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The Four Immeasurables Program:

Training empathy and promoting altruism through meditation.

An eight-week randomized controlled pilot study

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Tack...

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Abstract

The general purpose of this randomized controlled pilot study was to investigate the potential effects of The Four Immeasurables Program on empathy and measures assumed to be related to the development of empathy and empathic concern for others such as perceived stress, mindfulness, and self-compassion. Of primary interest was to study whether the program can alter the dispositional tendency to feel empathic concern rather than personal distress when perceiving another as in need, termed *other-orientation*. In a randomized controlled study, an experimental group (n=21) was enrolled in an 8-week Four Immeasurables Program based on the Buddhist meditations of loving-kindness, compassion, joy and equanimity, as well as the practice of Tonglen (“taking and sending”). The control group (n=25) was assigned to a waiting-list condition. After controlling for pre-test scores, post-intervention results showed a trend towards increases in other-orientation in the experimental group - an increase that significantly correlated with meditation time and with decreases in perceived stress as well as increases in self-compassion and mindfulness. Additionally, significant increases in mindfulness and self-compassion and a significant decrease in perceived stress were obtained for the experimental group when compared to the controls.

Keywords:

empathy, altruism, stress, mindfulness, self-compassion, loving-kindness, compassion, empathetic joy, equanimity, the Four Immeasurables, meditation, empathic concern, personal distress, perspective taking

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Introduction

Imagine you are seated on a bench a sunny afternoon, trying to get some peace and quiet. Around the playpen just nearby your five-year-old son is going round and round on his new bicycle, just learning how to ride it. Suddenly he falls and cries. You automatically orient your attention to the turmoil to assess the situation and see the upset face and tears on your son's cheeks, you hear his cry, and you automatically want to soothe and comfort him. This natural ability to perceive and understand the emotions of others, whether in an actual, novel or merely imagined situation refers to the capacity of empathy – an innate capacity fine-tuned in social interaction. However, this sharing of the feelings of another person does not necessarily imply that one will act or even feel compelled to act in a supportive way. Even if chances are high that you will act to soothe and comfort your child in the situation depicted above, there is also a chance that you would react in another way. You might, for example, react with irritation towards your son for being so demanding and never giving you any leeway. The fact is, we do not always soothe or comfort others even if the situation warrants such a behavior. What then inclines us to respond altruistically as compared to egocentrically in a given situation?

According to Batson (2011), altruism is an important factor in human behavior. In the recently published *Altruism in Humans* (Batson, 2011), he presents an impressive body of empirical data and clear-cut analysis in compelling support for this tenet. He further states that failure to appreciate the importance of altruism has marginalized attempts to understand why we humans act as we do and wherein our happiness lies. More importantly, he concludes “that this failure has also handicapped efforts to promote better interpersonal relations and a more caring humane society” (Batson, 2011, p. 3).

Even if some remain skeptical towards the idea of true altruism, most would agree that better interpersonal relations and a more compassionate society is a worthy and desirable goal. To our knowledge, there are few, if any, modern psychological interventions that are aimed at promoting this. The primary purpose of this randomized controlled pilot study is to investigate the effects of the Four Immeasurables Program (FIP) on the dispositional tendency to feel empathic concern (EC) rather than personal distress (PD) – the emotional states associated with different behavioral consequences when perceiving another as in need (Batson & Shaw, 1991; Davis, 1983). The concept of altruism is however highly controversial– does it even exist? We will start by exploring different viewpoints on the

matter, followed by a review of current research on empathy, a process crucial for the development of altruism.

Theory

Altruism. It is and has been central to Western thought for centuries to assume that self-benefit is always the ultimate goal of human existence. The cultural heritage of thinkers such as Aristotle (384-322 B.C), St. Thomas of Aquinas (1225-1274), Thomas Hobbes (1588-1679), Jeremy Bentham (1748-1832), Friedrich Nietzsche (1844-1900) to Sigmund Freud (1856-1939) all point to the same tenet: human beings are intrinsically egoistic. The mainstream assumption of economics and related subjects such as agency theory, transaction costs economics and industrial organization economics is that of self-interest. Contemporary economists, such as Mueller (1986), assert that humans are under control of classical and operant conditioning which means pleasure-seeking, pain-avoiding beings - hedonists of the most basic kind. Jensen (1994) also argues that self-interest is the underlying basis for human motivation. He even concludes that self-interest is what actually benefits the world, and motivation other than that guided by self-interest is non-rational, dysfunctional and even harmful. According to Jensen, altruism is to be seen as included in self-interest because when following one's own preferences and personal goals, the resulting behavior may be altruistic. So, if a person acts for the welfare of others, such a person would be interested in attaining a preferred goal and experiences pleasure in doing so. Therefore, even this apparent altruism would actually be a product of egoism (Jensen, 1994). Batson and Shaw (1991), in turn, claim that it already has been shown by philosophers that the view of universal egoism is founded on a confusion of two kinds of psychological hedonism. The strong form of psychological hedonism asserts that it is personal pleasure that is the goal of every human action – the view that the proponents of universal egoism assume. The weak form, however, asserts that it is goal attainment that always brings pleasure. This form of hedonism is not inconsistent with the assumption that altruism is possible. Advocates of altruism do not deny that the motivation for much of what we do, even that which we do for others, is based on an egoistic motivation. They claim nevertheless there is at least a potential or capacity for a qualitatively different form of motivation than an egoistic.

Definitions of egoism and altruism. When defined, the terms altruism and egoism share common ground. They are both concerned with motivational states well as the ultimate goal of this motivational state, which is to increase someone's welfare (Batson, 2010). Batson

and Shaw (1991) define altruism as “a motivational state with the ultimate goal of increasing another’s welfare” (p. 108) and egoism as “a motivational state with the ultimate goal of increasing one’s own welfare” (p. 108). “Motivation” here refers to a goal-directed psychological force within an organism. If barriers that hinder the goal should arise, alternative routes will be sought after. It is assumed that the motivational force to reach a goal disappears when the goal is reached. An “ultimate goal” here refers to a means-end relation, not just an intermediate means for reaching some other goal (Batson & Shaw, 1991). What marks egoistic motivation is a willingness to increase one’s own welfare - even to the expense and cost of others’ welfare. An organism can however have multiple motives, and altruistic and egoistic motives can exist simultaneously. Motives can evoke a variety of behaviors or no behavior at all. A motive is a force that may lead to action depending on what behavioral options and other motivational forces are available in the situation (Batson & Shaw, 1991). This means that an act for the benefit of one’s own welfare may be instrumental, with the ultimate goal of the welfare of others (e.g., “I want to feel less stress so that I can help others experience less stress”) or vice versa; that is, an apparent altruistic act can be a way to increase an ultimate egoistic goal (e.g., “I want to donate money to poor people so that I can be more appreciated and respected”). Altruism does not necessarily need to involve self-sacrifice or any cost to the self, and it may of course even involve self-benefit. The point is that self-benefit is not the ultimate goal, but instead it is a consequence or means of benefitting the other. This means that the self, as an agent who seeks personal preferences, is not the issue when attending to another’s emotional state. It is a matter of whose welfare the goal is rather than who has the goal. This other-oriented motivation contrasts a self-directed motivation and pertains to the capacity of valuing another’s welfare as an end in itself (Batson, 2011). Studies (Eisenberg & Miller, 1987; Piliavin & Charng, 1990) show that altruism and caring for others is associated with the interpersonal ability to feel with and understand other’s emotional states – most often referred to as “empathy”.

Empathy: a conceptual jungle. The term empathy is currently adopted for a half-dozen different phenomena and has been given many different meanings, differing from author to author. The empathy research field is plagued by definitional ambiguity and subtle mismatches between the definitions of the same terms – possibly a reflection of the complexity and the many aspects involved in empathy. Batson (2011) identifies at least eight distinct phenomena that have frequently been defined as empathy in the literature. These are

(1) knowing another person's internal state, including thoughts and feelings, (2) adopting the posture or matching the neural response of an observed other, (3) coming to feel as another person feels, (4) projecting oneself into another's situation, (5) imagining how another is thinking and feeling, (6) imagining how one would think and feel in the other's place, (7) feeling distress at witnessing another person's suffering, and (8) feeling for another person who is suffering.

Definition of empathy. We will here define empathy as Eisenberg and Eggum (2011, p. 71) "an affective response that stems from the apprehension or comprehension of another's emotional state or condition, and which is similar to what the other person is feeling or would be expected to feel." This definition also includes Decety and Jackson's (2004; Decety, 2011) functional model of empathy, which is described in more detail in the next section. Eisenberg and Eggum (2011) assume that empathy, if above some minimal threshold, is likely to evolve into sympathy, personal distress or both.

Their definition of sympathy is "an emotional response, stemming from the apprehension of another's emotional state or condition, that is not the same as the other's state or condition but consists of feelings of sorrow or concern for the other" (p.71-72). Sympathy is thus dependent on empathy, but empathy does not always evolve into sympathy (i.e., an other-oriented emotion response) as it can also evolve into personal distress - "a self-focused, aversive affective reaction to the apprehension of another's emotion, associated with the desire to alleviate one's own, but not the other's distress" (Eisenberg & Eggum, 2011, p. 72).

"Sympathy" as defined by Eisenberg and Eggum (2011) and Decety (2011) is highly similar to Batson's (2011) definition of empathetic concern as "an other-oriented emotional response elicited by and congruent with the perceived welfare of someone in need" (p. 20).

In line with these definitions, Davis (1994) defines empathy as a multidimensional construct entailing both cognitive role taking as well as affective reactivity, which includes both personal distress and empathic concern. Davis (1994) defines empathic concern as "feelings of warmth, compassion, and sympathy that an observer has for an unfortunate other"(p. 167) and personal distress as "a self-oriented response characterized by feelings of anxiety and unease to distressed targets" (p. 106).

Below is a summary of definitions used in this study:

- Empathy –“an affective response that stems from the apprehension or comprehension of another’s emotional state or condition, and which is similar to what the other person is feeling or would be expected to feel” (Eisenberg & Eggum, 2011, p. 71).
- Empathy, if above some minimal threshold, is likely to evolve into empathic concern, personal distress or both.
- Empathetic concern –“an other-oriented emotional response elicited by and congruent with the perceived welfare of someone in need” (Batson, 2011, p. 20).
- Personal distress –“a self-focused, aversive affective reaction to the apprehension of another’s emotion, associated with the desire to alleviate one’s own, but not the other’s distress” (Eisenberg & Eggum, 2011, p. 72).

A functional model of empathy. Decety and Jackson (2004) describe empathy as dependent on three processes: (1) affective sharing between the self and the other, (2) self-other awareness, and (3) self-regulation/mental flexibility. In a more recent publication Decety (2011) correspondingly names these components as (1) affective arousal sharing, (2) emotional awareness and (3) self-regulation (see Figure 1). In this study we use the latter names for the three components, which are seen as highly interrelated, entailing both the automatic bottom-up processing of affective sharing as well as top-down mediated processing where motivation, intentions and self-regulation serve to regulate, modify and reappraise empathic experience. The components are described in more detail below.

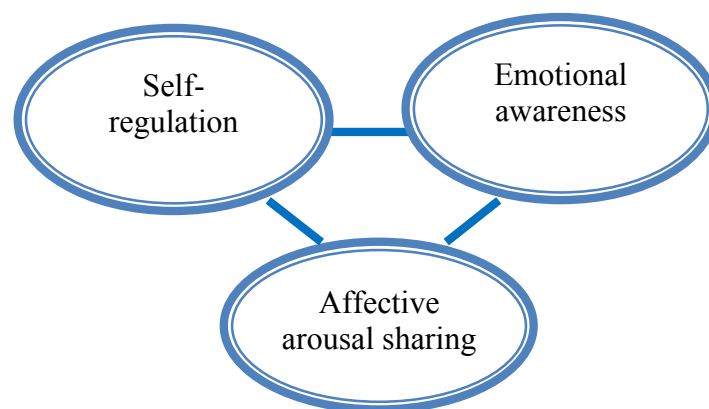


Figure 1. The functional model of empathy (Decety, 2011)

Affective arousal sharing. With sensory stimuli, there arises an implicit feeling tone consisting of a) *valence* (positive, neutral, negative) and b) *arousal*. These two factors seem to be mirrored in peripheral physiological responses (Anders, Lotze, Erb, Grodd, & Birbaumer, 2004). Bottom-up approaches characterize emotion as generated by conditioned, either operant or classical, responses and treat emotions as inevitable consequences of perceiving a specific category of stimuli (Ochsner & Gross, 2007). If you recall the example given previously, the same moment you perceived your son's painful scream, an automatic involuntary bottom-up response happened even before you were consciously aware of it. This process involves resonating with another person's affect as proposed by Preston and de Waal (2002) in their Perception-Action Model (PAM). Perception-action is thought to be an evolutionary adaptation of the nervous system, making it fit for a group-living context. The PAM states that observation of a given state in another automatically activates similar representations of that state in the observer, which in turn activates somatic and autonomic responses. Sensory-motor neurons (mirror neurons) serve as the physiologic mechanism for this link (Decety, 2011).

Accumulating evidence indicates that we are innately prone to mimic others. Newborns, for example, cry in reaction to the distressed cries of other newborns, and viewing facial expressions of others triggers similar expressions on one's own face (Decety & Jackson, 2004). Mimicry also seems associated with helping behavior. Van Baaren, Holland, Kawakami, and van Knippenberg (2004) showed that participants who had been mimicked by the experimenter were more helpful and generous toward other people also outside the immediate situation as compared to non-mimicked participants.

It has also been demonstrated that first-hand experience of pain and the perception of pain in others involves partly shared neural correlates, especially the motivational-affective dimension of perceiving pain (Decety & Lamm, 2011). This might not however be specific to the sensory qualities of pain but rather to motivational states of aversion, a critical part of perceiving another as in need. Furthermore, it has been found that the degree of activation of the shared neural network for pain in observers correlate with scores on the Empathic Concern Scale of the Interpersonal Reactivity Index (IRI; Davis, 1983). The higher participants scored on this scale, the higher were their activation in anterior cingulate cortex (ACC) and anterior insula (AI) - structures involved in perception of self and others in pain (Hein & Singer, 2010).

The shared mental representation model states that perception of an action should activate representations to the degree that the perceived action and the represented action is similar (Decety & Jackson, 2004). Subjects that, to a larger extent, correctly identified emotions of others also to a higher extent showed a matching physiological state to that of the other. Empathy and altruistic behavior are indeed correlated with increasing tendencies from disliked persons, strangers, acquaintances, close friends to kin (Preston & de Waal, 2002). For instance, Gutsell and Inzlicht (2010) showed that the mirror-neuron system, which is thought to be involved in empathy, is less responsive to out-group members compared to in-group members, an effect magnified by prejudice. Similarly, Darwin stated that the likelihood of altruistic actions is greatest when the helper is related to the person needing help (Ekman, 2010).

Again, if you consider our example mentioned in the beginning, chances are that your facial expression will change when you perceive your child's cry, and that a similar mental representation that has been activated in your son will be activated in you. This entails state matching and emotional contagion where you automatically feel a similar feeling to that which your son is feeling. Because of the close interconnected relationship with your son, the mental representation is also a rich representation. If the child would be unknown, chances are that your affective response would be less accurate and less intense because of a lower degree of matching state.

Emotional awareness. Although involved in the process of empathy, state matching and emotional contagion do not necessarily entail an awareness of the source of the emotion (Batson, 2011; Lamm, Decety, & Singer, 2011). Empathy is dependent on the ability to discern who it is that is in need (the self or the other). This refers to the ability of being able to identifying the source of a feeling, also called sense of agency, which is related to theory-of-mind and emotional awareness (Decety & Lamm, 2011). Emotional awareness is thought to facilitate accuracy (i.e., to understand the other's mental state), and minimize projection (i.e., to falsely assume that one's own state is that of the other) (Preston & de Waal, 2002). Relating to our example, discernment of self-other involves the understanding that your felt distress is due to the pain expressed by your son, in turn directing your eventual helping or soothing. In contrast, if you should confuse the pain of the other to be yours, then you would be more likely to direct eventual helping efforts towards yourself rather than the other. Thus, self-other confusion is more likely when the source of the emotion is ambiguous.

Self-regulation. While the bottom-up approach treats emotions as inevitable consequences of a certain stimuli, top-down processes enable a flexible appraisal of the same stimulus as either threatening or not, and rewarding or not, depending on the circumstances (Ochsner & Gross, 2007). Top-down processes give us the ability to regulate, reappraise and override an initial bottom-up response, and involve interpreting and reappraising the meaning of stimuli in a context. A stimulus valence thus is not inherent in the stimulus but rather inherent in our appraisal of it. As Ochsner and Gross (2007) put it: “One might for example transform anger into compassion by judging that the apparently aggressive behavior of a drunk partygoer is the unintended consequence of an attempt to drown his sorrows after receiving bad news.” (p. 96). Reappraisal involves mental flexibility, an ability to see the same situation from different viewpoints. This is conceptually very close to perspective taking, the ability to adopt another’s point of view and to inhibit the default self-perspective dependent on controlled processes drawing on frontal regions of the brain (Decety & Jackson, 2004). For instance, Spinella (2005) found that self-reported measures of prefrontal system dysfunction were positively correlated with Personal Distress Scale (IRI) and inversely correlated with the Perspective Taking and Empathic Concern Scales (IRI).

Perspective taking instructions, such as taking another’s perspective, have been shown to exhibit a latency effect for perception of other’s actions compared to self-perception (Decety & Jackson, 2004). The more direct and earlier onset of hemodynamic signal for the self versus the other may signal a “privileged tendency” for the self-perspective compared to other-perspective, and the other-perspective more heavily depends on higher inhibitory cognitive functions related to the frontal areas of the brain implying the need to inhibit the default self-perspective to facilitate perspective taking (Decety & Jackson, 2004). Neuro-imaging studies (Lamm, Batson, & Decety, 2007) also show that taking another’s viewpoint differs from projecting oneself into the state of another. These are two distinct modes of perspective taking which have been shown to be connected to different emotional consequences. For example, Batson, Early, & Salvarani (1997) showed that the “concern for other mode” of perspective taking evokes empathic concern, whereas projecting oneself into the state of another evokes empathic concern and personal distress.

Eisenberg and Eggum (2011) argue that people who have high control over their ability to focus and shift attention are prone to empathic concern due to the ability to regulate and modulate negative vicarious emotion. This regulation is hypothesized to help persons keep an optimal arousal, neither over-aroused (associated with personal distress) nor under-

aroused (linked to psychopathic tendencies), which facilitates empathic concern (Eisenberg & Eggum, 2011). Decety and Jackson (2004) likewise propose that mental flexibility and the ability to inhibit the default stimulus-driven self-perspective is crucial for taking the perspective of the other, which in turn is thought to develop empathic concern rather than personal distress.

To sum up with our example: At first you automatically orient your attention to your child to access the situation, making sense of what is going on. If you perceive your child as in need and at the same time highly value his welfare, you are spontaneously inclined to adopt his perspective, understanding his plight for your comfort. At the same time, you regulate your own ongoing emotional experience, which allows you to feel the pain of your child and approach it rather than avoid it. However, if regulatory functions fail you may get overwhelmed, enacting the default self-perspective and drawing your attention to your own need rather than that of your child.

The Empathy-induced Altruism Hypothesis. So how is the empathic process related to altruism? The Empathy-induced Altruism Hypothesis (EAH) as posed by Batson (2011) predicts that *perceiving another as in need* together with *valuing the other's welfare* will evoke an emotional response congruent with the perceived welfare of the other – that is, empathic concern. Empathic concern is proposed to produce a motivational force with the ultimate goal of increasing another's welfare called “altruistic motivation” (Batson, 2011). The basis for EAH is value-extension theory, asserting that humans are capable of valuing others welfare in a given situation. Perceiving another as in need and valuing the other's welfare are seen as highly interrelated and as dependent on a minimal threshold degree of both for the development of empathic concern. This theory fits into the general class of theories that assume a discrepancy between a valued state and a perceived state evokes emotion that, in turn, produces goal-directed motivation to obtain or maintain the valued state (Batson, 2011).

A preponderance of studies (Piliavin & Charng, 1990; Schroeder, Dovidio, Sibicky, Matthews, & Allen, 1988) show that empathic concern is related to altruistic behavior. Batson and Shaw (1991) further present evidence for the EAH in more than 30 experiments where in empathic concern for a person in need has been either manipulated, measured or both. Experiments have shown that most people are willing to receive uncomfortable

electrical shocks themselves to help someone in need, even if the potential helpers are offered an "easy escape" that would not require helping (Batson, 2011).

Empathic concern and personal distress. In short, research shows (Piliavin & Charng, 1990; Schroeder et al., 1988) that empathic concern that involves the other-oriented emotional response elicited by and congruent with the perceived welfare of someone in need, leads to altruistic behavior whereas the experience of personal distress involves self-focused efforts to reduce one's own aversive state rather than that of the other and leads to egoistic behavior. Empathic concern is linked to feelings of compassion, sympathy, and warmth felt for the other person, whereas personal distress is linked to negative affect, unease and discomfort (Eisenberg & Eggum, 2011; Davis, 1983).

