stance toward others.

Informal Daily Practices:

1. Notice when negative, self-critical thoughts and self-judgments are happening. Recognize these are just thoughts or perspectives, and practice using self-compassionate language or interpretations instead.
2. Give yourself permission to notice and acknowledge your own distress, pain, and suffering.
3. Practice choosing the view of common humanity – your distress/pain/suffering doesn't isolate you; rather, it connects you to others. Use your struggles as a springboard to compassion for others.
4. Write one self-compassion letter to yourself per day.

Step Three (b): Self-Kindness

The next step includes practices for developing kindness toward oneself, including gratitude, connecting with one's values, joy, and appreciation for one's life. While the previous step focused on self-acceptance, here the focus is on developing appreciation for oneself.

Informal Daily Practices:

1. When there is a quiet moment in your day, and when you feel like it, ask yourself, "In my heart of hearts, what do I really want in my life?" If you find yourself yearning for meaning, wholeness, and connection in your life, acknowledge and recognize these yearnings to be an essential part of your being.
2. When you find yourself caught up in a forceful emotion, such as anger, sadness, or frustration, see if you can connect these feelings with an underlying need that you are seeking to fulfill.
3. Learn to recognize and appreciate the simple everyday joys that come your way during the day. Give yourself permission/encouragement to enjoy them.
4. Every evening, list up to three things you feel grateful for.

Step Four: Common Humanity

The basis for compassion toward others is established by recognizing our shared common humanity, and appreciating the deep interconnectedness of human beings.

Compassion hinges on the recognition that everyone shares a basic wish to be happy, healthy, and free of pain and suffering. This step involves a recognition of the basic sameness of all humanity, and the ability to identify with others regardless of perceived differences. Gratitude is also cultivated for the countless individuals who have been helpful in one's life.

Informal Daily Practices:

1. Notice interdependence. Look for opportunities to really see, appreciate, and possibly thank someone whose role you might have otherwise overlooked. Notice if you feel greater connection or care.
2. Look for an opportunity to reinterpret your reaction to a difficult situation or interaction by remembering: "Just like me, this person wishes to be happy, loved, and appreciated; just like me, this person wishes to be healthy, safe, and free of suffering." Notice if you feel greater compassion toward the individual.

Step Five: Cultivating Compassion for Others

On the basis of the previous step, participants begin to cultivate compassion for all beings by moving their focus from a loved one, to a neutral person, a difficult person, and finally to all beings.

This step expands one's compassion into ever widening circles, based on the understanding that all humans wish to be happy and overcome suffering. When including individuals participants may categorize as "difficult," they may choose to direct compassion toward these individuals without condoning the difficult/harmful behaviors.

Informal Daily Practices:

1. Notice challenges to compassion in everyday life – where you feel your own resistance or limits. When you notice this edge, celebrate the fact that you did – it is a sign you're strengthening awareness.
2. Look for the opportunity to recognize the common humanity and stress, pain, or suffering in others, especially strangers and/or "difficult" people. Mentally extend your compassion to them, silently offering them the phrase "May you be happy". When possible, look for the opportunity to express or act with compassion.
3. Notice any benefits you feel as a result of broadening your compassion.

Step Six: Active Compassion

This step explicitly evokes the altruistic wish to respond to others' suffering. In formal sitting practice, this essentially takes the form of a visualization practice where the practitioner imagines taking away the suffering of others and giving them what is beneficial in oneself. This practice is known as tonglen or "giving and taking" in Tibetan

Buddhism. Active compassion practice is linked with the breath; the participant visualizes breathing in suffering, and breathing out compassion. This practice develops strength and stability in the face of difficulty along with a sense of self-efficacy and confidence in one's own inner resources.

Informal Daily Practices:

1. When you're aware of someone's suffering, do tonglen practice on the spot – breathe in suffering and breathe out compassion.
2. Look for an opportunity to be present with someone else's difficult situation, stress, or suffering, to "breathe it in" without having to fix it. Recognize your willingness to be present with the person and their suffering is an act of compassion.
3. Each day, offer one small act of kindness or compassion.

Integrating Compassion

The essential elements of all six steps are combined into an integrated compassion meditation that can be practiced daily to cultivate compassion by participants who choose to adopt it.

