Does Self-Criticism Mediate the Relationship between Self-Compassion and Well-Being?

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Abstract

The aim of the current study was to explore the relationship between self-compassion and well-being in greater detail, by assessing whether self-criticism could function as a mediator on that relationship. In recent years the positive impact of self-compassion on well-being becomes more and more apparent. Still, there is not much known about the manner by which self-compassion influences well-being. Gaining a deeper understanding of that relationship can aid the effectiveness and a more specified construction of interventions and treatments designed to enhance well-being. Based on the effectiveness of self-compassion interventions in reducing self-criticism as well as its apparent focus on specific aspects of self-criticism it was hypothesised that it could function as a mediator in enhancing well-being. Furthermore the relation between all three concepts was examined as well as the effectiveness of a self-compassion training. Data of 213 participants was used for the analysis. A randomized controlled trial design with an experimental and waiting list condition, was applied. The relation between concepts was examined with correlation analyses and the effectiveness of the training by means of one-way repeated-measures ANOVAs. Moreover a mediation analysis was performed. Findings show that self-compassion was positively related to well-being, as well as negatively related to self-criticism, and that self-criticism had a weak to moderate negative relation to well-being. The results further suggest that the self-compassion training was effective in reducing self-criticism and enhancing well-being as well as self-compassion. However, no evidence was found of a mediating role of self-criticism. It is assumed that self-compassion is a factor that influences both self-criticism and well-being but rather separately from each other. According to the two continua model, mental illness and mental health form two related but distinct dimensions and self-compassion seems to influence both. In that sense well-being and self-criticism seem to lay on those different dimensions and therefore have themselves not such a strong relation with each other. This study presents findings that highlight the value self-compassion and its use. Incorporating self-compassion presenting developers and practitioners with an efficient manner to not only impact the psychopathological dimension but also increase peoples overall well-being.

Samenvatting

Het doel van dit onderzoek was om dieper inzicht te krijgen in de relatie van zelf-compassie en welbevinden. Hierbij werd vooral achtergaan of zelfkritiek als mediator kan worden beschouwt. In de afgelopen jaren, is de positieve invloed van zelf-compassie op welbevinden steeds meer naar voren gekomen. Desondanks is er nog onduidelijkheid hoe zich deze invloed uit. Door het verduidelijken van deze relatie kunnen interventies beter worden ontwikkeld en hiermee ook effectiever zijn. Daarbovenop kan het de effectiviteit van behandelingen bevorderen. Omdat zelf-compassie effectief bleek in het verminderen van zelfkritiek en specifiek aspecten ervan adresseert, werd aangenomen dat het als mediator kan werken bij het verhogen van welbevinden. Naast deze hoofdvraag werd nog naar de relatie tussen de concepten en de effectiviteit van een zelf-compassie training gekeken. Een RCT (randomized controlled trial) met een experimentele en een wachtlijst conditie werd voor dit onderzoek gebruikt. In totaal hebben 213 participanten deelgenomen. De relatie tussen de concepten werd getoetst met behulp van correlatie analyses en de effectiviteit van het training met behulp van herhaalde metingen ANOVAs. Bovendien werd een mediatie analyse gedaan. De resultaten lieten zien dat zelf-compassie positief gerelateerd staat aan welbevinden en negatief aan zelfkritiek. Verder werd een zwakke tot matige relatie tussen zelfkritiek en welbevinden gevonden. Bovendien geven de resultaten weer dat door het zelf-compassie training zelfkriek significant omlaag is gegaan en welbevinden omhoog. Desondanks werd geen mediatie effect gevonden voor zelfkriek. Het wordt aangenomen dat zelf-compassie een factor is die zelfkritiek en welbevinden apart kan beïnvloeden. Deze uitkomsten bevestigen het twee-continua model, welk mental illness en mental health op twee separate, maar wel gerelateerde, dimensies presenteert. De uitblijvende relatie tussen deze twee concepten kan ermee samenhangen dat ze op de twee verschillende dimensies liggen. Dit onderzoek toont het belang van zelf-compassie en het gebruik ervan aan. De gebruik van zelf-compassie geeft ontwikkelaars en geneeskundige een efficiënt mogelijkheid om invloed uit te oefenen, niet alleen op psychopathologie maar ook op het welbevinden.

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Introduction

"Being human is not about being any one particular way; it is about being as life creates you – with your own particular strengths and weaknesses, gifts and challenges, quirks and oddities." (Neff, 2011). This quote describes in essence what it means to be self-compassionate, in that it means acknowledging the presence of shortcomings and failures and the pain that accompanies them, as part of human nature instead of specific personal flaws (Neff & Dahm, 2015). This concept, which originated form the Buddhist tradition (Neff & Dahm, 2015) is relatively new to the Western Culture, where people tend to extend more kindness to others than themselves (Neff, 2003). Consequently, it is not unusual to encounter people who treat others with kindness and compassion, while being self-critical and judgemental toward themselves (Neff & Dahm, 2015).

In recent years, studies have shown how beneficial self-compassion can be in preventing and decreasing a variety of psychopathology, including depression, anxiety and stress (Bluth et al., 2015; Dundas, Svendsen, Wiker, Granli, & Schanche, 2015; Gerber, Tolmacz, & Doron, 2015) as well as promoting general well-being (e.g., Körner et al., 2015; Neff & McGehee, 2010; Neff, Rude, & Kirkpatrick, 2007; Neff, 2011; Yang, 2016; Zessin, Dickhäuser, & Garbade, 2015). On the other hand, self-criticism is seen as a trans-diagnostic factor that has been linked to and can predict different forms of psychopathology (Petrocchi & Couyoumdjian, 2015). In that context, it appears logical that studies state that it would be plausible for self-criticism to also have a negative influence on well-being (Hollis-Walker & Colosimo, 2011; Neff & Vonk, 2009; Trompetter, de Kleine, & Bohlmeijer, 2016; Yang, 2016). Considering, that self-compassion addresses aspects which are characteristic for self-criticism, as for example self-judgement and isolation (Barnard & Curry, 2011), it could influence it in a more focused way. This mechanism could maybe not only decrease psychopathology, as was shown in previous research (e.g. Dundas et al., 2015), but could also benefit well-being, by encouraging kindness and acceptance instead of negative attitudes toward the self in times of failure or setbacks.

An investigation of the effect of self-compassion on self-criticism and their influence on well-being can have important insights into the workings of self-compassion. Knowing which mechanisms operate between self-compassion and well-being could lead to a better use of the concepts in the development of interventions or its use in the therapeutic setting. For example, it would allow for the tailoring of specific interventions regarding well-being. If self-criticism is affected by self-compassion which in turn would increase well-being, this could have important applications for people struggling with high levels of self-criticism.

Taken together, findings of the present study can have important implication regarding the focus for the construction of interventions and treatments aimed at enhancing well-being and counteracting self-criticism. The need for the development of which, is on one hand marked by the importance to act preventive against psychopathology by promoting well-being (Dundas et al., 2015; Keyes, 2013), and on the other hand, marked by the social and economic burden to society that mental illness presents (Knapp, 2001).

This report begins by exploring available literature and thus presenting an overview of relevant studies regarding the relationship between self-compassion and well-being, as well as self-compassion and self-criticism and their possible influence on well-being. Lastly, the research questions and hypothesis are listed.

Promoting Positive Mental Health: Self-Compassion and Well-Being

According to the World Health Organisation, mental health is defined as: "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community" (WHO, 2004, p. 10). This definition highlights different factors which influence mental health, such as coping and being socially involved. Westerhof and Keyes (2010) built on this theory by proposing a multidimensional approach, distinguishing three elements of well-being or mental health, encompassing *emotional well-being*, *psychological well-being* and *social well-being* (Westerhof & Keyes, 2010).

This suggests that in order for people to flourish, they need to, among other things, enjoy life, accept themselves for how they are and be part of a society which makes sense to them and they want to contribute to (Westerhof & Keyes, 2010). Increasing and promoting well-being in the general population has a variety of benefits not only for people individually, but also for society. For example people who flourish tend to miss fewer days at work, exhibit healthier psychological functioning, lower risks of cardiovascular diseases and lower health utilization (Keyes, 2007). Therefore, the importance to promote well-being is evident.

