

BRIEF MINDFULNESS TRAINING FOR COUNSELLING PSYCHOLOGY STUDENTS:
EFFECTS ON SELF-COMPASSION AND REPERCEIVING

by

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Abstract

Teaching mindfulness to counselling students may provide another avenue for developing their clinical skills. Current research supports the idea that mindfulness can be beneficially introduced into graduate training in counselling. How and why this training should take place remains an underexplored phenomenon. The current study investigates whether a brief introduction to mindfulness training and practice can impact counselling students' ability to take a compassionate attitude toward themselves (self-compassion) and their ability to be a witness to their own experience (reperceiving). Participants received one hour of training in mindfulness practices and then took part in 15 minutes of these practices each week before they saw clients in their first clinical experience. Two studies were conducted, each using different approaches to test the question of whether this intervention could have an effect on self-report scores in self-compassion, reperceiving and/or mindfulness. In study A, a concurrent, repeated measures design found indications that self-compassion scores increased after 12 weeks of mindfulness practice but did not find any changes in reperceiving or mindfulness scores. In study B, a concurrent, single-case design found no evidence to support a functional relationship between the intervention and any of the three dependent measures. Limitations in study design may be the cause of this insufficiency. Overall this project provides evidence for increases in self-compassion scores after one semester of brief mindfulness practice while no changes were found in reperceiving or mindfulness scores.

Preface

The research presented in this thesis was approved by UBC's Behavioural Research Ethics Board, and the approval certificate number is H07-01336.

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Dedication

This is for Caitlin. We made it!

Introduction

Background

Mindfulness training has historically been associated with Buddhism (Thera, 1962; Neff, 2003a). Many people now position mindfulness as a component of the transtheoretical healing factors common to most approaches to therapy (Shapiro & Carlson, 2009). This places mindfulness into the domain of counselling and therapy training programs because it provides a base of knowledge/skill which is essential to providing effective services to clients. Indeed, O'Driscoll (2009) positions mindfulness as forming a central role in the work of a counselling psychologist. In the past 20 years mindfulness has grown in interest in Western psychology (Shapiro, 2009) and in the past 10 years self-compassion has begun to be of interest as well (Neff, 2003a). Reperceiving has been of recent interest to mindfulness researchers and is similar to a construct from cognitive therapy known as decentering (Fresco et al., 2007).

Self-compassion, though similar to other forms of self-attitude, is a relatively new construct in Western psychology. It is a process of openness in relating to one's own suffering and the ability to see it as linked to an existential state of suffering. Reperceiving (Shapiro & Carlson, 2009) is another relatively new construct in Western Psychology. Similar concepts exist in Eastern wisdom traditions such as the witness consciousness. Recent qualitative studies (McCollum & Gehart, 2010; Cristopher & Maris, 2010) and theoretical reflections (Shapiro & Carlson, 2009) show overlapping trends in the importance of themes similar to these two constructs (self-compassion and reperceiving) in therapists' experience of what their mindfulness practice offers to their work with clients.

While there is evidence that therapists in training benefit from practicing mindfulness (Grepmaier et al., 2007) there is also a need to understand some of the specific ways in which

mindfulness impacts the therapy process (O'Driscoll, 2009). Bruce, Shapiro, Constantino & Manber (2010) ...”speculate that meditation may most directly affect a psychotherapist’s ability to create a therapeutic relationship, likely by increasing his or her ability to empathize, both with himself or herself and with the client” (p. 93). More research is needed which investigates the connection between therapist mindfulness, therapeutic outcome and how mindfulness accomplishes this goal.

Problem Statement

The therapeutic relationship which forms between therapist and client is considered one of the healing factors common to all psychotherapy (Grencavage & Norcross, 1990). To improve outcomes in counselling effort must be placed on developing the person of the therapist (Hubble, Duncan, Miller, & Wampold, 2010). Interventions which help to improve therapists’ ability to form therapeutic relationships could be incorporated into current counsellor training programs. Currently, mindfulness practice is thought to offer an opportunity to do this through helping students learn therapeutic presence (McCollum & Gehart, 2010, Campbell & Christopher, 2012) and/or through helping students develop the ability to be more empathic with themselves and their clients (Bruce et al., 2010). Expanding the understanding of how mindfulness influences therapist’s ability to create therapeutic relationships with their clients will aid in the incorporation of mindfulness into existing training programs.

Practices in mindfulness date back 2500 years in the East but have gained growing popularity in the West in only the last 50 years. There are many different meditative practices from concentrative to open awareness to directed focus (Kristeller & Johnson, 2005). As psychotherapy is a Western idea, there is not a specific set of practices within Buddhism that applies to psychotherapists. There is a growing body of evidence and theory to state that

mindfulness can form an integral part of a psychotherapist's self-care practice (Shapiro, Brown & Biegel, 2007) and that it can have an impact on the therapeutic outcomes of their clients (Grepmaier et al., 2007). There is also recognition that more research is needed to investigate how to teach mindfulness to counsellors in training (Davis & Hayes, 2011). Within the context of graduate studies in counselling, there is little room to incorporate more training in new areas. For this reason, testing a simple, brief practice of mindfulness to see if it will result in outcomes similar to those considered important for counsellors would be beneficial.

Purpose

The current study considers whether a practice in mindfulness during clinical training will influence counselling students' ability to take a compassionate attitude toward themselves (self-compassion) and their ability to observe their subjective experience as it arises (reperceiving). This aim was investigated through a two part study. In study A: Group Design, two groups of students (a group who practice meditation on top of normal instruction and a group who receive normal instruction only) were compared using a repeated measures design to determine whether there is a relationship between practicing meditation and increases in self-compassion and reperceiving. In study B: Single Case Design, the following question was investigated experimentally using principles of single subject research: Is there a functional relation between an intervention designed to develop mindfulness and the ability to observe one's phenomenal experience (reperceiving) and the ability to take a compassionate attitude toward oneself (self-compassion) for students enrolled in a graduate training program in counselling psychology when they work with clients for the first time during their training?

Research Benefits & Rational

This research offers a quantitative exploration of a collection of recent theoretical and qualitative research (Bruce et al., (2010); Cristopher & Maris, (2010); McCollum & Gehart, (2010). As such, there is an extension of a body of knowledge into new domains of understanding. The results of this project will serve to provide validation for the idea that self-compassion and reperceiving are enhanced in counselling students who practice mindfulness, through cross verification in different research methodologies. Through this process the complexities of the relationship between mindfulness and counselling trainees can be understood at a greater depth.

Working directly within the context in which the research relates creates an opportunity for knowledge translation. This research is being conducted within the counselling psychology program at the University of British Columbia. Knowledge gained from the study can be more easily implemented into future clinical training at this institute due to this connection.

Furthermore, due to the simplicity of the procedures used for mindfulness training and the short period of practice time (15 minutes per week) used in this model, this application can be easily incorporated into existing training programs. The implementation of mindfulness training within a clinical education setting provides a means toward cultivating therapist qualities such as compassion, attention, self-awareness, or affect tolerance. Through the extension of the knowledge base gained with this research, self-compassion and reperceiving will be supported as benefits of mindfulness practice for counselling students.

Mindfulness is rapidly becoming integrated into many different counselling approaches. Due to its subjective nature, experience of mindfulness is essential for understanding. All participants in the study gain experiential knowledge of mindfulness practice.

Literature Review

Mindfulness

The practice of mindfulness meditation is rooted in the Buddha's teaching (the Satipaṭṭhāna Sutta) on the path to mind's liberation (Thera, 1962). *Sati* (mindfulness) and its counterpart *Sampajañña* (clear comprehension) together form the Western concept of mindfulness (Shapiro, 2009). *Sati* is not an unknown and mystical experience. In its elementary form, it is the simple process of attention which is common and knowable as one of the fundamental processes of consciousness (Thera, 1962). It is through the practice of being mindful "towards the body, the feelings, the state of mind ..., [and] mental contents..." (Thera, 1962, p.28) that one develops their capacity of mindfulness. Or as is written in the Samyutta Nikāya, "contemplat[e] the body¹ in the body ardent, clearly comprehending, mindful, having removed longing and dejection in regard to the world" (Bodhi, 2005, pp. 239-240). The capacity to be mindful is the tool to explore the mind and expand one's happiness (Siegel, Germer & Olendzki, 2008).

Interest in mindfulness in Western psychology has grown significantly over the past 30 years. One of the first applications of mindfulness in treatment was the development of Mindfulness-Based Stress Reduction (MBSR; Kabat-Zinn, 1982). Originally called Stress Reduction and Relaxation Program, MBSR was developed as a program to teach people how to live with the experience of chronic pain in a way that builds on their own internal resources (Kabat-Zinn, 1982). Kabat-Zinn (2003) describes mindfulness as "the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgementally to the unfolding of experience moment by moment" (p. 145).

Shapiro et al. (2006) propose three components to mindfulness which they define based on the earlier definition by Kabat-Zinn. In this research, mindfulness is proposed as a composite

¹ In subsequent verses, body is replaced with; feelings, mind, and phenomena.

of: (1) intention, (2) attention and (3) attitude. Intention is the initial purpose for practicing meditation which is individually based, “dynamic and evolving” (p. 376). Attention refers to the focusing of the mind on specific aspects of experience in each moment of consciousness. The attitude with which mindfulness is practiced is essential, and includes such qualities as affection, compassion, openheartedness, and interest. Shapiro et al. (2006) posit that training in mindfulness can lead to an increased ability to ‘reperceive’ one’s moment to moment experience in a manner that leads to the positive outcomes seen in people who practice mindfulness meditation, such as; greater well-being, lowered anxiety, and increased self-compassion (Orzech, Shapiro, Brown, & McKay, 2009).

Bishop et al. (2004) proposed an operational definition of mindfulness highlighting two factors. Their hope was this definition would help to increase the depth, relevance and availability of research. The two factors they highlight are: (1) Self-regulation of attention and (2) Orientation to experience. With regards to the self-regulation of attention, Bishop et al. (2004) refer to the capacity to sustain attention, without elaboration, on specific aspects of experience. The orientation to experience is defined as open, receptive, accepting, and curious (Bishop et al., 2004). This concept of mindfulness is acknowledged as a tool for acquiring insight into the nature of one’s mind (Bishop et al., 2004).

