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Compassion for self versus other: A critical review of compassion training research

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ABSTRACT

There is rapidly growing interest in Western compassion trainings that rely especially on traditional Buddhist practices. This growing body of research distinguishes between two distinct compassion constructs, namely self-compassion versus other-oriented compassion (hereafter, other-compassion). However, the Buddhist traditions from which most studied compassion practices derive emphasize the relevance of compassion for breaking down artificial barriers between self and other. We therefore conducted a comprehensive review of 94 randomized controlled trials on compassion training, examining how the dualistic division of compassion (into self- versus other-compassion) has shaped compassion training research to date. Our review finds patterns both consistent (e.g. a disproportionate focus on the self-oriented benefits of compassion trainings) and inconsistent (e.g. particular pairings of self-other emphasis across training and outcome) with the dualistic division of compassion. Overall, findings reveal the need for more research on social benefits of self- and other-compassion training, as well as less dualistic approaches to compassion.

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There is rapidly growing interest in the secularization of compassion training, with numerous parallels to the 'mainstreaming' of mindfulness. One intriguing parallel pertains to the inherent complexity of trying to secularize what are primarily traditional Buddhist approaches to compassion training (Lavelle, 2017). This venture may be likened to a process of translation, albeit with many translators (i.e. compassion scholars and trainers) who each have their own idiosyncratic expertise, views, and priorities. There now exist a growing number of Western compassion training programs around the country, such as Stanford's Compassion Cultivation Training (CCT; Goldin & Jazaieri, 2017), Emory's Cognitively-Based Compassion Training (CBCT; Pace et al., 2009), Naropa's Mindful Compassion Training (NMCT; Quaglia, Soisson et al., 2020), Courage of Care Coalition's Sustainable Compassion Training (SCT; Condon & Makransky, 2020), and the Center for Mindful Self-Compassion's Training Program (Germer & Neff, 2013). Whether, and to what extent, such Western compassion trainings qualify as entirely secular programs, as opposed to classical Buddhist practices, remains an important consideration for the field.

As seen in mindfulness research and trainings, early disagreements or misunderstandings in the process of teaching and studying mindfulness can snowball over time, not only limiting potential benefits of Western mindfulness training, but also having the potential to cause undue harm (Lindahl et al., 2017). An example from mindfulness research is the polysemic nature of the term, *mindfulness* (Davidson, 2010; Grossenbacher & Quaglia, 2017; Williams & Kabat-Zinn, 2011), which has resulted in numerous articles debating its meaning and aiming for consensus. Meanwhile, the body of mindfulness research has continued to burgeon in myriad directions, with somewhat haphazard attention to issues of conceptualization. Misunderstandings and lack of consensus may well be expected when many different scholars and trainers are engaged in distinct efforts to introduce the benefits of contemplative practices and ideas to new audiences. Yet early attention to such issues can serve to mitigate their proliferation over the long term.

With regard to compassion, we see one issue in need of attention to be the field's current division of compassion into two relatively distinct compassion constructs, namely self-compassion versus other-oriented compassion (hereafter, other-compassion). This division is represented in the literature not only

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in terms of training self- versus other-compassion, but also in the use of measurement approaches that tend to emphasize benefits of compassion in favor of self- versus other-oriented (i.e. prosocial) outcomes. In contrast to this modern division, the Buddhist traditions, from which most studied compassion practices derive, emphasize the relevance of compassion for breaking down artificial barriers between self and others. Buddhist compassion meditation grew out of the seminal commentarial (*shastra*) traditions of Indian Buddhist patriarchs, who wrote extensively about the importance of recognizing the inseparability of self and other in compassion. For example, the 8th century Indian patriarch, Shantideva, emphasized that deep understanding of suffering yields the realization that there is no final distinction between one's own pain and that of others, requiring a compassionate response that also makes no such distinction (Crosby & Skilton, 1996). Additionally, the Indian patriarch Maitreya's 4th century Uttaratantra-shastra considers benefit for oneself and for another as two inseparable aspects of compassion of the bodhisattva, or 'being dedicated to enlightenment' (Maitreya et al., 2018).

Moreover, Buddhist views on compassion explicitly consider its simultaneous value to both one's own and others' happiness. From this perspective, subjective distinctions between self and other have practical value, but the final analysis cannot be so cleanly divided. In fact, dualistic notions of compassion are considered self-limiting in Mahayana Buddhism, bringing perilous obstacles on the spiritual path. Contemporary Tibetan commentators describe these obstacles in popular terms like 'enabling' (Khyentse, 2003), 'idiot compassion' (Trungpa, 2008), and 'sentimental compassion' (Thurman, 2006). Additionally, self- and other-compassion may often interrelate in the process of being a compassionate person, and compassion itself may even occur in more holistic experiences that integrate, transcend, or otherwise blur boundaries between self- and other-compassion. Ultimately, the compassion of the bodhisattva moves beyond the artificial distinction of self and other to the 'great compassion' that extends without any distinctions to all beings everywhere, including oneself. The 7th century patriarch Candrakirti says that from the 'nondual intelligence' of the bodhisattva, compassion becomes limitless. From this view, dualistic notions of compassion become obstacles to enlightenment (Khyentse, 2003).

We recognize that the context of Western compassion training contrasts with the overtly spiritual context in both traditional and contemporary Buddhist compassion trainings, in which compassion is an element of the soteriological path to enlightenment. For this spiritual path, it is essential to develop insight into emptiness (shunyata), or the transparent, constructed nature of reality, developed through reasonings as well as meditative experience. These have shown not necessary in Western compassion training, but two elements are important to retain, supported by compassion science: 1) natural empathy, the ability to resonate with the suffering of others, and 2) seeing the interdependence of self and other, acknowledgement that the impact of compassion training naturally extends beyond individual benefit.