Self-compassion is believed to play an important role on enhancing well-being. It describes one's ability to acknowledge the presence of pain and accepting it as a part of human nature as well as treating oneself with kindness when confronted with inadequacies, failures and everyday hassles (Neff & Dahm, 2015). According to Neff (2003) self-compassion consists of three elements: *self-kindness*, *common humanity* and *mindfulness*. Self-kindness describes the kind and supportive attitude towards the self during failures (Neff & Dahm, 2015). Common humanity relates to the understanding that suffering is part the common, shared human experience (Neff & Dahm, 2015). Failures can seem as personal responsibilities and specific to a person when in fact failures and imperfections are part of life and the human nature (Neff & Dahm, 2015). Lastly, mindfulness entails that one becomes aware of the negative thoughts and feelings, in order to be able to acknowledge them without judgement or repression (Neff & Dahm, 2015).

One study showed that self-compassion partly mediated the negative relationship between well-being and psychopathology (Trompetter et al., 2016) indicating that increasing self-compassion can counteract psychopathology. Individuals, who present high levels of self-compassion tend to possess skill that can buffer against it and provide them with more adaptive emotion regulation strategies to cope with negative experiences (Trompetter et al., 2016). Additional to this finding, a meta-analysis over 79 samples, showed a causal relationship between self-compassion and well-being

(Zessin et al., 2015). This supports the notion that by increasing self-compassion, it would be possible to increase the well-being in the overall population, which would result in lower costs for health services, fewer financial burdens due to illness at work and higher productivity of individuals. Likewise, other studies were able to show the beneficial influence of self-compassion on well-being (e.g. Körner et al., 2015; Neff & McGehee, 2010; Neff, Rude, & Kirkpatrick, 2007; Neff, 2011; Yang, 2016; Zessin, Dickhäuser, & Garbade, 2015).

Still, only parts of the mechanisms underlying this relationship are known. One study for example found that hope functions as a mediator between self-compassion and well-being (Yang, Zhang, & Kou, 2016). However, it also emphasised that still little is know about possible other mediators that could underly this relationship. Self-compassion is associated with a variety of beneficial aspects as for example optimism, positive emotions, self-acceptance and social connection (Barnard & Curry, 2011; Neff et al., 2007; Yang et al., 2016) as well as being associated with decreasing depression, self-criticism and anxiety (Neff, 2003). This poses the question whether these other factors could also function as mediators for that relationship. Research on self-compassion and interventions aimed at raising it are still in early stages, which emphasises the need for a better understandig of the construct, how it is associated with distress or well-being and how to use it in treatments or interventions (Barnard & Curry, 2011).

Self-Compassion and Self-Criticism

Self-criticism is one form of self-to-self relation that is composed of thoughts and feelings of inadequacy, disgust and self-devaluation (Gilbert, Clarke, Hempel, Miles, & Irons, 2004). In some cases it is described as a personality trait that leads to vulnerability for the development of psychopathology (Castilho, Pinto-Gouveia, & Duarte, 2015; Zuroff, Igreja, & Mongrain, 1990). Gilbert et al. (2004) distinguishes three forms of self-to-self relation of which two are of self-critical nature. The *inadequate self* focuses on correcting or improving the self, whereas the *hated self* focuses on the desire to hurt and attack the self and is associated with feelings of disgust, aversion and hatred toward the self (Castilho et al., 2015). Opposed to those stands the *reassured self*, which is characterised by a warm and accepting attitude towards the self and focuses on positive aspects (Castilho et al., 2015).

When looking at the body of literature it becomes apparent that self-criticism is often mentioned when discussing self-compassion. For example a study by Neff (2003) found a negative relationship between self-compassion and self-criticism. It suggests that being kind and accepting to oneself counteracts the effects of self-critical thinking (Neff, 2003). Furthermore, the study by Casthilo et al. (2015) found significant correlations between the forms of self-criticism and self-compassion, supporting the notion that self-compassion could be used to counteract self-criticism. Further support lies in the existence of the Compassion Focused Therapy (CFT) by Gilbert (2014b). Self-criticism forms a vital part of the therapeutic process within CFT. According to Gilbert (2014b) self-criticism arises as a response to a threat. One typical threat, that is mentioned, is the threat of

shame: experiencing oneself as incompetent, useless, ugly or undesired (Gilbert, 2014b). By engaging with the self-critic from a compassionate self-view the issues lying behind the critic can be acknowledged and addressed, which in turn can facilitate the healing process.

The relevance of counteracting self-criticism is clear, due to its positive association with psychopathology (Castilho et al., 2015; Hollis-Walker & Colosimo, 2011). It is considered a trans-diagnostic predictor for various psychological disorders (Trompetter et al., 2016) and counteracting self-criticism could not only decrease or prevent psychological disorders, but also increase well-being. Self-compassion seems to possess aspects that could target self-criticism specifically and therefore cultivate an attitude towards the self that is kind and sees oneself as part of the common humanity instead of isolating and attacking the self, which in turn could increase well-being.

Self-Compassion, Self-Criticism and Well-Being

Despite the specific mechanisms underlying the relationship between self-compassion and well-being are not yet fully explored, it is suggested that self-criticism could play a role. For example it was suggested that a compassionate attitude towards the self and others could buffer against self-criticism and therefore facilitate well-being (Hollis-Walker & Colosimo, 2011). One study, which examined, among other things, the relationship between self-criticism and well-being, found a negative association (Cheng & Furnham, 2004). Thus, it does seem plausible that counteracting self-criticism, and thereby a predictor of psychopathology, could increase well-being. Nevertheless, based on the two continua model, this does not necessarily need to be the case. The two continua model holds, that mental illness and mental health are both related but distinct dimensions (Westerhof & Keyes, 2010). Thus, individuals who suffer from psychological diseases also present lower levels of psychological functioning and mental health (Westerhof & Keyes, 2010). On the other hand, it was also shown that individuals suffering from mental illnesses could still present moderate levels of mental health (Westerhof & Keyes, 2010). Therefore, counteracting mental illness or psychopathology do not necessarily have to lead to higher levels of mental health or well-being (Keyes, 2007).

Considering the strong association between self-compassion and well-being on the one hand and self-compassion and self-criticism on the other hand, it suggests that decreasing self-criticism could play a role in increasing well-being. Self-compassion and interventions that incorporate self-compassion, seem to focus particularly upon counteracting elements of self-criticism as well as negative experiences of the self. In the Compassionate Mind Training (CMT), a self-judgmental and a self-kind pathway are asserted to be in the brain, which inhibit one another (Gilbert & Irons, 2004). Following this, by enhancing self-compassion and therefore the self-kind pathway, the self-judgmental one, which would likely contain self-criticism, could be inhibited. Not only would the self-judgmental pathway be inhibited, but also the understanding of the self-judgement would be examined and understood (Barnard & Curry, 2011). Helping people realize the negative impact that submitting to self-critical inner voices can have in the long-term, by for example contributing to depression, enables people to see the relevance in practicing a self-compassionate mindset and promoting their well-being

(Barnard & Curry, 2011). As an extension of this, within CFT alternative thoughts are not only discussed and helped to be understood, but also the tone in which a person delivers those to him- or herself (Gilbert, 2014a). People who had deeply felt experiences of the self, as for example shame and an inner sense of worthlessness, often experienced those alternative thoughts as cold, logical and aggressive, as opposed to warm and soothing (Gilbert, 2014a). Furthermore, compassion-focused therapy also addresses self-kindness, and understanding for the pain, as opposed to feeling self-hatred, punishment or disgust towards the self (Gilbert, 2014a).

Further support for the notion that decreasing self-criticism by training self-compassion, could increase well-being comes from successful interventions that train self-compassion. For example one study by Gilbert and Procter (2006) used CMT to treat people high in shame and self-criticism. Participants displayed a reduction in depression, shame and self-criticism as well as an increase in the ability to be self-soothing and self-reassuring.

Research Question and Hypotheses

In order to examine the relationship between self-compassion and well-being, as well as the role that self-criticism can have on the relationship between self-compassion and well-being, this study poses the following research question: *Does self-criticism mediate the relationship between self-compassion and well-being?* To investigate this research question, the following hypotheses were formulated: Self-compassion and well-being are positively related (H1); Self-compassion and self-criticism are negatively related (H2) and Self-criticism and well-being are negatively related (H3). Additionally, the current study uses data collected from a randomized controlled trial on a self-compassion training. Therefore, the fourth hypothesis concerns the effectiveness of said self-compassion training: The self-compassion training was effective in enhancing well-being and decreasing self-criticism (H4). Lastly, the fifth hypothesis is based on the overarching research question: Self-criticism mediates the relationship between self-compassion and well-being (H5).