A similar concept (with the same name) has been put forward by Ellen Langer. Langer’s (1989) model of mindfulness involves awareness and openness to experience as it is, which is similar to mindfulness as described in the context of this paper. However, Langer’s model also involves the active creation of new cognitive categories for defining experience, which differs from the view of mindfulness in this paper which involves the observation of moment to moment experience without actively changing it. This differentiation is supported by both Langer herself

(Langer, 1989) and mindfulness meditation researchers (Baer, 2003; Feldman, Hayes, Kumar, Greeson, & Laurenceau, 2007), although not all agree the two should be considered as separate (Rothaupt & Morgan, 2007).

Self-Compassion

Self-compassion is another Buddhist concept which has a growing interest in Western psychology (Neff, 2003b). It is composed of three components: giving kindness and understanding to one's experience, as opposed to judgment or criticism, normalizing one's experience in the context of common humanity, and attention to one's experience without over- or under-identifying with it (Neff, 2003a). By this definition of self-compassion, there is an inseparable connection with compassion for others. It is through the realization of one's common humanity and worthiness of kindness and understanding that there is a continuous link between compassion for self and compassion for others. In many cases, the ability to be compassionate toward oneself allows a person to be compassionate toward others (Kornfield, 2008). In a similar conceptualization of self-compassion, Gilbert and Procter (2006) identify self-compassion as the utilization of non-judgmental, concern for our own well-being and the development of understanding toward our own distress. There is evidence to suggest that self-compassion is enhanced through mindfulness practice (Birnie, Speca & Carlson, 2010; Orzech et al., 2009).

Self-esteem and self-compassion are related concepts (Neff, 2003b) but the two are different in one key way (Neff, 2003a; Neff & Vonk, 2009). Self-esteem involves the positive evaluation of one's ability in relation to others (Neff & Vonk, 2009). In this process, self-esteem takes an oppositional stance toward others which requires maintenance (Neff, 2003a). Further support for this separation can be seen in research which provides evidence for a greater link between self-compassion and psychological variables normally associated with health and well-

being than self-esteem without the reliance on specific conditions, association with narcissism, and pursuit and maintenance (Neff & Vonk, 2009).

Reperceiving

Reperceiving is a term given to “the capacity to dispassionately observe or witness the contents of one’s consciousness.” (Shapiro & Carlson, 2009, p.94). It is considered analogous to other constructs such as decentering, deautomization and detachment (Shapiro et al., 2006). From a decentered perspective, people are able to observe their thoughts and feelings with the view that they are temporary events in the mind rather than experiences which define the person (Fresco et al., 2007). Another similar concept exists in Eastern wisdom traditions called the witness consciousness; the ability of the mind to observe thoughts as they arise without getting caught-up in them. There are some differing opinions about whether reperceiving is a product of mindfulness practice (Shapiro et al., 2006) or whether it is an individual capacity which is affected by normal development, psychotherapy, and/or emotional disorders (Fresco et al., 2007). There is evidence to suggest that the ability to reperceive is enhanced by mindfulness practice (Orzech et al., 2009).

Mindfulness in Psychotherapy and Counsellor Training

Mindfulness is a growing construct of interest in psychotherapy which is proving to be an effective ingredient in a variety of clinical applications including chronic pain and stress, depression relapse, borderline personality disorder, and anxiety (Baer, 2003). In a recent review of 813 journal articles regarding mindfulness and healthcare, half of the studies reviewed were published after 1994 (Agency for Healthcare Research and Quality, 2007). Mindfulness, as a component of therapy, can be seen in many of the therapeutic approaches developed in the past 30 years (MBSR; Kabat-Zinn, 1982, Hakomi; Kurtz, 1990; DBT; Linnehan, 1993; and MBCT;

Segal, Williams & Teasdale, 2002). Due to the differences in the way it is used and the client concerns or therapeutic outcomes for which it is used, mindfulness may be distinguished as a common factor across therapeutic approaches (Shapiro & Carlson, 2009).

Germer (2005) identifies three ways mindfulness can be incorporated into therapy.

Therapist mindfulness encompasses therapies which are influenced by a therapist's own practice in mindfulness meditation. It is worth noting that many therapies which incorporate mindfulness meditation also encourage, as essential to practice, therapists to practice mindfulness meditation themselves (see MBCT; Segal et al., 2002). *Mindfulness-informed psychotherapies* are those which operate under a theoretical framework informed by theories of mindfulness and Buddhist psychology. *Mindfulness-based psychotherapies* involve the active teaching of mindfulness meditation to clients.

Practicing therapists do currently gain knowledge of mindfulness meditation with positive outcomes. De Lorenzana (2008), through interviews with therapists who practice mindfulness meditation, determined that mindfulness meditation forms an important part of their skills in the room with clients, a part of their self-care practice, and a foundational element in their characteristics as therapists. Harrison and Westwood (2009) describe mindfulness as one of nine protective factors for vicarious trauma and recommend mindfulness training is incorporated in counsellor education. There is a growing need for therapists to be familiar with mindfulness practice to many different ends. Due to the increased use of mindfulness as a component of or tool used in therapy, it is crucial that therapists be exposed to it at some point (O'Driscoll, 2009). The experiential nature of mindfulness means that students cannot learn about it but rather must experience it in order to teach it to others (Gockel, 2010; Khong, 2009).

Donati and Watts (2005) conceptualize counsellor development on two inter-related strands; personal development and professional development with self-awareness forming a central goal and tool for both. Mindfulness has a strong connection with their conceptualization of self-awareness as they both are described as process and outcome for knowing one's internal and external experience. The person of the counsellor is an important component of effective therapy which has been overlooked in research (Hubble, Duncan, Miller, & Wampold, 2010). Personal therapy is a mandatory component of some, but not all, counsellor training programs. However, there is disagreement and/or inconclusive evidence in the literature about the value of incorporating personal therapy into counsellor education to achieve the goal of personal development (Wheeler, 1991; Rizq, 2011). Mindfulness training offers a new opportunity to give counselling students a tool to study their own experience as they progress through their own development as counsellors.

Several studies provide evidence for the beneficial impacts of incorporating mindfulness into counsellor education. Christopher and Maris (2010) have done qualitative analysis of counselling students' experience with mindfulness training. In general students found the training allowed them to be more aware and compassionate toward their own experience in the moment which further allowed them to relate to their clients' experiences with more awareness and compassion.

McCollum and Gehart (2010) qualitatively studied the experiences of marriage and family therapists who were encouraged to practice mindfulness meditation as a part of their training. The students' reports indicate that mindfulness practice was helpful to them in four domains. First, the students describe mindfulness training having helped them to be present to their own experience, their client's experience and the integration of these two perspectives. Second, the

students found the effects of mindfulness practice helped their minds to be calmer, allowed them to be more aware of their inner chatter, enabled them to slow down their internal sense of hurry, and to create boundaries between session and non-session time. Third, the students reported an ability to shift their mode from being to doing based on the effect they could see it had on their clients. Fourth, the students reported experiencing greater compassion and acceptance for themselves and their clients.

Grepmaier et al. (2007) tested, experimentally, the impact of student therapist mindfulness practice on patient outcomes at an inpatient hospital in Germany. The study found a significant change toward better therapeutic outcome (across several quantitative measures) in the patients of a group of therapists in training who practiced one hour of meditation before each day of seeing clients compared to a control group that did no daily meditation.

Mindfulness in Context

The practice of mindfulness originates within the context of Buddhist and other practices which includes teachings, teachers, other practitioners, and other practices (Rosenbaum, 2009).

Research on the integration of contemplative practices (such as mindfulness) into educational settings is still young however there is enough promise to predicate more research into how best to make steps forward in integrating these practices (Bush, 2011; Davidson et al., 2012). In an article regarding the integration of meditation and Western psychology, Walsh and Shapiro (2006) describe the current stage of assimilation of meditation into Western psychology as just the beginning of what may lead to more fruitful integrations; however they caution about the danger of remaining in the current decontextualized relationship in which meditation practices are currently found. One of the promising areas of focus they discuss is the enhancement of essential therapist qualities (Walsh & Shapiro, 2006). Indeed Segall (2005) notes mindfulness is

a good fit for psychology and psychotherapy because of the place of awareness in psychotherapies of many different traditions (Gestalt, CBT, Affect regulation). Segall states, “Mindfulness can assist in many of these developmental processes by encouraging alert observation, non-reactivity, and acceptance” (p.157).

Research Question

Can a brief intervention designed to develop mindfulness increase the ability to observe one’s phenomenal experience (reperceiving; Shapiro et al., 2006) and the ability to take a compassionate attitude toward oneself (self-compassion; Neff, 2003a) for students enrolled in a graduate training program in counselling psychology when they work with clients for the first time during their training?

Study A: Group Design

Methodology

Participants and Recruitment

Sixteen participants were recruited from current students within the Master of Arts program at the University of British Columbia (UBC), Department of Educational and Counselling Psychology, and Special Education (ECPS). Of these 16 participants, 15 completed all aspects of the study for an attrition rate of 6 %. Participants were enrolled in CNPS 588: Supervised Training in Counselling. This course is the first of two practical training components within the program. Participants were recruited by electronic mail advertisement through the administrative office of the program. The email contained a brief overview of the nature of the study, details regarding requirements for participation, contact information, and details regarding benefits of participation. Further information regarding the study was delivered to potential participants during an introductory meeting. Participants self-selected to participate in the study.

The 15 participants who completed the study were 12 (80 percent) female and three (20 percent) male. The mean age of participants was 33.7 years ($SD = 8.2$) ranging from 25 to 56 years.

Settings

All participants were working directly with clients as trainee counsellors within facilities provided by ECPS and the New Westminster School District as a requirement of their enrollment in CNPS 588: Supervised Training in Counselling. Students see clients one day per week for two semesters of their graduate studies. They are supported through direct observation supervision or by video or audio tape supervision by a registered psychologist from the departmental faculty. Weekly individual or group supervision meetings are held throughout the course.