We therefore set out to consider how the dualistic division of compassion (into self- versus other-compassion) has shaped compassion training and research to date, by conducting a comprehensive review of randomized controlled trials on trainings for self-compassion, other-compassion, or some combination of the two. The resulting description and analysis of compassion training literature serves to clarify the overall representation of self-compassion and other-compassion, to reveal potential biases in emphasis across training and measurement, and to suggest exciting new directions for future research. Altogether, we believe these insights can inform course corrections that help bring the field of Western compassion training and research into greater alignment with their basis in traditional guidance for, as well as aims and views of, compassion.

Why train compassion?

As with mindfulness trainings, both view and methods for training compassion have been informed by Buddhism, particularly Mahayana Buddhism.[1] Mahayana Buddhism emphasizes compassion as one of the two broad qualities cultivated through contemplative training, with the other being wisdom. The famous image from the Prajnaparamita-sutras is that wisdom and compassion form the two wings of the bird of the spiritual life; both are equally needed. The Dalai Lama has more recently described this connection in his Mind and Life Dialogues (Luisi & Houshmand, 2010). Critically, both wisdom and compassion, as understood in a Buddhist context, are distinct from how these terms may be commonly understood in Western ways of thinking. One of the key differences regarding Buddhist views on compassion is the view that, although innate, compassion must be cultivated through systematic mental training to be fully realized. (Likewise, in Buddhist traditions, wisdom must also be cultivated in this way.) This understanding motivates a variety of meditation practices and related methods, only a small number of which are represented in Western compassion trainings to date.

Chief among the meditation practices being taught in secular contexts is a mental and emotional exercise called *lovingkindness meditation*. In Mahayana Buddhist contexts, lovingkindness is actually distinct from compassion, having more to do with the wishing for happiness rather than the reduction of suffering (as with compassion). However, these two practices are derived from a Buddhist meditation doxography curriculum, with practice of lovingkindness forming the foundation for the practice of compassion.[2] Accordingly, to date, more secular approaches to studying and training compassion do not appear greatly concerned with distinguishing them for the practical purpose of teaching compassion. All of the prominent compassion training programs represented in the literature rely considerably on lovingkindness meditation, and the majority of studies in this review of compassion training include lovingkindness meditation as a primary practice. Other practices represented as part of compassion training programs include mindfulness, gratitude, sending and taking (tonglen), and analytical meditation, all of which are features of traditional Buddhist training.

Regardless of specific training methods, the overall purpose of compassion training in Western programs evinces both similarities and differences with traditional Mahayana Buddhism. With regard to similarities, Western programs focus on benefits of compassion training for decreasing one's own personal suffering and maximizing one's own well-being. Personal benefits are also recognized in Mahayana Buddhism, wherein the cultivation of compassion is seen as integral for one's own happiness. There is also an emphasis in both Western and traditional views on decreasing personal stresses and burdens specific to the task of helping others. In Western approaches, this can be seen in discussion of compassion for reducing empathy fatigue and burnout (Klimecki & Singer, 2012). In Mahayana Buddhism, this is evident in the role compassion plays in helping a contemplative practitioner feel energized to engage in compassion-related activities, and thereby maximize benefits to others. A classic example in the Mahayana foundational sutras is the great saint Vimalakirti who cautions the bodhisattva against sentimental attachment that can lead to exhaustion and burnout, limiting their ability to serve others (Thurman, 2006).

Key differences between traditional and modern approaches become more apparent when considering the long-term and definitive goals of Mahayana Buddhism. Here we focus particularly on the role of compassion in helping an individual apprehend and act from insight into the fundamentally interdependent nature of reality (see also Condon & Makransky, 2020). According to this view, much of human suffering is in fact caused by misperceiving reality as divided, including a mistaken view that one is truly separate from others. Such mistaken perception is thought to be the root of a host of maladaptive consequences, including the 'three poisons' of passion, aggression, and ignorance (MacKenzie, 2018). Interestingly, these three maladaptive consequences may parallel the oft-studied psychological constructs of behavioral response tendencies when people encounter pleasant, unpleasant, or neutral stimuli (Chen & Bargh, 1999). Compassion, then, can be seen not only as a path for accumulating merit, but also for realizing, maintaining, and expressing a more accurate view of reality as fundamentally interdependent. Accordingly, compassion training from a Buddhist perspective requires the practitioner to overcome dualistic perceptions that divide the world into self versus others.[3]

Self-compassion versus other-compassion

Differences between traditional and modern views of compassion training highlight a core challenge of secularizing contemplative approaches, in that scholars and trainers must make practices accessible for novice (and Western) minds and empirically tractable for scientists, while ideally also honoring the capacity for compassion as understood along a continuum of training. One outgrowth of this challenge has been the uniquely modern division of compassion into self- versus other-compassion (Neff, 2012; López et al., 2018; Zeng et al., 2016). Western approaches to compassion rely heavily on this distinction, both in the training and scientific investigation of compassion. By contrast, traditional Buddhist accounts of compassion rarely delineate compassion in such a way, instead emphasizing the compassion for others while taking self-concern as a given. Contemporary Vietnamese Zen master Thich Nhat Hanh wrote that compassion for others always includes the self; in fact, drawing artificial distinctions between self and others misrepresents our essential interconnectedness (Hanh, 1997).