Informal Daily Practices:

1. Consider how you would like to continue bringing awareness to compassion in everyday life.
2. Reflect on your favorite informal practices and your own intentions for choosing compassion in everyday life.

RESEARCH ON CCT

Quantitative Research on the Effects of CCT

There have been to date eight studies and one book chapter published on the effects of CCT. Five of the papers (Goldin & Jazaieri, 2017a; Jazaieri et al., 2013, 2014, 2015, 2017) are based on a randomized control trial (RCT) (n = 100) with 60 adults in the intervention CCT group and 40 adults in the wait list control condition. Each paper investigates different self-reported psychological variables through the use of questionnaires, experience sampling, and daily diaries. Within these five studies, compared to the wait list control group, CCT was associated with:

- Increase in compassion for self (Jazaieri et al., 2015; Goldin & Jazaieri, 2017a) and others (Jazaieri et al., 2013), and willingness to be a recipient of compassion (Jazaieri et al., 2013);
- Decrease in fear of compassion for others, self, and receiving compassion (Goldin & Jazaieri, 2017a);
- Changes in emotion experience – increase in positive affect, and decrease in negative affect (Jazaieri et al., 2014) and perceived stress (Jazaieri et al., 2017);
- Changes in emotion regulation – increase in cognitive reappraisal and acceptance (Jazaieri et al., 2017), and decrease in emotion suppression (Jazaieri et al., 2014, 2017); and
- Changes in cognitive regulation – increase in mindfulness skills (Jazaieri et al., 2014), and decrease in mind wandering and negative rumination (Jazaieri et al. 2015).

In a notable contribution to the compassion-based intervention (CBI) literature, Goldin & Jazaieri (2017a) investigated whether certain participant characteristics may moderate the effects of CCT on self-compassion and three forms of fear of compassion (for self, others, and receiving compassion from others). Findings indicate that at baseline, characteristics such as frequency of suppression of emotion expression and perceived stress, cognitive reappraisal self-efficacy (the belief that one can successfully implement cognitive reappraisal), and mindfulness skills appear to moderate the impact of CCT on self-compassion – particularly in terms of improving self-compassion and reducing the fear of self-compassion.

The two other studies on CCT are correlational studies, investigating the relationship between variables – one involved a sample of twelve adults experiencing chronic pain (Chapin et al., 2014), where participants reported significantly less pain and anger toward their situation after taking CCT. These self-reports were further corroborated by participants' significant others. In line with research on MBSR, the study suggests that CCT may help with pain management.

The second study comprised of 62 adult healthcare workers, and examined the impact of CCT on self-reported measures of burnout and job satisfaction (Scarlet et al., 2017). Echoing earlier studies, CCT resulted in increased self-compassion and mindfulness scores, in addition to decreased self-reports of interpersonal conflict.

An eighth paper (Brito-Pons et al., 2018) reports on two studies with participants from the city of Santiago de Chile, the first to study a population outside the Western USA. The first study was an RCT (n = 50), assessing the impact of CCT on a number of psychological and relationship variables. Compared to the wait-list control group, CCT participants self-reported increases in mindfulness, compassion for self and others, empathic concern, and identification with all humanity, and decreases in stress, depression, and empathic distress. Given these findings, the authors suggest compassion-

based interventions (CBIs) such as CCT may be particularly beneficial for professions at risk of burnout, "for whom staying emotionally connected while downregulating emotional contagion and empathic distress is a key to sustaining mental and physical health" (pp. 1452).

The second study (n = 58) investigated the differential effects between an explicit compassion intervention (CCT) and a mindfulness-based intervention (MBI) that implicitly includes compassion (MBSR). This is a significant contribution to the literature given the dearth of studies comparing CBIs and MBIs. Both MBSR and CCT were found to enhance mindfulness and self-compassion, with the CCT group reporting greater changes in self-compassion compared to the MBSR group. The MBSR group did not see a change in self-reported compassion for others or identification with all humanity, whereas the CCT group reported significant change in both measures.

