Chapter 3
Compassion Cultivation

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If you want others to be happy, practice compassion.
If you want to be happy, practice compassion.

– The Dalai Lama

Introduction

There is a quiet crisis in modern health care: studies suggest that over half of physicians are affected by burnout (Shanafelt et al. 2015). The core symptoms are exhaustion and disengagement from work – "an erosion of the human soul" – that manifest as cynicism, loss of meaning, and depersonalization of coworkers and patients (Maslach and Leiter 2008; Demerouti and Bakker 2008). For many physicians, the susceptibility to burnout is compounded by lack of training in emotion regulation and by the influences of a professional culture that encourages emotional distancing, prioritizes clinical responsibilities over self-care, and tacitly endorses cynical attitudes toward patients (Shapiro 2013; Montgomery 2014). Studies indicate that physicians who have trouble recognizing and managing their emotional distress and have difficulty empathizing with others are more prone to burnout; in contrast, doctors who are aware of their feelings, consider

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the perspectives of other people, and express more empathic concern and altruism toward others have been shown to enjoy greater satisfaction and less burnout from their work (Gleichgerrcht and Decety 2013; Lamothe et al. 2014). Findings such as these are shedding a new light on the value of compassion: when we bring warmth and kindness to the stressful feelings of ourselves and others, we heal too, making us more resilient and fulfilled.

Compassion has been formally defined as "being moved by another's suffering and wanting to help" (Lazarus 1991). The experience of compassion is complex and involves multiple components: the awareness of another's plight; assessments of the other person and their predicament; appraisals of our own perspectives, capabilities, and resources; and the psychophysical correlates of concern, caring, and motivation to help (Goetz and Simon-Thomas 2017). We can also direct compassion inwardly – self-compassion – by offering the same kindness to ourselves that we would show to a dear friend in our situation (Germer and Neff 2013b). Compassion has been practiced in Buddhist traditions for 2500 years and is regarded as an important foundation for emotional healing (Makransky 2012). Emerging evidence suggests that a compassionate orientation toward others benefits our own psychological, social, and physical wellness (Millar et al. 1988; Krause et al. 1992; Schwartz et al. 2003; Post 2005; Sprecher and Fehr 2006). For example, people who spent money on others appeared to experience greater happiness than those who spent it on themselves (Dunn et al. 2008), and volunteering for altruistic reasons was linked to longer life expectancy than volunteering for self-oriented motives (Konrath et al. 2012).

Self-compassion is gaining recognition as a healthy way to relate to ourselves. Psychologist Kristin Neff conceptualizes self-compassion as the interplay of mindfulness, common humanity, and self-kindness (Neff 2003). In a stressful situation, mindfulness allows us to attend to our unpleasant feelings instead of avoiding them or taking them too personally. Common humanity recognizes that we're not alone: everyone experiences challenges and has limitations. Self-kindness comforts us with an inner friendliness rather than berating us with harsh self-criticism or unrealistic demands.

Self-compassion has been linked to higher levels of happiness, optimism, and life satisfaction (Allen et al. 2012; Hall et al. 2013; Homan 2016; Neff et al. 2007; Neff 2011; Neff 2012) and less anxiety, depression, and shame (Barnard and Curry 2011; MacBeth and Gumley 2012; Johnson and O'Brien 2013). In medical trainees and physicians, self-compassion correlates positively with wellbeing and resilience and inversely with burnout and disturbed sleep (Kemper et al. 2015; Olson et al. 2015). The 2016 Stanford Physician Wellness Survey reported that lack of self-compassion was the strongest predictor of burnout of all variables assessed (Trockel et al. 2016).