There are two chief manifestations of the field's dichotomous division of compassion. First, this division is evident in the various types of modern compassion trainings under investigation. This can take the form of trainings with an explicit focus on engendering one type of compassion or another. Within such trainings, the opposing style of compassion may be represented to some degree (e.g. training in other-compassion in a self-compassion training) but is often treated as a means for the primary focus (e.g. Albertson et al., 2015). However, even within trainings with clear focus on cultivating

both self- and other-compassion, this dichotomous portrayal of compassion appears evident in the segregation of teachings and practices. For example, individuals may spend one week or module learning the practice of lovingkindness for themselves, and other weeks or modules learning lovingkindness for others (e.g. Jazaieri et al., 2014).

Second, the field of compassion science relies on distinct scales and outcome measures for assessing self- versus other-compassion. By far, the most common measure for self-compassion has been the Self-Compassion Scale (Neff, 2003). This scale assesses self-compassion according to a general definition as compassion for oneself, particularly in moments of personal suffering (Neff, 2016). More specifically, self-compassion is seen to include three key components, namely self-kindness versus self-judgment, common humanity versus isolation, and mindfulness versus overidentification (Neff, 2016). In both definition and measurement, each of these components relates back to a view of self-compassion as specific to one's own suffering. This is true even for the notion of common humanity, which invokes awareness of others' suffering as a means for self-compassion. Interestingly, the Self-Compassion Scale was developed and implemented many years before it was adapted into an other-compassion scale (Compassion Scale; Pommier et al., 2019).

Apart from scales intended to directly assess self- or other-compassion, researchers also rely on other measures which have an underlying orientation toward evaluating self- versus other-oriented benefits of compassion training. While not always clear-cut, this division of measures has proven useful for investigating more other-oriented outcomes of meditation practice in terms of prosocial emotions and behaviors. For example, a meta-analysis selectively examined the effects of meditation on empathy, compassion, and prosocial behavior to consider the possible interpersonal benefits of these practices (Luberto et al., 2018), whereas much of the research has focused on more intrapersonal, emotional, and other benefits to the individuals engaged in the practices (Galante, Galante, Bekkers, & Galach, 2014; Zeng Chiu Wang Oei, Leung, 2015).

To date, the movement toward secular compassion training and research has found the distinction between self- and other-compassion valuable for gaining traction. Yet the heavy reliance on distinguishing self- versus other-compassion may err on the side of accessibility and tractability, to the potential detriment of precise and thorough training and understanding of compassion. The time seems ripe to carefully review how the distinction of self- versus other-compassion has shaped compassion training and science, and to more deeply reflect on what may be missed when viewing compassion primarily through the lens of these two distinct compassion constructs.

Present review

As the seminal review addressing how the dualistic division of compassion (into self- versus other-compassion) may be shaping compassion training and research, our first aim was to quantify the emphasis of self and other across training and outcome. We therefore conducted a comprehensive review of randomized controlled studies that predominantly trained compassion (often via lovingkindness meditation), available through 2019. Specifically, we considered the emphasis on self versus other across each study's compassion training protocol and outcome measures. Doing so allowed for precisely representing the literature not only in terms of number of studies that trained self- or other-compassion and self- versus other-oriented outcomes, but also with regard to a more continuous score of emphasis on self versus others. The second aim of this review was to evaluate biases in the literature toward self-compassion or other-compassion, as well as self- or other-oriented (prosocial emotional and behavioral) outcomes. Our coding system afforded a 'bird's eye view' of the field of compassion training research, highlighting its tendencies toward self versus other across trainings and outcomes. Finally, moving beyond the current state of compassion research, the third aim of this review was to leverage our description and analysis of the literature to inform future investigations on compassion training. This includes consideration of ways in which overly dualistic distinctions may not only be biasing this field of research in one direction or another, but also constraining the types of trainings and outcomes under investigation.

Method

Search procedure and study selection

Given their consideration as the 'gold standard' for empirical research, only randomized controlled trials (RCTs) were included in the present review. Databases and search engines such as Google Scholar, PsycINFO, and SAGE were searched to find all relevant compassion studies published from 2005 through 2019. Specific terms such as 'compassion,' 'training,' and 'random' were used as search keywords. To complement our findings from the aforementioned databases, we reviewed the reference section of prominent

compassion reviews. Each study that appeared from the initial search of 'compassion' was scanned to see if the study used an RCT and trained compassion. Significant effort went into ensuring that no study was overlooked, including correspondence with authors when necessary information was excluded in the online published report. The review includes both published and thesis/dissertation studies, since thesis/dissertation studies often proceed publication in peer-reviewed outlets, and sometimes contain novel approaches or findings that are not yet well-represented in published literature.

Inclusion and exclusion criteria

Studies were included in this review if they were a (i) RCT; (ii) with adult participants; (iii) primarily training self- and/or other-compassion. As noted earlier, compassion training often relies on practices of lovingkindness meditation, but we did not restrict our study based on the specific types of practices considered to be compassion training. Although some mindfulness training studies train compassion secondarily, our review included only those studies that primarily focused on training compassion. The length of the training was not an exclusion criterion, such that our review spans compassion trainings in the context of a single day or across several months. If the study met these criteria, it was then coded.

Coding procedures

One project supervisor and one research assistant confirmed study relevance, per information in the title, abstract, and full-text. Two research assistants then independently coded the study details, including details about the compassion intervention, study design, outcome measure(s) used, training emphasis score, and outcome emphasis score. Once both research assistants completed coding each study, the project supervisor reviewed both scores and noted discrepancies. Any discrepancies between the two independent coders were then resolved through consultation between the first author and research assistants. To tally the number of trainings including self-compassion and/or other-compassion instruction, we first consulted the publication (including any supplemental materials). In some cases, publications cited training procedures from other sources, which were used to determine or confirm the training details. A small number of publications lacked adequate description for coding all relevant information needed for our review (e.g. whether self- or other-compassion instruction was included as part of the training protocol). When this occurred, the first author contacted the corresponding author of the study in question to request additional details.