Method

In order to investigate the previously listed research question and corresponding hypotheses, the data collected, by the study of Bohlmeijer, Spijkerman and Elfrink (2015) was used for the analysis. The study applied a randomized controlled trial to examine the effectiveness of a self-help intervention that focused on self-compassion. First a broad overview of the study is provided by Bohlmeijer, Spijkerman and Elfrink (2015): “De effecten van een zelfcompassietraining als begeleide zelfhulp op welbevinden: een gerandomiseerd onderzoek.” (The effects of a self-compassion training as accompanied by self-help on well-being: a randomized study.). Then the criteria for participation are listed, before focusing on each instrument used in this study. Finally, the analysis which was performed on the data is described.

Study: Self-Compassion Training as Accompanied by Self-Help on Well-Being

The study by Bohlmeijer, Spijkerman and Elfrink (2015) investigated the effect of the self-compassion training self-help course: "Compassie als sleutel tot geluk, voorbij stress en zelfkritiek", which was focused on self-compassion's influence on well-being. The construction of this training was based on the Compassion Focused Therapy by Gilbert (2014b). In order to assess whether the effect of self-compassion on well-being was mediated by other factors the researchers chose to assess a variety of variables, of which only well-being, self-criticism and self-compassion are relevant for the current study. The study used a randomized controlled trial study design with two conditions. Participants were either placed into an experimental condition, where they had the chance to start immediately with the self-help course, or the control condition, in which they were placed on a waiting list for six months, after which they also could start with the course. The whole study lasted 12 months and included four moments of measurement in which a variety of questionnaires had to be filled in by both conditions simultaneously: before the start of the self-help course (t_0-baseline), after three months (t_1), after six months (t_2) and after 12 months (t_3).

In order to assess a variety of variables the study made use of 12 questionnaires, of which only three are relevant for the present study: the Mental Health Continuum-Short Form (MHC-SF) (Keyes, 2002), the Forms of Self-Criticising/Attacking and Self-Reassuring Scale (FSCRS) (Gilbert et al., 2004) and the Self-Compassion Scale Short Form (SCS-SF) (Raes, Pommier, Neff, & Van Gucht, 2011). Those are explained in greater detail in the section 2.3 Materials and Measures.

Participants

A total number of 243 participants took part in the study. Due to missing data after three months (t_1), only the data of 213 participants remained, of which 107 were randomly placed in the experimental group and 106 in the control group. Overall, more women (74.5%) participated in the study than men (25.5%). There was a significant association between the conditions and the gender of the participants χ^2 (1) = 3.81, p = 0.05. The age ranged from 20 to 78, with an average age of 53 years (SD = 9.9), indicating that more people of an advanced age participated. No significant difference regarding age (E: M = 52.8, SE = 0.95; W: M = 53.5, SE = 0.95) was found between the conditions (t(214) = -0.56, p > .05). All of the participants were Dutch and more than half of the sample were employed (57.4%). Aside the significant difference between the conditions regarding the gender of participants, no further differences regarding demographics were significant. Additionally, the majority in both samples presented a high level of education (E: 82.3%; W: 88.1%). The following Table 1 presents the important baseline characteristics of the remaining 213 participants.

Table 1*:*

Summary of Baseline Characteristics

	Experimental (N = 107)		Waiting List (N = 106)			
	Frequency (%)	M (SD)	Frequency (%)	M (SD)	χ^2	t (SE)
Age		52.8 (9.9)		53.5 (9.9)		-0.56 (0.95)
Gender					3.81*	
male	21 (19.6)		33 (31.2)			
female	86 (80.4)		74 (68.8)			
Family Status					3.16	
Married or registered relationship	55 (51.4)		65 (59.6)			
Divorced	24 (22.4)		16 (14.7)			
Widowed	4 (3.7)		2 (1.8)			
Never been married	24 (22.4)		25 (23.9)			
Living Situation					2.2	
Alone	31 (29)		26 (23.9)			
Living with Partner and Child(ren)	30 (28)		28 (25.7)			
Living with Partner without Child(ren)	37 (34.6)		48 (44)			
Alone with Child(ren)	8 (7.5)		6 (5.5)			
With Others	1 (0.9)		1 (0.9)			
Education					4.58	
Not Completed	0		1 (0.9)			
Lower Educational Level	4 (3.7)		2 (1.8)			
Middle Educational Level	13 (12.2)		7 (6.5)			
High Education Level	88 (82.3)		96 (88.1)			
Other	2 (1.9)		3 (2.8)			

Note. M = mean, SD = standard deviation, * p = 0.05

Sampling

The intervention was constructed for the general Dutch population with low to moderate levels of well-being. For that purpose an advertisement was placed in daily newspapers. Interested people were send to a website where they could register, read all the important information about the study as well as download the form of informed consent. By registering they were giving their consent to participate

and had to complete a number of screening-questions to assess their well-being. These screening-questions were based on the Mental Health Continuum-Short Form (MHC-SF). The specific inclusion and exclusion criteria are listed in the paragraphs below.

Participants were notified within five days whether they could participate and within four weeks after that whether they could start immediately with the self-compassion training or were placed on the waiting list. A number of factors were introduced in order to facilitate adherence, as for example explicit descriptions of the work they had to put into the intervention, a chance to win prizes after completing the questionnaires four times and email-support throughout the intervention. The intervention consisted of seven lessons which could be completed in seven weeks, but again, to raise adherence participants were given nine weeks to complete the intervention.

Inclusion Criteria

Based on the screening at the registration website the level of well-being was assessed. People who experienced a low or moderate levels of well-being could participate. Furthermore participants had to be at least 18 years old and give their informed consent. Only people who were fluent in Dutch were invited to join the study, due to the fact that the self-help course is only available in Dutch. Lastly, participants had to have a computer or tablet available with access to the internet as well as an email address, in order to receive email-support and fill out the questionnaires.

Exclusion Criteria

People who demonstrated moderate depressive or anxiety symptoms (score > 11 on the depression scale and/or anxiety scale of the Hospital Anxiety and Depression Scale) could not participate and were in turn advised to contact their general practitioner.

Materials and Measures

Mental Health Continuum - Short Form (MHC-SF)

The Mental Health Continuum - Short Form (MHC-SF) is a self-report questionnaire, which measures the level of well-being (Keyes, 2002). The questionnaire consists of 14 items that explore three dimensions of well-being: emotional well-being (item 1-3; e.g.: During the past month, how often did you feel happy?), psychological well-being (item 9-14; e.g.: During the past month, how often did you feel that you liked most parts of your personality?) and social well-being (item 4-8; e.g.: During the past month, how often did you feel that you had something important to contribute to society?). It uses a 6-point Likert scale on which respondents have to indicate how much of the time during the last month they functioned in a specific manner, ranging from 0 (none of the time) to 5 (all of the time). Additional to the three subscales: emotional, psychological and social well-being, it is also possible to calculate the total score across all items. A higher total score indicates a higher level of well-being (Lamers, Westerhof, Bohlmeijer, Ten Klooster, & Keyes, 2011).

Moreover, it is possible to categorise people as "flourishers", "languishers" or as moderately mentally healthy based on the MHC-SF (Keyes et al., 2008). People who score high on emotional, psychological and emotional well-being fit the category "flourishers" (Keyes et al., 2008). Whereas people who score low on those dimensions fit the category "languishers" (Keyes et al., 2008). People who do not fit those criteria are described as moderately mentally healthy (Keyes et al., 2008).

The internal consistency reliability (Cronbach's Alpha) of the total questionnaire was found to be high (α = 0.89) (Lamers et al., 2011). This also extends to the internal reliability of the subscales, ranging from α = 0.74 for social well-being to α = 0.83 for both emotional and psychological well-being. Analysis of the test-retest reliability found that outcomes are sufficiently stable over time, while remaining sensitive to change (Lamers et al., 2011).

In the present study the internal consistency was also found to be high (α = .84). The subscales emotional well-being and psychological well-being showed a good reliability, both Cronbach's α = .75. However the third subscale social well-being had a relatively low reliability, Cronbach's α = .61.