Generally, emotion regulation skills are hypothesized as crucial for the tendencies to feel empathic concern rather than personal distress when perceiving other's as in need. Eisenberg and Eggum (2011) point to research evidence showing that empathic over-arousal when viewing another in a negative emotional state promotes a self-focus (i.e. personal distress). In contrast, people who experience very low levels of empathy are expected to show low levels of empathic arousal and exhibit psychopathic tendencies - possibly related to a lack of valuing the other's welfare. It is stated that people who experience at least above threshold levels of emotion in response to distress in another and/or who are well emotionally regulated are the ones most prone to empathic concern. Likewise, for people who exhibit intense emotions, empathic concern is dependent on regulation that is not overridden by personal distress leading to self-directed efforts (Eisenberg & Eggum, 2011).

As shown in the reviewed literature so far, the degree of empathy is highly dependent on situational cues. In a study by Singer et al. (2006), perceived fairness of another was manipulated via an economic game. The results showed that the neural empathy-related activation for imagining the other in pain was differently activated when subjects used the fair person compared to the unfair person in their imagery. In fact, seeing the pain of another was instead even related to reward-related brain areas, especially for men, associated with the desire for revenge (Singer et al., 2006). This can be related to not valuing the other person's welfare, which seems to inhibit empathic concern (Batson, 2011). This is in line with the PAM, positing that empathic arousal and the resulting emotions is a biased phenomenon favored for those who are socially close (Preston & de Waal, 2002).

The states of empathic concern and personal distress are seen as distinct emotional states associated with different behavioral consequences (Batson & Shaw, 1991; Davis, 1983). A high level of empathic concern together with a low level of personal distress is most likely to result in altruistic behavior, whereas high levels of personal distress, even with high levels of empathic concern, whereas high levels of personal distress (even with high levels of empathic concern) is supposed to be related to over-arousal and thus a greater tendency for self-directed efforts and escape (Eisenberg & Eggum, 2011). Personal distress and empathic concern have been shown to correlate moderately, with a mean positive correlation of .52 as measured by the IRI (Davis, 1983). This is in line with Davis's (1983; 1994) view of personal distress and empathic concern as both entail emotional reactivity to "an unfortunate other".

Based on the current review that empathic concern and personal distress are distinct emotional states with different consequences, we take the stance that the measured difference between the two is an important and complementary measure that can account for the dispositional tendency to act altruistically as opposed to just being empathically/affectively aroused (which can entail both high levels of empathic concern and personal distress). We therefore include the measured difference between dispositional empathic concern and dispositional personal distress (EC-PD) as a viable means to identify the dispositional tendency to respond to another's need rather than one's own in an aversive situation. This measured tendency is further referred to as "other-orientation".

Training empathy through meditation. Shapiro and Izett (2008) propose that meditation offers a unique method for cultivating empathy. As shown above, the tendency to respond with empathic concern rather than personal distress is hypothesized as dependent on attentional and self-regulatory mechanisms - crucial for the ability to inhibit and reappraise affective bottom-up arousal. Shapiro and Izett (2008) propose three pathways by which meditation develops empathy: (1) by reducing stress, (2) by increasing self-compassion and by (3) learning to disidentify with one's own subjective perspective. The last pathway is a central component in the mindfulness meditation instruction of letting go of thought content and returning to the present moment with a non-judgmental awareness, cultivating attentional stability and clarity.

Stress. Shapiro and Izett (2008) refer to studies that show that when people are distressed their empathy levels decrease. As reviewed above, people who are psychologically distressed are prone to personal distress and over-arousal rather than empathic concern.

Perceived stress is the degree to which situations in one's life are appraised as stressful (Cohen, Kamarck, & Mermelstein, 1983). This involves the degree to which one finds one's life as unpredictable, uncontrollable and overloading. Meditation-based interventions have been shown to significantly decrease stress (Baer, 2003), which may then serve to indirectly promote empathy. Studies indicate that reduced stress through mindfulness-based stress reduction also can mediate increased levels of empathic concern (Shapiro, Schwartz, & Bonner, 1998). Further, results from Galantino, Baime, Maguire, Szapary and Farrar (2005) indicate that a higher degree of cortisol levels in the body was related to a heightened level of negative affect and a lower level of empathic concern. It has also been proposed that genetic variation of the oxytocin receptor is related to an increased ability to infer the mental states of others, higher levels of dispositional empathy as well as lower levels of stress, indicating a neuro-endocrinal link between stress and empathy (Rodrigues, Saslow, Garcia, John, & Keltner, 2009).

There may however also be a more direct path. Interestingly, chronic stress seems to be related to impaired executive functioning, such as attentional set-shifting – the ability to move attention between tasks (Orem, Petrac, & Bedwell, 2008) - and to inhibit interference from irrelevant information (Braunstein-Bercovitz, 2003), mechanisms earlier described as important for emotion regulation. Training attentional resources may thus be a direct mechanism in which empathy is promoted and stress reduced.

Self-compassion. Goetz, Keltner, and Simon-Thomas (2010) defines compassion as “the feeling that arises in witnessing another's suffering and that motivates a subsequent desire to help” (p. 351). This definition is strikingly similar to Batson's (2011) definition of empathic concern. Neff (2003) defines self-compassion as fully congruent with this more general term, involving “patience, kindness and a non-judgmental understanding, recognizing that all humans are imperfect and make mistakes” (p. 224). She further defines self-compassion as “being open to and moved by one's own suffering, experiencing a feeling of caring and kindness toward oneself, taking an understanding, non-judgmental attitude toward one's inadequacies and failures, and recognizing that one's own experience is part of the common human experience” (Neff, 2003, p. 224).

As seen in Figure 1, empathic concern is mainly thought to be related to the capacity to regulate one's vicarious emotion. Neff (2003) proposes that self-compassion can be viewed as a useful emotional regulation strategy, where aversive emotions are held in awareness with kindness and understanding. Self-compassion is thought to be inversely

related to becoming self-immersed in one's subjective emotional experience, a tendency possibly related to personal distress and making it difficult to adopt the perspective of another. Self-compassion instead entails a balanced awareness with one's ongoing emotional experience, without the need to either suppress or express/act on it. Self-compassion measured with the Self-Compassion Scale (SCS; Neff, 2003) has indeed shown to be inversely related to thought suppression and rumination, as well as positively related to emotional processing but not to emotional expression. Furthermore, it has also been shown to be significantly related with mental health (Neff, 2003). The results by Neff (2003) show for example negative correlations between self-compassion and depression/anxiety, non-significant relations with narcissism, and significant positive relations with self-esteem and satisfaction with life. Participants who score high on the SCS also tend to score high on mindfulness. Van Dam, Sheppard, Forsyth and Earleywine (2011) however showed that self-compassion accounted for as much as ten times more unique variance for symptom severity in anxiety, depression and worry and quality of life than mindfulness in a community sample of anxiety patients.

Mindfulness. Mindfulness is defined as “paying attention in a particular way: on purpose, in the present moment, and non-judgmentally” (Kabat-Zinn, 1994). Meditative practices, such as the cultivation of mindfulness, have been increasingly incorporated into psychotherapeutic programs such as Mindfulness-Based Stress Reduction (MBSR; Kabat-Zinn, 1990), Dialectic Behavioral Therapy (DBT; Linehan, 1993), Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 1999) and Mindfulness-Based Cognitive Therapy (MBCT; Segal, Williams, & Teasdale, 2002). Mindfulness-based interventions have been shown effective for chronic pain, eating disorders, recurrent depression and anxiety (Baer, 2003), and the development of mindfulness has also been linked to well-being and quality of life (Carmody & Baer, 2008).

Reviewed studies show that mindfulness as well as self-compassion may play an important role in the regulation of emotion. How this is accomplished is however not fully clear at this point. Lykins and Baer (2009) showed that mindfulness was a significant mediator of the relationship between meditation experience and fear of emotion, meditation experience and rumination, and meditation experience and behavioral self-regulation. These results indicate that the development of mindfulness through meditation alters emotion regulation, which is believed to be central for the development of empathic concern rather than personal distress when empathically aroused. It was also shown that decreased

rumination and fear of emotion contributed independently to the mediation of the relationship between mindfulness and well-being (Lykins & Baer, 2009). It has also been shown (Hollis-Walker & Colosimo, 2011) that self-compassion partially mediated the relation between mindfulness and psychological well-being. Participants who score high on self-compassion also tend to score high on mindfulness.

Some studies that explore the link between mindfulness and empathy have been done. In a quasi-experimental design (lacking control group), Birnie, Speca and Carlson (2010) explored effects of MBSR on self-compassion, mindfulness and empathy. The results indicated significant changes on all scales when pre- to post-scores were compared, except for empathic concern, which showed a non-significant change. The study showed that the participants of the MBSR program scored significantly lower on personal distress and significantly higher on perspective taking after the intervention.

Shapiro, Schwartz and Bonner (1998), who also adopted techniques from the MBSR-program, showed that medical students reported higher scores on overall empathy levels after the program. Pathways analysis indicated that decreases in trait anxiety mediated subsequent changes in empathy.

Accumulating evidence also shows that mindfulness training has significant effects not only on self-reported and behavioral measures but also on a neural level. Neuro-imaging of 20 long term insight meditators showed thicker cortical structures compared to matched controls, especially in the prefrontal cortex and right anterior insula, regions associated with attention and sensory processing (Lazar et al., 2005). Further, a longitudinal neuro-imaging study by Hölzel, Carmody, Vangel, Congleton and Yerramsetti (2011) showed evidence for increases in gray matter density within the left hippocampus, posterior cingulate cortex, the temporo-parietal junction and the cerebellum after an 8-week MBSR program. These areas are associated with learning, memory, self-referential processing and most notably with both emotional regulation and perspective taking (Hölzel et al., 2011).

Highly-anxious individuals seem to exert greater cognitive effort and invest more attentional resources for a target task (Ansari & Derakshan, 2011), whereas mindfulness meditation is proposed to reduce brain resource allocation needed for processing a target stimuli (Slagter et al., 2008). As shown by cognitive performance, reduction of unintended emotional interference as well as attention performance (Moore & Malinowski, 2009; Ortner, Kilner, & Zelazo, 2007) are affected by mindfulness meditation practice. Thus cultivation of attention is a crucial component to successful meditation.

The Four Immeasurables Program (FIP). Prior research has mainly been concerned with the effects of mindfulness-based interventions and meditations – techniques that in their traditional form are aimed at the development of attention and insight. Even though these techniques might prove fruitful for the promotion of empathy and altruism, we here propose that the Four Immeasurables Program is better suited for this task because it more explicitly focus on developing kindness and compassion for others.

FIP is based on meditative techniques described by Pema Chödrön (2001, 2002, 2009) and Ken McLeod (2001), who belong to the Nyingma/Kagyü lineages of Tibetan Buddhism. The name Four Immeasurables Program is used because it sums up the contents of the program. This is not to say that the content is in any way novel or created by the authors. The techniques are rather well-known and widely used in the Buddhist community and include loving-kindness, compassion, empathetic joy and equanimity. The program in its entirety involves mindfulness, meditation of the Four Immeasurables and the practice of Tonglen.

Meditation of the Four Immeasurables. The Sanskrit word for meditation is *bhavana* which literally means “cultivation” (Wallace, 2009). As we mentioned above, the Four Immeasurables involves the cultivation of loving-kindness, compassion, empathetic joy and equanimity (see Figure 2). *Loving-kindness* refers to the wish to happiness for others; *compassion* refers to the wish to relieve other’s suffering; *empathetic joy* refers to the wish that others never be separated from their joy; and *equanimity* refers to the wish that others may be in impartiality free from judgments and prejudice (Wallace, 2010). They all refer to emotional and motivational states aimed at cultivating altruism.

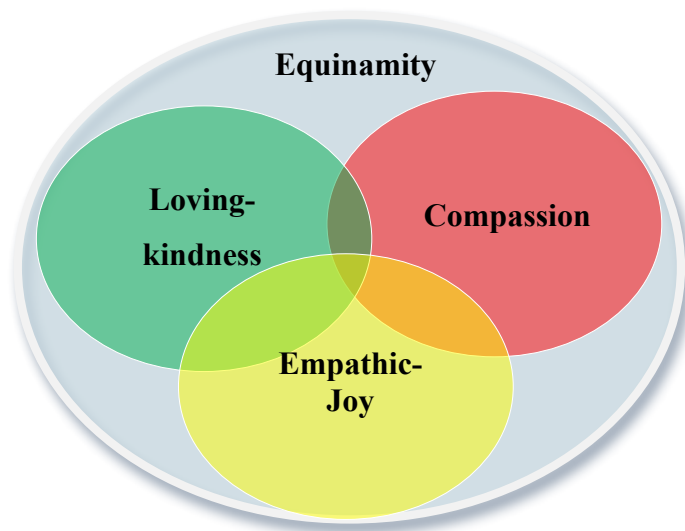


Figure 2. The Four Immeasurables. Equanimity as the unbiased extension of each immeasurable.

Why the Four Immeasurables? The Four Immeasurables are in the Buddhist view a cultivation of emotional states that promote long-term well-being, fundamentally different from hedonic, stimulus driven emotions that fade away together with the attractiveness or aversiveness of a stimulus (Wallace & Shapiro, 2006). This distinction of emotions in the Buddhist view is less concerned with positive/negative emotions, but rather the distinction based on what promotes long-term well-being or not. Emotions are viewed as destructive when they involve a reification of the self as an independent, autonomous and unchanging entity – material for the intuitive misappraisal of one’s existence. This misappraisal and the destructive emotions flowing from it, according to Buddhism, are linked to conditioned judgments and reactive patterns of behavior. In contrast, the emotions cultivated through the Four Immeasurables are poised to promote insight, calmness of mind and a genuine care for others (McLeod, 2001).

We will here give a theoretical outline of the meditations applied in FIP, including a theory of how each immeasurable relates to altruism. Testing of these outlines are however not a part of the purpose in this study but rather used as heuristic models.

Loving-kindness. Wallace (2009) defines *loving-kindness* as “a heartfelt yearning that others might experience happiness and the sources of happiness” (p. 112). For meditation on loving-kindness, one starts by contacting one’s own experience of kindness - a feeling of love, care and warmth freely given without expecting something in return (McLeod, 2001). Loving-kindness means to aspire for the happiness of another.

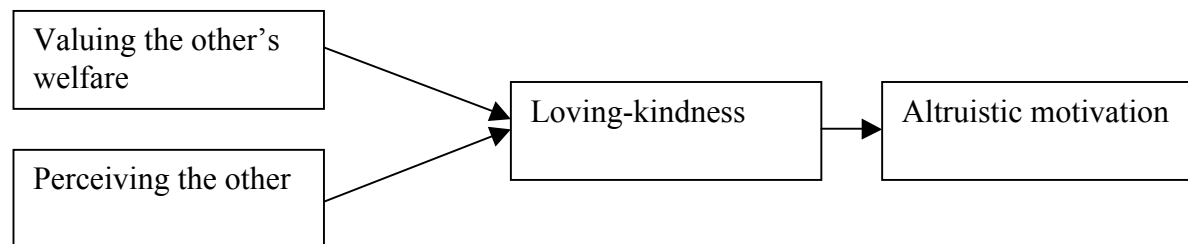


Figure 3. Loving-kindness: its theoretical relation to altruism.

The practice thus begins by contacting the memory of such an event, where the feeling is more likely to arise by its own accord without too much effort. When the feeling is contacted, one encourages the felt aspiration for others’ happiness by repeating words that bear the intention of loving-kindness (such as “may you have happiness and the causes of happiness”) and to let this aspiration take the form of bright light that shines from the middle of one’s heart towards the imagined person. The instruction is to notice the emotional effect of the intention while engaging in the practice. This can be seen as actively encouraging the valuing of the other person’s welfare by engaging cognitive, emotional, and attentional resources towards that goal, and to simultaneously cultivate an emotional awareness of mental states. This entails cultivating a valuing the other’s welfare while perceiving the other (through visualization) which is proposed to lead to the experience of loving-kindness, the motivation that the person/person’s may experience happiness. Loving-kindness is theoretically proposed as related to taking an interest in another’s welfare and making behavioral efforts to bring this about.

Compassion. Compassion entails bringing forward the aspiration to alleviate another’s suffering. To relate to compassion, one needs to have experienced another person who was willing to stay present with you when you were in pain (McLeod, 2001). The compassion meditation instruction here involves imagining a person in a painful situation

with a corresponding painful facial expression. As with loving-kindness, one starts with a person or animal that intuitively evokes the yearning to alleviate the others' suffering, and further encourages it by repeating words that bear the intention of compassion (such as "may you be free from suffering, and the causes of suffering"), and visualizing light. This practice can be seen as cultivating the welfare of the other while perceiving the other as in an aversive state, a discrepancy thought to evoke empathic concern, and in turn related to helping behavior (Batson, 2011).

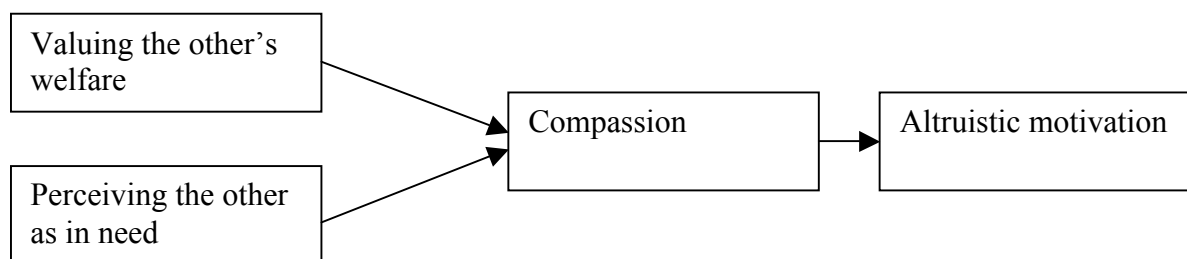


Figure 4. Compassion: its theoretical relation to altruism (as in Batson, 2011).

Empathetic joy. While loving-kindness and compassion entail the goal-directed motivations of others being happy and free from suffering, empathetic joy means abiding with another's happiness, success and good qualities (Wallace, 2010). To relate to the experience of joy, you need to have experienced your success or happiness being celebrated by another person (McLeod, 2001). In this meditation, one imagines the happiness of another and their happy facial expression. As with compassion and loving-kindness, one starts by imagining someone for whom the feeling arises spontaneously. Because the goal of welfare is met, there is no need for striving to change anything. Rather the practice is all about staying present and rejoicing. Because of this, joy is considered an antidote to jealousy, rivalry and egocentric striving. When the good fortune of another, such as their success, happiness and good fortune is contacted, it is further encouraged by words (such as "may you never be separated from joy") and imagining light. This taps into strengthening and encouraging altruistic tendencies and decreasing the need for external validation. Thus joy can be practiced actively by engaging in the meditation described above, but also through rejoicing in the process of altruism itself (further described under "Tonglen"). Empathetic joy entails valuing the other's welfare while perceiving another in such a happy and wholesome state by way of visualization, leading to empathetic joy, a gladness stemming from perceiving the

other in the valued state. Empathic joy is theoretically proposed to be related to motivational and behavioral responses serving the continuation of other's happiness.

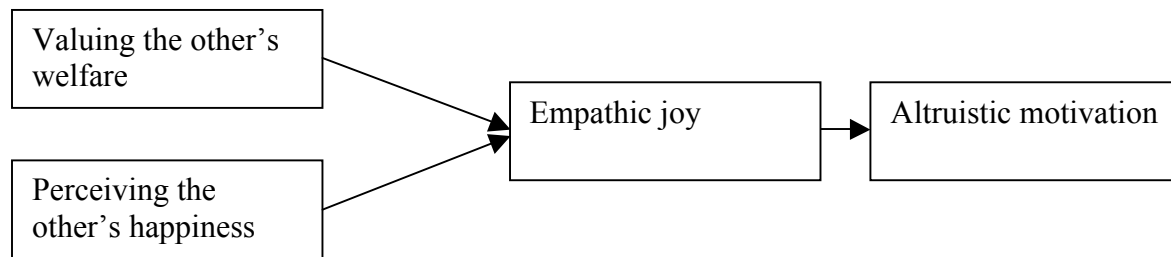


Figure 5. Empathetic joy: its theoretical relation to altruism

Equanimity. Batson et al.(2007) suggest that increased valuing of others' welfare is dependent on reducing prejudice and stereotyping toward others, especially toward out-groups. Preston and de Waal (2002) also indirectly emphasize this using interconnectedness and social closeness. Equanimity involves cultivating a non-judgmental open-mindedness, free from prejudice and biased views. To be able to relate to equanimity one needs to have been seen without judgment by another person (McLeod, 2001). Equanimity serves to counteract what Hayes et al. (1999) elegantly define as “cognitive fusion” – when a thought of some event gets fused with the event itself, confusing our attitude towards something with an objective truth about it, for example, “she is an intrusive, impolite person”. Thus equanimity entails understanding the transparency of our judgments of liking and disliking. The practice of equanimity is especially emphasized in many Buddhist schools because without its development, our judgments will color our motivation, making it partial and only directed to those whom we like. As Gutsell and Inzlicht (2010) showed, the empathy/mirror-neuron system is affected by prejudice and disliking, especially toward dissimilar others. It is the union of equanimity with each of the three above mentioned aspirations (loving-kindness, compassion, joy) that is actually meant when referring to the term “immeasurable”. The practice of equanimity is thereby included in these three by way of expansion.

The long expansion as described by Pema Chödrön (2009) and used in FIP consists of seven steps, beginning with contacting the feeling by (1) imagining a person or animal for whom it spontaneously manifests, and then expanding the aspiration toward (2) oneself, (3) a family member or close friend, (4) a neutral person, (5) a disliked person, (6) all the former as a group, and finally (7) to all living beings. The training involves imagining the other, encouraging the aspiration and noticing the ongoing emotional experience on every level of

expansion, with the main purpose of dismantling prejudices that hinder the valuing of the other on each level. This serves to counteract the tendency of limiting altruistic motivation to close others whenever active effort is not present. As is such, there is no distinction between self and other when it comes to who is more or less worthy of being valued. Equanimity instead promotes a sameness and even-mindedness toward all sentient beings, including the self.