Compassion is often regarded as a relatively fixed endowment, but millenia-old contemplative traditions and recent scientific research indicate that it is malleable and amenable to training. A time-honored method is loving-kindness meditation, in which friendly warmth and affection are engendered for others while repeating phrases such as "May you be safe" and "May you be happy" (Kornfield 2008). Substantial evidence suggests that loving-kindness and compassion meditations increase wellbeing, positive emotions, self-compassion, and social connectedness, while reducing negative affect such as depression (Fredrickson et al. 2008; Hofmann et al. 2011; Galante et al. 2014; Seppälä et al. 2014; Shonin et al. 2015; Weng et al. 2013; Zeng et al. 2015). Similarly, inducing self-compassion experimentally appears to enhance happiness, promote positive behavior changes, and diminish depression (Kelly 2010; Shapira and Mongrain 2010).

Several compassion training programs have been developed to teach perspectives and skills that support a compassionate lifestyle using psychoeducational and meditative approaches. While most courses are intended for general audiences and do not include content specific to health-care providers, some physicians find them attractive and participate in public and organizational settings. This article reviews representative programs to illustrate themes and variations in methods of cultivating compassion with relevant research findings. Readers seeking general reviews of compassion training are referred to several recent publications (Brito 2014; Kirby 2016; Skwara et al. 2017).

How Is Compassion Cultivated

The remarkably prosocial nature of human beings (Simpson and Beckes 2010; Marsh 2016) is thought to be an evolutionary legacy that favored parental caregiving and societal collaboration (Goetz et al. 2010; Decety and Svetlova 2011). On a personal and practical level, compassion can feel challenging and unreliable, however, due to its emotional and cognitive costs (Condon and Feldman Barrett 2013; Hodges and Klein 2001) and variability in different contexts (Stellar and Keltner 2014). A primary goal of compassion training is to transform kindhearted tendencies into a more robust, dependable, and expansive compassion that inspires and guides daily life (Jinpa 2015).

Training programs foster compassion through mutually reinforcing strategies: (1) focusing and stabilizing attention in the midst of emotional distress; (2) fortifying affective ("felt") compassion; (3) developing facilitative cognitive perspectives; (4) building preconditions for compassion, such as a sense of common humanity; (5) reducing barriers to compassion (e.g., biases and misconceptions); and (6) expanding compassion to a wider range of individuals, groups, and situations. As an example, compassion is generally easiest for us to feel toward those closest and most similar to us and less available for strangers and members of outgroups (Stellar and Keltner 2014). Sensing commonality with others, even by tapping in time to music together (Valdesolo and Desteno 2011), can stimulate feelings of connectedness and efforts to assist one another. Compassion training leverages this principle by identifying values and experiences shared with others – our common humanity – to promote appreciation and kindness.

Current compassion training programs are usually conducted as weekly group meetings over 8–10 weeks or as brief intensive courses. Curricula offer a combination of psychoeducation – which clarifies the relationship between thoughts, emotions, and habitual patterns – and meditative practices. A variety of meditation techniques are taught to nurture the affective and cognitive aspects of compassion. Practicing mind-

fulness is central to all programs. Mindfulness is described as the awareness that arises when we pay attention to the experience of the present moment without judging or conceptualizing it (Kabat-Zinn 2003); mindfulness enables us to face stressful feelings with less reactivity and more equanimity and can be fortified through meditation. Mindfulness meditation has been linked to reductions in physician burnout, stress, anxiety, and depression and improvements in mood and emotional stability (Krasner et al. 2009; Fortney et al. 2013; West et al. 2016). Mindfulness is discussed in more depth in Chap. 12.

Compassion meditations rely on attention, imagination, perspective-taking, language, and somatosensory experience to evoke compassion and its antecedents. One common technique directs the words and goodwill of compassionate phrases (e.g., "May you be free from suffering") to a progression of increasingly challenging targets: yourself, a loved one, a neutral person, a difficult person, and, ultimately, all beings. Another method is the Tibetan Buddhist practice of *tonglen,* in which we imagine taking away the suffering of another person and sending them our own happiness and wellbeing (Jinpa 2015). Program participants are encouraged to practice daily formal meditations (often available as audio recordings) and informal "on-the-spot" techniques to enhance their abilities.