Interestingly, both the CCT and MBSR groups saw decreases in self-reported empathic distress, suggesting the effect may be linked to the mindfulness component of both trainings, perhaps by mediating the experience of emotional contagion by strengthening the capacity for healthy self-other differentiation and emotional regulation. Both interventions also reduced self-reported depression and stress, and improvements in life satisfaction and happiness, with the CCT group maintaining these changes at follow up compared to life satisfaction alone in the MBSR group.

Across all eight of the papers explored here, a common thread is the dose-response relationship between the amount of meditation practice and improved outcomes – the more individuals practice the CCT meditations, the more improvements they tend to experience in mindfulness, compassion, and emotion regulation. This finding that more meditation practice leads to stronger and more enduring changes in various outcomes is a consistent finding in the meditation research literature (e.g., Lazar et al., 2005; MacLean et al., 2009; Rosenberg et al., 2015).

Overall, while research on CCT is still relatively in its nascence, several promising studies are currently in the pipeline while interest in investigating its effects continue to grow.

Qualitative Research on the Effects of CCT

First person reports on the impact of the CCT program. In Waibel's 2015 qualitative study of CCT, in describing the overall impact of compassion cultivation, participants in interviews noted increased feelings of connection with others, and described compassion as the ability to stay present – physically, emotionally, and mentally – when others are suffering (See Table 2).

Table 2. Perceived Impact of CCT

[CCT] has had an enormous impact on my 24/7 moment-to-moment practice, because to me meditation is way more than formal meditation. It's all the time. Part of the 24/7 practice is asking what's going on in this body right now? And I recognize when there is a trigger, I can feel it immediately. I know where the response points are in this body. CCT had a huge impact on that. And I was so impressed with the impact that it had, that I decided to apply to the teacher certification program.
I think it was transforming. Transforming the way I walk through the world. Things that would have bothered me, people's behaviors, I can look at them and understand that they're suffering too. And when you look at it that way it really helps you be more at peace. So I think it's transformative and it allows you to have more peace in your life just by looking at things a little differently. Trying to see things differently.
The compassion enabled me to feel more connected with others in their suffering. To meet them where they are without getting overwhelmed. It gave me the opportunity to be there more, for a person who's suffering and not be this guarded person. Because [the guarding] creates distance.
I've been able to sustain [my meditation practice]. Being part of something greater was really important for me. Not to mention the fact that I think I treat people better. In general I'm more often totally present with somebody.
I manage about 70 staff. They come to me with some stuff that is very profound, stuff about their lives. I think I'm a little bit better listener when it comes to that, instead of just – busy, busy, busy. There's more of an awareness for me of that whole concept of, we all suffer as humans, and I think I have a greater appreciation of that.
It just created this sort of spaciousness, because we can actually experience a connection with people around our struggles, as opposed to isolation. Whatever one is struggling with is actually an opportunity for connection and to be able to support yourself by feeling compassion for other people. I would say that's probably the highlight for me.

One study participant expressed this saying, "In general I'm more often totally present with somebody." Another participant described compassion as the courage to acknowledge and stay present with suffering:

Part of compassion is being willing to lean in to suffering, so that through the practice you actually cultivate courage. It's your ability to stay with suffering, and your capacity to be able to do that expands.

Others described the impact of CCT in their lives with comments such as, "I'm not taking all this stuff as seriously as I used to and I'm not getting all stressed out like I used to," "I'm way less reactive," "I'm a more calm person," "there's less internal distress," and "gratitude has gone up on the scale tremendously – I feel it more when I do feel it. And I more frequently feel it because of the class." Another participant explained, "It's not like it's a complete 180 for me, but it's such a contrast to how I grew up and the learned instinct of self-protection."

The offering of compassion to oneself is especially important for building "immunity" against burnout in fields where caregivers and healthcare providers are continuously confronted with suffering (Burack, Irby, Carline, Root, & Larsen, 1999). One participant, a healthcare provider at an organization where CCT is offered routinely, explained she and her coworkers who have taken CCT are "able to perceive each other as

calmer and we're really able to much more effectively problem solve. We're also more effective in coming to solutions."