The practice of equanimity entails noticing experience on a moment-to-moment basis, which draws heavily on attentional resources since it depends on reaction inhibition of rudimentary bottom-up processes of aversion and attraction. Mindfulness practice and attentional stability is thereby a crucial component for successful disengagement from judgmental thoughts, especially in situations of strong emotion. This can be related to what Eisenberg and Eggum (2011) refer to as maintaining an optimal arousal level for the development of empathic concern rather than personal distress (over-aroused) or indifference (under-aroused).

The meditation practice of equanimity involves imagining liked or disliked persons, noticing the tendencies of like/dislike, exaggeration of the likes or dislikes, followed by letting go of thought content and returning to the moment-to-moment awareness of emotions together with the sensations of the breath. Inherent in this practice is also an exploration of the causal links between somatic/emotional states and the belief in thoughts of liking and disliking.

Tonglen. The last meditation technique used in FIP is the practice of Tonglen (i.e., the meditation of taking and sending). Tonglen entails the development of relative Bodhichitta, translated as “awakening mind” or “awakening heart” (McLeod, 2001) - an aspect of the seven point mind training (Tibetan Lo jong). It is assumed that our present behavior is a result of our mental habits, which in turn, is a product of past behaviors. Sending and taking aims at training the mind through counteracting these mental habits (Kyabgon, 2007). In brief, the sending and taking practice serves to cultivate an altruistic attitude by reversing egocentric tendencies and utilizing all mental states, especially aversive ones. This practice builds upon the Four Immeasurables and includes them all in one single practice (McLeod, 2001). The effects of taking and sending are to date virtually unknown within the scientific community. As far as we know only one study (Pace et al., 2009) have investigated this method. We here argue however that the methodology of taking and sending

is the meditation practice of choice for the promotion of altruism and deserves further scientific effort. The practice of Tonglen is described in further detail in Appendix F.

Studies on the Four Immeasurables meditations. Little is known regarding the effects of the Four Immeasurables, but interest in the topic has heightened significantly over the last several years.

In line with Batson's (2011) model of inducing empathic concern through altering valuing the other, Hutcherson, Seppala and Gross (2008) showed that a just a few minutes of loving-kindness meditation done by meditative naïve participants significantly altered the social evaluative judgments for neutral strangers on both implicit and explicit measures. This implies that the mechanisms involved in loving-kindness meditation may involve engagement of similar empathic processes as in Batson's experimental paradigm but with a different method. Also, Fredrickson, Cohn, Coffey, Pek and Finkel (2008) demonstrated a significant increase in daily experiences of positive emotions in an eight-week loving-kindness meditation program, and these changes were in turn related to a wide range of personal resources which predicted life satisfaction and reduced depressive symptoms, implying a changed emotional regulation tendency.

Lutz, Brefczynski-Lewis, Johnstone and Davidson (2008) investigated the effects of voluntary generation of compassion and loving-kindness on the neural empathic network engaged in perception-action coupling. Participants (n=32) in the study showed greater activation of brain areas previously shown as activated in empathy for pain in others. Expert meditators also showed greater activation than novices in somatosensory regions known to be involved in affect and feelings. The degree to which several of these regions were activated was associated with meditative expertise. Lutz et al. (2008) concluded that their findings clearly point to compassion and loving-kindness meditation as altering the activation of circuitries linked to empathy and theory of mind.

In a later study, Lutz, Greischar, Perlman and Davidson (2009) showed that the increases in heart-rate between compassion meditation and resting state was greater between experts and novices, and that this increase was associated with a similar increased activation in the right middle insula. This region has previously been activated when participants have been asked to imagine another's pain. Further, in a study of Pace et al. (2009), compassion meditation was found to be associated with lower degrees of stress on both physiological and

behavioral measures.

Meditation procedure in FIP. Meditation as conducted in FIP starts with stabilization of attention. This is accomplished by staying present with the ongoing sensations of the breath corresponding to the formal practice of mindfulness. Second is the visualization of a person or animal's face and facial expression in a particular situation. Kosslyn, Ganis and Thompson (2001, p. 635) define mental imagery as "seeing with the mind's eye", "hearing with the mind's ear", and so forth. Holmes, Mathews, Mackintosh, and Dalgleish (2008) showed that mental imagery evokes stronger affective responses than does verbal processing. Perception-action coupling means that a mental representation can be elicited purely from within. When imagining another engaged in a particular situation, neural areas related to those representations are activated (Decety & Jackson, 2004). This means that mental imagery is a suitable way to induce certain representational states. The representational states corresponds to a perceptual stimuli which engage motor- and affective systems of the body (Kosslyn et al., 2001). Decety and Lamm (2011) also propose that the use of mental imagery to take the perspective of another is an effective way of placing oneself in the situation or emotional state of that person.

Third, instructions are given to orient attention to the state of the other without judgment, while being attentive to one's own ongoing emotional experience together with the sensations of the breath. This instruction is related to mindfulness of emotions, a central Buddhist practice. The sensations of the breath together with attention to the ongoing emotional experience are recommended by McLeod (2001). This is said to facilitate a moment-to-moment awareness of the bodily sensations that co-occur with the felt emotion, promoting awareness of one's current state of mind by joining attention with somatosensory experience (McLeod, 2001).

In short, the main meditation object is however the other person in the chosen situation with the motivational flavor of every immeasurable as described above.

Research question and hypothesis. This thesis is a pilot-study investigating the potential effects of FIP on empathy-related measures. Of special interest is whether FIP can alter the tendency to feel empathic concern rather than personal distress when perceiving another as in need. Our primary research question is thus whether FIP can be seen as an effective method for the cultivation of empathic concern rather than personal distress when perceiving another as in need?

We propose that:

- 1) Participation in FIP is associated with post-intervention increase in the other-oriented tendency (EC-PD), as compared to controls, implying a greater dispositional tendency for altruistic rather than egoistic motivation in distressing situations in general.
- 2) Participation in FIP is associated with increases in dispositional perspective taking and dispositional empathic concern, self-compassion and mindfulness, and reduced dispositional personal distress and perceived stress as compared to controls that have not participated in FIP.
- 3) Meditation time during the course period will be related to increases in dispositional perspective taking and dispositional empathic concern, self-compassion and mindfulness, and reduced dispositional personal distress and perceived stress.

Method

Participants

Recruitment. The participants for the current study were recruited mainly through different types of advertising at Lund University in the Fall 2010. First, a website was set up in order to aid information distribution to prospective participants (Wallmark & Safarzadeh, 2010). Information available on the website included: (a) purpose of the study, (b) rationale for meditation, (c) outline of the meditation course, (d) timetable, (e) location, (f) requirements for participation, (g) research team and instructors, (h) additional information on meditation, and (i) registration. For a summary of the information conveyed on the website see Appendix A.

Second, a Facebook page (a social network site) was created to help advertise the study and aid in the recruitment of participants. The information on the Facebook page corresponded to the information displayed on the homepage, albeit somewhat downsized and summarized and with a referral to the homepage.

Third, once the website and the Facebook page were established, posters and leaflets announcing the study were designed, printed and distributed throughout the campus at Lund University. In addition, e-mails were sent to several student organizations, listed below, to which the researchers had been given approval through prior agreement with administrators of the organizations:

- Faculty of Social Sciences Lund University ("Faculty of Social Sciences Lund University," 2011).
- Asylgruppen i Lund: a religiously and politically independent organization working with asylum seekers and their rights ("Asylgruppen i Lund," 2011).
- Tjejjouren i Lund: a nonprofit association supporting young women ("Tjejjouren i Lund," 2011).
- The Association of Foreign Affairs in Lund ("The Association of Foreign Affairs in Lund," 2011).

On the posters and leaflets and in the e-mail, the study was described as a scientific research project in which participants were given the opportunity to learn meditation. A link to the website was included for further information and registration.

Using these recruitment strategies, 105 individuals registered for the study and completed the initial survey during the time period October 16th, 2010 and November 16th, 2010.

Screening and Randomization Procedure. The screening procedure began as soon as the registration closed. The screening instrument included demographic information, questions about drug and alcohol habits, whether the applicant could participate during the intended period, and inquired whether the applicant was able to spend about 30 minutes meditating per day.

To survey symptoms of mental distress and/or somatic illness and pain, selected items from the Clinical Outcomes in Routine Evaluation (CORE) scale were used (Evans et al., 2002). Applicants rated themselves on a 3-point scale (1 = never, 2 = sometimes, 3 = almost all the time). For items assessing generalized anxiety, panic anxiety and depression, somatic illness/pain, applicants were disqualified for a rating of 3. For suicidal thoughts, self-injury and positive psychotic symptoms, applicants were disqualified for a rating of 2 or 3.

Registered applicants were excluded for the following reasons:

- (a) prior experience of meditation (n = 5);
- (b) currently using illicit drugs or undergoing psycho-pharmacological treatment (n = 1);
- (c) currently experiencing severe psychological distress (CORE, n = 12);
- (d) currently experiencing somatic illness and/or chronic pain (CORE, n = 7);
- (e) could not participate in the study during the specified time period (n = 1);
- (f) the persons were personal acquaintances of the course instructors (n = 2).

“Prior experience of meditation” was defined as one month or longer experience of daily meditation practice, or participation in an intensive retreat exceeding 5-days, or having more than two years of continuous practice of yoga, Tai Chi or Qi-Gong. “Currently using illicit drugs” was defined as having used illicit drugs more than once within the past six months.

A total of 28 applicants were disqualified. The remaining applicants (n = 77) were stratified for gender since the sample was heavily skewed on this parameter: men (n = 13), women (n = 64). Applicants were randomly assigned to the experimental group (n = 39) or the wait-list control group (n = 38) using the web-based tool *Research Randomizer* (Urbaniak & Plous, 2011). A reserve list was also created which consisted exclusively of women (n = 9). Following the randomization procedure, applicants received an e-mail explaining that the

applications were being processed, and that they could expect a telephone interview within the upcoming weeks.

After initial screening and randomization procedures, the second process of screening commenced. All applicants were interviewed by telephone according to a template (see Appendix B). If applicants were eligible after the interview, they were given information on whether they would participate in the “January group” (experimental group) or in the “March group” (wait-list control group).

Of the interviewed applicants ($n = 77$), a total of 24 were excluded. Of these, six did not meet the inclusion criteria (willingness/ability to participate the intended time period), and three were disqualified based on exclusion criteria - two due to ongoing drug usage and one due to ongoing psychopharmacological treatment. Fifteen of the applicants could not be reached by phone or email and were therefore also excluded. This made it necessary to interview and include the applicants on the reserve list ($n = 9$). Of these, two could not be reached and the rest were included ($n = 7$). Four applicants failed to complete the assessment on Time 1 (one week before the experiment group initiated the training program) and were thus also excluded. After this final recruitment procedure, the total number of participants was 56 (27 in the experimental condition and 29 in the control condition).

Materials and Procedure

The intervention was arranged on Thursday evenings at Liberiet, a Zen meditation hall owned by the Swedish Church in the vicinity of Lund Cathedral. The participants in the experimental and control conditions were divided into two groups respectively, resulting in a total of four smaller groups. This was done because of restrictions in number of participants that the premises could hold at one time. The first group commenced at 18.30 and the second group at 20.00. Information concerning the focus of the study or other information that might have created detailed expectancy or demand effects was not conveyed at any time to the participants. The training program was referred to as “an introduction course to meditation practice” and the terms “empathy” or “altruism” were neither mentioned in interaction with participants nor in the material presented to them.

All assessments were carried out by means of self-reports. This was mainly accomplished by a web application (Google, 2011). E-mails were sent out to all participants guiding them through the assessment procedure on Time 1 (T1) and Time 2 (T2; same date that the experimental group completed the training program, i.e. nine weeks after T1). The

exception to this was the measure of social desirability (SD). This measure was introduced only after the preliminary results from T1 indicated a potential desirability effect (“ceiling effect”). Participants in the experimental group filled out a form for SD after the first weekly group sitting following T1. Participants in the control group were administered SD at T2 through the web application (Google, 2011). Except for the changes above, T2 was an identical test-retest of T1, containing the measures as described in the Measure section.

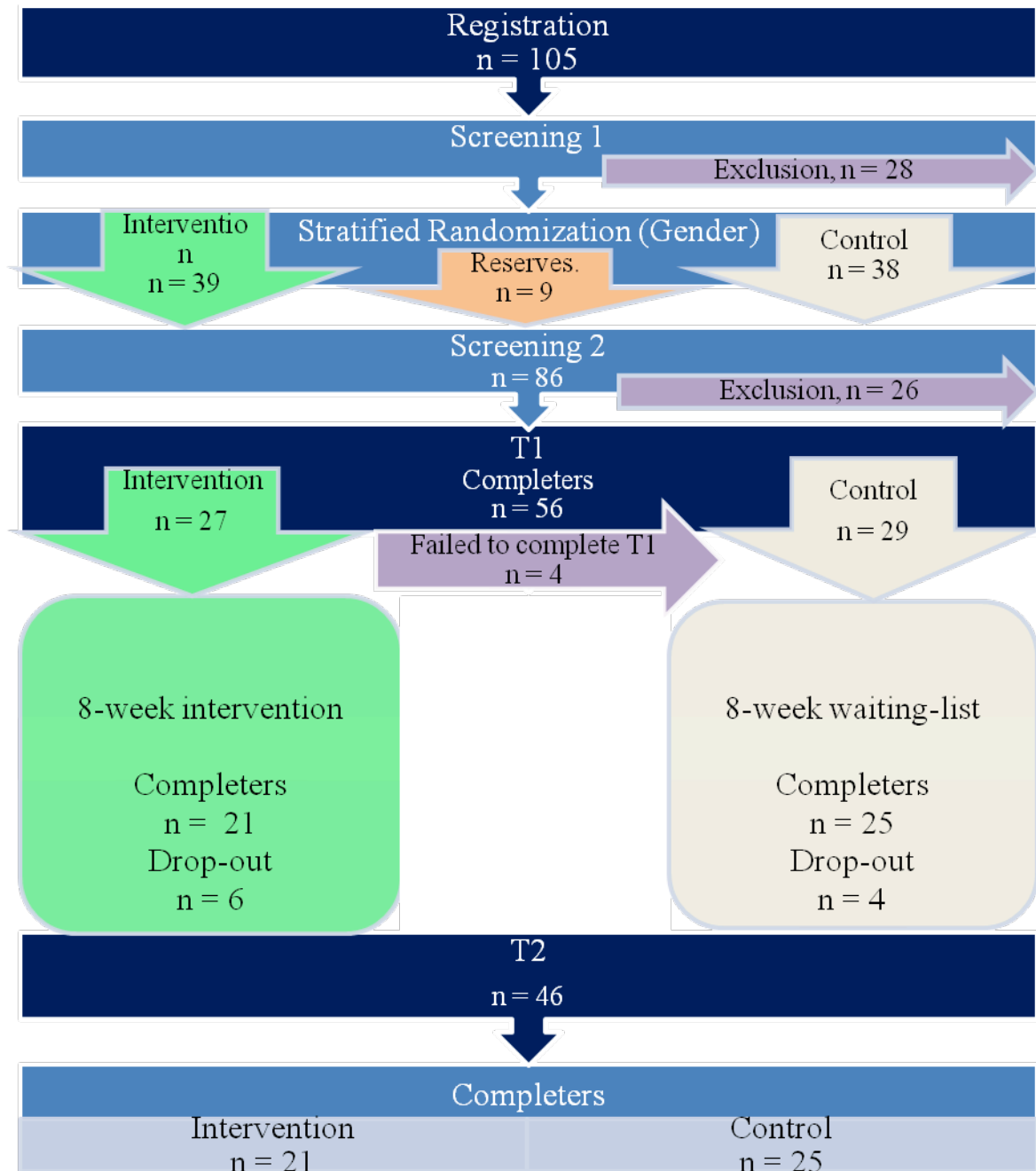


Figure 6. Study procedure from registration to T2.

In addition, all participants in the experimental group were given a form to register time spent meditating in between group sessions. Participants filled out the form (Appendix C) displaying time spent meditating daily and weekly and submitted it anonymously at each group sitting. It was explicitly stated that the purpose of the meditations time forms was for scientific research only and not to monitor or control the practice.

After T2 was registered, participants in the control group received the same training program as the experiment group. For an overview of the study procedure see Figure 6.

A total of 56 participants provided pre-intervention data (T1). Six participants in the experimental group failed to attend more than four of the eight weekly sessions and were thereby excluded from the final analysis. The following reasons were given by these participants for their discontinuation: (a) lack of time (n = 3), (b) illness (n = 1), (c) personal issues (n = 1), (d) unknown (n = 1). Four participants failed to complete T2 measures in the control group. In total, 10 participants failed to complete the pre-post measures, resulting in 46 completers (21 in the experiment group and 25 in the control group). No significant differences were found for any of the dependent variables as measured at pre-intervention between those who failed to complete the program (n = 6) in the experimental group and the completers of FIP (n = 21), and between those who failed to complete T2 measures in the control group (n = 4) and the rest of the control group (n = 25). Demographic data are summarized in Table 1.

Table 1

Participant Demographics in Completers' Samples

	Experimental group	Control group
N	21	25
<i>Gender</i>		
Female	18 (86%)	22 (88%)
Male	3 (14%)	3 (12%)
<i>Age</i>		
Mean	32 (SD = 11)	35 (SD = 15)
Range	22-57	22-69
<i>Education level</i>		
Median	bachelor/master degree	bachelor/master degree

Statistical procedures. All data analyses were carried out using the Statistical Package for the Social Sciences (SPSS) version 19.0 (SPSS Inc., Chicago, IL, USA). Analysis of covariance (ANCOVA) was conducted to investigate the effect of FIP on a number of measures concerning empathy, mindfulness, self-compassion and stress controlling for pre-test differences on those measures in the experiment and control groups. ANCOVA is a statistical method which removes bias in the dependent variable caused by random group differences on the covariate. An independent-samples t-test was used to compare the pre-test scores of all dependent variables for experimental and control group. Paired samples t-test (one-tailed) was used to assess changes within groups. Pre-post effect sizes (Cohen's *d*) were calculated using the formula suggested by Rosenthal (1984) for matched-pairs data ($d = t/\sqrt{df}$).

Preliminary data checks were conducted to ensure that there was no violation of the assumptions of normality, homogeneity of variances, linearity, and homogeneity of regression slopes. A Levene's test, indicating that the group variances are not equal, was found to be significant for the Describe subscale (FFMQ; $p < .037$). However, according to Howell (2006), if the largest variance is no more than four times the smallest, the analysis of variance is most likely to be valid. In our case, the largest variance was just nearly two times the smallest indicating that the violation of the assumption is not severe.

The Four Immeasurables program. The intervention consisted of an eight-week meditation program, with weekly home assignments. The topic of each week's session is listed in Table 2.

Table 2

Topic of Each Session

Session	Topic
1	Mindfulness
2	Receiving Loving-kindness
3	Loving-kindness
4	Compassion
5	Empathetic Joy
6	Equanimity
7	Tonglen for oneself: guilt/shame
8	Tonglen for others, where help is not possible
9	Closure #

Note. # The session was included to enable collection of meditation time data from the experimental group.

The length of each weekly session was 75 minutes. The time was distributed as follows: (a) 30 minutes of lecture, (b) 10 minutes of mindful movements, (c) 20 minutes of meditation and (d) 15 minutes for questions and guidance. Each session began (with the exception of session 1 and 9) with five minutes of “mindfulness of breathing” meditation and concluded with weekly homework assignments relating to the topic. The idea of the homework assignments was to help participants incorporate the formal sitting meditation practice into everyday life.

All participants received a handout summarizing each session (see Appendix D) together with an audio CD containing the weekly meditations, as instructed by the program leaders. The audio tracks on the CD corresponded to the formal sitting meditation practice on the weekly sessions. The recommendation was to use the guided meditation CD only 2 or 3 times when meditating on their own during the week so that the meditation procedure was clear, and then to proceed without guidance as they felt more familiar with the instructions.

The guided meditation of session 1 is based on the vipassana meditation technique described by S. N. Goenka in the tradition of Sayagyi U BaKhin. The guided meditations and

homework assignments of sessions 2 to 6 are based on Pema Chödrön's guided audio book "Perfect Just as You Are" (Chödrön, 2009). The guided meditations in sessions 7 and 8 are based on Pema Chödrön's "Going To the Places That Scare You" (Chödrön, 2002). The content of each weekly session is outlined in Appendix F.

Measures

The Interpersonal Reactivity Index. The Interpersonal Reactivity Index (IRI; Davis, 1983) is based on a multidimensional construct of empathy and taps four separate aspects of the global concept "empathy". The subscales are (1) fantasy (F), (2) perspective taking (PT), (3) empathic concern (EC), and (4) personal distress (PD). Each subscale consists of seven items rated on a five-point scale from 0 (does not describe me well) to 4 (describes me very well). For the present study, the authors have chosen to exclude the subscale fantasy (F). The PT subscale measures "the tendency to spontaneously adopt the psychological point of view of others in everyday life" (Davis, 1994, p. 57), and includes items such as "I try to look at everybody's side of a disagreement before I make a decision". The EC subscale assesses "the tendency to experience feelings of sympathy and compassion for unfortunate others" (Davis, 1994, p. 57) and includes items such as "I often have tender, concerned feelings for people less fortunate than me". The PD subscale taps "the tendency to experience distress and discomfort in response to extreme distress in others" (Davis, 1994, p. 57) and includes items such as "When I see someone who badly needs help in an emergency, I go to pieces." The Cronbach's alpha coefficients for the scales are good, ranging from .72 to .78 (Davis, 1994). The Swedish version of IRI has been translated and validated by Cliffordson (2001) and has shown an acceptable alpha reliability (PT .71, PD .74, EC .76, F .80). In this study obtained alpha was PT .83, PD .66, EC .81.