Research Design and Procedure

Research was conducted based on a concurrent, repeated measures, time series design. Twelve participants were assigned to an intervention (meditation) group while the remaining three participants were assigned to a treatment as usual (TAU) group. Four measurements were conducted for all participants on a probe schedule with one measurement (pre-intervention) occurring before the introduction of the mindfulness practice for the intervention group (one participant in the TAU condition did not complete the first set of questionnaires due to a scheduling difficulty), one measurement occurring one week following the mindfulness training for the intervention group and the first week of intervention (week one), one measurement occurring after six weeks of intervention (week six), and one measurement occurring at the conclusion of one semester (week 12). When filling out questionnaires, participants were met by a research assistant at a time which was convenient to their schedule, in a quiet and private location. A brief demographic form was included with the pre-intervention set of measures. The time needed to fill out the questionnaire package ranged from 20 to 40 minutes each time.

All participants were recruited through email advertisement sent out to students enrolled in CNPS 588: Supervised Training in Counselling. All potential participants were met by a research assistant and thoroughly informed of the requirements for participation. At this time, they were provided with an informed consent form detailing the study procedures which the researcher discussed verbally with them. Participants self-selected into intervention or TAU conditions based on their availability (i.e. whether they could meet the weekly requirement to arrive 30 minutes prior to the start of their clinical training for the intervention group). All participants engaged in regular attendance in CNPS 588: Supervised Training in Counselling for the duration of the research project.

At the start of the intervention phase, all participants in the intervention group attended one hour of training in mindfulness meditation provided by Semperviva Yoga. Participants learned three forms of mindfulness practice (mindfulness of; breath, body, and sounds; see Appendix D) and were asked to choose the one they were most comfortable with as their primary practice for the duration of the study. Following this training, participants were met by a research assistant each week 30 minutes prior to their clinical training. During this time the research assistant and the participants participated in 10 minutes of mindfulness meditation and five minutes of journaling on gratitude.

Dependent Variables

Self-compassion is comprised of three basic components: a) an attitude of kindness rather than harsh criticism or judgment toward oneself; b) an ability to see one's experience as part of the greater human experience rather than a separate phenomenon; and c) an ability to balance one's awareness across experiences rather than becoming overly identified with experiences (Neff, 2003b). These three components interact with each other to form a cohesive experience (Neff, 2003b).

Self-compassion was measured using self-report questionnaire data. The Self-compassion Scale (SCS; see Appendix A; Neff, 2003b) is a 26 item, psychometrically sound, self-report measure of self-compassion. The six factor scale (NNFI=.92, CFI=.93) also shows good fit for a single, hierarchical model (NNFI=.90, CFI=.92; Neff, 2003b). Participants rate how often they behave in a certain manner on a five point likert-type scale from almost never to almost always. Thirteen items are reverse scored to give a total scale score. An example of an item is, "I'm tolerant of my own flaws and inadequacies." The test shows good test-retest reliability (.93) and good internal consistency (.92). The scale has discriminant and known groups validity evidence

and has been compared to other self-attitude scales, mental health, and emotional patterns (Neff, 2003b).

Reperceiving is a term given to “the capacity to dispassionately observe or witness the contents of one’s consciousness.” (Shapiro & Carlson, 2009, p.94). It is considered analogous to other recent constructs such as decentering, deautomization and detachment (Shapiro et al., 2006). From a decentered perspective, people are able to observe their thoughts and feelings with the view that they are temporary events in the mind rather than experiences which define the person (Fresco et al., 2007).

Reperceiving was measured using self-report questionnaire data. The 11 item, Decentering subscale of the Experiences Questionnaire (EQ; see Appendix B; Fresco et al., 2007) is a unifactorial (CFI=.95; RMSEA=.06; SRMR=.04) measure of decentering. Participants rate how much they currently have experiences similar to a series of statements on a five-point likert-type scale from extremely uncharacteristic to extremely characteristic. An example of an item is, “I can separate myself from my thoughts and feelings”. The test shows good internal consistency with clinical and non-clinical samples (.90 and .83 respectively). However, test-retest reliability evidence has yet to be provided. The test does seem to be sensitive to changes in reperceiving brought about by mindfulness training (Carmody, Baer, Lykins, & Olendzki, 2009). The scale shows good discriminant validity evidence. This scale is still in the early stages of psychometric validation; however it is being used here because it is the only known self-report measure of reperceiving.

Mindfulness was measured using self-report questionnaire data. The Mindful Attention Awareness Scale (MAAS; see Appendix C; Brown & Ryan, 2003) is a 15 item self-report measure of mindfulness. The single factor (Brown & Ryan, 2003, MacKillop & Anderson, 2007)

test is a commonly used tool for measuring mindfulness in psychological research (Baer, Walsh & Lykins, 2009) and is normally distributed (MacKillop & Anderson, 2007). Participants rate the extent to which they feel mindless in daily life on a six-point likert-type scale from almost always to almost never. The scale is reverse scored to indicate mindfulness. An example item is “I could be experiencing some emotion and not be conscious of it until some time later.” (Brown & Ryan, 2003). The tool shows good internal consistency (.87-.89) and good test-retest reliability (.81). Furthermore, known groups validity evidence supports that the measure can detect differences in levels of mindfulness between meditation practitioners of varying level and the general public (Brown & Ryan, 2003).

Scores on the SCS were summed to give a total scale score. Scores range from 26-130. Scores on the decentering subscale of the EQ were summed to give a total subscale score. Scores range from 11-55. Scores on the MAAS were summed to give a total scale score. Scores range from 15-75.

Results

Descriptive Statistics are summarized in Table 1. One way ANOVA results comparing the intervention group and the TAU group at each measurement time point revealed no significant differences between mean scores on any of the scales. Results of these analyses were as follows; Pre-intervention, SCS ($F = 0.167$, $p = 0.690$, $df = 1,13$), EQ ($F = 0.557$, $p = 0.470$, $df = 1,13$), MAAS ($F = 0.796$, $p = 0.390$, $df = 1,13$), one week post, SCS ($F=0.000$, $p=0.990$, $df=1,14$), EQ ($F = 1.498$, $p = 0.243$, $df = 1,14$), MAAS ($F = 0.462$, $p = 0.508$, $df = 1,14$), six weeks post, SCS ($F=0.530$, $p=0.479$, $df=1,14$), EQ ($F = 0.001$, $p = 0.979$, $df = 1,14$), MAAS ($F = 0.065$, $p = 0.802$, $df = 1,14$), and 12 weeks post, SCS ($F=0.541$, $p=0.475$, $df=1,14$), EQ ($F = 0.733$, $p = 0.407$, $df = 1,14$), MAAS ($F = 0.677$, $p = 0.425$, $df = 1,14$).

Table 1. Descriptive Statistics

	Measure	Pre-Intervention		1 wk Post		6 wk Post		12 wk Post	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Intervention	SCS	80.8	18.8	81.8	20.7	86.1	20.3	88.0	18.1
	EQ	36.4	5.3	36.4	5.3	38.6	4.8	38.2	5.4
	MAAS	61.3	9.7	58.5	13.5	60.2	12.6	59.3	10.3
Treatment as Usual	SCS	86.5	7.8	81.7	8.1	77.3	5.5	80.0	6.2
	EQ	40.5	3.5	40.3	2.3	38.7	4.2	41.0	3.6
	MAAS	55.0	---	53.0	4.6	58.3	1.5	54.0	8.5

Nine repeated-measures one-way ANOVAs were calculated to determine whether a significant difference exists between the intervention and TAU groups. Due to the lack of random assignment to intervention versus TAU groups, the pre-intervention measurement was used as a covariate for these computations. Even though there are no significant differences between the two groups at pre-intervention, the small sample size and lack of random assignment make it impossible to know whether differences existed between our two groups from the outset. Results of these analyses were as follows; one week post, SCS ($F = 0.882$, $p = 0.368$), EQ ($F = 0.869$, $p = 0.371$), MAAS ($F = 0.003$, $p = 0.954$), six weeks post, SCS ($F = 2.158$, $p = 0.170$), EQ ($F = 0.054$, $p = 0.821$), MAAS ($F = 0.477$, $p = 0.504$), and 12 weeks post, SCS ($F = 4.956$, $p = 0.048$), EQ ($F = 0.006$, $p = 0.940$), MAAS ($F = 0.480$, $p = .503$). One significant difference was found in SCS scores at the 12 week post-intervention measurement. These results indicate that by the 12 week point scores on the SCS in the intervention group had changed significantly from the TAU. The remaining measures (EQ and MAAS) did not show significant differences in scores between intervention and TAU.

Three 2 x 3 repeated-measures ANOVAs were conducted on each dependent variable (SCS, EQ, MAAS) with grouping (intervention vs. TAU) as the between-subject grouping factor.

Time (1 week, 6 week, 12 week) was included as the within-subjects repeated measure with pre-intervention scores for each of the dependent measures included as a covariate. Results for the SCS revealed no main effect of time ($F = 1.101$, $p = 0.350$, partial Eta sq. = 0.091), no main effect of group ($F = 3.580$, $p = 0.085$, partial Eta sq. = 0.246), and no significant interaction effects ($F = 0.953$, $p = 0.401$, partial Eta sq. = 0.080). The partial Eta squared loading on group indicates that more than 24 percent of the variation in scores can be accounted for by participants being included in the intervention group. Results for the EQ revealed no main effect of time ($F = 0.671$, $p = 0.521$, partial Eta sq. = 0.058), no main effect of group ($F = 0.187$, $p = 0.674$, partial Eta sq. = 0.017), and no significant interaction effects ($F = 0.199$, $p = 0.821$, partial Eta sq. = 0.018). Results for the MAAS revealed no main effect of time ($F = 0.703$, $p = 0.506$, partial Eta sq. = 0.060), no main effect of group ($F = 0.262$, $p = 0.619$, partial Eta sq. = 0.023), and no significant interaction effects ($F = 0.345$, $p = 0.712$, partial Eta sq. = 0.030). These results suggest the intervention is accounting for a reasonably large amount of the variation in self-compassion scores.

Due to the small sample size of the control group, there may be additional noise created in the measurements. To address this concern the intervention group was considered on their own. Three 1 x 3 repeated-measures ANOVAs were conducted on each dependent variable (SCS, EQ, MAAS) with Time (pre-intervention, 1 week, 6 week, 12 week) as the within-subjects repeated measure. For this analysis pre-intervention measurements were not used as a covariate because all participants are included in one group. Results for the SCS revealed a main effect of time ($F = 4.585$, $p = 0.009$). A post-hoc Bonferoni correction revealed that SCS scores at 12 weeks were significantly higher than SCS scores at pre-intervention (Mean difference = 7.2, SD = 2.1, $p =$

0.037). Results for the EQ revealed no main effect of time ($F = 1.177$, $p = 0.333$). Results for the MAAS revealed no main effect of time ($F = 0.646$, $p = 0.591$).