Training emphasis scoring

In order to provide a more continuous description of the training used in the study, a scale of −5 to 5, from entirely self-oriented to entirely other-oriented, respectively, was used. Trainings that were given a score of −5 entirely trained self-compassion (100%) and did not train other-compassion (0%). Accordingly, each 1-point increment on our scale corresponded with an estimated 10% difference in training emphasis. When scoring each training, we focused on the compassion-based teachings and practices only. For example, if mindfulness was also trained in the program, that time was excluded from our scoring. This meant that if a training was eight weeks total, with the first two weeks on mindfulness, but the remaining six weeks evenly divided into self-compassion and other-compassion, the score would be 50% self-compassion and 50% other-compassion (coded as 0). Additionally, we scored based on actual compassion-based learning and practice over stated training intent. This was important because both self- and other-compassion trainings can rely on the complementary style of practice. Finally, when discrepancies were evident between practice and instruction time, time spent actually practicing self- or other-compassion was weighted more heavily. This weighting is consistent with treatment recommendations and empirical findings regarding the critical value of practice quantity and quality as active ingredients in contemplative interventions (Goldberg et al., 2014; Vettese et al., 2009).

Outcome emphasis scoring

Similar to the training emphasis scoring, the outcome emphasis scoring was also on a scale of −5 to 5, from measures that were entirely self-oriented (−5) to those that entirely measured other-oriented (prosocial) outcomes (5). Outcome measures that received a score of −5 entirely measured self-oriented outcomes (100%) and did not measure other-oriented (prosocial) outcomes (0%). Self-compassion was included in self-oriented outcomes, and other-compassion was included in other-oriented outcomes. However, a study receiving a score of −5 does not necessitate measuring self-compassion, only that the study exclusively measured only self-oriented outcomes (e.g. anxiety, depression). Similarly, a study receiving a score of 5 did not necessarily measure other-compassion, but rather assessed only other-oriented outcomes (e.g. charitable donation, empathy, altruism). When one assessment tool included both self-

and other-oriented outcomes (e.g. Four Immeasurables Scale; Kraus & Sears, 2009), this was evenly factored in when determining outcome emphasis scores.

Results

From search results to included studies

The studies included in this review are, to the best of our knowledge, all of the studies in the literature through 2019 that are a (i) RCT; (ii) with adult participants; (iii) primarily training self- and/or other-compassion. Results from the literature search, including the number of studies meeting inclusion criteria, are presented in Figure 1. Of the 116 germane publications and unpublished studies for which the full text was retrieved, 94 met all remaining inclusion and exclusion criteria. Table 1 presents representative examples of self- versus other-emphasis for compassion trainings and outcome measures. The complete database for this review is included as supplemental material.

Self- versus other-compassion trainings

Regarding our interest in quantifying the emphasis on self versus other in compassion training, we tallied how many of the included studies incorporated self-compassion or other-compassion instruction as part of their overall training protocol. Of the 94 total studies, 88 (94%) included at least some self-compassion training, with only six studies (6%) training solely other-compassion. A smaller number of studies (80, 85%) included at least some other-compassion training, with 14 studies (15%) training self-compassion exclusively. We found that 74 studies (79%) included instructions and practices for training both self- and other-