The Perceived Stress Scale. The Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983) is a 14-item measure designed to tap the degree to which situations in one's life are appraised as stressful. The internal consistency was found to be good in three samples (.84, .85 and .86). Examples of featured items are: "In the last month, how often have you been upset because of something that happened unexpectedly?" or "In the last month, how often have you been able to control irritations in your life?". The items are rated on a 5-point scale from 1 (never) to 5 (very often). The Swedish version is validated by Eskin and Parr (1996) with alpha .82. In this study an alpha of .85 was obtained.

The Self-Compassion Scale. The Self-Compassion Scale (SCS; Neff, 2003) is a 26-item measure with six subscales, tapping the construct of self-compassion. The subscales are (1) self-kindness (e.g. “I’m kind to myself when I’m experiencing suffering”); (2) self-judgment (e.g. “I’m disapproving and judgmental about my own flaws and inadequacies”); (3) common humanity (e.g. “When I’m down and out, I remind myself that there are lots of other people in the world feeling like I am.”); (4) isolation (e.g. “When I think about my inadequacies it tends to make me feel more separate and cut off from the rest of the world”.); (5) mindfulness (e.g. “When I’m feeling down I try to approach my feelings with curiosity and openness”); and (6) over-identification (e.g. “When I’m feeling down I tend to obsess and fixate on everything that’s wrong”). The internal consistency for the total 26-item SCS was found to be .92 (Neff, 2003). The Swedish translation of SCS used in this study is being validated by Strömberg (2010). Obtained alpha values in this study were: self-kindness .85, self-judgment.81, common humanity.80, isolation.80, mindfulness.64 and over-identification.78.

The Five Facet Mindfulness Questionnaire. The Five Facet Mindfulness Questionnaire (FFMQ; Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006) is a 39-item scale designed to measure five factors of mindfulness: (1) *Observing* involves attending to or noticing stimuli, such as sights, sounds, tactile sensations, thoughts and emotions, and includes items such as “I pay attention to sensations, such as the wind in my hair or sun on my face”; (2) *Describing* involves noting or mentally labeling observed stimuli with words, and includes items such as “Even when I’m feeling terribly upset, I can find a way to put it into words.”; (3) *Acting with awareness* is as opposed to behaving automatically or absent-mindedly and involves items such as “It seems I am “running on automatic” without much awareness of what I’m doing; (4) *Non-judging* of inner experience involves refraining from good/bad, right/wrong evaluation of one's sensations, cognitions, and emotions and include items such as “I tell myself that I shouldn’t be feeling the way I’m feeling”; (4) *Non-reactivity* to inner experience that involves allowing thoughts and feelings come and go without attention getting caught up in them, involving items such as “I perceive my feelings and emotions without having to react to them”. Responses to the items are given on a 5-point scale from 1 (never or very rarely true) to 5 (very often or always true). The subscales show the following alpha values: *non-reactivity* .75, *observing* .83, *acting with awareness* .87, *describing* .91, and *non-judging* .87. Thus, all five facet scales showed adequate internal

consistency (Baer et al, 2006), and they have shown significant relationships with meditative experience in studies of experienced meditators and non-meditating comparison samples (Baer et al., 2008). Cronbach's alpha coefficients for the Swedish version of the FFMQ total scale and its five subscales ranged from .80 to .92 (Lilja et al., 2010) and from .80 to .88 (Josefsson, Larsman, Broberg, & Lundh, 2011). In this study the obtained alpha values were: *observe*.82, *describe*.93, *act with awareness*.88, *non-judge*.93, and *non-reactivity* .88.

Social Desirability. The 10-item version developed by Strahan and Gerbasi (1972) was used to control for potential social desirability bias in self-report measures. The 10-item scale is a short version of the original 33-item scale by Crowne and Marlowe (1960; Fischer & Fick, 1993). The short version is recommended as the scale of choice (Fischer & Frick, 1993), with an alpha reliability between .70 and .80 in Strahan and Gerbasi (1972). Alpha for the Swedish version obtained in this study was .59.

Ethical considerations

Before the program was implemented, a pilot-group consisting of three colleagues participated in the whole 8-week program with the purpose of giving feedback and ideas on eventual revision regarding the contents of the program.

For ethical reasons, applicants with any prior social connection to the instructors were excluded from the study to minimize bias. Because the intervention was not intended for a clinical population, special precautions were taken to avoid psychologically distressed participants during recruitment. For example, telephone interviews were carried out with all the participants in addition to self-ratings. All collected participant data (T1, T2, and meditation time) was submitted anonymously by way of a participant code unknown to the authors.

Participants were able to contact the instructors by email or at the end of each session for questions or other personal issues related to the program. After the completion of the program, participants received information on how to continue their meditation practice including teachers, meditation centers, and literature.

Instructor qualifications

The instructors were two senior clinical psychology students. They had no prior experience with instructing meditation sessions and lacked any formal degrees in mindfulness-based psychological interventions. FIP was however based on techniques well-known to the instructors on a personal basis, both of whom had years of daily meditation experience and have completed a handful of 10-day intensive meditation retreats in the Thai-Theravada tradition focusing on the development of mindfulness. One of the instructors also had further experience in Tibetan Buddhist practices.

During the development of the program, a large body of Buddhist scriptures and texts were reviewed to build a solid foundation on which to base the content of FIP on.

Results

Randomization check

A t-test for independent samples was performed to investigate whether there were any significant differences on the pretest scores between the experimental and control group. Pre-intervention assessment indicated that the experimental group scored significantly lower on empathic concern, $t(44) = -2.16, p < .05$, and the other-oriented tendency (EC-PD), $t(44) = -2.36, p < .05$, as compared to the control group. No other significant differences on the remaining dependent variables were found between the experimental and control group.

A post-intervention change in other-oriented tendency (EC-PD)

A one-way between-groups analysis of covariance (ANCOVA) was used to explore the effect of FIP program on other oriented tendency (i.e., EC-PD). Because of the moderate significant difference on the pre-intervention scores between the groups, a rather small difference was obtained in ANCOVA showing a tendency ($p = .10$) towards significance. Additional analyses were performed to assess changes within the groups. A paired t-test showed a strong increase in the other oriented tendency scores, $t(20) = -3.05, p = .006, d = 0.68$, for the experimental group. Cohen's d (0.68) indicated a large effect size. No significant change was found for the control group.

Figure 7 illustrates change in other-orientation from pre- to post-intervention for the experimental and control groups. A large increase in scores on other orientation was obtained for the experimental group while the scores for the control group slightly decreased.

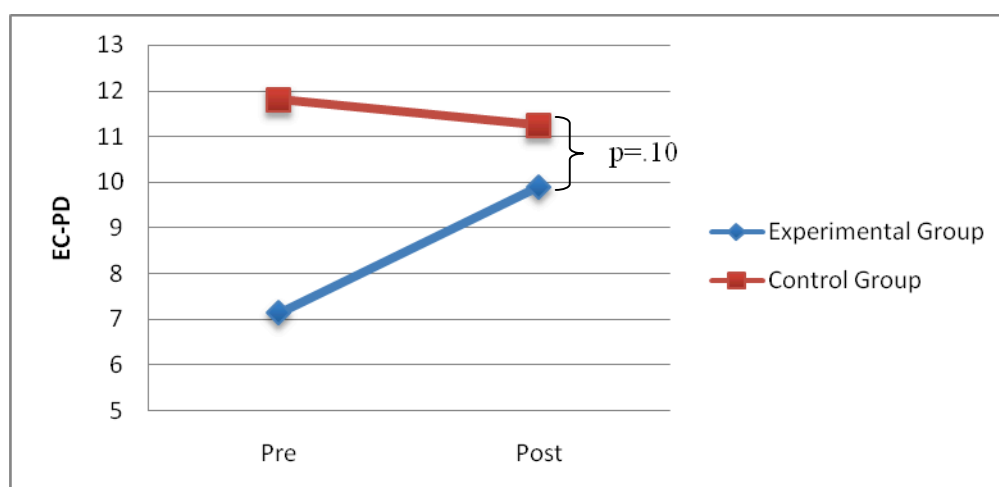


Figure 7. Change in the other-oriented tendency (EC-PD) from pre- to-post-intervention and obtained p-value in one-way ANCOVA for the experimental and control groups.

Changes in empathy, perceived stress, self-compassion and mindfulness

ANCOVA was also used to compare the effect of FIP on empathy, stress, self-compassion and mindfulness, controlling for pre-test differences on the measures. After adjusting for pre-intervention scores, significant differences were found on post-intervention scores on all measures except Empathic Concern, Personal Distress and Non-judge. See Table 3.

Table 3

ANCOVA on PSS, IRI, FFMQ, and SCS. Means and Standard Deviations (Within Parentheses) are Also Presented for Pre- and Post-Measures

	Experimental Group		Control Group		ANCOVA		
	Pre	Post	Pre	Post	F	p	η^2
PSS	40.05 (6.25)	35.10 (6.29)	42.08 (8.77)	40.68 (8.31)	5.62	.02	.12
IRI							
Empathic concern	28.62 (3.96)	29.19 (4.23)	30.84 (3.02)	29.92 (3.57)	1.28	.26	.03
Perspective taking	25.52 (4.82)	27.00 (3.56)	26.36 (4.62)	25.84 (3.48)	5.00	.03	.10
Personal distress	21.48 (4.03)	19.29 (4.83)	19.04 (4.47)	18.68 (3.78)	1.58	.22	.04
EC – PD	7.14 (6.30)	9.90 (6.96)	11.80 (5.19)	11.24 (5.27)	2.84	.10	.06
FFMQ	120.9(20.36)	137.9(19.87)	123.0(26.05)	124.3(24.32)	9.96	.00	.19
Observe	25.00 (6.39)	28.43 (5.24)	25.68 (6.42)	26.24 (6.53)	7.66	.01	.15
Describe	27.29 (5.03)	30.67 (5.76)	29.48 (7.00)	29.84 (8.16)	6.42	.02	.13
Act with Awareness	23.90 (5.72)	25.71 (6.40)	22.52 (7.43)	21.48 (6.92)	7.04	.01	.14
Non-judge	25.43 (6.79)	30.24 (6.46)	25.24 (9.36)	27.52 (7.82)	3.05	.09	.07
Non-reactivity	18.24 (5.08)	21.86 (3.64)	18.72 (5.91)	19.24 (5.61)	5.86	.02	.12
SCS	72.33(15.96)	87.33(13.42)	80.88(18.77)	79.44(18.68)	18.25	.00	.30
Self-kindness	13.81 (4.49)	16.90 (3.37)	16.32 (4.09)	16.12 (4.45)	5.57	.02	.12
Self-judgment	16.19 (3.83)	12.67 (4.03)	14.32 (4.96)	13.28 (4.34)	4.59	.04	.10
Common humanity	11.57 (3.64)	13.86 (2.67)	13.12 (3.71)	12.72 (3.48)	10.93	.00	.20
Isolation	11.62 (3.79)	9.52 (2.98)	11.32 (4.06)	11.96 (4.04)	13.55	.00	.22
Mindfulness	11.48 (2.25)	13.00 (2.61)	12.72 (3.09)	11.68 (3.13)	12.05	.00	.22
Over-identification	14.41 (2.81)	12.24 (2.49)	13.64 (3.58)	13.84 (3.54)	12.83	.00	.23

Note. PSS = Perceived Stress Scale; IRI = Interpersonal Reactivity Index; EC – PD = Empathic Concern subscale minus Personal Distress subscale; FFMQ = Five-Facet Mindfulness Questionnaire; SCS = Self-Compassion Scale.

Figure 8 illustrates change in perceived stress scores from pre- to post intervention for the experimental and control groups. A moderate decrease in scores on perceived stress was obtained for the experimental group while the scores for the control group just slightly decreased. A significant difference between the groups was found on post-intervention scores on perceived stress after controlling for pre-intervention scores.

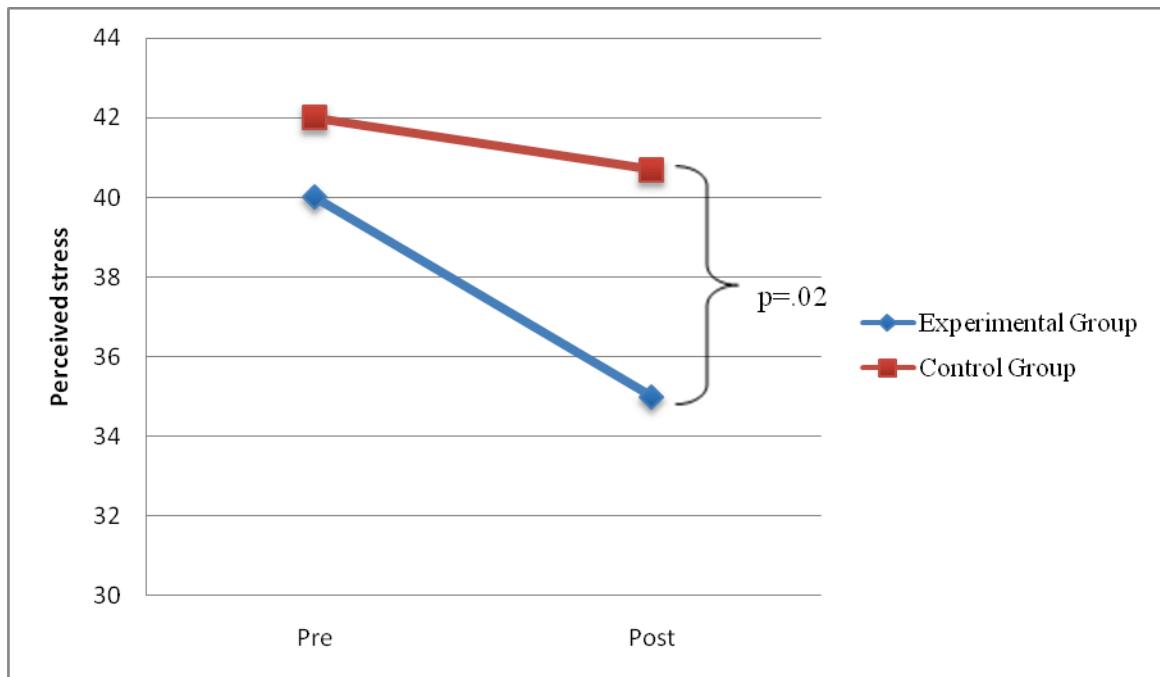


Figure 8. Change in perceived stress scores from pre- to-post-intervention and obtained p-value in one-way ANCOVA for the experimental and control groups.

Figure 9 illustrates change in scores on empathic concern from pre- to post intervention for the experimental and control groups. A minor increase in scores on empathic concern was obtained for the experimental group while the scores slightly decreased for the control group. No significant changes in post-intervention scores were obtained for the groups after controlling for the pre-intervention scores.

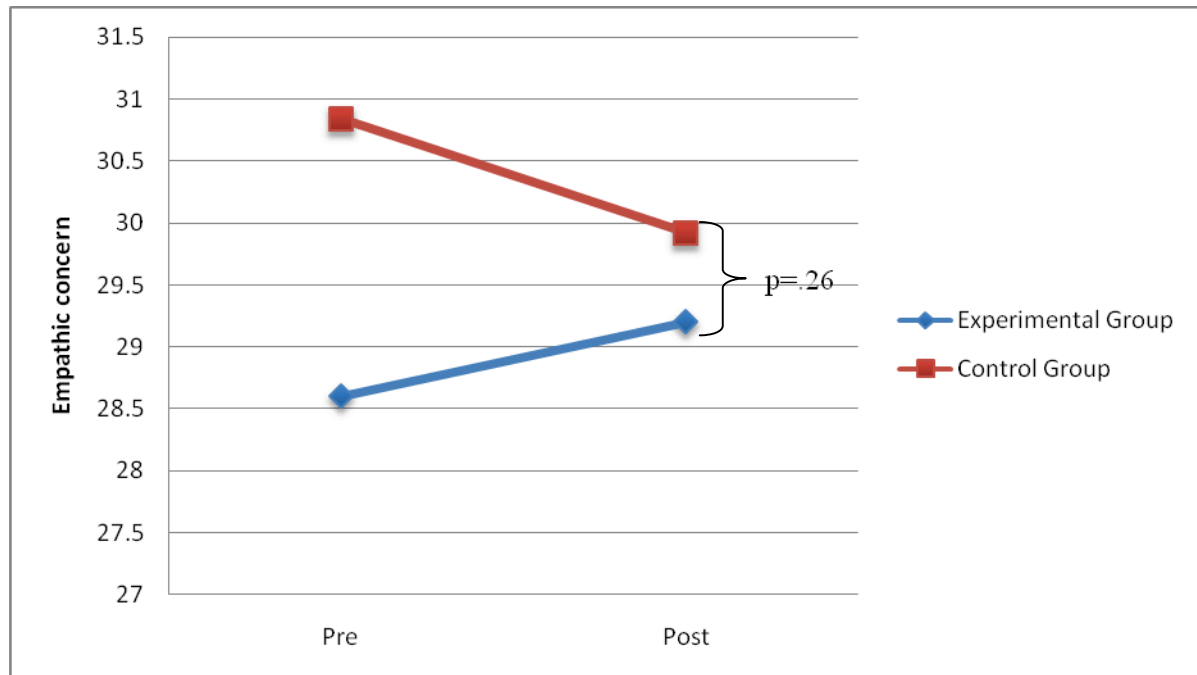


Figure 9. Change in dispositional empathic concern scores from pre- to post intervention and obtained p-value in one-way ANCOVA for the experiment and control groups.

Figure 10 illustrates change in perspective taking scores from pre- to post-intervention for the experimental and control groups. A significant increase in scores on perspective taking was obtained for the experimental group while the scores for the control group slightly decreased from pre- to post-intervention. A significant difference between the groups was found on post-intervention scores on perspective taking after controlling for pre-intervention scores.

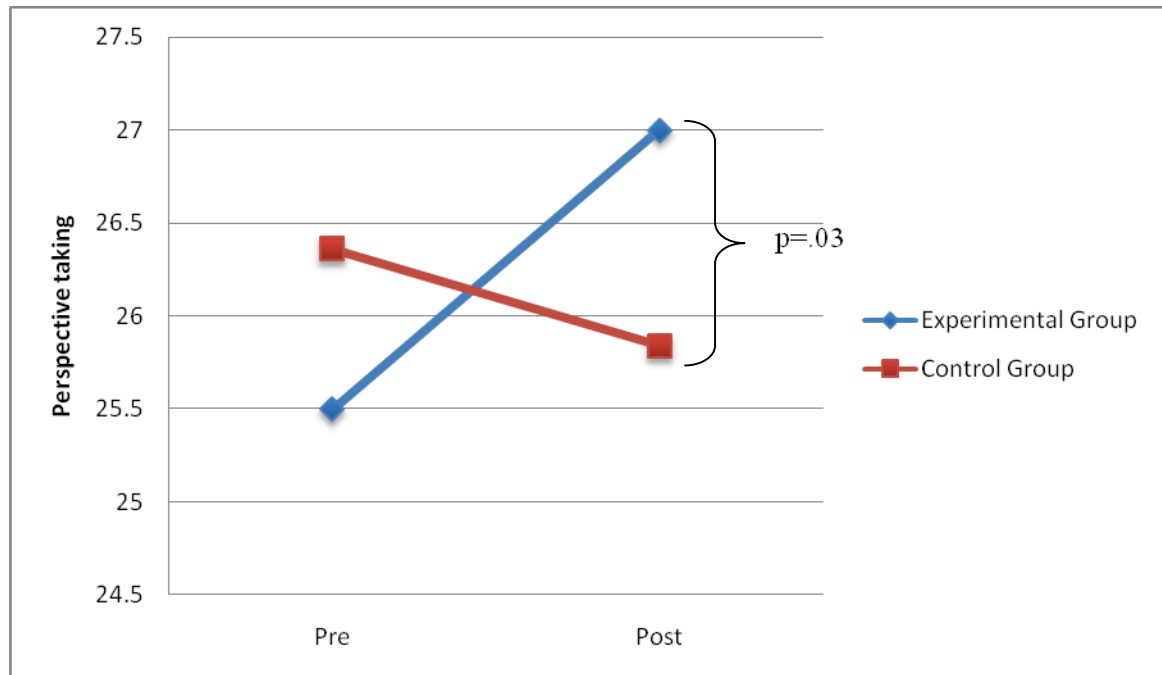


Figure 10. Change in dispositional perspective taking scores from pre- to post intervention and obtained p-value in one-way ANCOVA for the experimental and control groups.

Figure 11 illustrates change in personal distress scores from pre- to post intervention for the experiment and control groups. A notable decrease in scores on personal distress was obtained for the experimental group while the scores for the control group just slightly decreased. Because of the pronounced yet non-significant difference on the pre-intervention scores between the groups, a non-significant difference was found on post-intervention scores on personal distress. A paired t-test was conducted to evaluate whether the change was significant for the experimental group. The results showed a statistically significant decrease in personal distress scores, $t(20) = 2.89$, $p = .009$, $d = 0.65$.