The perceived benefits of CCT described by Waibel (2015) include examples of interactions with classmates, family members, friends, and strangers that can act as a mirror to let the individual know whether or not the compassionate response is happening. Participants described learning that is open, ambiguous, incomplete, changing, and lived in interactions. Learning is also expressed in comments about shifting from thinking to being, or from thinking to inquiry. In this view, knowledge is not a thing to be attained, but a flexibility: the ability to shift perspectives and points of view in moments of reactivity or difficulty. Findings reveal that in CCT, knowledge emerges in thought and action and is grounded in bodily experience and relationship.

Second person reports on the impact of the CCT program. As part his study among a Chilean population on the effects of CCT in comparison to MBSR, Brito-Pons (2014) included a "friendly observer questionnaire" sent via e-mail to family members or friends of participants in a 9-week CCT course to assess changes as observed by second person observers, to balance self-report bias. Twenty-one (84%) friendly observers of participants in CCT responded to the questionnaire, which posed open questions about whether they had perceived any changes in mood, attitude, behaviors, relationships, and interests in the participant following the CCT program.

All 21 respondents (100%) reported that they had perceived some kind of positive change in the participant after taking CCT. Table 3 summarizes the codes extracted from the questionnaire responses, grouped into two main areas: personal changes and relational changes. Direct quotes to illustrate the most frequent codes are provided below.

Table 3. Perceived changes in CCT participants according to friendly observer reports

Codes	Frequency	Percentage
Personal changes		
More relaxed, serene, calm, or peaceful	13	62%
Enhanced mood (happier, more content, less depressive)	11	52%
Increased interest in self-development	5	24%
Increased emotional stability	4	19%
More connected with themselves, with their interests and values	4	19%
Meditation practice continued after the course	4	19%
Enthusiastic about using what they learned in the course	3	14%
Relational Changes		
Enhanced empathy and capacity to listen	13	62%
Kinder, more affectionate toward others	7	33%
More assertive and effective in setting limits and solving conflicts	6	29%
More communicative and expressive	5	24%
Less reactive or aggressive in their responses	5	24%
Less judgmental and more tolerant	4	19%

Thirteen respondents (62%) reported that they perceived a more relaxed, serene, calm, or peaceful attitude in the participant after the CCT program. This observation was often accompanied by the remark that the participant demonstrated more equanimity and less preoccupation in the face of everyday stress and difficulties:

> I notice that moments of uncertainty don't disturb her or swamp her mind or preoccupy her too much. I feel that she's more capable of accepting and observing with calmness uncertain situations, and to be open – in a vigilant and relaxed way – to the natural unfolding of events. She used to obsess over these kind sof situations and to take preventive measures in a desperate way.
>
> She has a more relaxed attitude, she is more contemplative… She did her meditations with discipline, I could tell that this brought her inner peace.

Eleven observers (52%) perceived the participant's mood had improved. Participants were seen as being happier, more content, more joyful, and less depressive:

> There has been a change in her mood. She has more humor and she also shows a kind of peaceful happiness. It's been a while since I have seen her in a bad mood.
>
> Her sense of humor flourishing. I see her more smiley and pretty… I feel her more luminous and calm.

Five observers (24%) reported an increased interest in self-development in the participant. In some cases this interest was not new, as participation in the program may have stemmed from this interest, but the course seemed to enhance it:

> She is trying to improve aspects of herself that used to be challenging, like being more self-compassionate, and to assert herself in front of people with power… Her search for self-knowledge doesn't stop. She continues exercising a compassionate attitude [after the course].
>
> She is very invested in her personal development. She always was, but now she manifests it even more.

Four observers (19%) noted the participant showed increased emotional stability, which was characterized as being able to regulate emotional reactions despite external circumstances:

> I notice that she's way less hypersensitive, reactive and defensive when facing stressful events (problems at work, family problems, couple problems), so that they do not affect her so deeply. This doesn't imply that she has become less sensitive, but that these situations simply don't take her out of her center.
>
> She used to be a bit hypersensitive. Now she has more tranquility.

In regards to the relational domain, perceived changes included a kinder attitude, being more affectionate toward others (7, 33%); and increased assertiveness, capacity to set limits and solve problems (6, 29%). Some said the participant was more expressive and communicative (5, 24%), accessible (3, 14%), and less reactive or aggressive (5,

24%). An increase in tolerance, openness to unknown others, and optimism were also reported by three or more respondents.