Forms of Self-Criticising/Attacking and Self-Reassuring Scale (FSCRS)

The Forms of Self-Criticising/Attacking and Self-Reassuring Scale (FSCRS) was developed by Gilbert, Hempel, Miles and Irons (2004) in order to assess the capacity to self-criticise and self-reassure. The self-report questionnaire consists of 22 items and uses a 5-point Likert scale, on which it measures how people think or feel when confronted with failures. The scale ranges from 0 (not at all like me) to 4 (extremely like me). The FSCRS encompasses three subscales. The first is "inadequate self" and is directed towards a feeling of personal inadequacy (e.g. item 1: I am easily disappointed with myself.). The second subscale is "hated self" and measures to what extent a person has the wish to harm him- or herself (e.g. item 9: I have become so angry with myself that I want to hurt or injure myself.) and lastly, the third subscale is "reassuring self" (e.g. item 3: I am able to remind myself of positive things about myself.).

The internal consistency reliability was found to be good ranging from α = 0.86 for hated and reassuring self, to α = 0.90 for inadequate self (Gilbert et al., 2004). In the present study the reliability of the total scale was found to be high (α = .89). The internal consistency of the two subscales inadequate self and reassured self were both high: Cronbach's α = .83 and Cronbach's α = .79, respectively. The reliability of the third subscale hated self however, showed a relatively low reliability: Cronbach's α = .63.

Self-Compassion Scale - Short Form (SCS-SF)

In the present study the short version of the original Self-Compassion Scale developed by Neff (2003) is used. The SCS-SF was developed by Raes et al. (2011) and only consists of 12 items, instead of 26. The self-report questionnaire intends to measure individual's ability to be self-compassionate by assessing how people act towards themselves in difficult times. It assesses the three components self-kindness, common humanity and mindfulness by means of six subscales: Self-Kindness (e.g. item 2: I

try to be understanding and patient toward those aspects of my personality I don't like.), Self-Judgment (e.g. item 11: I'm disapproving and judgmental about my own flaws and inadequacies.), Common Humanity (e.g. item 5: I try to see my failings as part of the human condition.), Isolation (e.g. item 4: When I'm feeling down, I tend to feel like most other people are probably happier than I am.), Over-Identification (e.g. item 1: When I fail at something important to me I become consumed by feelings of inadequacy.) and Mindfulness (e.g. item 3: When something painful happens I try to take a balanced view of the situation.). Also, it uses a 7-point Likert scale, ranging from 1 (Almost never) to 7 (Almost always). In order to calculate the total self-compassion score, first, the items on the scales: self-judgment, isolation and over-identification have to be reversed coded. Subsequently the total mean can be computed which represents the total self-compassion score. Additionally, it is also possible to calculate the subscale scores by calculating the mean of the responses on the subscale items.

The SCS-SF was found to be of adequate internal consistency ($\alpha \geq 0.86$) (Raes et al., 2011). Also in the present study the SCS-SF showed high reliability ($\alpha = .88$). In addition, the subscales were adequate in reliability (Self-Judgement = .87, Common Humanity = .76, Mindfulness = .75 and Over-Identification = .71) with the exception of Isolation, which showed an acceptable value (.61) and Self-Kindness, which showed poor reliability (.47).

Procedure

After the screening, randomization and online baseline measurement (t_0), participants of the experimental condition received the self-help course within a week after the randomization in the form of a book. In the introduction of the book it is explained how to work with the book and that it is as much a source of information as a workbook. The book is divided in seven chapters, in which each concerns itself with a specific part of self-compassion, for example self-criticism and compassion, developing kindness and change circumstances, and a variety of exercises, including writing as well as mindfulness exercises, are provided. It is advised to do at least one every day.

For the completion of that course participants of the experimental condition were given nine weeks and were advised to work through one lesson every week. Also, they were advised to spend between two to four hours a week working on the self-help course. Additionally, weekly procedural and contextual email-support from a personal advisor was provided. The advisor contacted the participant every week at an arranged day and provided feedback within two to three days, given that the participant replied on the same day as agreed.

Participants of the control condition, were placed on the waiting list and could start with the self-compassion training six months later. All participants completed the online questionnaires at the scheduled measurement moments (t_1, t_2, t_3).

Data Analysis

For the investigation of the research questions the data from the Mental Health Continuum - Short Form (MHC-SF), the Forms of Self-Criticising/Attacking and Self-Reassuring Scale (FSCRS) and

the Self-Compassion Scale Short Form (SCS-SF) was analysed with the Statistical Program for Social Sciences (SPSS, version 22).

First, the distribution of the missing data was investigated using the Missing Completely at Random (MCAR) test by Little (1988). By means of the MCAR the percentage of missing cases per instrument was assessed and determined whether these were missing due to a relationship with other values or were missing (completely) at random. The MCAR test (Little, 1988) showed a chi-square of 229.93 (df = 273; p = .97), which suggests a random distribution of the missing values. Subsequently, the 30 missing cases were removed from the data set by listwise deletion.

For the selection of the right psychometric test, a normality analysis was performed after the whole sample was separated in two groups: people who were in the experimental condition (E) and people who were placed in the waiting list (W). The separation was necessary due to the interest in the effect of the self-compassion training. The normality analysis was performed on the distributions of answers on the MHC-SF, the total score of the two self-critical subscales of the FSCRS and SCS-SF. In this study the subscales inadequate self and hated self were combined to give one total score for self-criticism. This was due to the intention to investigate the concept self-criticism, in which case reassuring self would not fit the concept. Additionally, other studies also used the combination of these two subscales for the investigation of self-criticism (e.g. Gilbert, Baldwin, Irons, Baccus, & Palmer, 2006).

The decision, whether the scores were normally distributed, was based on the evaluation of the skewness, which describes the asymmetry of the distribution. A value of zero indicated a perfect normal and symmetrical distribution (Kim, 2013). For the rejection or acceptance of a normal distribution the absolute z-value was calculated by hand, according to the formula provided by Kim (2013). Table 2 shows the results of the normality analysis of the three scales.

Table 2:

Normality Analysis

	Total (N=213)			Experimental (N=107)			Waiting List (N=106)		
	Skew Value	SE	Z	Skew Value	SE	Z	Skew Value	SE	Z
MHC-SF	0.13	0.17	0.76	0.13	0.23	0.57	0.15	0.23	0.65
Self-Criticism	-0.02	0.17	-0.12	0.03	0.23	0.13	-0.09	0.23	-0.39
SCS-SF	0.52	0.17	3.06	0.33	0.23	1.43	0.64	0.23	2.78

Note. SE= Standard Error Mean, Z= z-value of skewness, N= sample size

The scores on all of the three scales were according to the analysis normally distributed. The z-value for skewness was in every group below 3.29 and above -3.29, which was the threshold according to Kim (2013) for samples bigger than 50 and lower than 300.

In order to investigate the first three hypotheses: Self-compassion and well-being are positively related (H1), Self-compassion and self-criticism are negatively related (H2) and Self-criticism and well-being are negatively related (H3), the correlations of all variables were obtained, by calculating the Pearson's correlation coefficient *r* for both conditions. For this purpose, only total scores of the questionnaires were used, due to partly poor internal reliability estimates. Additionally, to compute Pearson's r for the baseline measurement (t_0), it was chosen to calculate the difference between t_1 and t_0, by subtracting the scores of the first measurement (t_0) from the scores of the second measurement (t_1). By doing so, it was possible to gain a better estimate of the effect of self-compassion training. These difference scores were used for the further analysis of all remaining hypotheses. For the interpretation of the strength of the associations the categorization provided by Dancey and Reidy (2011) was followed.

To test, whether the self-compassion training sample showed significantly higher levels of well-being and self-compassion, as well as significantly lower levels of self-criticism, as compared to the waiting list condition, three one-way repeated-measures ANOVAs were applied, with the within subject factor of measurements (t_0/t_1) and the between subject factor condition (E/W) for the outcome measure well-being, self-compassion and self-criticism.

For the analysis of the fifth hypothesis the computational tool PROCESS (Version 2.15 for SPSS) was used, created by Hayes (2013) for path analysis-based moderation and mediation analysis as well as their integration. It uses ordinary least squares (OLS) regression for the estimation of various mediation and moderation models, thereby being able to provide direct, indirect and total effects as well as standard regression statistics.