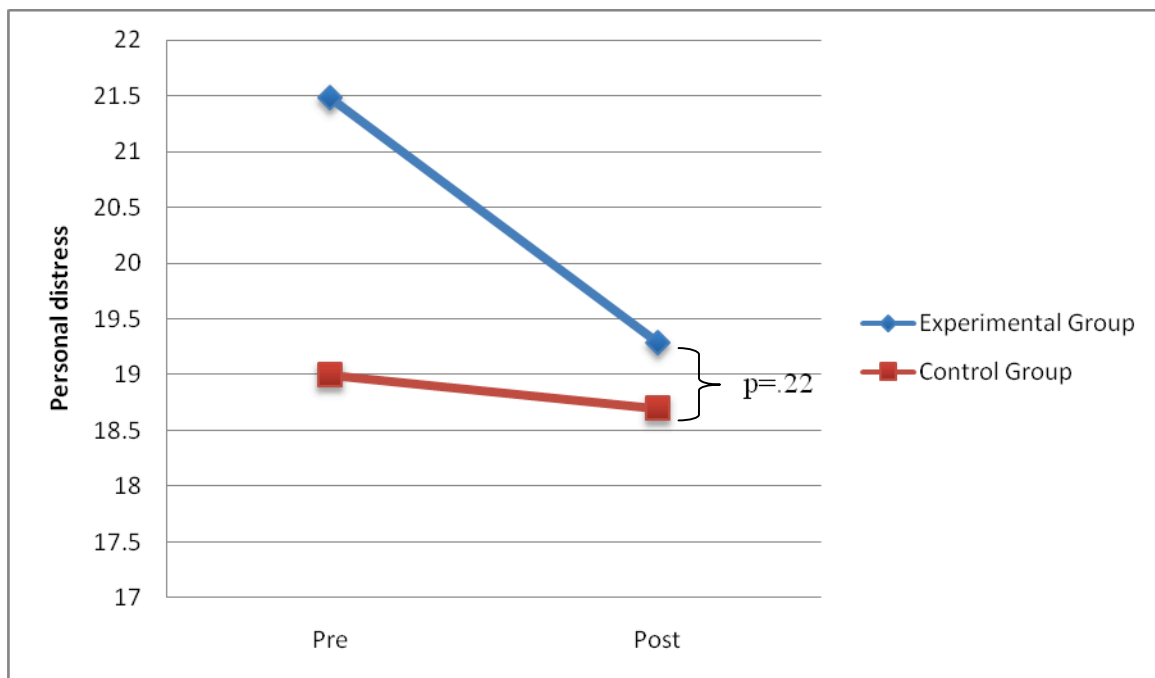


Figure 11. Change in dispositional personal distress scores from pre- to post intervention and obtained p-value in one-way ANCOVA for the experimental and control groups.

Figure 12 illustrates change in mindfulness scores from pre- to post intervention for the experimental and control groups. A major increase in scores on mindfulness was obtained for the experimental group while the scores for the control group remained almost unchanged. A very significant difference between the groups was found on post-intervention scores on mindfulness after controlling for pre-intervention scores.

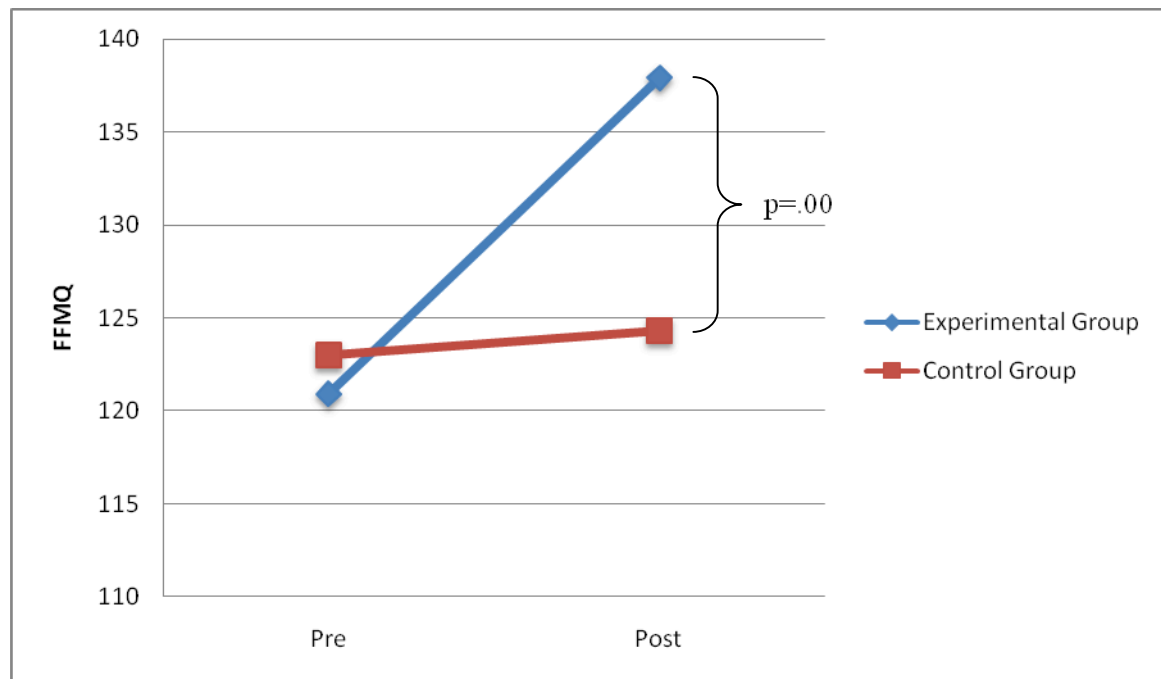


Figure 12. Change in mindfulness (FFMQ) scores from pre- to post intervention and obtained p-value in one-way ANCOVA for the experimental and control groups.

Figure 13 illustrates change in self-compassion scores from pre- to post intervention for the experimental and control groups. A notable increase in scores on self-compassion was obtained for the experimental group while the scores for the control group slightly decreased. Despite of the moderate yet non-significant difference on the pre-intervention scores between the groups, a very significant difference between the groups was found on post-intervention scores on self-compassion after controlling for pre-intervention scores.

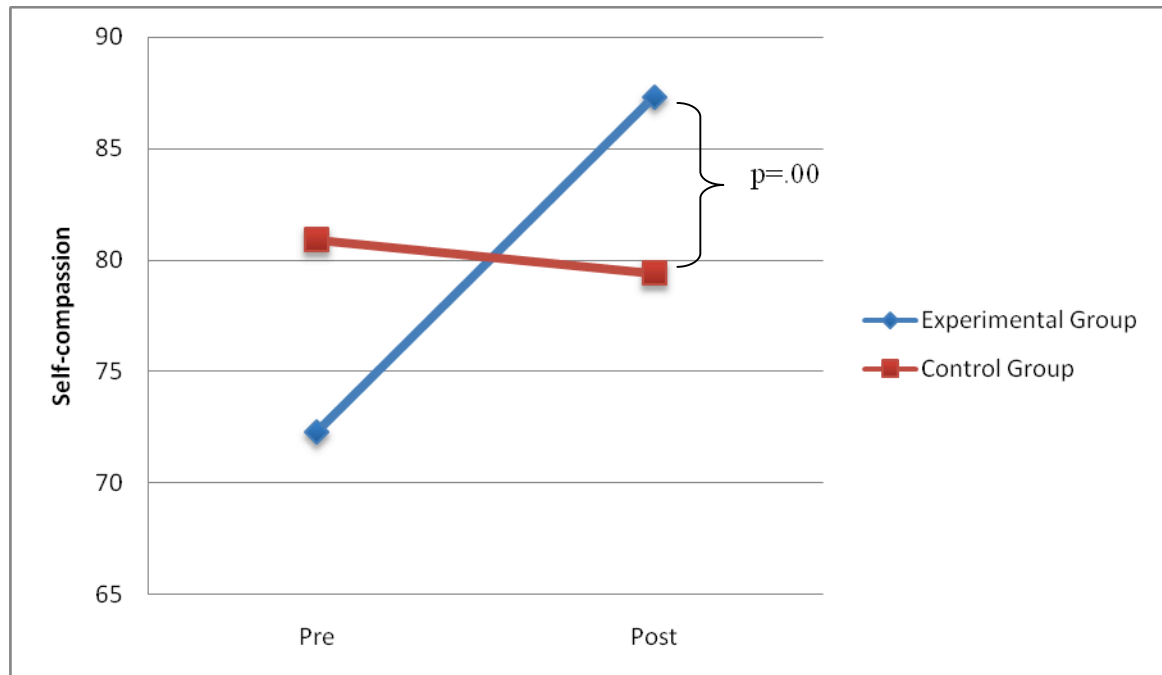


Figure 13. Change in self-compassion scores from pre- to post intervention and obtained p-value in one-way ANCOVA for the experimental and control groups.

Relationship between meditation time and pre-post changes

Table 4 shows correlations between total meditation practice time and pre-post changes on all measured dependent variables. Total meditation time during the intervention period was significantly related to a decrease in perceived stress, $r = -.57$, $p = .01$, increases in the FFMQ facets of *act with awareness*, $r = .46$, $p = .03$, and *non-reactivity*, $r = .43$, $p = .05$, as well as in the self-compassion subscale of *mindfulness*, $r = .56$, $p = .01$.

Table 4

Pearson Correlations Between Total Meditation Time and Pre-Post Changes on All Measures for the Participants in the Experimental Group

Changes in	Total meditation practice time	
	r	p
PSS	-.57	.01
IRI		
Empathic concern	.28	.23
Perspective taking	.29	.20
Personal distress	-.40	.07
EC – PD	.50	.02
FFMQ	.49	.02
Observe	.27	.24
Describe	.37	.10
Act with awareness	.46	.04
Non-judge	.30	.19
Non-reactivity	.43	.05
SCS	.29	.20
Self-kindness	.06	.80
Self-judgment	-.35	.12
Common humanity	.09	.71
Isolation	-.09	.72
Mindfulness	.56	.01
Over-identification	-.32	.16

Note. PSS = Perceived Stress Scale; IRI = Interpersonal Reactivity Index; EC – PD = Empathic Concern subscale minus Personal Distress subscale; FFMQ = Five-Facet Mindfulness Questionnaire; SCS = Self-Compassion Scale.

In addition, a strong association was found between meditation time and other-orientation (see Figure 14), $r = .50$, $p = .02$, implying that meditation time tends to be important for the development of the dispositional tendency to feel empathic concern rather than personal distress in situations of perceiving another as in need.

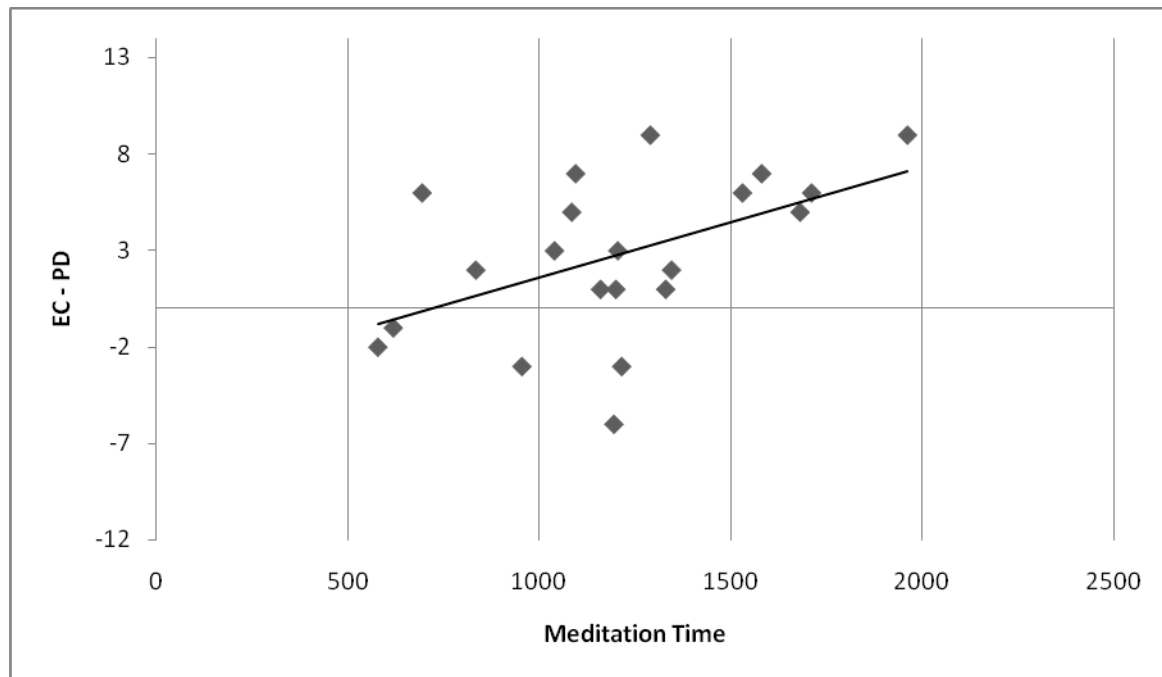


Figure 14. A scatterplot presenting a linear relationship between total meditation practice time and changes in other orientation (EC – PD) between pre- and post-intervention.

Relationships between pre-post change scores for empathy related measures and other variables

As shown in Table 5, interesting associations between pre- and post-change scores between the IRI scales (including *other-orientation*) and other variables were observed.

The increase in empathic concern was found to be significantly related to increases in FFMQ facets of *describe*, $r = .52$, $p < .05$, *act with awareness*, $r = .45$, $p < .05$, and *non-reactivity*, $r = .37$, $p < .10$. Increases in perspective taking showed a significant strong positive correlation with changes in mindfulness facets of *non-reactivity*, $r = .59$, $p < .01$.

Decreases in personal distress showed a moderate positive correlation to decreases in perceived stress, $r = .57$, $p < .01$, as well as a negative correlation with the composite self-compassion scale, $r = -.50$, $p < .05$, and its subscales *self-kindness*, $r = -.47$, $p < .05$, *mindfulness*, $r = -.54$, $p < .01$, and *over-identification*, $r = .48$, $p < .05$. However, most notable associations were found for the other-orientation (EC-PD) indicating that decreases in perceived stress, $r = -.37$, $p < .10$, as well as increases in self-compassion, $r = .42$, $p < .10$, and mindfulness, both as measured by FFMQ, $r = .49$, $p < .05$, and by SCL, $r = .56$, $p < .01$, were all associated with increases in other-orientation.

Table 5

Correlations Between Pre- and Post FIP Change Scores for Four Empathy Measures and Other Measures Concerning Stress, Mindfulness and Self-Compassion

Change in	IRI			
	Empathic concern	Perspective taking	Personal distress	EC - PD
PSS	.18	-.32	.57**	-.37[#]
FFMQ	.39[#]	.34	-.32	.49*
Observe	.03	.20	-.35	.31
Describe	.52*	.26	-.09	.37[#]
Act with awareness	.45*	-.00	-.19	.42[#]
Non-judge	.14	.25	-.15	.21
Non-reactivity	.37[#]	.59**	-.32	.48*
SCS	.01	.07	-.50*	.42[#]
Self-kindness	-.09	-.00	-.47*	.34
Self-judgment	-.11	-.05	.28	-.30
Common humanity	.12	.12	-.28	.30
Isolation	.20	.34	.24	-.09
Mindfulness	.18	.30	-.54**	.56**
Over-identification	.01	-.30	.48*	-.40[#]

Note. [#] $p < .10$, * $p < .05$, ** $p < .01$; PSS = Perceived Stress Scale; IRI = Interpersonal Reactivity Index; EC – PD = Empathic Concern and Personal Distress difference scores; FFMQ = Five-Facet Mindfulness Questionnaire; SCS = Self-Compassion Scale.

Program evaluation

In association with T2, the experimental group got the opportunity to evaluate FIP they just had completed. Ninety percent answered “yes” on the question “Have you noticed any change in your life since you began to meditate?” All of these changes were positively valenced. For practical reasons we cannot include all of the participant answers, but have chosen a few representational answers:

1. "I find it easier to relax, easier to understand others and their feelings. I feel calmer and more harmonious. Sometimes I can manage to stop and think first instead of react automatically. I am less angry."
2. "I feel happier and calmer. I find it easier to let go of things that would usually chase me up. I have stopped drinking alcohol. I also feel I have more control over my thoughts and feelings."
3. "I can now say hi to my neighbor whom I previously hated. Calmer. Happier, more humorous. More present in the moment. Less result-oriented. Take things less seriously."

We also asked the participants about their impressions on the program as a whole. Again we cannot include all of the answers, although all were positively valenced. Below are a selected few:

1. "Simple, lovely, well-chosen and prepared lectures. Inspirational. Many things were new to me. Peaceful, undemanding, beautiful premises."
2. "I am so happy! Thank you for introducing meditation to me in such a nice way. I have purchased relevant literature and am now plowing through them. I would also like to tell the whole world how good it is to meditate!"
3. "You as instructors had such a nice attitude which made me happy afterwards, even if it was raining and blowing outside."
4. "Very good, well prepared, based on extensive knowledge and personal experience. There is evidently a lot of work put into the program including lectures, notes to us, guided CDs and etc. The contents were explained in an uncomplicated way, but also spurred us to take the practice seriously and meditate between the sessions..."

On the question "How demanding do you think the program was taken as a whole (meditation at home, lectures, homework, etc.)?" Most answered four on a five point scale, where one corresponded to "not demanding and five to "very demanding". The most demanding element was to find time to meditate daily.

Discussion

The primary purpose of this study was to investigate the effects of the Four Immeasurables Program (FIP) on the dispositional tendency to feel empathic concern rather than personal distress - emotional states associated with different behavioral consequences (Davis, 1983). The purpose involves developing empathy and altruism, aspects of human behavior thought to be related to a variety of favorable interpersonal outcomes (Batson, 2011) (see Appendix G for a complete list of benefits of altruism). We included a measured difference between dispositional empathic concern and dispositional personal distress (EC-PD) as an important and complementary approach to identify the dispositional tendency to respond to another's need rather than to oneself when perceiving another as in need.

The secondary purpose was to further investigate the effects of FIP on associated measures such as mindfulness, self-compassion and perceived stress – aspects suggested to be related to the development of empathy and empathic concern for others (Shapiro & Izett, 2008).

Results discussion

Changes in other-orientation. A one-way ANCOVA controlling for pre-test differences between experiment and control group showed a tendency towards a significant change in other-orientation. A likely explanation for the non-significant result is the pre-test heterogeneity between control and experiment group on both the empathic concern and personal distress measures. Results on the paired t-test showed a statistically significant change in other orientation for the experiment group whereas no significant change was obtained for the control group.

Generally emotion regulation skills are hypothesized as crucial for the tendencies to feel empathic concern rather than personal distress when perceiving another as in need, requiring the observer to hold an optimal arousal level rather than becoming over-aroused and self-focused (Eisenberg & Eggum, 2011). In line with Shapiro and Izett's (2008) model, in the present study changes in perceived stress, self-compassion and mindfulness were all related to (or showed a tendency toward) increases in empathy but only when measured as other-orientation (EC-PD) and not when measured as empathic concern. The results are thus consistent with Shapiro and Izett's model that stress, self-compassion and mindfulness play important roles in increasing the tendency to feel empathic concern rather than personal

distress when perceiving another as in need. Interestingly, changes in other orientation were significantly associated with changes in mindfulness both as measured with the FFMQ and as measured with the SCS. Neff (2003) describes mindfulness as holding painful thoughts and feelings in a balanced awareness rather than over-identifying with them, enabling meta-cognitive engagement with one's experiences, breaking the vicious cycle of self-absorption and egocentric feelings of separation. Increases in other-orientation also showed a correlational tendency with decreases in over-identification.

In sum, FIP showed a tendency towards increasing participants' self-reported other-orientation. Results indicate that the development of mindfulness and self-compassion as well as a decrease in perceived stress are related to increases in other-orientation. Discarding the hypothesis that FIP leads to increases in other-orientation involves a substantial risk for making a type II error.

Changes in pre- post measures.

Empathic concern. In contrast to our hypothesis, no significant change in empathic concern was obtained in a one-way ANCOVA. As mentioned above, these results may have been affected by the pre-test heterogeneity between experiment and control groups. Past studies (Birnie et al., 2010; Galantino et al., 2005) exploring the effects of 8-week mindfulness-based programs have similarly not been able to show pre- to post changes in empathic concern. There are at least three likely explanations for these results. First, it may be that eight weeks is too short of a time period for changes in empathic concern as measured by IRI. Second, it may be construct validity issues concerning a discrepancy between the type of empathy cultivated in meditation and the type of empathy that IRI empathic concern scale taps. The latter is highly correlated with general emotional reactivity (Davis, 1983; 1994) whereas the empathy cultivated in meditation may be a less reactive but more aware and controlled (not to be confused with "cold"). Finally a third explanation may be that meditation does not alter empathic concern. This however is unlikely due to the significant changes in associated measures as well as the significant changes in perspective taking.