Thirteen respondents (62%) observed an enhanced capacity to listen and to be more empathic. They felt the participant had an increased capacity to take other people's perspectives into consideration, and to listen to others in a deeper, more attentive way:

> She relates to others from the perspective of common humanity, which allows her to look at others as if they were her own self. And at the same time, she is capable of keeping the distance that is necessary to not fall into sympathy.
>
> He is more attentive and shows more interest in talking and listening to others, especially with people that used to cause some discomfort to talk with… He's more empathetic.

Seven observers (33%) reported the participant showed a kinder and more affectionate attitude toward others:

> I've observed a couple of new behaviors that caught my attention. In his relationship with his mother, a very poor relationship in terms of quality with lots of intolerance, I've been surprised to see them walking holding each other's arm and sharing some smiles. This doesn't mean that the relationship changed radically, but those details were really surprising. The second thing is that he spontaneously gave me an unexpected gift … I think this was the first time in his whole life.
>
> He's more generous and kind to those around him.

Six observers (29%) reported the participant's enhanced capacity to be assertive, to set healthy limits, and to solve interpersonal conflicts:

> She shows more self-confidence, being more able to set limits and to take care of her own time.
>
> She now keeps her own self-care when she relates to others who altered her space of tranquility, avoiding them in a non-conflictive manner.

Five (24%) reported the participant showed less emotional reactivity and aggressiveness:

> From reacting in an aggressive way in situations where that was unjustifiable (e.g., when I asked her something)… in the last two weeks I've noticed in her a willingness to listen, which defuses that reaction.
>
> She used to be suspicious of other people's intentions – she used to feel threatened and to think that others were bad or dangerous – so it was common for her to adopt a defensive, closed, hard attitude. Now I see that she's better able to see things "in context". That is, she understands other peoples' actions and opinions as expressions of their own history and their own suffering, and not as a personal attack against her.

Finally, five observers (24%) mentioned the participant seemed more communicative and expressive after the CCT program, especially able to speak from their hearts:

> I've seen [in her] an attitude of sharing from her heart with others… To give advice, to listen deeply and to propose new ideas to improve the relationship.
>
> He is really interested in people, and others trust that he will respond with sincerity, and that his answer will come from his heart.

Qualitative data on CCT suggest that the program is perceived as useful by participants and the people in their environments. According to the participants in the qualitative studies reviewed here, learning compassion results in greater sense of purpose, connection to one's own body and immediate experience, and connection with others. Qualitative research reveals the depth of adults' experiences of learning to cultivate compassion. The question of how best to respond to the suffering of oneself and others is asked by individuals regardless of religion, culture, or socioeconomic status. Compassion, a most fundamental human response to suffering, provides a courageous and nourishing way of responding to suffering. Through increased somatic awareness, meditation, group interaction, and communication exercises, compassion becomes more accessible and automatic for CCT students.

Reports from friendly observers provided an interpersonal perspective on the effects of the CCT program. In terms of personal changes participants were perceived as becoming more relaxed, calm, peaceful, and happier after their programs. Participants were also perceived as more connected with their own values and interests, more stable emotionally, and more interested in self-development than before the course. In terms of relational changes, CCT participants were perceived as more empathetic, affectionate, kinder, and assertive in their interactions, as well as less judgmental and reactive.

POTENTIAL OF CCT IN HEALTH CARE AND PALLIATIVE CARE CONTEXTS

Compassion is at the heart of palliative care (Larkin, 2016) but scientific research in this domain remains relatively scarce (Sinclair et al., 2017). Meanwhile, both patients and clinicians value the role of compassion in healthcare, as was found in a survey among 800 physicians and 510 patients at the Center for Compassionate Healthcare. While 85 percent of patients and 76 percent of physicians expressed that compassionate care was 'very important' for successful medical treatment, only 53 percent of patients and 58 percent of physicians felt the healthcare system generally provides compassionate care (Lown et al., 2011).