In order to assess whether the intervention response was mediated by self-criticism (H5), the estimation of Hayes' (2013) simple mediation model was used, with the experimental condition (E/W) as the independent variable. To investigate whether the increase in self-compassion within the experimental condition had influence on self-criticism and in turn on well-being, a separate analysis was done for the experimental condition. Therefore, Model 4 was tested in PROCESS (Hayes, 2013) with the difference scores of the MHC as outcome variable, difference scores of the SCS-SF as the independent variable and the difference score of the combination of the self-criticism subscales of the FSCRS as mediator variable. The corrected bootstrap confidence intervals of 1.000 bootstrap samples were drawn to estimate the direct and indirect effect.

Results

Relationship between Variables

Table 3 shows that there was no significant effect of the placement in the conditions on the baseline scores of participants on the MHC-SF ($F(1,214) = 2.51$, $p > .05$), as well as the SCS-SF ($F(1,214) = 0.13$, $p > .05$), the FSCRS ($F(1,214) = 0.23$, $p > .05$) and the computed self-criticism score ($F(1,214) = 0.11$, $p > .05$). This indicates that on baseline the participants in both conditions did not differ significantly on their MHC-SF, SCS-SF, FSCRS and self-criticism scores. Only when looking at the calculated difference between the two measures (see table 4) on well-being, self-compassion and self-criticism the scores show a disparity. The condition had a significant effect on the change of scores on the MHC-SF ($F(1,214) = 38.45$, $p < 0.01$), the SCS-SF ($F(1,214) = 31.60$, $p < 0.01$) and the computed self-criticism score ($F(1,214) = 14.96$, $p < 0.01$). This already suggests, that participants of the self-compassion training show a greater increase in well-being and self-compassion and a greater decrease in self-criticism, than do participants of the waiting list condition.

Table 3:

Descriptive Statistics of the Questionnaires of Both Conditions at Baseline (t_0)

	Total (N = 213)	Experimental (N = 107)	Waiting List (N = 106)		
	Mean (SD)	Mean (SD)	Mean (SD)	F	p
1. MHC-SF	33.87 (9.3)	32.86 (9.4)	34.97 (9.2)	2.51	0.12
2. SCS-SF	43.62 (12)	43.32 (11.2)	43.97 (12.9)	0.13	0.72
3. FSCRS	38.19 (12.9)	38.62 (13.1)	37.71 (12.7)	0.23	0.63
a. Self-Criticism	22.41 (9.1)	22.62 (9.4)	22.21 (8.8)	0.11	0.74

Table 4:

Descriptive Statistics of the Difference Scores on Well-Being, Self-Compassion and Self-Criticism

	Total (N = 213)	Experimental (N = 107)	Waiting List (N = 106)		
	Mean (SD)	Mean (SD)	Mean (SD)	F	p
Difference MHC t_1- t_0	4.78 (9.1)	8.34 (8.8)	1.2 (7.9)	38.45	< 0.01
Difference SCS-SF t_1- t_0	7.67 (9.8)	11.19 (10.5)	4.12 (7.7)	31.60	< 0.01
Difference Self-Criticism t_1- t_0	-3.66 (7.6)	-5.6 (8.1)	-1.7 (6.6)	14.96	< 0.01

In order to investigate the relation between self-compassion, self-criticism and well-being the correlations between these variables were calculated. In the first hypothesis the relation between self-compassion and well-being was investigated. As shown in Table 5 the total scores on the MHC and the SCS-SF had a moderate positive relationship ($r = .36$, $p < .01$). This indicates a significant moderate relationship between self-compassion and well-being.

With the second hypothesis it was intended to investigate the relation between self-compassion and self-criticism. As shown in Table 5 the total scores on SCS-SF had a strong negative relationship (r = -.74, p < .01) with the combined scores on the self-criticism subscales of the FSCRS. Also the total score of the FSCRS correlated negatively with the total scores on the SCS-SF (r = -.79, p < .01). This shows a significantly negative strong relationship between self-compassion and self-criticism. In that regard, also when considering the difference scores on self-compassion and self-criticism in the total sample, a moderate negative relationship was shown (r = -.53, p < .01; see table 5).

In the third hypothesis the relationship between self-criticism and well-being was examined. As shown in Table 5 the combined total scores on the self-criticism subscales and the total score on the MHC had a moderate negative correlation (r = -.36, p <.01). Also when looking at the difference scores on self-criticism and well-being a weak negative correlation was shown in the total sample (r = -.23; p <.01, table 5)

Table 5:

Correlations among Questionnaires of the Total Sample

Variables	*1.*	*1a.*	*2.*	*2a.*	*3*	*3a.*	*3b.*
1. MHC	-						
a. Difference MHC t_1- t_0	-.32**	-					
2. SCS-SF	.36**	-.06	-				
a. Difference SCS-SF t_1- t_0	-.07	.40**	-.37**	-			
3. FSCRS	-.44**	.04	-.79**	.14*	-		
a. Self-Criticism	-.36**	.02	-.74**	.15*	.93**	-	
b. Difference Self-Criticism t_1- t_0	.02	-.23**	.21**	-.53**	-.34**	-.40**	-

Note. * p < .05; ** p < .01

Effectiveness of the Self-Compassion Training

To evaluate whether the condition participants were placed in, and therefore the self-compassion training, had a significant effect on the increase or decrease of well-being, self-compassion and self-criticism (H4) a one-way repeated-measures ANOVA was performed, using the difference scores on the MHC, SCS-SF and the self-critical subscales of the FSCRS.

The results show that the well-being score of people was significantly affected by the condition they were placed in, F(1,214) = 69.96, p < 0.01. This indicates, that people, who participated in the self-compassion training presented higher levels of well-being after the training, than people who were placed on the waiting list.

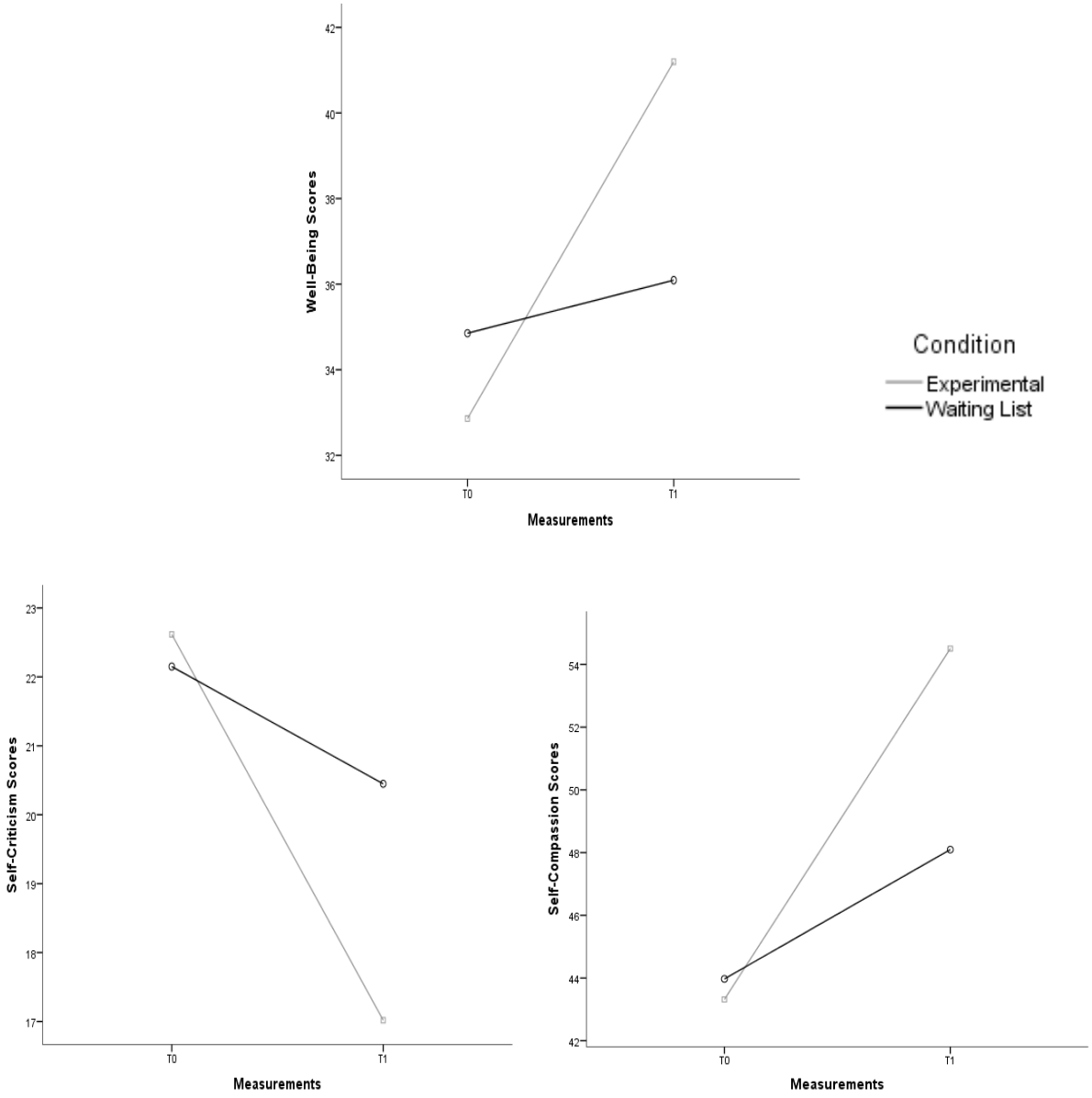
The results of the one-way repeated measure ANOVA using the self-compassion scores on the SCS-SF show, that participants self-compassion scores were significantly affected by the condition they were placed in, F(1,211) = 148.41, p < 0.01. This suggests that people in the experimental