Personal distress. As opposed to our expectation, personal distress showed no significant change in a one-way ANCOVA. However, in paired samples t-test, a significant change between pre- and post-test was obtained for the experimental group, whereas no significant change was obtained for the control group. As for other-orientation, these results

are likely to be related with pre-test heterogeneity between the groups. Decreases in personal distress were most notably associated with decreases in perceived stress as well as increases in self-compassion. These results are consistent with evidence from clinical psychology that long since has proposed an association between ruminative self-focus and negative affect (Huffziger & Kuehner, 2009). It is also in line with Eisenberg and Eggum (2011) who refer to studies showing that personal distress is linked to emotional regulation capacities. While perceived stress is related to finding one's life as unpredictable, uncontrollable and overloading, self-compassion involves holding aversive emotions with kindness and understanding. In line with our expectations these two ways of dealing with emotions seem to have distinct consequences for the experience of personal distress.

Perspective taking. In accordance with our expectation, perspective taking showed a significant change after FIP in a one-way ANCOVA, implying a greater tendency to adopt the perspective of the other. Birnie et al. (2010) who investigated the effects of MBSR on empathy similarly obtained significant changes in perspective taking. A core aspect of FIP is to contact others' suffering together with a heartfelt aspiration that they may be freed from it. Central to this practice is to take the perspective of the other and contacting the other's wish to be happy and free from suffering – an active perspective taking where a valuing of the other's perspective is cultivated. Increases in perspective taking may be associated with greater equanimity, both through the seven step expansion aspect as well as a more balanced approach to one's emotional experiences. The limitless extension of the intention that other's may have happiness and be free from suffering should also involve increases in common humanity. Surprisingly, there were however no significant relations between changes in common humanity (or SCS) and perspective taking.

The PT subscale is thought to mainly tap the cognitive aspect of empathy (Davis, 1983), a component thought to be related to frontal areas of the brain (Decety, 2011). Previous research shows that mindfulness meditation has shown to involve less emotional interference on a cognitive task, and a reduction of reactivity to emotional stimuli (Ortner et al., 2007) as well as facilitated cognitive flexibility (Moore & Malinowski, 2009) which implies a greater capacity for self-regulation and mental flexibility. In line with these studies, increases in perspective taking showed a significant positive correlation with increases in the FFMQ subscale *non-reactivity*, highlighting the association between facilitated executive

attention and inhibition with the ability to adopt the perspective of another - a skill that also may be cultivated in mindfulness-based programs such as the MBSR.

Perceived stress. As expected, the experimental group showed a significant decrease in stress compared to the control group when controlling for pre-test differences in a one-way ANCOVA. Previous studies (e.g., Baer, 2003) have also shown that mindfulness-based meditations are highly related to decreased levels of stress. This study further contributes to these results by showing that meditations of the Four Immeasurables and not only mindfulness and relaxation focused interventions, contribute to decreased levels of perceived stress. Furthermore, a significant association between decreases in personal distress and decreases in perceived stress was obtained which may imply that decreased stress can contribute to increases in other-orientation by reducing the experienced level of personal distress. It is however not possible to infer any causality by way of correlations. A possible mechanism for decreases in personal distress may be through making executive attention more available, facilitating emotion regulation.

Self-compassion. A one-way ANCOVA showed as expected significant differences in self-compassion between the experimental and control group. Significant changes in a one-way ANCOVA were furthermore obtained on all six subscales implying a higher degree of self-kindness, sense of common humanity and a more balanced approach to one's own inner experiences. The observed changes in self-compassion when mainly engaged in cultivating loving-kindness and compassion for others fits neatly with Neff's (2003) view that self-compassion is congruent with and not as opposed to compassion for others. The concept of self-compassion (Neff, 2003) is highly related to compassion as defined in Buddhism. It is thus not surprising that FIP, which is based on Buddhist teachings leads to increases in this measure. The negative change score correlations between self-compassion and personal distress also support the view of self-compassion as an emotional regulation strategy. This result can be interpreted as facilitating exposure to distressing emotions while at the same time promoting new safety memories not contingent on external stimuli, facilitating emotion regulation and the keeping of an optimal arousal level. Because SCS has been positively linked to mental health (Neff, 2003) as well as inversely linked to psychopathology (Van Dam et al., 2011), cultivating compassion for oneself and others through meditation may have important implications yet to be explored.

Mindfulness. As expected, a one-way ANCOVA showed a significant change in mindfulness between experimental and control group. A central theme in FIP is what Pema Chödrön (2009) refers to as letting go of “the-story line” – that is, letting go of thought content and returning to our ongoing moment-to-moment direct experience. Interestingly, increases in mindfulness showed a tendency to be related with increases in empathic concern. More specifically, increases in the subscales *describe* and *act with awareness* which both showed significant positive relations to increases in empathic concern. This may illustrate that increases in mindfulness entails a greater capacity to be aware of one’s current mind state and thus also the ability to communicate these states. Because empathy is seen as a highly intersubjective phenomenon (Decety, 2011), these skills may be crucial for communication and taking appropriate action when perceiving another as in need. *Act with awareness*, which entails attending to one’s current activities and avoiding automatic pilot, has for example shown an inverse relation with dissociation and absent-mindedness; the *describe* facet, which entails finding words to describe one’s inner experiences, has for example been shown to be related to emotional intelligence and inversely associated with alexithymia (i.e. inability to express emotion) (Baer, et al., 2006).

Relationship between meditation time and pre-post changes. Our hypothesis that meditation time should be related to changes on all measures was partially supported. Meditation time showed an inverse correlation with changes in perceived stress, and a positive correlation with mindfulness and most notably with other-orientation. This relationship points to an important link between FIP meditation and changes in other-orientation, supporting our hypothesis that FIP is associated with increases in altruistic motivation.

The results further support the relationship between meditation and decreases in stress, a relationship well-documented in past mindfulness-based studies (Baer, 2003). Meditation time also significantly correlated with mindfulness, especially the *act with awareness* and *non-reactivity* facets. FIP meditation is mainly aimed at cultivating wholesome intentions and mental states, involving inhibition and acceptance of unwholesome states without any need to impulsively react to them. Meditation time was surprisingly not related to the SCS, except for the mindfulness subscale. A potential explanation for this result is that the participants who meditated the most also made a quiet substantial effort, which

may have involved elements other than self-compassion. The correlations here obtained may however be affected by the relatively small sample size.

Method discussion

Construct validity. Although the content of FIP is mainly based on ancient, well-known Buddhist teachings and techniques, the Four Immeasurables has received little prior empirical attention. A clear description of contents and procedures has thus been warranted in order to determine if an intervention, especially a novel one, corresponds to underlying concepts.

Batson's (2011) definition of empathic concern is somewhat similar to the term compassion as trained in FIP. The measure (IRI) used in this study is however based on empathic concern as defined by Davis (1983). Empathic concern is, according to Davis (1983), to a large extent associated with a general measure of emotionality, a view that may even be opposed to a more balanced and calm mind as developed through meditation. For example item 20 in the IRI (Davis, 1994) "I'm often quite touched by things I see happen" is too general and cannot be seen as specifically measuring the intended phenomena. One of the aims of FIP is to increase other-orientation which can be seen as synonymous to increasing the dispositional tendency to respond to another's need rather than one's own in an aversive situation. This is distinct from just being empathically aroused which can entail both high levels of empathic concern and personal distress. It seems thus that the EC subscale does not fully correspond to our intended manipulation.

Furthermore, Decety and Lamm (2011) state that there is some level of discrepancy between neuroscience research and dispositional measures of empathy and that this discrepancy may be related to the low validity of self-report measures in predicting actual empathic behavior. Similarly, Batson (2011) questions the validity of self-report questionnaires measuring empathy such as the IRI: "To express doubt about the validity of self-report questionnaire measures of dispositional empathy is not to express doubt that individual differences affect the experience of empathy. Such effects clearly exists... My doubt is about whether existing self-report questionnaires validly reflect these differences. There is too much room for social desirability and positive self-representation in responses to these questionnaires." (p. 56). Batson (2011) suggests that it would be more fruitful to assess possible moderators of empathic responding (i.e., responses elicited from the experience of empathy and feelings of empathic concern) such as regulation of emotion.

In this study, additional self-report measures thought to be related to empathic responding were included. As discussed previously, both the SCS and FFMQ are thought to be associated with emotion regulation. The ad hoc supplement of the Social Desirability Scale was an additional attempt to control for social desirability effects. No significant correlations were however found between this scale and the dependent variables.

The measures used in this study are all based on self-reports. This unilateral operationalization is a serious limitation. The supplement of behavioral and neuro-physiological measures would substantially increase the validity of the results. Unfortunately the inclusion of such measures has been beyond the scope of this study.

Internal and statistical validity. One of the strengths inherent in our randomized controlled design is that it enables us to infer causality. More specifically, we can tell whether meditation may have had an effect on other orientation and associated variables in our sample. By using a control group we can more readily attribute the positive outcomes to FIP and not other factors such as history and placebo effects. But there are also weaknesses associated with our design. One of the weaknesses is our small sample size, which leads to low statistical power and an increased risk for committing type-II error. The small sample size may also explain why the random assignment failed in yielding more homogenous groups.

The pre-test heterogeneity between the control and experiment group is a feasible explanation for the non-significant result on ANCOVA on the personal distress scales. To counter eventual intergroup heterogeneity, we considered matching the groups on the dependent variables. However, this option would imply a delay in the random group assignment. We deemed that such an approach would be impractical for the participants and might result in unnecessary drop-out. We thus decided against it.

The noticeable “ceiling effect” on the empathic concern scale in both the experimental and control groups also deserve further scrutiny. First, there was simply not much measurable space left for improvements on this variable on T2; the mean score for the experimental group on T1 was 28.62 on this 7 item variable, where five is the highest score on each item. Second, extreme scores on a variable are commonly susceptible to regression towards the mean value (Shadish, Cook, & Campbell, 2002). This is likely the case with the many extreme scores on the empathic concern scale. We deem regression artifacts as a feasible explanation for the measured (but non-significant) decrease in EC scores for the

control group. The ceiling effect, extreme scores, and regression artifacts exert a negative effect on the internal validity, making it harder to establish a clear cause and effect relationship between FIP and EC, and by extension FIPs' effect on altering other-orientation.

Attrition and disqualification affected the experiment and control group equally. Notwithstanding the fact that dropout always affect statistical power negatively, it did not covary with the independent variable in this case. Thus, the internal validity is not likely affected by participant dropout.

External validity. One other strength with our design is that it is a group intervention. This group intervention might be a cost effective way to promote other-orientation, reduce stress, increase self-compassion, and mindfulness which is associated with emotion regulation and attentional focus. However, we cannot generalize the positive outcomes of this study arbitrarily to other groups and settings. The sample in this study was recruited using convenience sampling. Most participants were well educated and strictly screened for pathology and substance abuse. They were also highly motivated to participate in the study and interested in meditation.

Future directions

The ability to accurately infer the thoughts and feelings of others and to respond to that perception with empathic concern rather than personal distress is a favorable outcome in any social interaction situation – an outcome associated with altruism. Given the positive outcomes of FIP in this pilot study, we would like to encourage further research on FIP; more specifically to: (a) further investigate the effects of the Four Immeasurables meditations and (b) investigate populations that could benefit from these.

The measures used in this study are all based on self-reports. This unilateral operationalization is a serious limitation. In future studies it is recommended to include neurophysiological, experimental and behavioral measures - methods that can better control for biases in self-report, as well as offer a more multi-faceted investigation involving both physiological and psychological aspects. For example, Zaki and colleagues offer an interesting method for studying empathic accuracy, using a continuous affect-rating paradigm in combination with neuro-imaging (Zaki, Bolger, & Ochsner, 2008; Zaki, Weber, Bolger, & Ochsner, 2009). Batson (2011) also makes use of well-tested experimental methods for investigating empathy and altruism through a social psychological approach.

On a further note, experiential knowledge is especially emphasized in the science of meditation (Wallace, 2009). We therefore recommend researchers to combine third-person research with an unbiased experiential exploration of the intended psychological phenomenon - an approach that may facilitate hypothesis-generation and empirical understanding.

The definitional issues mentioned earlier concerning Buddhist and Western concepts can be seen as symbols for underlying philosophical differences. These issues lend themselves to further investigation – bridging cultural gaps and promoting intercultural understanding.

Meditation techniques used in FIP, such as loving-kindness and compassion, have shown promising effects (Lutz et. al., 2008; Seppala & Gross, 2008; Fredrickson et. al., 2008). Research to date however is only in its infancy. FIP, as used in this study, is an intensive program not recommended for a clinical population but would be an interesting approach for the cultivation of therapist empathy, a factor considered important in psychotherapy outcomes. Carl R. Rogers once said “I recognize that when I am intensely focused on a client, just my presence seems to be healing and I think that this is probably true of any good therapist” (Bozarth, 2011, p. 110). In line with this insightful observation, an intriguing study by Grepmaier et al. (2007) showed that psychotherapists engaged in Zen mindfulness meditation showed to be more successful in therapy as compared to controls. In this double-blind study, the Zen therapists’ patients showed a significant decrease in symptom severity, and they rated their therapist significantly higher on clarification and problem-solving skills as compared to patients treated by non-meditating therapists. The results show the potential benefits of training psychotherapists, psychologists and other clinicians such as physicians in increasing their ability to successfully help others through meditation. We believe that the meditations of the Four Immeasurables are well suited for this task and deserve further effort.

Another area of application is clinical treatment. A relatively new approach that shares some aspects with FIP is that of Compassionate Mind Training (CMT; Gilbert, 2009), a program showing promising effects for patients high in self-criticism (Gilbert & Irons, 2004; Gilbert & Procter, 2006). Cultivating compassion and kindness may also be applicable for example to school teachers by promoting a classroom climate more conducive to learning and positive development (Jennings & Greenberg, 2009). The field of incorporating compassion and loving-kindness however is, oddly enough, a subject scarcely explored in psychology, possibly due to a historical bias of focusing on the causes of psychopathology

rather than the causes for psychological health and well-being. Such a bias is also evident in the science of altruism, where focus mainly has been on helping behavior when perceiving another in an aversive situation. Different motivations (both egoistic and altruistic) are at play throughout our whole life, containing a pallet of situations not solely confined to aversive ones. In this study, we therefore propose that altruistic motivation may be relevant not only in adverse situations but also when perceiving others in joyous states (to counteract jealousy) as well as neutral states (to counteract indifference). This broadening of altruistic motivation however requires extensive conceptual rearrangements, and the development of corresponding measures which are beyond the scope of this thesis.

As the giants of early neuroscience such as Sherrington, Franz, Lashley and Hebb (cited in Begley, 2007) proposed, the brain seems to mainly be a child of experience. The potential to cultivate mental health without the presence of external stimuli or through pharmacological interventions but solely by mental training, opens up new unexplored territory in psychological science. Training the mind through meditation offers an exciting new field of inquiry in psychology.

Conclusions

This study present a number of significant and important effects of the Four Immeasurables Program on empathy and measures proposed to be related to the development of empathy and empathic concern for others such as mindfulness, self-compassion and perceived stress.

The findings of the present study suggest that enhancement of the tendency to feel empathic concern rather than personal distress when perceiving another in need, termed *other-orientation*, is likely to be possible via meditations of the Four Immeasurables. The important change in the other-oriented tendency appears to be related to the development of mindfulness and self-compassion as well as to reduction of perceived stress.

This study further contributes to the findings reporting decreased levels of stress by showing that not only mindfulness and relaxation focused interventions (e.g. Baer, 2003), but also meditations based on the Buddhist meditations of loving-kindness, compassion, joy and equanimity, as well as the practice of Tonglen (“taking and sending”), contribute to decreased levels of perceived stress. Furthermore, a significant association between decreases in personal distress and decreases in perceived stress was obtained which may imply that

decreased stress can contribute to increases in other-orientation by reducing the experienced level of personal distress.

Prominent increases in mindfulness and self-compassion indicated in the study suggest that meditations of the Four Immeasurables lead to improved emotional regulation strategies entailing a balanced awareness with one's ongoing emotional experience, without the need to either suppress or express on it (Neff, 2003). The strategies are thought to be crucial for the development of the capacity to act altruistically rather than escape when perceiving another as in a distressing situation.

Training the mind through meditation offers an exciting new field of inquiry in psychology, and the field is currently only in its infancy. This study contributes by introducing the meditations of Four Immeasurables as a promising approach to cultivate altruism and care for other's welfare – skills proposed to facilitate interpersonal understanding and helping. Further studies with more rigorous and multi-faceted methods are required for a deeper exploration of the potential benefits of this approach.

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Appendix A

Summary of the information conveyed on the website

- (a) The current study is part of a Master of Psychology degree thesis. The purpose is to examine how people's psychological functioning changes through means of meditation training.
- (b) Previous studies suggest that meditation practice, such as training in mindfulness may lead to decreased symptoms of stress, a higher degree of concentration and increased well-being.
- (c) The current study includes an eight week meditation course. Group meditation sittings will be held once a week, nine in total, for eight consecutive weeks, where instructions will be given as well as questions answered in order to aid the participants' daily meditation practice. In addition to the weekly group sittings, participants are encouraged to meditate about 30 minutes a day on their own. Guided meditation CDs' are provided to further aid daily meditation practice.
- (d) Group sittings will be held on Thursday evenings. One group will begin at 18.30 and the other at 20.00. The January groups commence on the 27th of January and finish on the 24th of March. The March groups commence on the 31st of March and finish on the 26th of May. In addition all participants are required to submit web-based questionnaires at two different times: Once between the 20th-25th January and once between 24th and 29th of March.

Overview:	January 20th	Questionnaire 1
	January 27th - March 24th	January groups
	March 24th	Questionnaire 2
	March 31th - May 26th	March groups

- (e) Liberiet at Lunds Domkyrka - a suitable meditation hall, with meditation cushions, stools, chairs, etc. that enables different types of meditation postures.
- (f) The requirements for participation in the study are:
- age of 18 or above
 - no prior experience with meditation
 - no current use of illicit drugs
 - no current experience severe psychological distress
 - no current severe somatic illness or chronic pain

- fluent in the Swedish language
- have the ability/possibility to meditate 30 minutes per day
- have the ability/possibility to attend group sittings in Lund once a week
- have the ability/possibility to participate in the study during the time period 27th January - 26th May on Thursday evenings

(g) Meditation course administrators/leaders: Erik Wallmark and Kousha Safarzadeh;
Psychology master students with meditation experience.

Supervising co-workers: Rachel Maddux and Daiva Daukantaitė; Researchers at the
department of psychology, Lund University.

(h) Links to scientific articles about meditation and literature referrals.

(i) Link to an electronic questionnaire in which interested individuals are required to
input personal data in order to be eligible for participation in the study.

Appendix B

Interview template

- Hej, jag heter X. Jag är psykologkandidat och ringer med anledning av att du sökte till en meditationsstudie som löper nu under vårterminen 2011. Har du några minuter till förfogande? Om det är ok, så har jag några frågor jag skulle vilja ställa till dig. Jag vill bara tillägga att all information under detta telefonsamtal kommer att behandlas med sekretess.
- Är du fortfarande intresserad av att vara delta? Har du möjlighet att lägga ner ca 30 minuter/dag till meditationsträning?
- Har du använt droger eller starka mediciner det senaste halvåret?
Om JA DROGER ställ följdfråga: Hur ofta då?
Om JA MEDICINER ställ följdfråga vad för sorts mediciner?
- Ungefär hur ofta dricker alkohol så att du känner dig berusad?
- Se om angivet e-mail är korrekt. Meddela att huvudsaklig kommunikation utanför sessioner sker via e-mail under tiden som studien pågår.
- Om den intervjuade klarar screeningsfrågorna, meddela att de härmed är antagna.
- Om inte, meddela att de kommer att kontaktas per e-mail inom de närmsta dagarna och avsluta samtalet
- Antagna deltagare:
Säg vilken grupp de har blivit tilldelade och vilka tider. Dubbelkolla om tiderna passar/ har möjlighet de tiderna/datumen.
- Meddela plats: Liberiet i Lund vid domkyrkan
Mätning/skattningsformulär:
Man måste fylla i skattningsformulär vid 2 testtillfällen för att kunna delta i kursen. Att fylla i frågeformuläret tar 30 minuter och administreras elektroniskt via internet.
Första testtillfället e-mailas skattningsformuläret ut den 20:e januari. Andra tillfället e-mailas ut den 24:e mars. Båda gångerna har man 5 dagar på sig att fylla i formuläret.
- Besvara eventuella frågor. Tacka och avsluta samtal.

Appendix C

Meditation time

MEDITATIONSTID

Deltagarnummer:

Kursvecka nr:

Dag	Fredag	Lördag	Söndag	Måndag	Tisdag	Onsdag	Torsdag
C:a tid (minuter)							

Ungefärlig total tid den här veckan (timmar/minuter):

Appendix D

Participant compendium including session summaries and homework assignments

KOMPENDIE

INTRODUKTION TILL

MEDITATION

Kousha Safarzadeh & Erik Wallmark

Psykologprogrammet, Lunds Universitet

Session 1 – Föreläsning: en introduktion till mindfulness

- ✚ Introduktion till sittposition, meditationsställning och rutin på Spår 1 ”guidade meditationer”.
- ✚ Ha en vänlig och avslappnad attityd till dig själv och andra. Låt din ansträngningsnivå vara varken för hård eller för lös. Hitta din egen balans. Uppmärksamma om du dömer dina upplevelser, dig själv eller andra.
- ✚ Mindfulness: *”att vara uppmärksam på ett medvetet sätt i det pågående ögonblicket, utan att värdera eller döma”*.
- ✚ Var medveten om sinnesintryck: syn, hörsel, lukt, smak, känsel och sinnet (tankar/känslor).