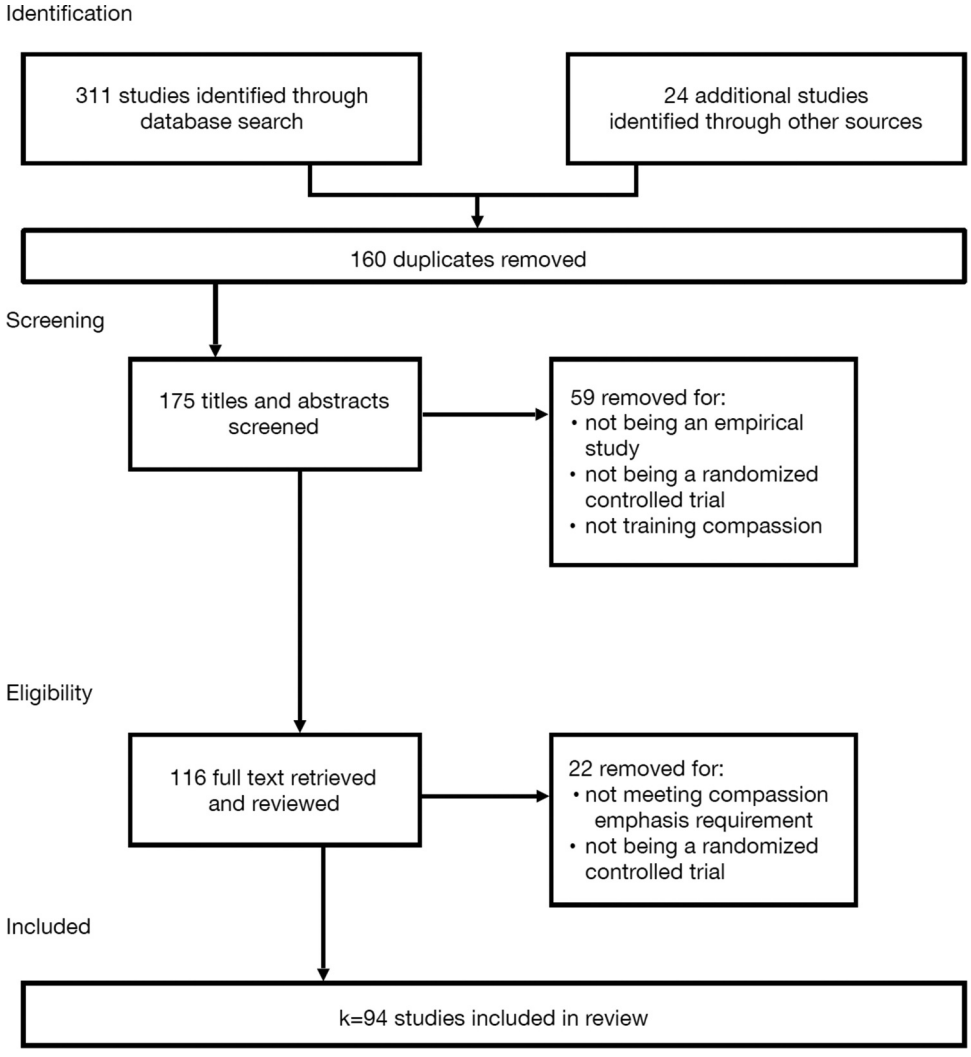

Figure 1. Flow Diagram for Study Selection. Final included studies met criteria of a (i) randomized controlled trial; (ii) with adult participants; (iii) primarily training self- and/or other-compassion.

Table 1. Representative compassion trainings and outcome measures for included studies.

Self-Compassion Trainings	Other-Compassion Trainings	Self-Oriented Outcomes	Other-Oriented Outcomes
Compassion-Focused Therapy (Gilbert, 2009)	Compassion Cultivation Training (Goldin & Jazaieri, 2017)	Self-Compassion Scale (Neff, 2003)	Compassion Scale (Pommier et al., 2019)
Mindful Self-Compassion Program (Germer & Neff, 2013)	Cognitively-Based Compassion Training (Pace et al., 2009)	Fears of Compassion for Self (Gilbert et al., 2011)	Fears of Compassion for Others (Gilbert et al., 2011)
Lovingkindness for Oneself Meditation	Lovingkindness for Others Meditation	Forms of Self-Criticising/Attacking and Self Reassuring Scale (Baião et al., 2015)	Interpersonal Reactivity Index (Davis, 1980)

Selected training examples had a clear emphasis (> 69%) on either self- or other-compassion. Many compassion training practices were simply named 'loving-kindness meditation,' (also, lovingkindness) but this differed in emphasis on lovingkindness for oneself versus others.

compassion (albeit at distinct times). Using our continuous scoring system from −5 (entirely self-compassion training) to 5 (entirely other-compassion training), we found that 20 (21%) studies strongly emphasized self-compassion training (−5 or −4; >89% emphasis), whereas there were 15 studies (16%) on the other extreme, strongly emphasizing other-compassion training. The remaining 59 (63%) studies fell somewhere in between (−3 to 3), meaning they trained at least a modest level of a combination of self-compassion and other-compassion. However, only 5 studies (5%) placed relatively equal emphasis on training self- and other-compassion (a score between −1 and 1). Figures 2 and 3 present the number of studies grouped by degree of emphasis on training self- versus other-compassion.

Self- versus other-oriented outcomes

Regarding the emphasis on self- versus other-oriented outcomes, 85 of the 94 studies (90%) measured at least one self-oriented outcome (e.g. depression, anxiety, self-compassion), whereas only 36 studies (38%) measured other-oriented outcomes (e.g. charitable donations, empathy, other-compassion). A smaller subset of 27 studies (29%) measured both self- and other-oriented outcomes. Regarding our continuous rating of outcome emphasis from −5 (entirely self-oriented outcomes) to 5 (entirely other-oriented outcomes), we found 61 studies (65%) that either exclusively or strongly emphasized measuring self-oriented outcomes (thus given scores of −4 or −5; >89% emphasis), and only 12 studies (13%) that strongly emphasized measuring other-oriented outcomes (scores of 4 or 5; >89% emphasis). The remaining 21 studies (22%) fell somewhere in between (−3 to 3), meaning they measured at least a modest level of combination of both self- and other-oriented outcomes. However, of the studies that fell in between, we found only 5 studies (5%) placed a mostly equal emphasis (score from −1 to 1) on measures of self- and other-oriented outcomes. Figures 2 and 3 present the number of studies grouped by degree of emphasis on self- versus other-oriented outcomes.

Self versus other across training and outcome

To provide a more comprehensive understanding of the emphasis on self versus other in compassion training research, we tallied how many studies trained both