Furthermore, patients' perceptions of the compassion levels of healthcare providers has been shown to directly impact treatment outcomes. Compassionate treatment has been correlated with increased immune responsiveness, reduced hospitalizations, decreased use of intensive care at the end of life, and better psychological adjustment to cancer diagnosis (Lown et al., 2011, 2015). In contrast, uncompassionate care, in addition

to its negative health and other outcomes on patients and families, may result in damaging economic, legal, and public relations consequences for healthcare providers (Perez-Bret et al., 2016; Sinclair et al., 2016b; Whitehead et al., 2014; Zaman et al., 2018). As a result, there is growing interest among healthcare institutions to provide care that both is and is perceived to be compassionate.

Two recent grounded theory studies sought to identify how compassion is defined by palliative care patients and providers (Sinclair et al., 2016a and Sinclair et al., 2018). In the first study, palliative care patients understood compassion as a virtuous response to meet the suffering and needs of a person through relational understanding and action (Sinclair et al., 2016a). In the second study, a similar theory emerged – that compassion is a virtuous and intentional response to know a person, discern their needs, and ameliorate their suffering through relational understanding and action (Sinclair et al., 2018). A third study led by the same primary author found that according to palliative care patients, while compassion is an inherent quality in some healthcare professionals, they also viewed the quality as one that can be learned through training (Sinclair et al., 2016c).

Likewise, compassion educators also view the quality as one that can be learned, commonly refered to as three trainable "flows" of compassion: from self to self, from self to others, and from others to self (Gilbert et al., 2017). According to this perspective, these flows are the elements that nurture sustainable compassionate cultures. As described above, the formal and informal practices of CCT are aligned with this approach.

Although the words 'compassion' and 'empathy' are often used interchangeably in the healthcare literature, they are distinct, though related terms. While empathy can be defined as the affective and cognitive attunement that allows insight into the inner world of others, compassion is the sensitivity to suffering combined with a motivation to relieve it and prevent it. While empathy Research at the Max Plank Institute has shown that empathy, but not compassion, can lead to empathic distress, which in the long run leads to depleted inner resources (Klimecki & Singer, 2012). This is particularly relevant for palliative care professionals who are constantly exposed to the suffering of patients and family members. The research suggests that although empathy for pain activates the anterior midcingulate cortex and anterior insula, compassion activates areas related with positive affect and feelings of well-being associated with love and caring, including the ventral striatum, pregenual cingulate cortex, and medial orbitofrontal cortex (Bernhardt & Singer, 2012; Klimecki & Singer, 2012; Singer & Klimecki, 2014). In other words, while empathy alone can lead to empathic distress, compassion can serve as a buffer to prevent empathic distress and burnout. Research on CCT reviewed above also suggests participants may improve in psychological well-being and compassion while experiencing decreases in empathic distress, depression, stress, and anxiety.

As such, MBIs and CBIs are emerging as a potentially promising strategy to develop self-care and relational skills among palliative care professionals. In a recent pilot study, palliative care professionals participated in an 8-week mindfulness and compassion program that included meditation practice, communication skills, and value clarification exercises (Gerhart et al., 2016). Pre-post measures showed a significant decrease in depressive symptoms, depersonalization (withdrawal from relationships and cynicism), re-experiencing post-traumatic stress disorder (PTSD) symptoms, and cognitive fusion (being fused or attached to one's thoughts). Another pilot study with medical providers who care for children facing life-threatening illness or bereaved children reported that a nine-session multimodal mindfulness program also reduced depressive and PTSD symptoms among providers (O'Mahony et al., 2016).

A third intervention that combined mindfulness, loving-kindness, and tonglen meditation in a 10-week training with members of a palliative care team, found that participants reported decreased anxiety, stress, two dimensions of burnout (emotional exhaustion and personal accomplishment), and increased emotional regulation competencies and joy at work. Participants also reported enhanced self-care, integration of mindful pauses in their work routine, reduction in rumination and patient-related distress, and enhancement of communication skills (Orellana-Rios et al., 2017).

CCT as Support for Palliative Care Professionals

CCT may be particularly suited to address the need for effective self-care and compassion training among healthcare professionals in general, and palliative care professionals in particular. Below, we propose what may be possible benefits, based on existing research and impressions from our own experiences.