Social neuroscience is providing insights into emotion regulatory effects of compassion training that are relevant to clinicians. A central concept is empathy, which may be described as a constellation of social capabilities that enable us to share and understand another person's emotional or physical state (Goetz and Simon-Thomas 2017). Neuroimaging studies consistently demonstrate that when we witness someone's pain, our brain emulates their brain's pain-related activation patterns, effectively simulating their experience in our own neural systems (Singer and Lamm 2009). Empathizing with someone's predicament may therefore be distressing, particularly if we imagine ourselves to be in their shoes (Decety and Lamm 2011). Compassion training shows promise in protecting against this effect. In one study, subjects practiced empathically identifying with the suffering of oth-

ers in a 1-day session, followed 1 week later by a day of compassion training (Klimecki et al. 2014). After building empathy, participants responded to video clips of human suffering with increased negative affect and brain imaging patterns characteristic of empathic pain. In comparison, compassion training was associated with increased positive affect, even while viewing upsetting material, and activation of brain regions linked to love, positive affect, and reward. Other recent findings suggest that compassion training may also contribute to emotion regulation by promoting acceptance rather than reduction of negative affect (Engen and Singer 2015; Goldin and Jazaieri 2017).

Compassion Training Programs

This section describes several popular compassion training programs that attract physicians interested in self-development. With the exception of Being With Dying, a course for healthcare professionals engaged in end-of-life care described later, the curricula are general and do not specifically address issues encountered in clinical practice. An experimental training program configured to encourage physician participation is also presented as a case study in program design. Each program synopsis includes related research findings.

Cognitively-Based Compassion Training

Cognitively-Based Compassion Training (CBCT) was developed at Emory University in response to growing depression in undergraduates; it was later adapted for the general public and special populations, such as foster children and breast cancer survivors, to promote compassion, resilience, and well-being (Ozawa-de Silva et al. 2012; Dodds et al. 2015). Emory School of Medicine offers dedicated CBCT classes to faculty, staff, and medical students.

CBCT is a modern secular program heavily influenced by Tibetan Buddhist traditions of mind training and spiritual

development but avoids explicit references to Buddhist concepts such as karma and reincarnation (Ozawa-de Silva and Negi 2013; Mascaro et al. 2016; Lavelle 2016). Analytic inquiry is used as a primary tool to deconstruct biases that undermine our sense of similarity and connectedness to other people (Lavelle 2017).

CBCT is generally delivered in 8–10 weekly sessions. Participants begin by learning to stabilize their attention and gain insight into their thoughts, feelings, and emotions (Lavelle 2017; Mascaro et al. 2017). Self-compassion is nurtured by differentiating helpful from harmful mental states and habits. The curriculum then develops compassion for others systematically. By examining our interdependence with countless other people, we are inclined to feel gratitude and appreciation for them; reflecting on the shared human desire to be well and avoid distress reveals our common humanity. This leads to greater affection and empathic concern for others, which naturally engenders the compassionate wish that they be free from distress. Finally, this wish is transformed into an active commitment to relieve others of suffering.

Several studies have investigated the physiological and psychological effects of CBCT. A randomized controlled trial of 6 weeks of CBCT reported significant reductions in the immune/inflammatory marker interleukin [IL]-6 and behavioral distress responses to a psychosocial stressor in CBCT participants who had accrued greater than the median meditation practice time (Pace et al. 2009). In another study, CBCT participants viewed negative images and showed an upward trend in activation of the right amygdala (a brain region related to emotion regulation) that correlated significantly with reduced depression scores (Desbordes et al. 2012). Mascaro et al. found that CBCT was linked to improvements in empathic accuracy (the ability to correctly infer others' thoughts and emotions) (Mascaro et al. 2012).