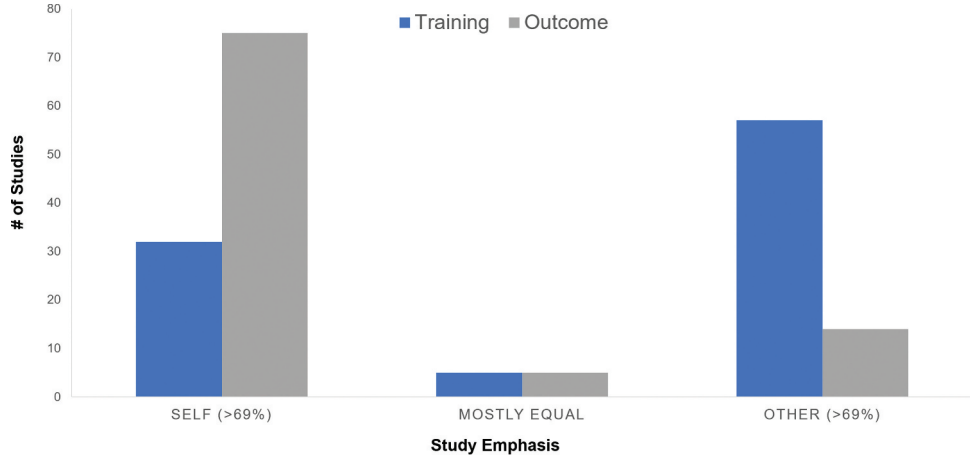

Figure 2. Emphasis of Self versus Other Across and Training and Outcome. Individual studies were coded for emphasis on self versus other across compassion training (blue) and outcome measures (gray). This 'bird's eye view' depiction of the field of secular compassion training reveals how it appears shaped by the division of compassion into overly dualistic constructs of self- versus other-compassion, resulting in trainings and measurement approaches of one emphasis or another.

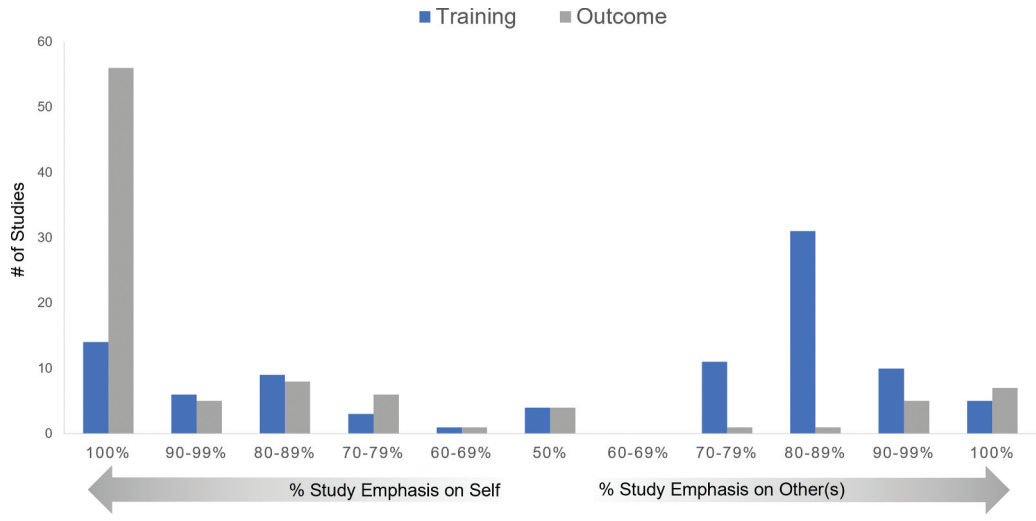

Figure 3. Number of Studies per Degree of Emphasis on Self versus Other. Individual studies were coded for emphasis on self versus other across training (blue) and outcome (gray).

self- and other-compassion, as well as measured both self- and other-oriented outcomes. Of the 94 total studies, 25 studies (27%) trained self- and other-compassion, as well as measured other-oriented and self-oriented outcomes. Thirteen studies (14%) trained self-compassion and measured self-oriented outcomes, but did not train other-compassion nor measure other-oriented outcomes, whereas only three studies (3%) both trained and measured other-compassion but did not train self-compassion nor measure self-oriented outcomes. We then considered each study's training and outcome emphasis scores together in order to consider the field's attention to various training-outcome pairings. As with ratings for trainings or outcomes alone, we considered any scores from −1 to 1 as 'mostly equal' regarding their emphasis on self versus other.

Table 2 presents the number of studies for each of the nine categories when considering training and outcome emphasis scores together. By far, the most studied training-outcome emphasis pairing was for examining self-oriented outcomes in the context of other-compassion training (40 studies; 43%). A substantial number of studies (31 studies; 33%) also emphasized self-oriented outcomes resulting from mostly self-compassion trainings. Only 13 studies (14%) emphasized the study of other-oriented outcomes in the context of other-compassion trainings, and no studies examined other-oriented outcomes from self-compassion trainings.

Table 2. Study count by training and outcome emphasis.

	Outcome Emphasis		
	Self-Oriented	Mostly Equal	Other-Oriented
Training Emphasis			
Self-Compassion	31	1	0
Mostly Equal	4	0	1
Other-Compassion	40	4	13

Counts represent the number of individual studies which fall into each of the nine categories created by the overlap of training and outcome emphasis on self versus other. To receive a mostly equal emphasis rating, the emphasis had to be between 50% to 69%.

Discussion

As compassion training continues to grow in popularity, it is imperative to consider how such training and related research may diverge from the foundations from which they derive. Here we considered how the division of compassion into two distinct constructs, namely self-compassion and other-compassion (other-oriented compassion or compassion), may be shaping the field in relation to traditional views on the overall intent and purpose of compassion training (e.g. to overcome mistaken perceptions regarding division of reality into self and others; Crosby & Skilton, 1996). Accordingly, the present review had three aims: 1) to describe the relative emphasis on self and other across both compassion training and investigated outcomes; 2) to consider possible patterns in the field's overall orientation toward self versus other in compassion training research; and 3) to consider how our findings may inform and guide future research on, and delivery of, compassion training. Overall, findings from our review of 94 RCTs on compassion training offered a 'bird's eye view' on the field's emphasis on self and other across training and outcome variables, revealing patterns and gaps in the study of compassion training that may help guide future work.