Discussion

The study tested whether a brief intervention in mindfulness practice could impact counselling students' ability to take a compassionate attitude toward themselves and/or their ability to be a witness to their own experience. In all three analyses there is evidence to support changes in SCS scores by the 12 week point in our training due to the intervention. In the repeated measures ANOVA, a significant finding was observed at the 12 week point. In the 2×3 repeated measures, 24 percent of the variance in scores was accounted for by group. In the 1×3 repeated measures, a main effect of time was found with post-hoc analysis determining the 12 week measure significantly higher than the pre-intervention measurement. This supports the hypothesis that a brief practice of mindfulness can have beneficial impacts on self-compassion for counselling students. This finding contradicts a previous finding by Moore (2008) which observed no change in SCS scores following a brief practice in mindfulness in which participants were introduced to similar, basic instruction in Buddhist mindfulness practices over an eight to thirteen week period.

No significant changes were found in EQ: decentring subscale scores or MAAS scores. Furthermore, these measures also showed very low percentage of variance accounted for by time, intervention-time interaction and group in the partial Eta squared results of the 2×3 repeated measures ANOVAs. There are several explanations for this lack of observed results.

One explanation is that there were no enduring, significant changes in mindfulness or re-perceiving. Due to the small size (or potency) of our intervention, it may be there was no significant change in mindfulness. It should be noted that self-report measures were collected at

four times when it was convenient to participants' schedule. Perhaps changes in mindfulness and/or reperceiving took place during and shortly after the weekly intervention, but did not lead to enduring change in participants' capacity for these two behaviours. In this way, the changes in mindfulness and/or reperceiving may have impacted the students' experience of their work with clients or, similarly, created the experiences necessary for the change in self-compassion without leading to permanent change in mindfulness or reperceiving that would be observable at time 0 measurement.

Another explanation is that the self-report measures were not sensitive enough to capture the changes in mindfulness or reperceiving which occurred. The MAAS was chosen because of its correlation with meditation experience (Brown & Ryan, 2003). MacKillop and Anderson (2007), however, found no difference in scores on the MAAS between university students with no experience of meditation compared to a group of students with a modal meditation experience of one year or less. While many studies to date use the MAAS as a measure of mindfulness, these studies generally have participants practicing in a version of MBSR which involves, in general, two hours per week for eight weeks (e.g. Shapiro, Brown, & Biegel, 2007). Previous research (although fewer studies) with the EQ has been conducted with similar practices of teaching mindfulness as the MAAS (e.g. Bieling et al., 2012).

The evidence in the current study supports the idea that mindfulness and self-compassion are separate constructs (Baer, Lykins & Peters, 2012). Within the results of this study self-compassion scores were effectively changed as a result of our intervention, however mindfulness scores did not change. This supports the separation of mindfulness and self-compassion into separate constructs, with self-compassion being impacted by our intervention and mindfulness not. It is possible that self-compassion scores begin to show change prior to observable changes

in mindfulness. Perhaps one of the first impacts of mindfulness practice is a change in one's attitude toward oneself while changes in one's ability to be mindful takes more practice experience to emerge. At this point in the research it is impossible to answer this question. To date only one comparative study has looked at the effects of practice time with respect to mindfulness (Carmody & Baer, 2009).

In consideration of the context in which mindfulness training takes place, some potential explanations are possible from these findings. As Bishop et al. (2004), Gunaratana (1992), Siegel, Germer & Olendzki (2008) and Thera (1962) acknowledge, mindfulness is a tool for understanding the mind. Like other tools, the result of their usage has much to do with the use they are put to. A hammer in the hands of a carpenter, a firefighter or a three year old can do many different things. In the case of the current study, mindfulness was used in the context of graduate, clinical experience in counselling. Within this context it is possible that our mindfulness practices created the space for compassion (something which is encouraged in counselling work) to grow.

One important limitation of the current study is the sample size. Finding a significant result is not likely considering the number of participants involved in the study. With that consideration in mind, partial Eta squared scores were considered to determine the impact of our intervention. Another limitation of the current study is the non-randomization of participants into intervention versus TAU groups. This decision limits the ability of the analysis in determining whether observed changes are as a result of our intervention or as a result of bias in the selection of participants into treatment or TAU groups. The decision to allow participants to "self-select" based on their availability to attend the weekly mindfulness practice was made in an attempt to reduce the strain on already busy graduate students. Evidence of the effectiveness of this

decision can be seen in the low rate of attrition. One success of the current study is that only one participant discontinued participation. This rate of attrition is lower than many studies involving mindfulness training (e.g. Carmody et al., 2009; Shapiro, Brown & Biegel, 2007).

Study B: Single Case Design

Methodology

Participants and Recruitment

Three participants were recruited from current students within the Master of Arts program at the University of British Columbia (UBC), Department of Educational and Counselling Psychology, and Special Education (ECPS). Participants were enrolled in CNPS 588: Supervised Training in Counselling. This is the first of two practical training components within the program.

Participants were recruited by electronic mail advertisement through the administrative office of the program. The email contained a brief overview of the nature of the study, details regarding requirements for participation, contact information, and details regarding benefits of participation. Further information regarding the study was delivered to potential participants during an introductory meeting. Participants self-selected to participate in the study.

Participant 5003 is a White or Caucasian male. Participant 5001 is a White or Caucasian male. Participant 5013 is a White or Caucasian female. All participants were between the ages of 25 and 31.

Settings

All participants were working directly with clients as trainee counsellors within facilities provided by ECPS and the New Westminster School District as a requirement of their enrollment in CNPS 588: Supervised Training in Counselling. Students see clients one day per week for two semesters of their graduate studies. They are supported through direct observation supervision or by video or audio tape supervision by a registered psychologist from the departmental faculty. Weekly individual or group supervision meetings are held throughout the course. During the baseline phase of the study, all participants participated in training as usual. During the

intervention phase, participants were met by a research assistant each week one half hour before the start of their clinical practice. During this time participants spent 10 minutes engaging in a mindfulness meditation practice and five minutes journaling on gratitude. Prior to the intervention phase all participants received one hour of instruction in mindfulness meditation provided by Semperviva Yoga (see Appendix D for a description of mindfulness practices).

Research Design and Procedure

Research was conducted based on a concurrent, multiple baseline, single-case design. The effects of learning eliminate the possibility of a withdrawal/reversal design or an alternating treatments design. The schedule of attendance of the participants in regular course work also lends itself to a multiple baseline design with a treatment as usual (TAU) condition during the baseline phase. Measurements were conducted on a probe schedule in order to decrease the time required of participants which was intended to decrease the rate of attrition. Phase length was set apriori with random assignment of participants into each baseline (as in Gunning & Espie, 2003), again as an attempt to reduce attrition by scheduling the measurements in advance. Baseline phase length was set on a one, four, six schedule of observations (due to scheduling conflicts this timing changed to one, five, seven during the study). All participants began the TAU condition at the same time. One participant began the intervention after one baseline measurement, one participant began the intervention after five baseline measurements and one participant began the intervention after seven baseline measurements (see Figure 1). One measurement was considered sufficient for the shortest baseline phase due to an assumption of stability of the dependent measures based on theoretical understanding of the constructs and test-retest reliability evidence for the self-report measures.

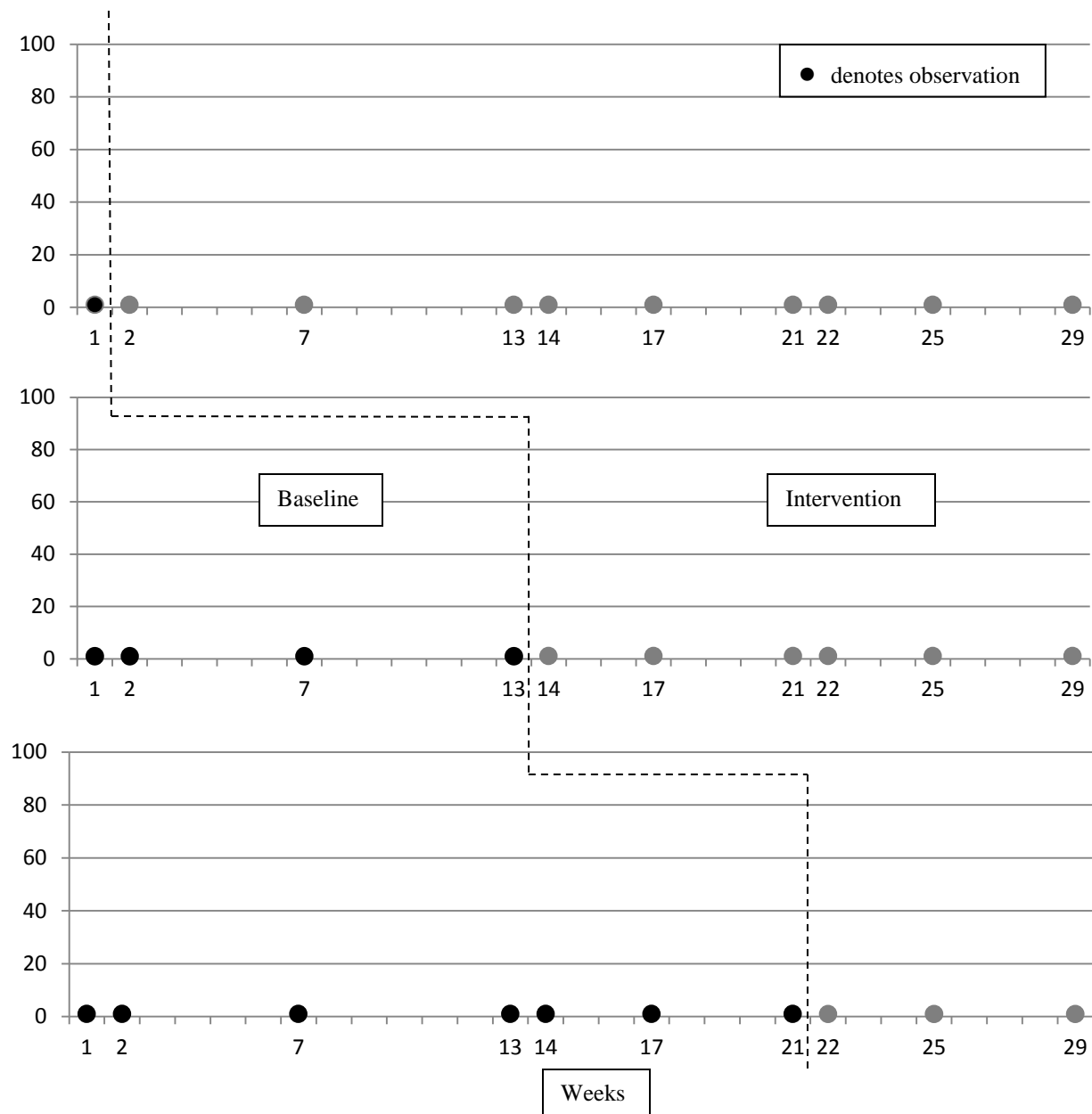


Figure 1. Proposed schedule of observation measurements and phase changes for Study B: Single Case Design.