One of the few studies of compassion training in a healthcare setting tested the feasibility and psychological benefits of CBCT in preclinical medical students at Emory School of Medicine (Mascaro et al. 2016). Almost 45% of second-year students chose to enroll and were randomized to CBCT (10

weekly 1.5-hour classes) or a wait-list control; 70% of the CBCT participants completed the study. The CBCT arm showed decreases in depression and loneliness and increases in compassion that were most marked in students with high initial depression scores; in contrast, controls with high depression scores showed reductions in compassion.

Compassion Cultivation Training

Compassion Cultivation Training (CCT) is an 8-week program that teaches general audiences methods to enhance wellbeing and promote compassion for themselves and others (Goldin and Jazaieri 2017). The curriculum was developed at Stanford University by a team of neuroscientists, psychologists, and contemplative scholars (Jinpa and Weiss 2013). Stanford Healthcare and Sharp Healthcare systems are among the health-care systems that offer CCT to their providers.

To nurture compassion, CCT combines psychoeducation, secular meditation practices, and interactive exercises; these are supported by inspirational stories and poetry and home practice (Jinpa and Weiss 2013). Like CBCT, the curriculum is strongly influenced by Tibetan Buddhist traditions but places greater emphasis on direct compassion training practices such as loving-kindness meditation and less on analytic inquiry. The frameworks share similarities in their progression through mindfulness, self-compassion, and compassion for others. CCT establishes the foundational perspectives of common humanity and interconnectedness to engender compassion, which is gradually expanded to include all humanity (Goldin and Jazaieri 2017). Participants practice *tonglen* to move their compassion to action by envisioning themselves taking away the suffering of others and sending them wellbeing. The last session presents a comprehensive meditation that integrates the core techniques of the course, constituting a regular practice after the program ends (Goldin and Jazaieri 2017).

Stanford researchers investigated the psychological effects of CCT in a single cohort of community-dwelling adults randomized to CCT or a waitlist control group. The results were

reported in several publications. CCT was associated with greater self-compassion and reductions in fears of compassion for others, from others, and for oneself compared to controls (Jazaieri et al. 2013); other researchers have linked fears of compassion to self-criticism, depression, and lack of self-compassion (Gilbert et al. 2011). The effects of CCT on emotion regulation have also been explored. In one analysis, CCT participants showed improvements in mindfulness and happiness and decreases in worry and emotional suppression compared to controls (Jazaieri et al. 2014). In another article, CCT participants showed increased calmness and diminished anxiety over the course of the program (Jazaieri et al. 2017). An intriguing finding was that despite feeling more able to regulate their negative affect, participants were less inclined to do so. They increasingly accepted stress and anxiety rather than suppressing it. Finally, CCT was associated with increased self-caring behaviors (Jazaieri et al. 2015). Specifically, practicing compassion meditation correlated with less mind-wandering to unpleasant topics and more mind-wandering to pleasant topics; these, in turn, predicted more caring behaviors for oneself and others.

Mindful Self-Compassion (MSC)

Mindful Self-Compassion (MSC) is a program devoted to teaching attitudes and skills of self-compassion that enable us to meet life experiences, particularly difficult ones, with an inner kindness, comfort, and support (Germer and Neff 2013a). MSC is often taught as an 8-week program or a 5-day intensive course; newer options include online and 2-day core skills training.

The curriculum engages the class in a journey of self-discovery through didactic presentations, meditative and informal practices, and reflective and interactive exercises (Germer and Neff 2013a). After laying the conceptual foundations for self-compassion, participants are taught core mindfulness and loving-kindness meditations adapted to nurture self-compassion. They learn to motivate themselves

with kindness rather than self-criticism and to use self-compassion to live in accord with their core values. A half-day retreat in the latter half of the program consolidates and deepens skills. Participants then learn to approach difficult emotions and challenging relationships – including compassion fatigue in caregivers – with mindfulness and self-compassion. The program finishes with an exploration of the supportive positive practices of savoring, gratitude, and self-appreciation and offers suggestions for maintaining the practice of self-compassion going forward.