To address our first aim, our coding of 94 RCTs on compassion training allowed for describing each study's emphasis on self versus other across both training and

outcome. The resulting tallies offer perspective regarding the field's overall emphasis toward self and others across studies, consistent with our second aim of revealing potential patterns in the field's tendencies toward self and other in compassion training research. After first tallying studies according to binary criteria regarding presence versus absence of self- and other-compassion, we found 14 of the 94 (15%) studies exclusively trained self-compassion, while only 6 studies (6%) exclusively trained other-compassion. The majority of studies (79%) therefore incorporated elements of both self- and other-compassion into their training, revealing how the field of compassion training appears primarily interested in some degree of combined trainings. However, our more continuous coding method found 29 studies (31%) received scores indicating the training primarily focused on self-compassion (80% or more of total training time), whereas 46 studies (49%) primarily focused on other-compassion (80% or more of total training time). Additionally, the most frequent training emphasis score was between 80% and 89% other-compassion (33% of studies), indicating a moderate emphasis on other- over self-compassion. Taken together, when it comes to training emphasis, these findings point to an overall greater interest in trainings that emphasize other-compassion.

Yet findings also revealed a pattern consistent with the dualistic framing of compassion training into self- versus other-compassion, as is clearly evident in Figure 2. Specifically, only 5 studies (5%) placed relatively equal emphasis on the training of self and other-compassion, whereas 89 studies (95%) had an emphasis of 70% or greater instruction time on one type of compassion. This demonstrates that studied compassion trainings do tend toward either self- or other-compassion training much more commonly than relatively equal emphasis on both types of compassion. Moreover, even though both self- and other-compassion instructions were included in many training programs, they were mostly treated as relatively separate foci across distinct training sessions and practices. For example, the protocol for CCT, a primarily other-compassion training examined in a number of studies of this review, is structured with two distinct training sessions on compassion and loving-kindness for oneself (Jazaieri et al., 2014). The final week of CCT does include a more cumulative practice with focus on oneself and others, yet these are practiced in independent sections of lovingkindness for oneself and lovingkindness for specific others (Goldin & Jazaieri, 2017). To our knowledge, no studies appear to explicitly emphasize the combination or integration of self- and other-compassion in more simultaneous, blended forms.

The same coding approach was used to score the emphasis of self versus other in investigated outcomes. Initial counts found that 58 studies (62%) exclusively measured self-oriented outcomes, whereas only nine studies (10%) exclusively measured other-oriented outcomes. Twenty-seven studies (29%) measured both self- and other-oriented outcomes. According to continuous ratings of each study, 69 studies (73%) received scores indicating an 80% or more emphasis on self-oriented outcomes. By contrast, only 13 studies (14%) received scores indicating 80% or more emphasis on other-oriented outcomes. Thus, in contrast to training emphasis on other-compassion, we identified an overall tendency in the research to emphasize self-oriented outcomes. Even among 46 trainings that primarily emphasized other-compassion, 40 of them (87%) primarily emphasized self-oriented outcomes. These findings, revealing the majority of studies gravitate toward measuring self-oriented outcomes, may simply reflect the overall tendency toward an individual level of analysis in psychology and neuroscience (Cacioppo et al., 2010; Hasson et al., 2012). On the other hand, the study of compassion training seems an opportune topic for further breaking from this convention to deepen exploration of other-oriented outcomes. Moreover, the findings revealed a dualistic orientation to measuring the benefits from compassion training, in that study outcomes were readily grouped into one emphasis or another (see Figure 2). Very few studies (5%) placed relatively equal emphasis on self- and other-oriented outcomes.

Finally, we examined various training-outcome emphasis pairings. As detailed in Table 2, joint consideration of both training and outcome emphasis revealed the largest number of studies (43%) emphasized the investigation of self-oriented outcomes resulting from other-compassion trainings. Thus, although the field tends to prioritize the study of other-compassion training, there is greater focus on understanding their self-oriented benefits over potential prosocial effects. Similarly, the second most represented training-outcome pairing was for self-oriented outcomes in the context of self-compassion trainings (33%). A much smaller proportion of studies (14%) emphasized the study of other-oriented outcomes in the context of other-compassion trainings. Moreover, no studies exclusively examined other-oriented outcomes from self-compassion trainings, nor were there any representative studies which equally emphasized self and other across both training and outcome. Thus, even within a dualistic frame for studying compassion, these findings highlight the need for more research on: 1) other-oriented outcomes of other-

compassion training; 2) self-oriented outcomes of self-compassion training; 3) other-oriented outcomes of self-compassion training; 4) balanced emphasis across trainings and outcomes.

Toward a less dualistic science of compassion training

With respect to consideration of self and other throughout compassion training research, our review finds a number of ways the field already succeeds in challenging overly dualistic distinctions between self- and other-compassion. In addition to particular training-outcome pairings, this occurs through combining self- and other-compassion practice in the context of a single training program, and through combined investigation of self- and other-oriented outcomes in individual studies. As noted, a large majority of studies (80%) included some amount of training for both self- and other-compassion, and many studies (33%) included assessment of both self- and other-oriented outcomes. While we can only guess what guides this mixing of self and other in compassion research, it highlights the need for greater understanding regarding the personal versus social benefits of both self- and other-compassion. Additionally, the findings raise a number of intriguing questions about the relationships between self- and other-compassion training such as: Can self-compassion training alone increase other-compassion, and vice versa? Does degree of self-compassion limit or otherwise influence the development and expression of other-compassion, and vice versa? Are some people biased in unhealthy ways toward the expression of one form of compassion versus another? Is there a synergistic benefit of training both self- and other-compassion, when compared to training either form of compassion alone?