All participants were recruited through email advertisement sent out to students enrolled in CNPS 588: Supervised Training in Counselling. All potential participants were met by a research assistant and thoroughly informed of the requirements for participation. At this time, they were provided with an informed consent form detailing the study procedures which the researcher discussed verbally with them. All participants engaged in regular attendance in CNPS

588: Supervised Training in Counselling for the duration of the research project. There was a holiday at the transition from one semester to the next. At this time the study took a break as well.

At the start of the intervention phase, all participants attended one hour of training in mindfulness meditation provided by Semperviva Yoga. Participants learned three forms of mindfulness practice (mindfulness of; breath, body, and sounds; see Appendix D) and were asked to choose the one they were most comfortable with as their primary practice for the duration of the study. Following this training, participants were met by a research assistant each week 30 minutes prior to their clinical training. During this time the research assistant and the participants participated in 10 minutes of mindfulness meditation and five minutes of journaling on gratitude.

Probe measurements were conducted immediately before and after the introduction of the intervention for all baselines. Between the introductions of each intervention, measurements were evenly distributed in time. When filling out questionnaires, participants were met by a research assistant at a time which was convenient to their schedule, in a quiet and private location. A brief demographic form was included with the baseline set of measures. The time needed to fill out the questionnaire package ranged from 20 to 40 minutes each time. The study was conducted for a total of two semesters following the schedule of regular training as per CNPS 588.

Dependent Variables

As mentioned in Study A, we used the Self-compassion Scale (SCS; Neff, 2003b), the decentring subscale of the Experiences Questionnaire (EQ; Fresco et al., 2007), and the Mindful Attention Awareness Scale (MAAS; Brown & Ryan, 2003).

Results

Visual analysis of single-case design data involves a four step process of analysis across six different data patterns; level, trend, variability, immediacy of effect, overlap, and consistency of data across similar phases (Kratochwill et al., 2010). In assessing multiple-baseline results, it is important to consider the timing related to the observed effect of an intervention (i.e. the effect of the intervention is observed in the same time window in each baseline) (Kratochwill et al. 2010).

Figure 2 shows the results for the three baselines for the SCS total scale score for participants 5003, 5001 and 5013. In baseline 5003, following the introduction of the intervention there is an increase in level, a positive trend (although we are unable to assess a change in trend due to only one measurement in the baseline phase), variability which cannot be assessed, a negative drop in the immediacy of effect, and 55 percent overlapping data. This data provides moderate evidence for a basic effect. In baseline 5001, following the introduction of the intervention there is an increase in level, a positive change in trend (although there is an upward trend which begins in the baseline phase, evidence from the other baselines suggest it would decrease provided it were extended), a decrease in variability, moderate evidence to support immediacy of effect, and 40 percent overlapping data. Again this data provides moderate evidence for a basic effect. In baseline 5013, following the introduction of the intervention there is a reduction in level, no change in trend, no change in variability, no evidence for immediacy of effect and 100 percent overlapping data. This data provides no evidence for a basic effect. Collectively the baselines are insufficient to provide evidence for a functional relationship.

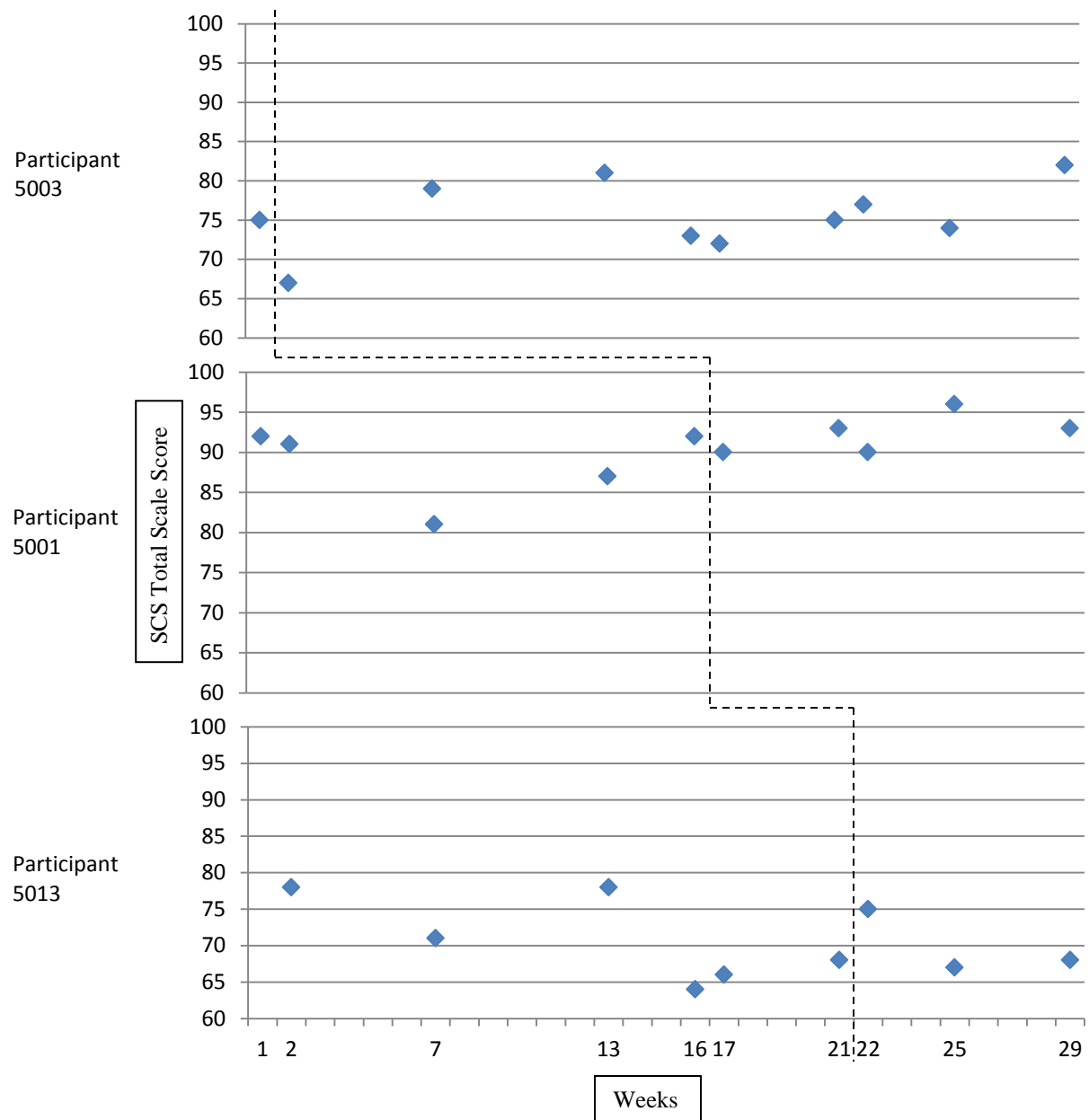


Figure 2. Multiple baseline graph for participants Self-Compassion scale score. Data represents total scale score across 29 weeks of participation. Baseline and intervention phases are separated by a dashed line.

Figure 3 shows the results for the three baselines for the EQ decentring subscale score for participants 5003, 5001 and 5013. In baseline 5003, following the introduction of the

intervention there is an increase in level, a positive trend (although we are unable to assess a change in trend due to only one measurement in the baseline phase), variability which cannot be assessed, a negative drop in the immediacy of effect, and 11 percent overlapping data. This data provides strong evidence for a basic effect. In baseline 5001, following the introduction of the intervention there is no change in level, a negative change in trend, no change in variability, no evidence to support immediacy of effect, and 100 percent overlapping data. This data provides no evidence for a basic effect. In baseline 5013, following the introduction of the intervention there is a reduction in level, no change in trend, no change in variability, no evidence for immediacy of effect and 100 percent overlapping data. This data provides no evidence for a basic effect. Collectively the baselines are insufficient to provide evidence for a functional relationship.