MSC was evaluated in a study of community-based adults randomized to MSC or a waitlist control (Neff and Germer 2012). Compared to controls, MSC participants showed greater improvements in self-compassion, compassion for others, mindfulness, and life satisfaction and larger reductions in depression, anxiety, stress, and avoidance of difficult thoughts and feelings. All gains from the 8-week program were maintained at 1-year follow-up.

Being with Dying (BWD)

Being With Dying (BWD) is a training program in compassionate end-of-life care and provider self-care intended for health-care professionals (Halifax 2013; Rushton et al. 2009). The course is taught as an 8-day residential intensive course hosted by the Upaya Zen Center in Santa Fe.

BWD differs from the previously discussed programs in commingling compassion training with clinically relevant material (from the area of palliative care). Compassion is conceptualized as a process that emerges from complex interactions of attention and affect, intention and insight, and embodiment and engagement, which represent targets for training (Halifax 2012). Woven through the curriculum are a rich set of contemplative and reflective approaches that include: (1) practicing focused attention and open awareness; (2) developing insight into values and priorities, ethics, and attitudes toward altruism, pain, suffering, and death; (3) practicing deep listening and staying present with pain and suffering; (4) cultivating prosocial qualities, such as

empathy, compassion, and sympathetic joy; and (5) gaining familiarity with subjective psychophysical aspects of sickness, dying, and death (Halifax 2013). These are elaborated through didactic expositions, group explorations, and other interactive exercises.

In a study of the impact of BWD on past participants (Rushton et al. 2009), four major themes emerged from confidential telephone interviews supported by an anonymous online survey: (1) the power of being present to the suffering of patients and families; (2) cultivation of a more stable, balanced compassion for others and oneself; (3) recognition and management of one's own grief; and (4) the importance of self-care. All themes had at least some physician endorsement, although physicians comprised only 25% of the interviewees (the remainder were primarily nurses, social workers, and chaplains). Many participants reported improved resilience and less burnout.

Brief Compassion Training for Physician Well-Being: A Case Study in Program Design

Despite positive reports from compassion training programs, the requisite time commitments (Shapiro et al. 2005) and formal meditation practices may deter participation by many physicians. Recently, abbreviated meditation curricula have been created that appear to be beneficial to health-care providers (Gilmartin et al. 2017). In 2015, I developed a physician wellness program with colleagues at the Stanford Prevention Research Center that promotes participation by prioritizing convenience and emphasizes self-compassion to enhance resilience and self-care. This project is presented as a case study in configuring compassion training around specific characteristics such as type, length, and accessibility of training.

The program is designed around several guiding principles. First, barriers to participation are reduced by delivering training in clinical work settings and minimizing class and practice time. Second, the primary goal is to instill a mind-set of self-compassion supported by just-in-time tools that mediate self-

kindness and self-care in stressful situations. Mind-sets shape behavior (Crum and Zuckerman 2017) and can empower significant, persistent motivational change from relatively small interventions (Yeager and Walton 2011). Third, physicians are recruited as established clinical teams rather than as individuals to improve participation and legitimize self-compassion.

The program begins with a 45-min orientation followed by 8 weekly, 30-min sessions. After a brief check-in, each session presents a topic and an exercise intended to evoke self-compassion at stressful times during the day. Participants are initially guided through a 7- to 10-min version of the exercise followed by a 3-min version to demonstrate how the process can be expedited. The core practices include (1) Settling Down (mindful breathing); (2) Compassionate Person (visualizing and receiving compassion from a kindhearted person); (3) Basic Compassion (loving-kindness); (4) Self-Compassion Break[1] (self-compassion during an upsetting situation); (5) Common Humanity (sharing human limitations with others); and (6) One for Me, One for You[1] (breathing compassion in for yourself and out for another person). Participants receive laminated cards as visual reminders of the exercises and have access to online recordings of the material.