Ex. sensationerna av andningen, sensationerna av vattnet när du duschar, av smaken när du äter, av synintrycket av himmeln, hörseln av fåglarna.
- ✚ Allt som vi upplever är aspekter av sinnet. Alla sinnesintryck uppfattas av sinnet.
- ✚ Vår verklighet sker här och nu. Även tankar om dåtid och framtid sker här och nu.
- ✚ Tankar kan delas upp i audio och video. Audio: Verbala/språkliga Video: inre bilder
- ✚ Mentala händelser medföljs av känslor: positiva, neutrala eller negativa.
- ✚ Via känslor så får vi en viss relation till det vi upplever. Vi tenderar att vilja ha det som är positivt. Vilja undvika det som är negativt och att inte notera eller bry oss om det som är neutralt.
- ✚ När vi agerar på ett visst sätt utifrån känslor, kommer en tendens att agera liknande i framtiden att skapas. De flesta tankar och känslor kommer till oss oavsett om vi vill det eller inte. Detta sker p.g.a. tidigare djupt inarbetade vanemönster.
- ✚ Ju längre tid och mer intentionell kraftfullt en handling gjorts, ju starkare kommer vanan att ha arbetats in. En stark vana återkommer ofta, är kraftfull och instinktiv.
- ✚ Genom mindfulness blir vi medvetna om våra impulser och våra tendenser att agera på vissa sätt. Med stark mindfulness kan vi även välja att bryta handlingsmönster i samma stund de är på väg att ske.
- ✚ Genom ökad medvetenhet/mindfulness blir vi successivt allt friare att välja våra handlingar, snarare än att agera utifrån gamla mönster. Vi kan leva mer fritt och i linje med hur vi själva vill.

Session 1 – Hemuppgifter

1. Veckans vardagsövning: ”Att vakna upp medvetet”

- + Välj en symbol i ditt sovrum, på en plats som du kan se direkt när du vaknar (på väggen eller taket)
- + Titta på den precis när du vaknar, det första du gör.
- + Låt den påminna dig och att le
- + Sätt dig sakta upp i sängen eller sängkanten på ett medvetet sätt
- + Uppmärksamma din andning med några djupa andetag
- + Påminn sedan dig själv om din önskan att göra den här dagen till en meningsfull dag.
- + Rör dig sedan långsamt upp och påbörja dagen.

2. Veckans meditation – Spår 2 Medvetenhet om kroppsliga sensationer (ca 25 min)

- + Ligg ner i Shavasana, eller sitt upp om du känner dig sömning
- + Ha lätt uppmärksamhet på varje utandning, andas ut alla tankar och spänningar
- + Notera din andning där den visar sig mest
- + Gör en kroppsscanning. Från fötterna till toppen på hjässan
- + Svep din uppmärksamhet över hela kroppen
- + Känn sensationerna i hela kroppen
- + Återvänd till att bara notera varje utandning
- + Avrunda sessionen
- + Res dig långsamt

Session 2 – Kärlek och vänlighet: Vår inre godhet

- ✚ Medvetenhet om sensationerna av andningen i området: a) buken eller b) nästippen
- ✚ Räkna de första 10 inandningarna och släpp sedan taget om räkningen och bara notera sensationerna.
- ✚ Ett vanemönster styrs av reaktiva känslor och är en stark kraft som ofta kortsiktigt upplevs som en lätnad när vi agerar på den. Men när vi agerar reaktivt och instinktivt på våra vanor så fördjupar vi vanan att agera på dem, och försvårar för oss själva.
- ✚ Alla emotioner har en kroppslig sensation. Medvetenhet om kroppsliga sensationer underlättar för oss att notera våra reaktiva mönster.
- ✚ Våra känslor är i ständig förändring som molnen på himmeln. De har ingen ägare och är naturliga processer.
- ✚ *”Att täcka hela jordens yta med läder, var kan sådana mängder av skin hittas? Men med bara lädersulorna på mina skor, är det som om jag redan täckt hela jorden.”* Det är enklare att förändra hur vi förhåller till det vi upplever än att förändra hur hela världen fungerar.
- ✚ De fyra omätbara: 1) Kärlek/vänlighet 2) Medkänsla 3) Medlädje 4) Öppenhet
De fyra omätbara bygger på att vi är i den här situationen tillsammans. Att vi alla vill samma sak, att vara lyckliga och ha det bra. Och att vi inte vill ha olycka och smärta.
- ✚ Kärlek handlar inte om:
 - Romantisk eller behövande kärlek
 - Bli en bättre människa: mer ”kärleksfull” och ”vänlig” och alltid le.
- ✚ Vi hjälper andra bäst genom att hjälpa oss själva och vi hjälper oss själva bäst genom att hjälpa andra. Vi är oskiljaktiga från den värld vi lever i.
- ✚ Låt tändstickan till din vänlighet och kärlek vara ett varmt minne av ett djur, en person, eller bara solen. Ta emot vänligheten från personen.
- ✚ Meditationen i kärlek och vänlighet bygger på:
 - En villighet att stanna kvar med vår känslomässiga upplevelse och en villighet att öppna upp till din egen och andras önskan om att vara lyckliga och må bra.
 - Att kontakta den vänlighet, generositet, kärlek och värme som redan finns i dig (hur liten den än må vara, även om bara till tortillas)
 - Att uppmuntra kärleken genom att låta den växa. Gör det genom: a) Visualisera en älskad persons ansikte b) Upprepa ord som bär en vänlig intention c) Föreställ dig ett kärleksfullt ljus som strålar ut från personen och fyller upp din kropp och sinne.

- Ha en lätt uppmärksamhet på sensationerna av din andning i bakgrunden. Det hjälper dig att stanna i nuet.
- Kontakta känslan under orden, utan att fångas upp av de berättelser våra tankar berättar om det ena och andra, hur känslan än är
- Notera när du stänger ner och när du får svårt att ta emot kärlek. Vad sker? Vilken strategi använder du iså fall för att undvika andras vänlighet/kärlek. Vilka reaktiva mönster och tankar drar igång? Bara notera.

Session 2 – Hemuppgifter

1. Vakna-upp-rutin: Mindfulness i rörelse. Lägg till dessa tre övningar till förra veckans ”vakna-upp-träning”.
(sök på www.youtube.com: ”thich nhat hanh – mindful movements” för guidad video)
2. ”Det successiva öppnandet och utvidgandet av kärlek”
a) Hitta dina fraser som bär intentionen av vänlighet och kärlek. b) skriv ner två handlingar där andra varit vänliga mot mig

<p>A) Mina loving-kindness-fraser: ex: ”må du ha kärlek”, ”må du ha hälsa”, ”må väl”</p>	<p>B) Två vänliga handlingar mot mig: 1. 2.</p>
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3. Veckans meditation: ”Uppmärksammandet av kärleken och öppenheten som redan finns”.
Genomför veckans meditation: ta emot kärlek (spår 3)

Session 3 - Kärlek och Vänlighet: utan gränser




- ✚ Solen sorterar inte: jag skiner på dig med inte på dig. Den bara skiner. Det är vår potential till kärlek och vänlighet.
- ✚ Vänlighet och kärlek finns redan hos oss alla. Solen finns redan, men skiner genom filter av fördomar, gillande/ogillande.
- ✚ Vissa människor gillar vi, andra ogillar vi, och andra är vi neutralt inställda till.
- ✚ Mindfulness gör att vi blir mer uppmärksamma på våra fördomar. Bra början om vi kan minska dömandet av oss själva för att vi dömer.
- ✚ Ha en vänlig och kärleksfull attityd, till dig själv. Låt din vänlighet till dig själv göras med intentionen av att göra andra lyckliga.
- ✚ Vi hör alla ihop. Människan behöver kärlek, omtanke och uppmärksamhet för att utvecklas hälsosamt, både fysiskt och psykiskt.
- ✚ Vår reaktion mot hat är att hata tillbaks. Men, ”hat föder alltid bara mer hat”, det är en uråldrig sanning.
”Trots att det är deras käppar som skadar mig, är jag arg på de som slår mig, men de i sin tur är drivna av sitt hat, därför är det deras hat jag borde bekämpa.”
(Shantideva ca 900 e.Kr.)
- ✚ Kärlek/vänlighet är motgiftet mot hat. Den här meditationen är ett fredsskapande arbete. Vi börjar på enda stället vi kan, med oss själva.
- ✚ Försök föra ut den här träningen till din vardag, när du är ute och gör ärenden, åker i kollektivtrafiken, observerar andra osv.
- ✚ Instruktioner för vänlighetsmeditation:
 - 1) Börja med att uppmärksamma vänlighet/kärlek som redan finns, kontakta en person/ett djur där du naturligt känner känslan till dem. Välj en okomplicerad relation.
 - 2) Uppmuntra/ge känslan energi genom att upprepa orden/fraserna som bär en vänlig intention, om och om igen. Ex. ”må du ha lycka”.
 - 3) Var uppmärksam på din kroppsliga/emotionella upplevelse. Vad du känner när du önskar personen väl. Bara notera, observera ”objektivt”. Vad sker? Stanna med den direkta upplevelsen, släpp på tankar/berättelser, idéer om rätt/fel m.m.
 - 4) Utvidga/gå vidare till nästa steg. T.ex. dig själv. Känn dig kropp eller föreställ dig själv framför dig. Upprepa steg 2-3. Vad är skillnaden? Bara notera.
 - 5) Utvidga/gå vidare till nästa steg T.ex. en nära vän. Föreställ dig dennes ansikte tydligt framför dig. Upprepa steg 2-3. Vad är skillnaden? Bara notera.
 - 6) Utvidga/gå vidare till nästa steg T.ex. en neutral person. Föreställ dig dennes ansikte tydligt framför dig. Upprepa steg 2-3. Vad är skillnaden? Bara notera.

- 7) Fortsätt på liknande sätt sen med en svår person, sen med alla personer/djur du använt dig av tillsammans som en grupp och slutligen utvidga till alla kännande varelser var de än är.

Session 3 – Hemuppgifter

1. Veckans mindfulness övning: Gör din vakna-upp rutin med övningen i medvetenhet om rörelser.
2. Veckans loving-kindness övning:
 - a) När du är ute bland människor: sänd kärlek, använd fras/ord som bär intentionen av vänlighet och kärlek.
 - b) Ge dig själv vänlighet och kärlek genom att upprepa din fras/ord till dig själv.
 - c) Ge vänner och familjemedlemmar din vänlighet genom att titta på dem och upprepa fraserna, utan att de behöver veta om det.
 - d) Uppmärksamma två situationer där du gjorde något vänligt till någon under veckan (vad som helst).

Handling:	De sju nivåerna av meditation (skriv ner personer/djur) i. En älskad person, ett älskat djur eller solen: ii. Mig själv iii. En nära vän eller familjemedlem:..... iv. En neutral person:..... v. En svår person:..... vi. Alla i de första fem stegen vii. Alla kännande varelser
Handling:	

3. Veckans meditation: ”Utvidgandet av kärlek”
 -  Använd dig av din lista på de sju stegen i meditationen.
 -  Inled med att notera andningen i minst 5 minuter. Låt sen andningen vara i bakgrunden. Föreställ dig personen. Upprepa fras och notera känslomässig effekt. Utvidga successivt
 -  Ge kärlek från steg 1 (den älskade) och utvidga stegvis till steg 7 (alla kännande varelser) antingen genom lång (spår 4) eller kort (spår 5) version.

Session 4 – Medkänsla: stanna där det är svårt att stå ut

- ✚ Vår instinktiva reaktion mot emotionell och kroppslig smärta är att vilja bort, att undvika, problemlösa och kontrollera. Vi försöker röra oss bort från det som är svårt. Hade undvikande av smärtsamma känslor hjälpt, så hade ingen människa lidit. Ingen vill lida.
- ✚ Svårigheter, otillfredsställelse och lidande kommer till alla. Problem utan enkel lösning leder till att vår kamp att ”bli av med”, blir plågsam.
- ✚ Medkänsla innebär att stanna tillsammans med smärta, när en enkel bot inte finns. Det innebär varken undvikande av smärta eller att vältra sig i smärta. Det innebär att möta det oönskade med en kärleksfull och medkännande direkt uppmärksamhet.
*Om det finns en bot för svårigheterna när de slår till, vad är då meningen med frustration?
Och om det inte finns en bot, vad är då meningen med frustration? (Shantideva, från ”the Way of the Bodhisattva”)*
- ✚ Vi kan inte bestämma vad som möter oss i livet. Men vi kan bestämma **hur** vi vill möta det. Istället för att odla vår rädsla för smärta, lär vi känna den, utforska den, och forma en vänskaplig relation med den. Precis som en mor tröstar sitt skrikande nyfödda barn i sin famn, håller vi smärtan i vår uppmärksamhet när den dyker upp. En mor möter inte barnet med aggression, dömande, ”nu måste du...”, ”nu borde du...”. En mor lugnar, tröstar, värmer och stannar kvar.
- ✚ Våra ”borden” innebär att vi vill leva upp till en viss självbild. När vi misslyckas med det klandrar vi oss själva för att vi har vissa känslor/tankar. Om du kommer på dig själv att göra så, är det ett utmärkt tillfälle för dig att använda dig av medkänsla.

Vardagsövningar

- ✚ Hur kan jag göra i vardagen när jag känner/tänker saker som är jobbiga, oönskade, svåra?
 - a) Notera vad du tänker b) benämnm ”tanke” och släpp på innehållet i tankarna/berättelsen
 - c) notera andning ca 5 sek (handbroms) utan att fortsätta lyssna på tankarna (kan vara svårt men försök) d) notera känslan i kroppen du har just nu e) utforska känslan i kroppen f) se att du inte är ensam i den här känslan g) skicka din medkänsla till dig själv och alla som är i samma svåra situation just nu (om du vill: använd dina ord, din fras) h) fortsatt med det du gjorde när tankarna började, tillsammans med en varm känsla av omtanke och medkänsla.

- ✚ Medkänsla handlar om att vi kan förstå andra för att vi själva har varit där, vi kan ta deras position och känna med dem, stanna kvar med dem. Vi förstår hur emotionell smärta känns så vi förstår andra när de upplever liknande känslor.

- ✚ Instruktioner för medkänsla meditation:
 1. Uppmärksamma medkänslan som redan finns, en älskad person/djur som förlorat något. Föreställ dig ansiktet framför dig.
 2. Uppmuntra känslan genom att upprepa fraserna som bär intentionen av medkänsla, om och om igen. Ex: ”må du bli fri från rädsla”.
 3. Var uppmärksam på din kroppsliga/emotionella upplevelse hur den än är, utan att döma..
 4. Utvidga/gå vidare till nästa steg. T.ex. dig själv. Upprepa steg 1-3, med dig själv. Någon skillnad? ”Smaka” på din upplevelse
 5. Utvidga/gå vidare till nästa steg T.ex. en nära vän. Upprepa steg 1-3, med en nära vän. Någon skillnad? ”Smaka” på din upplevelse
 6. Utvidga/gå vidare till nästa steg T.ex. en neutral person, sen en svår person. Sen med alla personer/djur du använt dig av tillsammans som en grupp och slutligen utvidga till alla kännande varelser var de än är.
 7. Återgå till att notera sensationerna av andningen.

Session 4 – Hemuppgifter

1. Veckans mindfulness övning: Gör din vakna-upp rutin med övningen i medvetenhet om rörelser.
2. Veckans övningar/uppgifter:
 - a. I din vardag när du lägger märke till någon som har det svårt, för din uppmärksamhet dit, framförallt till dig själv. Använd de stegvisa instruktionerna. Försök att kontakta känslan och stanna kvar med den. Lägg märke till din reaktion, när du stänger av eller vill därifrån. Önska alla med samma känsla fria från lidande.
 - b. Gör en lista på människor och djur, som får dig att känna medkänsla. Kanske någon som du känner värme för och som har förlorat något/lider. Kan även vara kategorier: hemlösa, övergivna katter o.s.v.
 - c. Skriv ner dina ord/fraser av medkänsla (t.ex. ”må du bli fri från lidande”). Försök hitta den fras som öppnar upp ditt hjärta.
3. Veckans meditation: ”utvidgandet av medkänsla”
 - a. Använd dig av din lista på de sju stegen i meditationen.
 - b. Inled och avsluta med att notera andningen i ca 5minuter. Låt sedan andningen vara i bakgrunden. Föreställ dig personen. Upprepa fras och notera känslomässig effekt (hur det känns i kroppen). Utvidga successivt.

Mina fraser:	De sju nivåerna av meditation (skriv ner personer/djur) viii. En älskad person, ett älskat djur eller solen: ix. Mig själv x. En nära vän eller familjemedlem:..... xi. En neutral person:..... xii. En svår person:..... xiii. Alla i de första fem stegen xiv. Alla kännande varelser
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Session 5 – Medglädje: att glädjas med andra

- ✚ I vår kultur är vanan av att konkurrera och tävla oerhört vanlig. Det betyder att vi också blir mottagliga för avund och missunnsamhet.
- ✚ Avund innebär att vi vill ha den lycka och välbehag andra upplever och känner en avsaknad av att vi själva inte har samma lycka. Avund är grundat i att vi vill ha saker för oss själva tillsammans med en missnöjdhet med den egna nuvarande situationen, att något saknas hos oss.
- ✚ En av de största blockeringarna för glädje – är konkurrens, tävlan och avund.
- ✚ Våra inlärdade ”borden” skapar mallar att leva upp till, och leder lätt till tävlan, vilket försvårar nöjdhet och glädje.
- ✚ Att odla missnöje och negativa känslor är lätt hänt. Omständigheterna för lycka och glädje är svåra att föra fram.
Shantideva: ”Intentionen bakom varje handling är lycka, men även vid stor rikedom är den sällan funnen”.
- ✚ Medglädje innebär att när vi ser att någon har det bra, och så tar vi glädje i det. Vi öppnar upp oss inför vår egen och andras glädje och goda lycka i livet.
- ✚ Medglädje innebär att sätta sig i en annans skor och stanna med personens glädje. Att ta glädje med den andra, utan ”men jag då?”.
- ✚ Två aspekter av glädje är:
 - 1 Glädje över vår egen och andras lyckosamma situation. Alla behagliga upplevelser och glädjeämnen.
 - 2 Glädje som kommer från att vara fullt närvarande i varje stund. Att uppmärksamma vad som sker här och nu.
- ✚ Lika viktigt som att stanna kvar med en persons smärta med medkänsla, är det att stanna kvar med en persons goda lycka och glädjas. På så sätt kompletterar medkänsla och medglädje varandra.
- ✚ När jag ser något fint och behagligt hos andra eller hos mig själv:
Ta glädje i den goda lyckan. När du upplever känslan av glädje önska att alla får samma goda lycka, vem man än är, var man än är.

✚ Instruktioner för medglädje meditation:

- 1 Börja med att kontakta minnet en person/ett djur där du känner spontan glädje över deras goda situation. Kontakta känslan av glädje och lycka du känner över det goda som har hänt personen/djuret. Föreställ dig personens/djurets glada ansikte framför dig.
- 2 Uppmuntra glädjen genom att upprepa dina fraser om och om igen t.ex. ”må du för alltid glädjas”.
- 3 Var uppmärksam på din kroppsliga/emotionella upplevelse hur den än är, utan att döma. Stanna med den direkta upplevelsen, släpp på tankar/berättelser, idéer om rätt/fel m.m.
- 4 Utvidga/gå vidare till nästa steg. T.ex. dig själv. Känn din kropp eller föreställ dig själv framför dig. Upprepa steg 2-3. Vad är skillnaden? Bara notera.
- 5 Utvidga/gå vidare till nästa steg T.ex. en nära vän. Föreställ dig dennes ansikte tydligt framför dig. Upprepa steg 2-3. Vad är skillnaden? Bara notera.
- 6 Utvidga/gå vidare till nästa steg T.ex. en neutral person, sen en svår person, sen alla personer/djur du använt dig av tillsammans som en grupp och slutligen utvidga till alla kännande varelser var de än är.
- 7 Vila nu återigen din uppmärksamhet i sensationerna av din andning.

Session 5 – Hemuppgifter

1. Veckans mindfulness övning: Gör din vakna-upp rutin med övningen i medvetenhet om rörelser.
2. Veckans medglädje övningar/uppgifter:
 - a. Skriv ner dina ord/fraser av medglädje (t.ex. ”må du för alltid glädjas”). Försök hitta den fras som öppnar upp ditt hjärta för glädje.
 - b. Gör en lista på människor och djur, som får dig att känna medglädje. Det kan vara saker som har hänt dem som du är glad över, något som resonerar med din vardagsupplevelse. Använd fantasin om du inte kommer på något konkret.
 - c. Gör en lista för vad du gläds av i ditt eget liv. Försök att identifiera saker som du är glad och tacksam över. Små som stora saker (fint hem, hälsa, nära relationer). Fyll på listan successivt, låt den bli längre i takt med att du ser fler och fler saker att glädjas över.
 - d. För ut till din vardag. När du ser människor som är glada och som upplever något njutbart och behagligt - ta glädje i deras situation. Upprepa orden för dig själv ”må du fortsätta att känna glädjen”.