condition showed significantly higher values of self-compassion than did people in the waiting list, after completing the self-compassion training.

Lastly, the condition participants were placed in, also significantly affected the self-criticism score, $F(1,212) = 52.49$, $p < 0.01$, indicating that participants of the self-compassion training showed significantly lower self-criticism scores after 3 months than did participants of the waiting list condition. These findings are represented in Figure 1.

Figure 1

Response to self-compassion training in two conditions. Scores are displayed for the experimental and waiting list group, before the self-compassion training (T0) and after 3 months and completion of the training (T1). Well-being scores are shown in the upper panel, self-criticism and self-compassion scores are shown in the lower panels.



Mediation Effect of Self-Criticism

To evaluate whether the self-compassion course had an impact on well-being and furthermore whether this impact was mediated by self-criticism (H5) the simple mediation model depicted in Figure 2, with the two conditions (E/W) as independent variables, were analysed.

Table 6:

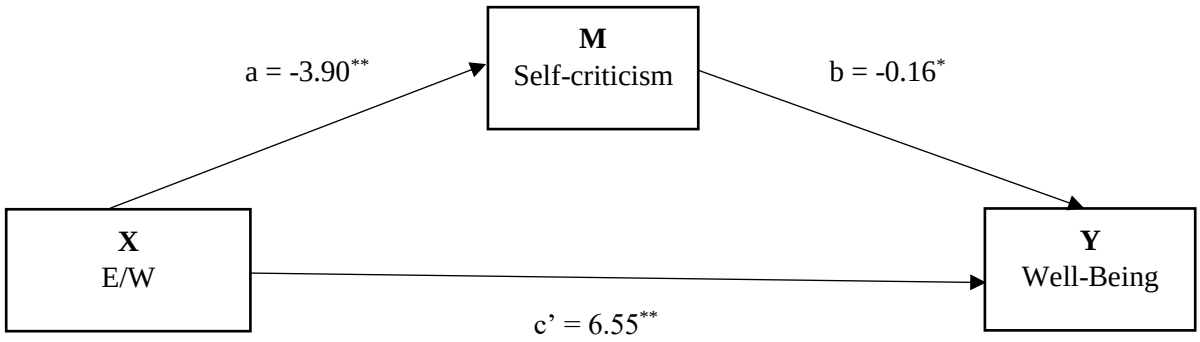
Regression Coefficients (Coeff.), Standard Errors (SE), and Model Summery Information of the Simple Mediation Model depicted in Figure 2 of the Comparison between the Experimental (E) and Waiting List Condition (W)

		Consequent								
		M (self-criticism)					Y (well-being)			
Antecedent		Coeff.	*SE*	*p*	t		Coeff.	*SE*	*p*	t
X (E/W)	a	-3.90	1.00	<0.001	-3.87	c’	6.55	1.17	<0.001	5.60
M (self-criticism)		-	-	-	-	b	-0.16	0.08	0.04	-2.08
Constant	i_M	-1.70	0.71	0.02	-2.39	i_y	0.89	0.81	0.28	1.09
		$R^2 = 0.07$					$R^2 = 0.17$			
		F(1,212) = 14.96, p<0.001					F(2,211) = 22.28, p<0.001			

When looking at the whole sample, all three variables show significant relationships. The experimental condition showed a significant direct effect on well-being (β = 6.55, t = 5.60, $p < 0.001$, path c’ in Figure 2), suggesting that participants who took part in the self-compassion training showed higher levels of well-being than did participants, who were placed in the waiting list condition. Furthermore, there is a significant effect of the experimental condition on self-criticism (β = -3.90, t = -3.87, $p < 0.001$, path a in Figure 2). This implies that people who completed the self-compassion training showed lower levels of self-criticism than did people of the waiting list condition. Lastly, in this case, self-criticism does reach a significant negative effect on well-being (β = -0.16, t = -2.08, $p < 0.05$, path b in Figure 2). This would suggest that people with lower levels of self-criticism showed higher levels of well-being. However, to the mediation hypothesis, the indirect effect estimation ($a \times b$) of self-criticism on well-being, is most pertinent. That estimation does not reach the significance level ($a \times b$ = 0.62, bootstrap confidence interval: -0.04 to 1.52), meaning that self-criticism does not function as a mediator of the self-compassion course.

Figure 2

Statistical Diagram of the Simple Mediation Model of Comparison between the Experimental (E) and Waiting List Condition (W)



Note. * significant at α = 0.05; ** significant at α = 0.01; E = Experimental Condition; W = Waiting List

In order to get a more in depth analysis, the mediation analysis was also performed separately on the experimental group. That allowed an investigation of whether the increase in self-criticism specifically impacted the increase in well-being, as well as a better view of the possible mediating role of self-criticism, which could have been overshadowed by other influences, when only looking at the total sample.

Table 7:

Regression Coefficients (Coeff.), Standard Errors (SE), and Model Summery Information of the Simple Mediation Model depicted in Figure 3 for the Experimental Condition

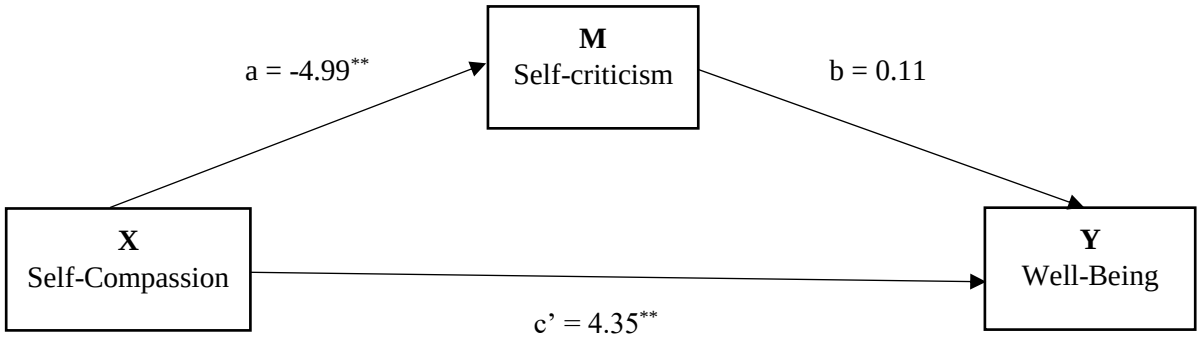
		Consequent							
		M (self-criticism)					Y (well-being)		
Antecedent		Coeff.	*SE*	*p*	t		Coeff.	*SE*	*p*	t
X (self-compassion)	a	-4.99	0.71	<0.001	-6.57	c'	4.35	0.09	<0.001	4.02
M (self-criticism)		-	-	-	-	b	0.11	0.12	0.36	0.91
Constant	i_M	-0.94	0.97	0.34	-0.97	i_y	4.88	1.17	<0.001	4.18
		R^2 = 0.29					R^2 = 0.15			
		F(1,105) = 43.63, p<0.001					F(2,104) = 9.17, p<0.001			

The estimation of the simple mediation model in the experimental condition showed that an increase of self-compassion was positively related to well-being (β = 4.35, t = 4.02, p < 0.001, path c' in Figure 3). Self-compassion showed also a significant effect on self-criticism (β = -4.99, t = -6.57, p < 0.001, path a in Figure 3). However, no direct effect was found between self-criticism and well-being (β = 0.11, t = 0.91, p = 0.36, path b in Figure 3), indicating that the decrease in self-criticism had

no influence on well-being. Taken together, findings also do not show a mediation effect in the experimental condition. This suggests, that self-compassion does influence self-criticism and well-being but its positive impact on well-being is not mediated by the decrease in self-criticism. This is underlined by the estimation of the indirect effect (*a x b*) of self-criticism on well-being. There was no significant indirect effect found of the decrease of self-criticism in the experimental condition on well-being (*a x b* = -0.04, bootstrap confidence interval: -0.15 to 0.04).