Developing Mindfulness of Present Moment Experience

Research findings suggest CCT enhances individuals' capacities to be present and open with themselves and others. Throughout the program, participants learn to take mindful pauses to ground themselves in the present moment. For clinicians, this enhanced presence may also improve their capacity to listen deeply to patients and empathic accuracy to better understand their patients' needs.

Regulating Empathic Distress

An important goal of CCT is to increase empathy and compassion while decreasing empathic distress through emotion regulation. To maintain well-being at work, healthcare professionals can benefit from strategies to regulate their visceral empathic response (to avoid emotional contagion and empathic distress) and strengthen their capacity for groundedness and stability in the face of suffering. CCT offers a structured sequence to

gradually grow one's capacity to connect with suffering while regulating the distress naturally evoked by suffering.

Learning Self-Compassion

Much like their clinician peers, palliative care professionals often present low self-compassion skills, in addition to self-criticism and perfectionism. CCT, particularly in Step 3, focuses on building self-compassion and self-kindness skills, which may help professionals to be more attentive to their own unmet needs, and to develop a set of skillful adaptive responses to their own suffering as opposed to engaging in automatic loops of self-criticism, guilt, shame, isolation, and feelings of inadequacy.

Reconnecting Work with Values

Research data and anecdotal evidence suggest that healthcare professionals experience a decrease in empathy and compassion during their professional training, which may lead to reduced professional satisfaction and self-efficacy, a component of burnout (Neumann et al., 2011). The loss of a sense of meaning in one's work, especially when that work is related to serving others, is a profound source of suffering in healthcare professions and is linked to dehumanization – seeing patients not as fully human but rather as the host of a disease (Haque & Waytz, 2012). Dehumanization can in turn be linked to decreased empathy, compassion, and work satisfaction, feeding a vicious downward spiral (Pereira-Lima & Loureiro, 2015). The CCT curriculum in general, particularly in step 3b, is aimed at connecting participants with their core values in life to enhance eudaimonic well-being and reconnecting daily activities to what matters most for them.

Cultivating Appreciation, Gratitude, and Joy

Hospitals, clinics, and hospices are places where suffering is palpable and constant. Together with the human brain's negativity bias ("velcro for the bad, teflon for the good"), it may be helpful for healthcare professionals to learn techniques to counterbalance this natural tendency while boosting their inner resources. Practices to this end, in line with the CCT curriculum, include gratitude, seeing the good in oneself and others, savoring positive experiences, and experiencing moral elevation and vicarious resilience through witnessing colleagues' and patients' courage and strength in the face of difficulty.

Expanding Empathy

In an era of globalization and increasing migration flows as a result of political, social, and environmental crises, healthcare professionals in many settings are seeing an increasing number of patients belonging to demographic groups they are unfamiliar with. Particularly for clinicians unaccustomed to diversity, this new reality may call for extra

skills and effort in order to connect with patients and offer compassionate presence regardless of the patient's race, national origin, religion, and other characteristics. This is where the perspective of shared common humanity may be particularly helpful. For a CCT trained healthcare worker, every patient may be more likely to be "just like me" in wanting to be happy, free of suffering, and desiring to be treated in a way that deeply respects their dignity and subjectivity. The CCT curriculum, especially in the second half of the program, has an explicit focus on becoming increasingly aware of the mind's tendency to generate social categorizations, prejudice, stigmatization and infra-humanization, all of which affects empathy for others, particularly neutral and difficult people and individuals perceived as belonging to outgroups. As research on CCT suggests (Brito-Pons, 2014; Waibel, 2015), the perspective of shared common humanity is among the most valued takeaways of the program for many participants.