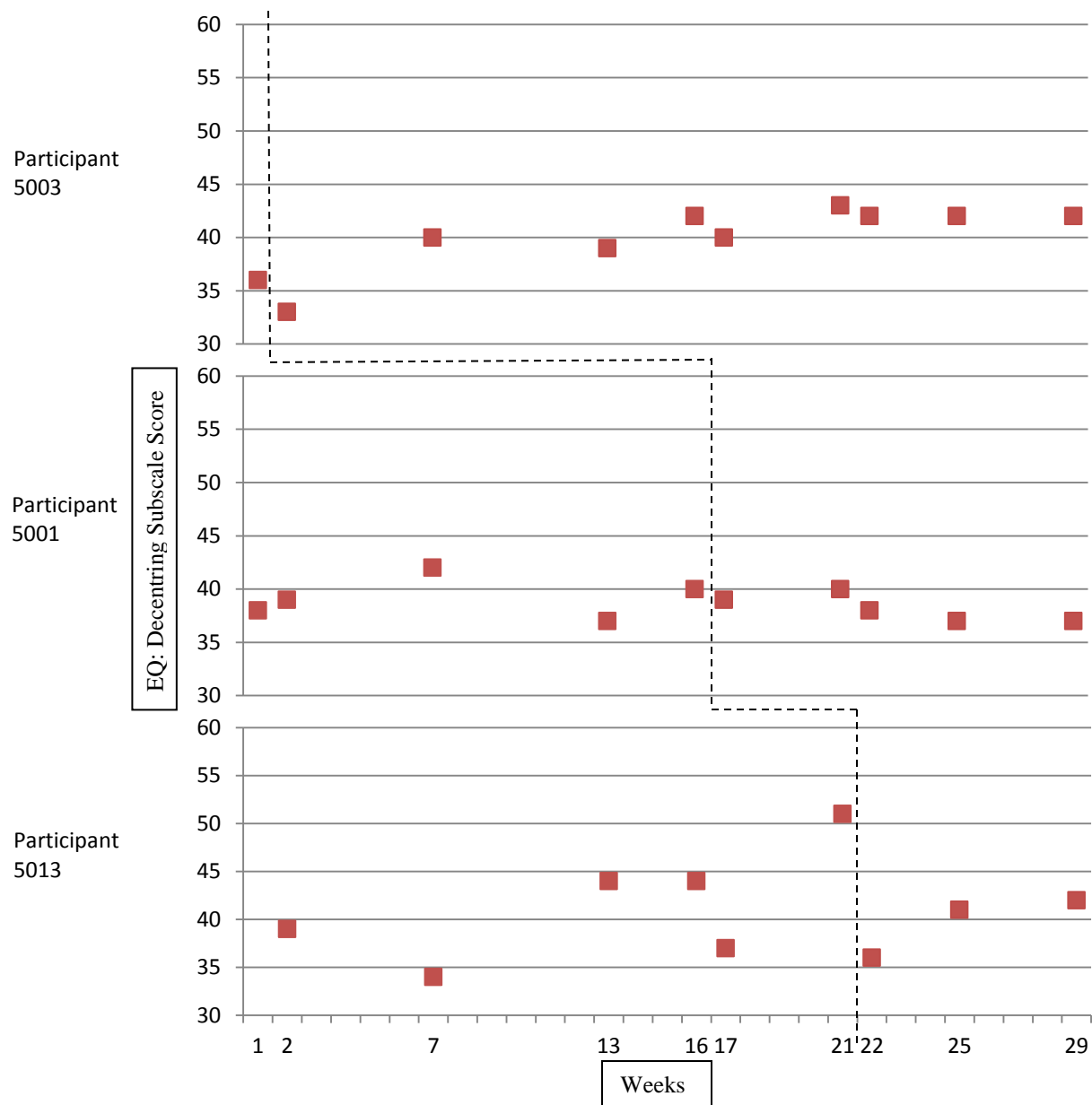


Figure 3. Multiple baseline graph for participants Experiences Questionnaire: Decentring subscale score. Data represents total scale score across 29 weeks of participation. Baseline and intervention phases are separated by a dashed line.

Figure 4 shows the results for the three baselines for the MAAS total scale score for participants 5003, 5001 and 5013. In baseline 5003, following the introduction of the intervention there is an

increase in level, a positive trend (although we are unable to assess a change in trend due to only one measurement in the baseline phase), variability which cannot be assessed, a positive change in the immediacy of effect, and 11 percent overlapping data. This data provides strong evidence for a basic effect. In baseline 5001, following the introduction of the intervention there is a negative change in level, a negative change in trend, no change in variability, no evidence to support immediacy of effect, and 60 percent overlapping data. This data provides no evidence for a basic effect. In baseline 5013, following the introduction of the intervention there is an increase in level, no change in trend, a decrease in variability, moderate evidence for immediacy of effect and 33 percent overlapping data. This data provides moderate evidence for a basic effect. Collectively the baselines are insufficient to provide evidence for a functional relationship.

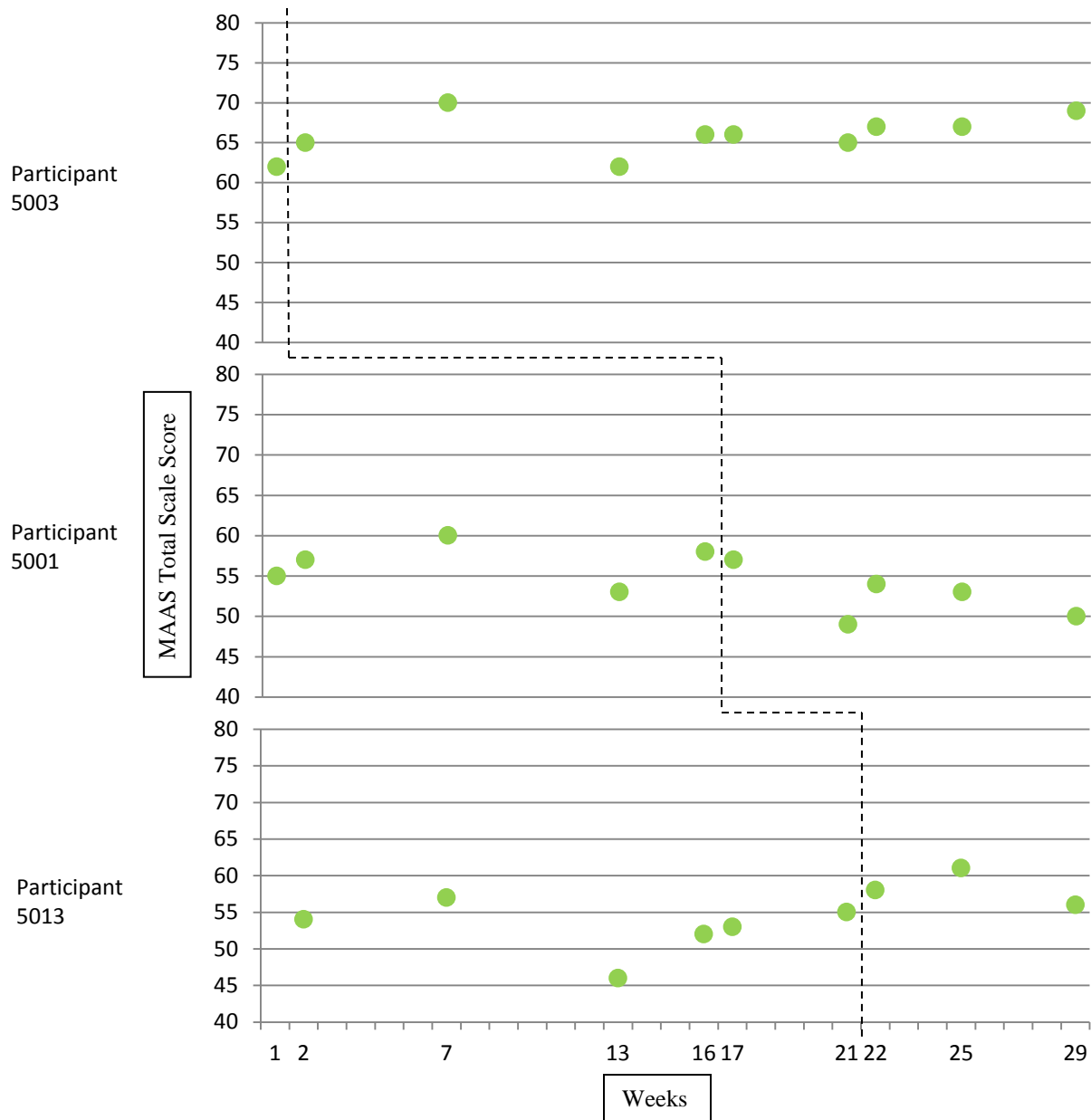


Figure 4. Multiple baseline graph for participants Mindful Attention Awareness scale score. Data represents total scale score across 29 weeks of participation. Baseline and intervention phases are separated by a dashed line.

Individually each series of baselines does not provide evidence for a functional relationship between the intervention and changes on each of the three measured constructs.

Keeping in mind the short length of our intervention and the confined length of time of the study (based on the two semesters of students' enrollment in CNPS 588), it may be possible that there are very small changes in mindfulness, self-compassion and reperceiving and these changes may not be captured in the intervention period for baselines 5001 and 5013. To inquire into these questions, a post-hos analysis MAAS scores were plotted against each of the other measures to see if there is a connection between changes in mindfulness and changes in both the SCS and the EQ. In this way, changes in MAAS scores act as a treatment fidelity measure to verify how much of an effect on mindfulness our intervention had and, therefore, how much of a change we could expect to see in our other two constructs. As the research question refers to the use of a mindfulness intervention, it may make sense to determine the relationship between changes in mindfulness as measured by the MAAS and changes in self-compassion (SCS scores) and changes in reperceiving (EQ decentring scores) during the intervention.

Figure 5 shows data for the SCS and the MAAS plotted on the same baselines. A relationship can be seen between changes in MAAS scores and changes in SCS scores. This result supports previous research indicating a correlation between changes in mindfulness and changes in self-compassion (Baer et al., 2012). Furthermore, visual analysis of the baseline for participant 5003 reveals an increasing pattern in both MAAS and SCS measurements beginning somewhere between weeks 17 and 21. We are unable to see if this pattern exists in either of the other two baselines because of the limited length of time available to us.