Figure 3

Statistical Diagram of the Simple Mediation Model of the Experimental Condition



Note. ** significant at α = 0.01

Discussion

This study aimed to investigate the relationship between self-compassion and well-being, and in particular exploring the possible mediating role of self-criticism on that relationship. This was in order to gather more information about the mechanisms underlying the relationship between self-compassion and well-being, to facilitate a better application in a therapeutic setting or the development of interventions. It was hypothesized that self-compassion is positively related to well-being (H1) and negatively related to self-criticism (H2). Furthermore it was hypothesized that self-criticism is negatively related to well-being (H3) and that its decrease has a mediating role on the relationship between self-compassion and well-being (H5). Also, the effectiveness of the self-compassion training administered was evaluated (H4).

The results of this study support the first three hypotheses and therefore replicate the findings of previous studies. Regarding the first hypothesis, the concepts self-compassion and well-being are themselves rather new. Still, there is a growing number of studies that find connections between these concepts and even indicate a causal relationship (Zessin et al., 2015). This study can provide further support by illustrating not only a strong correlation between the concepts, but also showing that the intervention focused on self-compassion: “Compassie als sleutel tot geluk, voorbij stress en zelfkritiek” was effective in increasing well-being. Furthermore, a study by Yang (2016) in a Chinese

population, stated that self-compassion showed the strongest association with well-being and presents a more stable and robust predictor of well-being than relationship harmony and self-enhancement. This indicates, that self-compassion forms an essential component in promoting well-being and should be incorporated in interventions focused on enhancing well-being, as well as the therapeutic setting.

Adding self-compassion exercises to the therapeutic setting is not only important because of its beneficial effect on well-being, but also because of its beneficial effect on self-criticism. Consistent with the second hypothesis, that self-compassion would be negatively related to self-criticism, the findings showed a moderate negative relation between those concepts. Self-criticism was focus of a variety of studies in connection with psychopathology (Gilbert & Irons, 2004). For example, people who suffer from depression often experience intrusive memories of being shamed, rejected or abused (Gilbert & Irons, 2004). This can lead people to regard themselves in the same manner. This internal harassment can then lead to stress and depressive symptoms (Gilbert & Irons, 2004). The beneficial effect of self-compassion on this process becomes more understandable, when taking a theoretical cognitive approach. Top-down theories suggest that people with high levels of well-being can focus more on positive situations and thereby develop a positive memory bias (Zessin et al., 2015). Practicing self-compassion can facilitate this mind-set, by practicing self-acceptance and treating oneself with kindness in moments of failure. Thereby the interpretation of difficult situations could shift from a negative and self-critical one, to a more kind an accepting one. This could act against the intrusive negative memories and facilitate the recall of positive ones.

Considering the third hypothesis, that self-criticism is negatively related to well-being, it was possible to find a negative relation in the general population before performing the self-compassion training, indicating that in the general population self-criticism is related to a lower level of well-being. This points out, that self-criticism appears to be accompanies by lower levels of well-being and should be addressed in the general population. Seeing its strong associations with various mental illnesses and its predictive power of such, counteracting it is of importance for the mental health of the general population. Moreover, it could enable developers and practitioners to work preventive against depression and anxiety instead of treating it in later stages.

The self-compassion training was focused on reducing self-criticism and stress by facilitating compassion, and in turn raise overall well-being. Looking at the results, it becomes apparent that the training was successful in significantly increasing self-compassion and well-being as well as reducing self-criticism in the experimental condition, as opposed to the waiting list condition. This shows again, that a focus on self-compassion is an effective way to enhance overall well-being.

However the lack of a mediation contradicts the fifth hypothesis, that the increase in self-compassion would decrease self-criticism and therefore increase well-being. Even when investigating the experimental condition separately, no mediation was found. A possible explanation for the lack of a relation between the decrease in self-criticism and the increase in well-being in the experimental

condition as well as the lack of a mediation effect, could come from the two continua model and is discussed in greater detail in the following section

No Relation between the Difference in Self-Criticism and Well-Being

Before performing the self-compassion training, a higher level of self-criticism is accompanied by lower levels of well-being. However, actively decreasing self-criticism by practicing self-compassion, through the self-compassion training, does not lead to higher levels of well-being. This finding comes as a surprise because in previous research the relationship was usually stated clearly. For example one paper states: *"Self-compassion however enhances well-being by reducing self-criticism, recognizing human nature, and increasing self-acceptance and thus entails many of the psychological benefits as self-enhancement does but avoids many of its pitfalls (Neff, 2011; Neff & Vonk, 2009)"* (Yang, 2016, p. 24). The findings of this study cannot support that notion. Self-compassion does reduce self-criticism and also enhances well-being, however rather separately.

One possible explanation for this could come from the two continua model. It states that mental illness and mental health are both related but distinct dimensions (Westerhof & Keyes, 2010). It seems that self-compassion is a concept that can impact both dimensions and therefore facilitate well-being as well as counteract psychopathology, but because self-criticism is rather related to the dimension of mental illness, reducing self-criticism does not lead to greater levels of well-being.

On the one hand support comes from the established notion that self-criticism is a trans-diagnostic predictor for psychopathology (Trompetter et al., 2016). A number of studies were able to show that self-critical feelings and cognitions are essential components and are able to predict depression, mood disorders, social anxiety and post-traumatic stress disorder (Castilho et al., 2015). Moreover, the notion that self-criticism is rather connected to the psychopathological dimension, is supported by the finding that it was possible to discriminate clinical and nonclinical samples based on their score on the Forms of Self-criticizing/Attacking and Self-reassuring Scale (FSCRS) (Castilho et al., 2015). This shows, that people from the normal population display lower levels of self-criticism than do people form a clinical setting, underlying the importance to address self-criticism in the therapeutic setting. Especially, when considering that self-criticism was also found to impair therapeutic alliances, which can lead to poorer treatment outcomes (Marshall, Zuroff, McBride, & Bagby, 2008).

On the other hand, a number of studies were able to show a positive impact of self-compassion on reducing self-criticism and in turn counteracting psychopathological symptoms (Neff, 2003; Dundas et al., 2015). Experiencing situations where external parties, as for example parents (Neff & McGehee, 2010), displayed a rather hostile and critical behavior towards a person, can foster inner dialogues that are also of this manner. The resulting feeling of shame and self-criticism can cause the outside world as well as the internal feelings and cognitions to feel unsafe and hostile. People who suffer from high levels of self-criticism often feel uncomfortable, unable or even frightening to direct feelings of warmth, self-liking or soothing towards the self (Gilbert & Procter, 2006). When trying to

introduce alternative thoughts, which are of a kinder and more accepting kind, as for example in cognitive therapies (Rector, Bagby, Segal, Joffe, & Levitt, 2000), people high in self-criticism do not respond as well as others. This could be due to their still critical inner tone. Even though they understand the rationale behind practicing alternative thoughts, they still feel uncomfortable being kind and soothing towards themselves (Gilbert, 2014a). This results in a still critical and hostile inner voice. Practicing self-compassion and relating to ones suffering with warmth, connection and concern, therefore, seems to target key components of self-criticism. The strong association which self-compassion has with both concepts, its targeted way to address self-criticism, as well as the already effective interventions that were presented (e.g. Bernard & Curry, 2011; Gilbert & Irons, 2004), demonstrates the capacity of self-compassion to impact both dimensions. Incorporating self-compassion can therefore provide an intervention with a comprehensive and encompassing reach. That way it would not only be possible to address both dimensions in an efficient manner, but also to raise the chances for a better treatment response and higher levels of well-being as well as lower levels of psychopathology.