Beyond considering the relationships between self- versus other-compassion training, the present review points to provocative questions regarding the overall utility and accuracy of dualistic approaches to compassion to begin with. The Buddhist tradition from which most modern compassion trainings are based does not emphasize this distinction (Crosby & Skilton, 1996; Hanh, 1997; Khyentse, 2003), and the literature to date points in the direction of overlap across compassion trainings and outcomes. Consistent with this view, there has been a recent call for greater attention to the relational dimension of compassion training (Condon & Makransky, 2020). Moreover, recent data suggest the division between self- and other-compassion may not be entirely consistent with people's actual experience of compassion in daily life. For example, Quaglia, Soisson et al. (2020) found that people commonly report self- and other-compassion co-occurring, and in integrated ways, during everyday social interactions. Additionally, a qualitative study on counselors with compassion training found that compassion for self and others can interrelate in the process of psychotherapy, including through more unified experience of self- and other-compassion (Quaglia, Cigrand et al., 2020). Considered together with this review, such emerging evidence points to the need for examining compassion training in a manner that places less emphasis on separating compassion for self and others. There may even be need for new types of trainings or practices that help scaffold the development of less dualistic modes of compassion. As one basic example, even in the context of existing compassion trainings with one emphasis or another, practitioners could be guided to move between self- and other-compassion during a single training session, noticing experiential elements that are shared between them. Or, joining the development of wisdom and compassion as is done in traditional Buddhism, modern practitioners could systematically contemplate the interdependence of oneself and others as a way of mitigating dualistic modes of compassion. Of course, an ideal approach to developing new practices would be grounded in traditional training methods at least as much as current practices. Such work would also likely require the development of new measures to assess combined or undivided forms of self- and other-compassion.

Limitations and future directions

This review was limited in several of the following ways that can help inform future research. First, this review focused solely on RCTs, given their status as the gold standard of rigorous research. While we believe these studies are likely representative of compassion training research, our findings may not generalize to the field of compassion research as a whole. Therefore, future research should consider how the self- versus other-compassion distinction is shaping the field of compassion research even more broadly. Second, our coding procedures for emphasis scoring relied on rating each study according to our assessment of published descriptions of study design features, which may not always match perfectly with actual training procedures or the complete list of outcome measures. Indeed, we expect at least some trainings already include informal or even planned discussions about relationships between self- and other-compassion, which are not represented in published descriptions. Relatedly, we chose to code training emphasis based on published descriptions of

instruction and practice time, rather than the stated overall intent for training. While we found instruction and practice time to be mostly aligned with training intent, there were cases where intent could be a third relevant factor. For example, in the context of a self-compassion training, Albertson et al. (2015) used some other-oriented lovingkindness methods. Finally, our combined study emphasis scores accounted for two primary aspects of a study, namely training protocol and outcome measures, and placed equal emphasis on them (by averaging training and outcome scores). While we believe these aspects are the two most critical features for determining a study's emphasis on self versus other, one feature may be more primary than the other. However, we do not expect this to be uniform across studies.

Conclusion

To date, Western compassion trainings and related research have clearly relied on the practical distinction between self- and other-compassion. However, heavy reliance on this division appears to err on the side of accessibility and tractability over precise and thorough training and understanding of compassion. Perhaps most problematic, dividing compassion into self- versus other-compassion could undermine its most profound potential, namely in helping to overcome and heal divisions between notions of self and others, both actually and conceptually. The present review therefore aimed to describe ways this division of compassion is shaping the field of compassion training as a whole, and to consider what questions and phenomena may be overlooked when compassion is so divided. We found that the field of compassion training research does in fact rely heavily on the self-other distinction, and in ways that lead to a primary emphasis on either self or other, rather than relatively equal emphasis on self and other. Yet we also found that compassion training and research succeeds in challenging overly dualistic approaches to compassion in some important ways, suggesting that trainers and researchers alike may share intuitions about compassion that are not as dualistic as the constructs of self- versus other-compassion. Additionally, we found an overall tendency toward the study of other-compassion training, but self-oriented outcomes. Accordingly, this review highlights the clear need for more research on social benefits of both self- and other-compassion training. It will also be useful to consider various ways self- and other-compassion interrelate during training and in people's day-to-day social lives. In light of the findings from this review, alongside emerging evidence regarding people's less dualistic experiences of compassion, we close with a call for more research to constructively challenge dualistic views of compassion.

Notes

1. Chandrakirti's magisterial Madhyamaka-avatara on the Mahayana path begins with this famous verse:

   "*Compassion alone is first seed for the abundant harvest of buddhahood; Then water for its growth, And finally, what matures as a state of lasting enjoyment –*

   Therefore, first I praise compassion" (Khyentse, 2003).

   This verse is famously used to explain that compassion is the foundation, the method and the result of the Mahayana path to enlightenment.
2. The early tradition developed practices of lovingkindness (*maitri* or *metta*) and compassion (*karuna*) separately. Eventually, they were ranked in the commentarial traditions to the 'four immeasurables' – *brahmaviharas* – or practices that display the highest capacities of human life: lovingkindness, compassion, sympathetic joy, and equanimity. These four distinct but related practices have been important in Theravada and Tibetan Buddhism (Aronson, 1999; Wallace, 2004).
3. Vimalakirti's 'great compassion' (mahakaruna) comes from seeing all beings as inseparable from oneself. He uses the example that parents of a sick child themselves become sick; through compassion, they take the welfare of their child so personally that it becomes their own (Thurman, 2006).

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