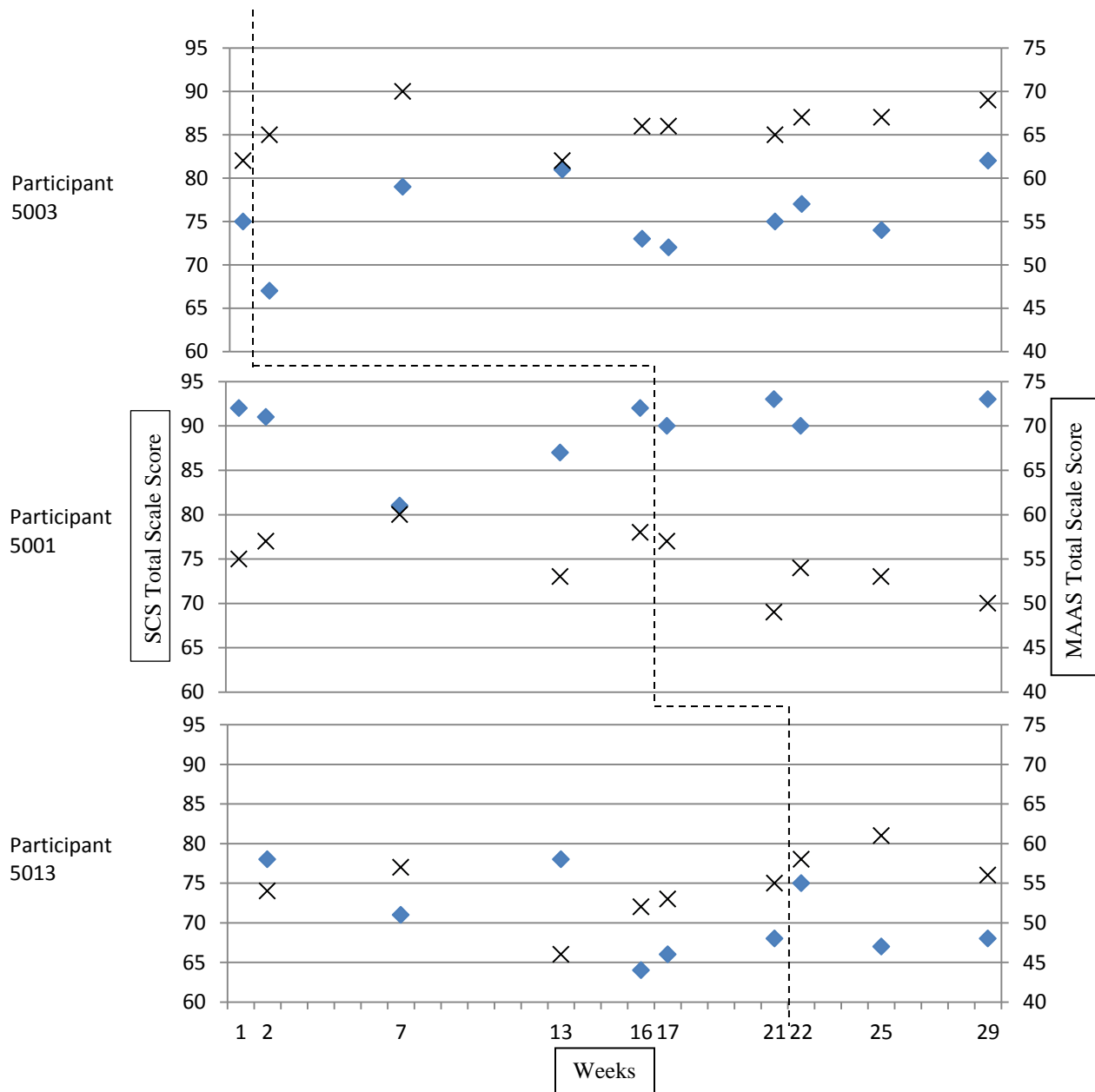


Figure 5. Multiple baseline data for Self-Compassion Scale score overlaid with Mindful Attention Awareness Scale score. SCS data is represented by blue diamonds. MAAS data is represented by black x's.

Figure 6 shows data for the EQ and the MAAS plotted on the same baselines. A relationship can be seen between changes in MAAS scores and changes in EQ scores. This result supports previous research indicating a correlation between changes in mindfulness and changes in

reperceiving (Bieling, 2012). Furthermore, visual analysis of the baseline for participant 5003 reveals an increasing pattern in both MAAS and EQ measurements beginning somewhere between weeks 13 and 16. We are unable to see if this pattern exists in either of the other two baselines because of the limited length of time available to us.

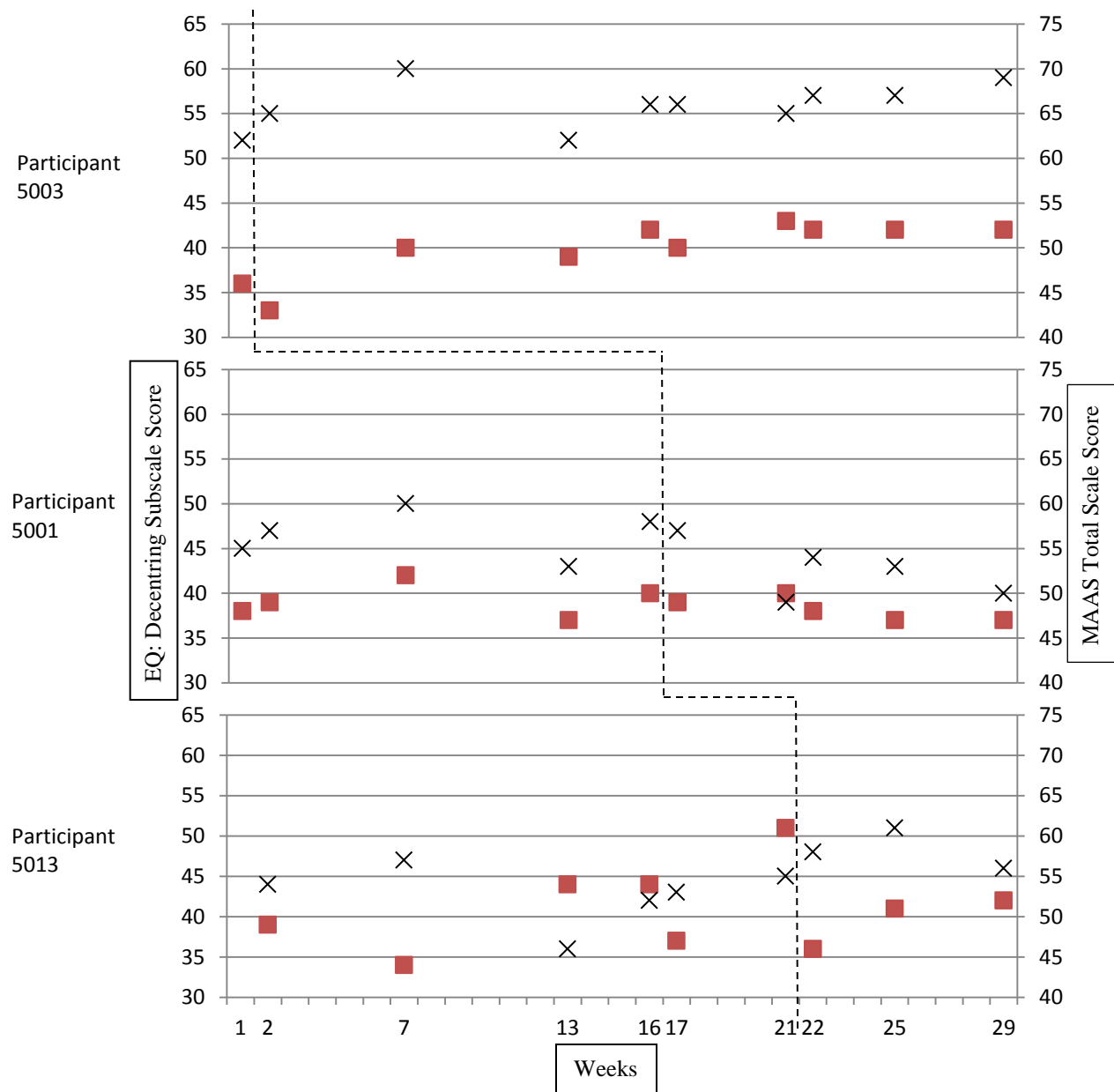


Figure 6. Multiple baseline data for Experiences Questionnaire: Decentring subscale score overlaid with Mindful Attention Awareness Scale score. EQ data is represented by red squares. MAAS data is represented by black x's.

Discussion

The study tested whether there is a functional relationship between a brief intervention in mindfulness and students' self-reported self-compassion, re-perceiving and mindfulness. The

evidence provided by the results is not conclusive in supporting whether a functional relationship exists between our brief mindfulness intervention and changes in self-compassion, reperceiving, and/or mindfulness as measured by our three self-report measures. The result of this study shows some basic effects as a result of the mindfulness practice. Participant 5003 shows an increasing trend in mindfulness and self-compassion and reperceiving with a similar rate of growth. Participant 5001 provides evidence to support a basic effect of our intervention on self-compassion but not on reperceiving. Participant 5013 provides no evidence for an effect of our intervention however, a consideration for the inappropriate length of the intervention measurement period must be considered for this participant. Evidence from Study A: Group Design suggests a 12 week period is necessary for any changes in self-compassion scores to be observed.

Results of plotting both mindfulness and self-compassion and mindfulness and reperceiving on the same charts provide evidence to support a connection between mindfulness and the two constructs. This result comes in support of past research which observed a connection between mindfulness and these two constructs (Baer et al., 2012; Bieling et al., 2012). In terms of the current research, this result indicates that while the effect of the intervention on mindfulness may be small it may be having an impact which is related to changes in self-compassion and reperceiving.

Several limitations exist within this study. First, the length of time following the introduction of the intervention for participants 5001 and 5013 may not be sufficient to observe changes in any of our three constructs. Observations from the baseline for participant 5003 suggest there may be a lag-time between introduction of the intervention and observable changes anywhere from 13-20 weeks and evidence from Study A: Group Design suggests a period of 12

weeks is necessary before any observable change in self-compassion scores will be present. The schedule of the study was limited by the semester schedule and, therefore, measurements were discontinued for the remaining two baselines after 14 weeks for participant 5001 and seven weeks for participant 5013.

Second, the design of the study does not follow the most recommended standard for single-case design research (Kratochwill et al., 2010). Firstly, the number of baselines (participants) for the current study is less than the recommended, although exceptions are permitted (Kratochwill et al., 2010). Secondly, phase changes from baseline to intervention are normally determined by the presence of stability in the current baseline measurements and an observed change in previous baselines (i.e. when measurements in participant 5001's baseline phase are seen as stable and an observed effect has been seen in participant 5003's measurements post-intervention, then participant 5001 is introduced to the intervention). In the case of the present study, the timing of interventions was set a priori with random assignment to each schedule. This decision was made in order to contain the research within the semester schedule and to give students the schedule of their participation in the study well in advance to lessen the impact of participation on their scheduling.