Develop a Constructive Approach to Deal with Difficult Patients and Family Members

Beyond the challenge of serving patients who are dealing with their own illness in a foreign setting of the hospital/clinic, healthcare professionals are at times exposed to hostility on the part of patients, family members, and colleagues. The CCT program, particularly in steps 4 and 5, introduces a perspective of understanding challenging behavior as "tragic expressions of unmet needs." This perspective and training through formal and informal practices helps participants to view others' unskillful behaviors less personally, and to set boundaries as needed without demonizing and reacting to the individual. These perspective shifts and skills may help clinicians to deescalate conflicts with patients and their families, as well as within healthcare teams

Prevent Burnout, Empathic Distress Fatigue, and Depersonalization

Psychological signs of burnout include diminished enthusiasm for work, increasing cynicism, and low sense of personal accomplishment. Individuals experiencing burnout describe the feeling as though a fire or passion that once burned has died out. Common descriptors include a sense of having "run out of fuel" or "having nothing left" (Gunderman, 2012). When applying this framework to CCT, the training may support healthcare professionals to feel less stress and burned out as a result of the work environment. Simultaneously, the training may add motivational fuel to their internal fire, helping physicians to rekindle their original intentions and reconnect with the deeply held values that drove them to choose this profession in the first place – such as compassion, altruism, and a desire to be beneficial in the world. More specifically, step 6 of CCT, which includes the formal and informal practice of tonglen, may be especially beneficial in developing resilience, inner stability, and self-confidence in the face of suffering.

This non-exhaustive list of potential benefits of CCT in healthcare and palliative care is derived from research outcomes reviewed above, and from anecdotal evidence

gathered from our own experience and the experience of other certified CCT teachers working with healthcare professionals. Nonetheless, research on the effects of CCT remains in its early days, and more rigorous studies are needed to deepen our understanding of its potential benefits for healthcare professionals.

CONCLUSION

Understanding the effects of CBIs for palliative care providers and other populations remain an exciting frontier in the field of contemplative science, while emerging evidence highlights their potential for widespread benefit, particularly on personal and relational well-being. Evidence is also growing in other disciplines to support the view that compassion is a natural tendency for humans that contributes to sustained health outcomes. For example, experiments have shown that children as young as 18-months old may possess an intrinsic natural (not socialized) tendency toward altruism and helping others (Warneken and Tomasello, 2006, 2008, 2009; Warneken, et al., 2007). Using economic games, Rand et al. (2012) found that adults may be predisposed toward cooperation rather than selfishness. In a series of ten experiments, individuals who reached their decisions more quickly – depending on their intuition rather than prolonged reflection – were found to be more cooperative and gave higher amounts in contributions.

In terms of the effects of compassion on well-being, for patients living with chronic illness, receiving social support has been linked to improved health outcomes (Hemingway and Marmot, 1999; Uchino, 2006; van Dam et al., 2005; Kimmel et al., 1998). Interestingly, giving help has been found to have greater benefits than receiving help. Schwartz et al. (2003) found that while giving and receiving help was associated with increased mental health (n = 2016), helping others produced benefits far exceeding those of receiving help (except by those feeling overwhelmed by demands to provide help, perhaps pointing to the possible benefits of cultivating the capacity to be with suffering, as well as self-compassionate practices). Likewise, in a study of 423 couples, Brown et al. (2003) found reduced risk of mortality among older adults who reported giving support to others, more so than those who received support, even after controlling for demographic, personality, and health variables.

Compassion Cultivation Training (CCT) is a psychoeducational training in self-compassion and compassion for others in a format that is accessible to diverse populations, including healthcare professionals. The specific focus of the program on enhancing compassion while decreasing empathic distress makes it particularly promising for health care professionals. Individuals often enroll in the CCT course in response to challenging life or work situations, and through CCT, learn to respond to experiences with more equanimity, and cultivate ease and well-being – all of which impacts their interactions with others (Jazaieri et al., 2013, 2014). In addition, for

individuals who work in helping professions, so much of their time is spent meeting the suffering of others. In the words of a respondent in Waibel's (2015) study:

> Around here people spend the vast majority of their time at work. So if the workplace is devoid of compassion, then what kind of experience are we having? I think in general, the training has really raised my awareness of the need for compassion in people, especially in the workplace since that's where we spend most of our time (p. 81).

Indeed, CCT offers a promising method for clinicians to cultivate their capacity to develop mindfulness of present moment experience; regulate empathic distress; acquire self-compassion skills; reconnect work with values; cultivate appreciation, gratitude, and joy; expand empathy and decrease dehumanization; develop a constructive approach to deal with difficult patients and family members; and prevent burnout, empathic distress, and depersonalization.

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