Saker i mitt liv som jag är glad och tacksam över:	Personer/djur som jag känner medglädje för ”deras lyckosamma situation”:

Session 6 – Equanimity/öppenhet: att finna balans och jämvikt

- ✚ Equanimity, är svåröversatt, men kan översättas som öppenhet, icke-separerande, icke-dömande, utan fördomar, utan att dela in saker utifrån våra preferenser om attraktivt eller avstötande. Equanimity är den mentala balansen och jämvikten som kommer från att vi inte instinktivt köper kategoriseringar om bra/dåligt, vän/fiende, rätt/fel.
- ✚ Equanimity innebär att vi ser att kategoriseringar är tankekonstruktioner och relativa. En man som är 190 cm, är lång. Men en NBA-basket spelare som är 190 cm är kort. Våra värderingar och kategoriseringar är alltid relativa och återspeglar inte en objektivt sann verklighet. Det finns inget som i sig självt är rätt/fel, långt eller kort.
- ✚ Fenomen uppstår endast genom orsak och verkan. Fenomen är helt oskiljaktigt från varandra och saknar en statisk, oföränderlig natur. Det finns inget som inte är i ständig förändring. Det som är rätt idag kan bli fel i framtiden, den som är lång idag kan vara kort i framtiden.
- ✚ Vi tar oftast vårt kategoriserande, åsikter och värderingar som sanningar. Vi strävar efter att få dem bekräftade, en förväntanseffekt.
- ✚ Equanimity innebär att uppmärksamma det som sker genom direkt observation, förbi tankar, ord och förväntningar.
- ✚ Mindfulness meditation och återvändandet till här och nu, är en träning i equanimity, eftersom vi släpper på att följa innehållet i våra tankar. Vi kan förhålla oss balanserat till våra tankar, utan att tvingas tro på dem, utan att tvingas hamna i dem.
- ✚ Neurovetenskap har visat att olika delar av hjärnan aktiveras när vi observerar smärta hos de vi gillar jämfört med de vi ogillar. Hos de vi gillar, aktiveras liknande centra som när vi själva upplever smärta, men hos de vi ogillar (eller uppfattar som orättvisa) aktiveras belöningssystem. Fördomar kan leda till avhumanisering, vilket är grunden för krig och våld. Shantideva skriver:
”Varken för en älskad eller en själv, önskar man lidande, förakt eller förnedring, men för en fiende är det, det motsatta.”

✚ Utvidgandet av kärlek, medkänsla och glädje är också träning i equanimity, eftersom vi lär oss se förbi våra tankar och kategorisering av andra. Vi tränas i att se alla som lika värdefulla och viktiga. Det här är en träning i öppenhet och fördomsfrihet.

✚ Instruktioner för equanimity meditation:

1. Inled med att notera sensationerna av in- utandningen. Området under naveln, eller området näsborrar/överläpp.
2. Börja med att föreställa dig en person eller situation du ogillar. En grupp eller typ av människor, eller en viss typ av situation.
3. Kontakta din känsla av ogillande. Överdriv den. Bara fokusera på det du ogillar i situationen. Om du arbetar med personer, fokusera på det du verkligen irriterar dig på. Överdriv detaljerna genom att verkligen fokusera på det som är fel, otroligt dåligt till komikens gräns!

Notera din emotionella upplevelse och innehållet i tankarna. Vad säger dig tankarna? Tror du på dem helt och hållet? Är tankarna helt sanna? Bara notera sensationerna av andningen i bakgrunden.

4. Ta sedan en situation eller person du gillar starkt. En situation eller person du gillar och inte skulle klara dig utan. Fokusera på detaljerna i situationen eller med personen som är så otroligt bra. Överdriv det! Idealisera till komikens gräns! Notera innehållet i tankarna, tror du på dem? Är de helt objektivt sanna? Notera känslan av att gilla. Hur är den?
5. Återvänd till sensationerna av andningen.

Session 6 – Hemuppgifter

1. Veckans mindfulness övning: Gör din vakna upp rutin med övningen i medvetenhet om rörelser.
2. Veckans övningar/uppgifter:
 - a) Skriv ner/identifiera tre personer: gillar, ogillar. En okänd (artist, idol, förebild, ovän, politiker) eller nära person, vem som helst. Stanna kvar i känslan, vara medveten om tankarna, deras innehåll, värderingarna om personerna.
 - b) Välj en dag under veckan, där du verkligen lägger märke till situationer där du upplever gillande, ogillande eller avstängdhet/ointresse under dagen.
 - c) Sätt dig en timme på en allmän plats, café eller liknande, där människor passerar förbi. Bara observerar människor som passerar dig. Notera hela tiden dina inre kommentarer, idéer och värderingar om andra, dina känslor av instinktiv attraktion, ogillande eller ointresse.
3. Gör den sittande meditationen.

Tors-Sön: Om situationer

Mån-Tors: Om personer

En situation jag gillar:

En situation jag ogillar:

En person jag gillar:

En person jag ogillar:

En dag för mindfulness om kategoriseringar (dag):

En timme för att observera andra (tid):

Session 7 – Introduktion till Tonglen: Att utväxla sig själv för andra

- ✚ Upplevelser kommer och går precis som molnen.
- ✚ Vår grundläggande medvetenhet är obehindrad, utan början eller slut, som den gränslösa himmeln.
- ✚ Meditation innebär att låta saker komma och gå utan att varken koppla bort eller reaktivt följa efter. När vi fastnar i upplevelser, ser vi inte vår inre rikedom och potential.
- ✚ Tonglen: ”att utväxla sig själv för andra”. Innebär att vi ser på oss själva lite annorlunda från vår vanliga vana. Den här tekniken innebär att vi kan börja där vi är. I Tonglen-meditation blir alla önskade känslor energi för medkänsla och kärlek. Detta innebär att vara medveten om min pågående emotionella upplevelse (vilket vi tränat oss i hittills i kursen). Detta är att omvandla gift till medicin.
- ✚ Denna teknik kan användas i alla situationer och är utmärkt för vardagen! Så fort du ser någon som upplever något oönskat, eller om du själv upplever något oönskat: Andas in det som är oönskat, andas ut vad som än behövs. Föreställ dig att det du ger verkligen sker.
- ✚ Detta innebär att vi bekantar oss med det som är oönskat genom att stanna med vår känsla dvs. medkänsla, och besvara det önskade med *vad som än behövs* (träning i kärlek). Vi gör det här för alla, för vi ser att det är inte bara en person som upplever svårigheter, det är oändligt många. Så Tonglen inkluderar alla aspekter vi gått igenom på kursen i en enda teknik.
- ✚ Den här träningen är framför allt utmärkt för situationer där otillfredsställelse/lidande är oundviklig. Träningen är inte till för att ersätta ”riktig” hjälp, när sådan kan erbjudas. Den är tvärtom en förberedelse för faktisk handling, eftersom vi tränar vår intention av att vilja oss själva och andra väl.
- ✚ Stor del av vårt lidande kommer från att vi är rädda för att smärta ska fastna i oss, därför vill vi undvika den. Men precis som molnen inte kan fastna i himmeln, kan inte en upplevelse fastna i oss. Allt förändras ständigt, även svåra upplevelser.

Shantideva skriver:
 ”För alla de som plågas av sjukdom, för alla som plågas av hunger och törst, må jag bli som läkaren, skötaren, medicinen självt. Må jag bli som mat och dryck.”
- ✚ Så länge vi har en framtidsorientering, så kan vi inte slappna av med den vi är och det vi redan har. Tonglen innebär en träning i ärlighet, eftersom vi möter den vi är idag, och arbetar med det vi möter, utan att fly, utan att klandra oss själva, utan att skapa fler ”jag borde”.
- ✚ Tonglen är en träning i mod, eftersom den tränar oss i att bli mindre rädda och oroliga över vår egen situation, och istället tar ett mer långsiktigt och större perspektiv som innebär allas bästa.
- ✚ Veckans meditation fokuseras på skuld och skam. Vanliga blockeringar, som gör att vi fastnar i lidande och försvårar för oss själva att möta oss själva och andra. När du gör den här meditationen, se att det är oändligt många som har haft den här känslan, som

har den just nu och som kommer att ha den i framtiden. Detta här är ett faktum, inte bara en fantasi.

- ✚ Ta skuld, ge förlåtelse. Ta skam, ge acceptans. Notera din pågående känslomässiga upplevelse. Arbeta med blockeringarna (t.ex. om ilska dyker upp, andas in ilska, andas ut kärlek).

Session 7 – Hemuppgifter

1. Fortsätt med din vakna upp rutin.
2. Lagg märke till om du känner skuld, att något är fel på dig själv, eller om du märker skam, att du skäms över något. Använd dig då av Tonglen på plats. Om det är skuld, att du andas in känslan av skuld, låt din känsla av skuld inrymma allas känsla av skuld och andas ut lättnad och förlåtelse till dig själv och alla andra. Om det är skam, andas in känslan av skam, och andas ut tillåtelse och lättnad. Lättnaden över att det som är skamligt får lov att finnas, oavsett vad. Notera också om någon annan skuldbelägger dig. Notera då hur det känns i kroppen. Andas då in för alla i samma situation som dig själv.
3. Lagg märke till när andra känner skuld eller skäms över något. Använd Tonglen, genom att andas in deras känsla av skam, skuld och ge dem förlåtelse och lättnad.
4. Gör den sittande meditationen. Arbeta de första fyra dagarna med skuld, de sista tre dagarna med skam.

Session 8 – Tonglen för svåra situationer

- ✚ När vi tror på våra arga tankar, när vi köper berättelsen, så förs ilskan fram som giftiga kemikalier i en flod. De sprids vidare i naturen. Men när vi med mindfulness noterar att våra arga tankar, är tankar och inte sanningar så har vi möjlighet att ta hand om giftet. Tonglen innebär att plocka upp giftet från floden och göra om det till medicin. Det här renar naturen och skapar en vacker och frisk miljö. Det här är att skapa ett lugnt och balanserat sinne. Så det vi gör är tvärt emot vår vana, att vilja trycka bort och bli av med smärta och att vilja ha det som är behagligt för oss själva, att äga och kontrollera det.
- ✚ De som utövar Tonglen brukar säga, att deras värsta fiende är också deras största lärare. Det är för att de svåra känslor som kommer i de här utmanande situationerna, blir orsaken för medkänsla. Så när du andas in ilska, skuld, hunger, skräck eller vad som helst, se att det är helt omöjligt för det att fastna någonstans i dig.
- ✚ Om vi hela tiden försöka kämpa mot att uppleva varenda negativ känsla eller varje impuls är det som att försöka ”täcka hela jordens yta med läder.” Vi tänker att det finns en objektiv värld utanför oss, oberoende av vårt sinne. Detta gör att vi hela tiden letar efter lycka, utanför oss själva. Det är andra som ska förändra sig inte jag. Det är omgivningen som ska bli bättre. Men som Shantideva skriver: ”var kan sådana mängder av skin hittas?” Vi kan inte kontrollera alla omständigheter, vi kan inte kontrollera andra. Det är omöjligt. Men vi kan träna oss gradvis i hur vi kan möta svåra omständigheter. ”Med bara lädersulorna på mina skor, är det som om jag redan täckt hela jorden.”
- ✚ Shantideva: ”Så när fiender eller vänner, är sedda med att agera olämpligt, förbli lugn och påminn dig om, att allt uppstår från omständigheter.”
- ✚ Genom att känna med andra, öppnar vi upp till samma reaktioner i oss själva. Vi börjar uppleva känslor, som blott känslor, som energi, utan att identifiera med dem. Utan att vi måste behålla härliga känslor eller måste bli av med obehagliga känslor. När vi bara observerar känslorna, avslöjar det den kraft, empati, förståelse och kärlek som egentligen redan varit hos oss hela tiden.
- ✚ I Tonglen antar vi livets utmaningar, och bär fram intentionen att utveckla kärlek och medkänsla i varje ögonblick. När vi tar andra personers svåra situation och att ger vår egen goda situation, omvandlas rädslor, hinder och blockeringar. Så när du hamnar i situationer där du känner dig modfärdig och uppgiven, kan vi se att det alltid finns något att göra för någon annan, genom att vi gör Tonglen.
- ✚ Det här innebär att vi är villiga att stanna kvar i situationen tillsammans med dem. Att bara bära vittne till något. Det handlar mindre om att fixa eller lösa något problem. Även känslan av hjälplöshet eller uppgivenhet kan användas som material i Tonglen.

Session 8 – Hemuppgifter

1. Fortsätt med din vakna upp rutin.
2. Så fort du upplever något smärtsamt eller ser det hos någon annan. Andas in det på plats och andas ut det som behövs. Du behöver inte leta efter svåra situationer. Men när du ser något, eller upplever något svårt själv. Använd det! Bara stanna kvar med det som är smärtsamt, ge det som behövs, utan någon förhoppning på att det kommer att bli fixat eller botat.
3. Påminn dig om medglädjeträningen i vardagen. Varje gång du ser någon annan i en behaglig situation, eller du lägger märke till deras goda kvaliteter ta glädje i deras situation.
4. Skriv ner:
 - En situation där du önskat, men inte kunnat hjälpa en älskad person.
 - En situation där du önskat, men inte kunnat hjälpa en neutral person/grupp/kategori (ex. någon på din arbetsplats, svältande barn osv.)
 - En svår person, eller kategori som du inte vill hjälpa. Skriv ner känslorna som kommer upp när du andas in dennes svåra situation och ger dem vad som behövs. Hur upplever du motståndet? Hur känns motståndet?
5. Gör den guideade meditationen.

Appendix F

Contents of each session

Table F1

Content of Session 1

Mindfulness
Introduction
Sitting postures
The concept of mindfulness
The meditation object: experiential exploration of the five senses and the mind
Instructions of how to return to the meditation object without judgments
Mindful movements
Guided meditation: Body scan and awareness of breath
Homework assignments

The first week's meditation practice was intended to stabilize attention and to reduce stress as preparation for coming sessions. The formal meditation session started with noticing the sensations of the breathing process, followed by a body scan, and concluded with noticing the breath again. Instructions included to be attentive of when attention had slipped into thoughts, and to then label it "thought", let go of the it's content and to return to the meditation object by breathing out, and relaxing without judging or blaming.

Table F2
Content of Session 2

Receiving Loving-Kindness
Short introductory meditation
Learned reactive patterns formed through past behavior, cause and effect
Stimuli qualities: Aversive, appetitive and neutral feelings
Efforts to change our environment instead of our mind
The changing nature of phenomena (impermanence)
Introduction to Loving-Kindness, definition and what it is not
Mindful movements
Guided meditation: receiving Loving-kindness
Homework assignments

The second week's meditation practice was intended to train the awareness of the ongoing emotional experience arising from receiving Loving-Kindness. The formal meditation session started with stabilizing attention by noticing the sensations of the breath, followed by visualizing a person or animal whom one feels has loved oneself. Main emphasize is on contacting the felt experience of receiving loving-kindness together with the sensations of the breath. The session is concluded by again fully returning to the sensations of the breath. As in session 1, when the participant notices that attention has slipped in to thoughts, the instruction is to first, label the thought (as "thought"), second to let go of the content of the thought, and third to return to the meditation object without judging or blaming. The primary meditation object was the ongoing emotional experience while receiving Loving-Kindness.

Table F3

Content of Session 3

Loving-Kindness
Short introductory meditation
Interconnectedness: Loving-kindness without discrimination
Basic goodness - the always present capacity
Equanimity and mindfulness as anti-dotes to prejudice
Loving-Kindness as an antidote to hate
The seven levels of extension in meditation
Mindful movements
Guided meditation: sending Loving-kindness
Homework assignments

The third week's meditation practice was intended to train the awareness of the ongoing emotional experience arising from giving loving-kindness. The instructions given were identical to session 2 with one exception: the ongoing emotional experience to be attended was that which arose from giving loving-kindness and not from receiving it. Also, the seven levels of extension was introduced, which enabled the participant to give Loving-Kindness to (1) a beloved person/animal, (2) the self, (3) a close friend or family member, (4) a neutral person, (5) a difficult person, (6) everyone in the first five levels as a group, and (7) all sentient beings.

Table F4
Content of Session 4

Compassion
Short introductory meditation
Compassion, what experience the concepts refers to
Common humanity, interdependence
The resistance spiral: Aversion to pain escalates it
Emotional strategies: Not repression nor over-involvement but Middle-way
Willingness to stay present with one's ongoing emotional experience
Taking the perspective of the other and relating it to one's own experience
Bringing forth the intention to relieve other's suffering
Avoiding "I should" and rigid self-standards. Promoting "I will bring forth the intention to..."
Mindful movements
Guided meditation: compassion
Homework assignments

The fourth week's theme was centered on arousing compassion and bringing forth the intention that others (and oneself) be free from suffering. Meditation instructions for the week were to visualize the painful facial expression of a loved one, and to expand through the seven stage practice. As before, the meditation object was to notice the ongoing emotional experience together with the sensations of the breath while engaging in the practice.

Table F5
Content of Session 5

Empathic Joy
Short introductory meditation
In every mental moment we create our future
Recognition of this life's potential
Further instructions on how to deal with intrusive thoughts in meditation
Joy, what experience it refers to
Letting-go of competition, "should's" and "must's"
Non-stimulus driven happiness, staying present in the ongoing moment
Mindful movements
Guided meditation: joy
Homework assignments

The fifth week introduces empathic joy, to take happiness in the good fortune of other's and oneself. Meditation instructions for the week where to visualize the joyful facial expression of a loved one, and to expand through the seven stage practice. As before, the meditation object was to notice the ongoing emotional experience together with the sensations of the breath while engaging in the practice.

Table F6
Content of Session 6

Equanimity
Short introductory meditation
Partiality and prejudice: taking learned thoughts as truths
Seeing the constructed nature of thoughts and ideas, liking, disliking
Noticing liking, disliking and indifference towards others
Contacting emotional experience while letting go of the “story-line”
Mindful movements
Guided meditation: equanimity
Homework assignments

The sixth week is concerned with highlighting equanimity, the practice of staying present with ongoing experience without being caught up by the judgments and opinions about it. Meditation instructions for the week were to visualize liked and disliked persons, to exaggerate the thoughts associated with them, and to return to the ongoing emotional experience together with the sensations of the breath.

Table F7
Content of Session 7

Introduction to Tonglen
Short introductory meditation
Viewing experiences as dream-like
Letting experience be experience
Using one's own painful experiences for cultivating care for other's
Bringing forth the intention to give other's whatever is needed
Courage to face all aspects of oneself
Working with guilt and shame
Mindful movements
Guided meditation: Tonglen using guilt and shame
Homework assignments

The 7th week is an introduction of the practice of taking and sending. The Tonglen-variation used here is based on using guilt and shame as a way to cultivate openness and compassion rather than getting stuck in fear and avoidance. The practice is implemented as described below.

The practice of taking and sending starts with an open awareness, followed by visualizing the suffering of others (may be specified or not) taking the form of a dark, heavy and hot smoke. The smoke is breathed in together with the in-breath dissolving in the middle of one's chest, without leaving any trace. On the out-breath one visualizes a cool, white light that shines from the middle of one's chest, representing "whatever is needed". These intentions are extended in an unbiased way to all sentient beings (Chödrön, 2001). There are many variations of Tonglen practice. The ones used in this program are working with guilt and shame, and with resistance or hopelessness towards helping others as described by Pema Chödrön (2002).

With guilt and shame, one evokes the feeling in one self by recalling a personal event in where the feeling of self-guilt was strongly present. On the inbreath one imagines that the guilt of others gathers in one's own feeling of guilt which in turn dissolves in the chest as described above, and on the out-breath forgiveness and a sense of letting-go is imagined for oneself and further extended to all others in the same situation.

The in-breath entails compassion meditation, the wish that others are freed from their pain and suffering, the out-breath loving-kindness meditation, the wish that others receive whatever they need. The taking of others suffering and the sending of whatever is needed, refers to equanimity because it counteracts reactive tendencies of liking that which is pleasant and disliking that which is unpleasant to the self, and also, involves an unbiased expansion to all sentient beings whether liked, disliked or neutral. Joy comes from rejoicing in the exchange process itself, the happiness of engaging in the practice (McLeod, 2001).

Table F8
Content of Session 8

Tonglen
Short introductory meditation
Four Immeasurables and Tonglen
Mind and intention as causes for behavior
Not blaming oneself or others, but rather see the destructiveness of egocentric tendencies
Courage to take on the pain of other's and giving whatever is needed
Utilizing the intention to benefit other's in everyday life
Mindful movements
Guided meditation: Tonglen – helping other's even when overwhelming or hindered by disliking
Homework assignments

The final week, is concerned with helping other's by way of breathing in the suffering of others and breathing out whatever is needed. The first situation is concerned with helping a loved one in a situation that involving feeling helpless or overwhelmed. The second situation is concerned with helping others (a neutral person or group) that are in a painful and distressing situation. The third situation is concerned with helping a person that one doesn't want to help. This week's practice is mainly focused on working with the obstacles (in form of aversive states and resistance) that arise when doing this practice as a way to cultivate compassion - breathing in whatever aversive state one experience and breathing out whatever is needed for oneself and others. Still, the main focus is on one's ongoing emotional experience together with the sensations of the breath.

At the end of the eight week, a ninth concluding session was held to collect remaining data and to round up the course. The conclusion consisted of two twenty-five minute long sittings with a ten minute silent group walking in between.

Appendix G

Benefits of altruism

Table G1

List of Evidence for the Benefits of Altruistic Responding Reported in Batson (2011)

More sensitive and less indecisive help for individuals in need
 Less aggression
 Less child abuse and neglect
 Reduced sexual assault
 More forgiveness
 Less trivializing and blaming if victims of injustice
 Increased cooperation in conflict situations such as: negotiations and bargaining, political disputes, and tension between racial and ethnic groups
 More positive attitudes towards stigmatized groups and increased willingness to help these groups
 Increased concern for endangered species
 More sensitive and responsive care in friendships, romantic relationships, and marriages.
 More happiness and increased self-esteem.
 A sense of fulfillment and meaning in life.
 Reduced stress.
 Increased longevity.