A pilot study to test the feasibility of the program enrolled five primary care practices (26 physicians, 81% women) in Santa Clara County, CA. Overall attendance was 75%. As a primary care physician, longtime meditator, and Trained Teacher of Mindful Self-Compassion, I was the sole trainer for the program. Participants completed pre- and post-intervention surveys of empathy, compassion, and self-compassion based on items from validated instruments and of self-efficacy for skills taught in the program. All items used 5-point Likert scales (1 = strongly disagree, 5 = strongly agree). Statistically significant increases were observed in median differences (MD) before and after training for self-compassion (self-kindness) (MD = 1, p = 0.002); 61% of responses to "I'm kind to myself when I'm experiencing suffering" were negative before training, while 70% of responses were positive after training. Significant changes were also observed in self-efficacies for mindful breathing (MD = 1,

1 Adapted from Mindful Self-Compassion by K. Neff and C. Germer.

$p = 0.005$); recognizing common humanity (MD = 1, $p = 0.008$); and evoking self-compassion (MD = 1, $p = 0.002$).

Participants reported that that the program was appealing and convenient, and that self-compassion was valuable for their self-care. The brevity of the exercises and convenience of training in the workplace was key to engaging many of the providers. Those with little or no meditation experience were challenged initially but were typically able to apply the training by the completion of the program.

The following narrative illustrates one physician's experience during the program.

Case Illustration 3.1

A female physician participated in the Brief Compassion Training for Physician Well-Being program with practice partners at her primary care clinic. Managing the demands of career and family, her stresses were primarily at home. After learning a simple mindful breathing exercise ("Settling Down") in the first session, she began taking a breath before entering her house after work. In the fourth week of the program, she reported an epiphany: "the world is not going to stop turning if I slow down. I sat on the floor playing blocks with my son and my taxes were in view. And I thought, 'The taxes are not going anywhere.' And that was really nice." In the next session, she described the class as "a time to take a breath and to rethink the frenetic pace that we live in. The world doesn't stop if I take a break for 30 minutes to slow down and breathe and I actually feel re-energized." Near the end of the program, she summarized: "My usual MO is to say I should probably check my emails and get on the EMR. And now what happens is the 'I should do that' goes 'Well, should I do that?' Maybe it would be better for me to read People Magazine. And shockingly, you wake up feeling better the next day and can do your emails and EMR." Several weeks after completing the training, she taught a patient about self-compassion.

The limitations of this pilot study include lack of a control group and follow-up, small sample size, a single trainer, and modifications to the program during the pilot. Future studies with measures of wellbeing and burnout, larger cohorts, and multiple trainers in randomized controlled trials are recommended to more adequately assess the effectiveness of the intervention.

The Brief Compassion Training for Physician Well-Being shows promise in lowering barriers to physician participation in a self-compassion program. Next steps will focus on teacher training and maintenance of perspectives and skills acquired during the program.

Conclusion

A growing body of research suggests that a compassionate lifestyle is good for our psychological, social, and physical wellbeing. Self-compassion is a healthy way to relate to ourselves and has been linked to resilience and reduced burnout in health-care providers. Several compassion training programs are available to cultivate compassion and self-compassion by combining meditative and psychological methods. Although most curricula were not explicitly designed for physicians, reported gains in positive mood, life satisfaction, and self-compassion and reductions in anxiety and depression could be beneficial to health-care practitioners. Of special relevance to doctors is emerging evidence that compassion training may enhance emotion regulation and buffer against empathic distress, a contributor to physician burnout. More research is needed to delineate the effectiveness and limitations of compassion training in physician cohorts. Tailoring curricula to the challenges faced by providers in clinical settings, as in the Being With Dying program, may improve applicability in medical practice. Preliminary research suggests that designing for the convenience of health-care practitioners may broaden the appeal of compassion training and extend its benefits to a wider audience. In an era of epidemic physician burnout, compassion training is a promising approach to fostering resilience and wellbeing by helping physicians to take better care of themselves.

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