General Discussion

Combining the results of Study A and Study B we see evidence for (in Study A) mindfulness and self-compassion being separate concepts (Baer, Lykins & Peters, 2012) and (in Study B) mindfulness and self-compassion being related concepts (Neff, 2003a/b). This supports current research which describes self-compassion and mindfulness as related but separate concepts. In study B we see evidence for the connection between re-perceiving and mindfulness but we did not see evidence for an increase in either as a result of our intervention. It may be that changes in

mindfulness and reperiencing were not able to be “seen” by our self-report measures and it may be that changes in these constructs require more training or more intensive training. We are unable to test these questions with the current study.

One limitation of the current study was the use of self-report measures to assess changes in our three constructs. It is possible that the scales used were not sensitive enough to capture the changes which did occur. Another limitation of the current study is sample size. There were not enough participants in the TAU condition for a thorough comparison with the intervention group. The single-case design was also limited to the minimum number of baselines acceptable to prove a functional relationship.

Future research furthering the investigation of the relationship between practice time, mindfulness, self-compassion and reperiencing is needed. While the current study found some evidence to support changes in self-compassion from a brief mindfulness practice, it failed to produce evidence of changes in mindfulness and/or reperiencing. Future research investigating the effects of short mindfulness practices could approach the issue of small changes in mindfulness through two avenues; 1. Use different approaches (or even multiple, different self-report measures) to measuring mindfulness which may be more sensitive to small changes and 2. Vary the length of practice time to test the effects of time engaged in mindfulness practice on results.

Another recommendation for future research is to investigate the impact of more or less integrated mindfulness trainings within the curriculum of graduate studies. In the current study, students were asked to contribute a brief amount of time from their already busy schedules. Future studies could investigate whether mindfulness training which is more integrated within the curriculum has a different impact than those done outside of the curriculum. Gockel, Burton,

James, and Bryer (2012) found positive results when social work students were exposed to 10 minutes of mindfulness practice within the structure of clinical classes and discussions regarding how the mindfulness practices may be integrated into the students work as clinical social workers. Students reported valuing the learning, finding it relevant to their work and continuing to draw on the experience as they transitioned into practical experience. Further to this finding, self-report results showed a significant positive change in counsellor self-efficacy due to the students experience with mindfulness. Online options for program delivery may provide opportunities for training beyond the borders of campus. Online programs have shown promise in smoking cessation (Walters, Wright & Shegog, 2006), cognitive-behavioural treatments for anxiety (Reger & Gahm, 2008), depression (Richards & Richardson, 2012), and other psychotherapeutic interventions (Taylor & Luce, 2003).

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Appendix A: SCS

HOW I TYPICALLY ACT TOWARDS MYSELF IN DIFFICULT TIMES

Please read each statement carefully before answering. To the left of each item, indicate how often you behave in the stated manner, using the following scale:

**Almost
never**
1

2

3

4

**Almost
always**
5

- _____ 1. I'm disapproving and judgmental about my own flaws and inadequacies.
- _____ 2. When I'm feeling down I tend to obsess and fixate on everything that's wrong.
- _____ 3. When things are going badly for me, I see the difficulties as part of life that everyone goes through.
- _____ 4. When I think about my inadequacies, it tends to make me feel more separate and cut off from the rest of the world.
- _____ 5. I try to be loving towards myself when I'm feeling emotional pain.
- _____ 6. When I fail at something important to me I become consumed by feelings of inadequacy.
- _____ 7. When I'm down and out, I remind myself that there are lots of other people in the world feeling like I am.
- _____ 8. When times are really difficult, I tend to be tough on myself.
- _____ 9. When something upsets me I try to keep my emotions in balance.
- _____ 10. When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.
- _____ 11. I'm intolerant and impatient towards those aspects of my personality I don't like.
- _____ 12. When I'm going through a very hard time, I give myself the caring and tenderness I need.
- _____ 13. When I'm feeling down, I tend to feel like most other people are probably happier than I am.
- _____ 14. When something painful happens I try to take a balanced view of the situation.
- _____ 15. I try to see my failings as part of the human condition.
- _____ 16. When I see aspects of myself that I don't like, I get down on myself.
- _____ 17. When I fail at something important to me I try to keep things in perspective.

- _____ 18. When I'm really struggling, I tend to feel like other people must be having an easier time of it.
- _____ 19. I'm kind to myself when I'm experiencing suffering.
- _____ 20. When something upsets me I get carried away with my feelings.
- _____ 21. I can be a bit cold-hearted towards myself when I'm experiencing suffering.
- _____ 22. When I'm feeling down I try to approach my feelings with curiosity and openness.
- _____ 23. I'm tolerant of my own flaws and inadequacies.
- _____ 24. When something painful happens I tend to blow the incident out of proportion.
- _____ 25. When I fail at something that's important to me, I tend to feel alone in my failure.
- _____ 26. I try to be understanding and patient towards those aspects of my personality I don't like.

Appendix B: EQ

Instructions: We are interested in your recent experiences. Below is a list of things that people sometimes experience. Next to each item are five choices: “never”, “rarely”, “sometimes”, “often”, and “all the time”. Please darken one of these to indicate how much, currently you have experiences similar to those described.

Please do not spend too long on each item—it is your first responses that we are interested in. Please be sure to answer every item.

	Extremely Uncharacteristic	Somewhat Uncharacteristic	Uncertain	Somewhat Characteristic	Extremely Characteristic
1. I think about what will happen in the future.	①	②	③	④	⑤
2. I remind myself that thoughts aren't facts.	①	②	③	④	⑤
3. I am better able to accept myself as I am.	①	②	③	④	⑤
4. I notice all sorts of little things and details in the world around me.	①	②	③	④	⑤
5. I am kinder to myself when things go wrong.	①	②	③	④	⑤
6. I can slow my thinking at times of stress.	①	②	③	④	⑤
7. I wonder what kind of person I really am.	①	②	③	④	⑤
8. I am not so easily carried away by my thoughts and feelings.	①	②	③	④	⑤
9. I notice that I don't take difficulties so personally.	①	②	③	④	⑤
10. I can separate myself from my thoughts and feelings.	①	②	③	④	⑤
11. I analyze why things turn out the way they do.	①	②	③	④	⑤
12. I can take time to respond to difficulties.	①	②	③	④	⑤
13. I think over and over again about what others have said to me.	①	②	③	④	⑤
14. I can treat myself kindly.	①	②	③	④	⑤
15. I can observe unpleasant feelings without being drawn into them.	①	②	③	④	⑤
16. I have the sense that I am fully aware of what is going on around me and inside me.	①	②	③	④	⑤
17. I can actually see that I am not my thoughts.	①	②	③	④	⑤
18. I am consciously aware of a sense of my body as a whole.	①	②	③	④	⑤
19. I think about the ways in which I am different from other people.	①	②	③	④	⑤
20. I view things from a wider perspective.	①	②	③	④	⑤

Appendix C: MAAS

Below is a collection of statements about your everyday experience.

Using the 1-6 scale below, please indicate how frequently or infrequently you currently have each experience. Please answer according to what *really reflects* your experience rather than what you think your experience should be.

	almost always	very frequently	somewhat frequently	somewhat infrequently	very infrequently	almost never
1. I could be experiencing some emotion and not be conscious of it until some time later.	1	2	3	4	5	6
2. I break or spill things because of carelessness, not paying attention, or thinking of something else.	1	2	3	4	5	6
3. I find it difficult to stay focused on what's happening in the present.	1	2	3	4	5	6
4. I tend to walk quickly to get where I'm going without paying attention to what I experience along the way.	1	2	3	4	5	6
5. I tend not to notice feelings of physical tension or discomfort until they really grab my attention.	1	2	3	4	5	6
6. I forget a person's name almost as soon as I've been told it for the first time.	1	2	3	4	5	6
7. It seems I am "running on automatic" without much awareness of what I'm doing.	1	2	3	4	5	6
8. I rush through activities without being really attentive to them.	1	2	3	4	5	6
9. I get so focused on the goal I want to achieve that I lose touch with what I am doing right now to get there.	1	2	3	4	5	6
10. I do jobs or tasks automatically, without being aware of what I'm doing.	1	2	3	4	5	6
11. I find myself listening to someone with one ear, doing something else at the same time.	1	2	3	4	5	6
12. I drive places on "automatic pilot" and then wonder why I went there.	1	2	3	4	5	6
13. I find myself preoccupied with the future or the past.	1	2	3	4	5	6
14. I find myself doing things without paying attention.	1	2	3	4	5	6
15. I snack without being aware that I'm eating.	1	2	3	4	5	6

Appendix D: Mindfulness Exercises

Breathing

1. Find a comfortable place to sit for the next 10 minutes. Sit with an upright posture, your arms gently at your side, your hands resting in your lap or on your thighs.
2. Bring your attention to the movement of your breath near your navel. Notice the movement; in and out with each breath.
3. Notice how the mind wanders to other sensations, thoughts, or emotions. Acknowledge and accept these and bring your attention back to the sensation of each breath moving in and out.

Body Scan

1. Find a comfortable place to sit for the next 10 minutes. Sit with an upright posture, your arms gently at your side, your hands resting in your lap or on your thighs.
2. Bring your attention to the top of your head and notice any sensations that exist there.
3. Slowly scan over your body for the next 10 minutes, starting with the top of the head and working your way down to the bottom of the feet and toes. As you move from one part of the body to the next, notice any sensations or lack of sensations in each place. If you notice yourself thinking about the sensation (or lack of sensation) or describing it as good or bad; pleasing or displeasing simply notice the thoughts and bring your attention back to the sensation itself.
4. If there is one particular part of the body in which a sensation stands out for you, feel free to linger in this place; feeling the sensations as they are without judgment.

Focus on Sounds

1. Find a comfortable place to sit for the next 10 minutes. Sit with an upright posture, your arms gently at your side, your hands resting in your lap or on your thighs.
2. Bring your attention to any sounds that are around you in the present moment.
3. Notice each sound as it begins, occurs and ends.
4. Notice them as they come into, and dissolve out of, existing with an attitude of openness and acceptance. If you have thoughts or feelings about these sounds, such as judgment about whether they are pleasant or unpleasant or a sense of wanting some to stay and others to go, bring these too, into your awareness and then move your attention back to the sounds themselves.