Role of Self-Criticism

Nevertheless, the question, which role self-criticism plays in well-being remains. The findings suggest, that in the overall population before performing the self-compassion training, there is a relation. It is understandable that negative self-relations are present when one experiences lower levels of well-being. For example, with lower levels of well-being the resilience of people may not be strong enough to buffer against daily struggles (Cohn et al., 2009). In those moments self-critical thoughts can arise and facilitate the destructive spiral. Moreover, the assertion of the Compassionate Mind Training (CMT) could offer support (Barnard & Curry, 2011). When people are stuck in this spiral the self-judgmental pathway would be active and thereby inhibiting the self-kind one. In order to break through this negative spiral self-compassion and interventions aimed at self-compassion, as for example CMT could help. Another possibility is that by encouraging people to be more self-accepting and embracing their humanity and all the quirks and pain that comes with it, self-critical thoughts decrease as a form of side effect to the increase in well-being. Similarly, there would then be no direct relationship between self-criticism and well-being, but only between self-compassion and well-being.

It becomes clear that addressing self-compassion and compassion in general is of importance and if that would reduce self-criticism as a side effect, this would suffice for the general population. However, in the therapeutic setting a special focus on self-criticism would offer an advantage. Not only because self-criticism can impair therapeutic alliances and therefore potentially treatment responses (Marshall, Zuroff, McBride, & Bagby, 2008), but also because people in the clinical population display higher levels of self-criticism than do people in the normal population (Castilho et al., 2015). Further support for addressing self-criticism in the clinical setting, could be derived from the Compassion Focused Therapy by Gilbert (2014b). There self-criticism plays an essential part in reducing psychopathological symptoms. It can be assumed that the inner critic of people suffering

from various forms of psychopathology may be more developed and harmful and therefore need special attention.

When considering the general population, a special focus on self-criticism could be not as necessary as in a clinical population. As was shown by the findings of this study a specific focus on self-compassion was already successful in reducing levels of self-criticism and enhancing well-being. However, knowing how harmful self-criticism can be and that self-compassion can counteract it, could function as a useful tool for people to fully benefit of self-compassion interventions.

Present Study

In total, the study gathered data from 213 participants that started and completed the questionnaires. Even though this number is sufficiently high to produce a power of 80% at a significance level of $\alpha = 0.05$, there were still 30 people that dropped out and did not complete the second round of questionnaires. That could impact the reliability and validity of the conclusions, and demonstrates a possibility for future research to investigate the relationship between self-criticism and well-being with another sample. Especially considering the differences in self-criticism between clinical and non-clinical samples, further research on this relationship in a clinical population as well as in a sample of the general population that incorporates flourishers is preferable.

Overall, the sample was sufficiently big and normally distributed. However, the majority of the sample were highly educated and women. This poses the question whether the sample is indeed representative of the general population. According to one study, in a non-clinical population women tend to be more self-critical than men (Baiao, Gilbert, McEwan, & Carvalho, 2015). However, this difference could not be found in the clinical sample. Following that, the high number of female participants could partly be explained by the generally stronger self-critical tendencies of women, which would make the intervention more appealing to them. Additionally, another study found that a high female proportion in a sample strengthened the relationship between self-compassion and well-being. The high proportion of female participants in this sample, therefore could have affected the external validity of the findings and not represent the general population adequately.

Another reason for a replication study with another sample would be that the majority of the sample consists of highly educated people. One study showed that when administrating a therapist-assisted Internet-delivered cognitive behavioral therapy, people with a lower educational background showed lower levels of adherence and lower symptom improvement (Hadjistavropoulos, Pugh, Hesser, & Andersson, 2016). This suggests that interventions which rely on the participants themselves to work on the tasks, as for example in the case of the present study a training in the form of a book, need to take into account the impact that a lower level of education can have on the adherence as well as on the effectiveness. The results of this study therefore could have benefited of a sample with a high percentage of highly educated people. This highlights the need to investigate whether the self-compassion training would also show positive results in a sample with a higher proportion of lower educated people.

Similar to the impact that the educational background of participants can have on the relationship between self-compassion and well-being, the impact of age can also have an influence. Zessin, Dickhäuser and Garbade (2015) suggest that the more advanced the age of participants is in a sample, the stronger is the relationship between self-compassion and psychological well-being. This could be due to more experience and a higher variety of situations to look back on and compare to new negative or positive situations (Zessin et al., 2015). The average age of this sample is 53, and is therefore rather advanced. Again, further research is needed to confirm the found relation between self-compassion and well-being, using a sample with a greater balance in educational backgrounds, gender and age.

Lastly, the internal consistencies of the subscales self-kindness, social well-being and hated self, are rather low. This could influence the results and validity of the findings, especially, considering that self-kindness is mentioned as a kind of counterpart of self-criticism (Neff, 2011). However, during the analysis only the total scores were used and the total SCS-SF scale did show sufficient internal consistency. Still, this could have impacted the validity and presents a need for further research.

Summarizing, this study aimed to investigate the relationship between self-compassion and well-being in greater detail, by exploring the possible mediating role of self-criticism. The results show, that no mediating effect of self-criticism exists. Self-compassion seems to influence well-being and self-criticism on two different dimensions and therefore provides the capability to impact well-being as well as psychopathology in a positive way. This highlights the importance to consider self-compassion in therapeutic settings as well as the development of intervention in order to reach both dimensions in an efficient manner.

References

Baião, R., Gilbert, P., McEwan, K., & Carvalho, S. (2015). Forms of Self-Criticising/Attacking & Self-Reassuring Scale: Psychometric properties and normative study. *Psychology and Psychotherapy: Theory, Research and Practice*, *88*(4), 438–452. doi:10.1111/papt.12049

Barnard, L. K., & Curry, J. F. (2011). Self-compassion: Conceptualizations, correlates, & interventions. *Review of General Psychology*, *15*(4), 289–303. doi:10.1037/a0025754

Bluth, K., Roberson, P. N. E., Gaylord, S. A., Faurot, K. R., Grewen, K. M., Arzon, S., & Girdler, S. S. (2015). Does Self-Compassion Protect Adolescents from Stress? *Journal of Child and Family Studies*. doi:10.1007/s10826-015-0307-3

Bohlmeijer, E., Spijkerman, M., & Elfrink, T. (2015). *De effecten van een zelfcompassietraining als begeleide zelfhulp op welbevinden: een gerandomiseerd onderzoek* (Research Report).

Castilho, P., Pinto-Gouveia, J., & Duarte, J. (2015). Exploring Self-criticism: Confirmatory Factor Analysis of the FSCRS in Clinical and Nonclinical Samples. *Clinical Psychology and Psychotherapy*, *22*(2), 153–164. doi:10.1002/cpp.1881

Cheng, H., & Furnham, A. (2004). Perceived Parental Rearing Style, Self-Esteem and Self-Criticism As Predictors of Happiness. *Journal of Happiness Studies*, *5*(July 2003), 1–21. doi:10.1023/B:JOHS.0000021704.35267.05

Cohn, M. A., Fredrickson, B. L., Brown, S. L., Mikels, J. A., & Conway, A. M. (2009). Happiness Unpacked: Positive Emotions Increase Life Satisfaction by Building Resilience. *Emotion*, *9*(3), 361–368. doi:10.1037/a0015952

Dancey, C. P., & Reidy, J. (2011). *Statistics Without Maths for Psychology* (5th ed.). Harlow, Essex.: Pearson Education Limited.

Dundas, I., Svendsen, J. L., Wiker, A. S., Granli, K. V., & Schanche, E. (2015). Self-compassion and depressive symptoms in a Norwegian student sample. *Nordic Psychology*, *0*(0), 1–15. doi:10.1080/19012276.2015.1071203

Gerber, Z., Tolmacz, R., & Doron, Y. (2015). Self-compassion and forms of concern for others. *Personality and Individual Differences*, *86*, 394. doi:10.1016/j.paid.2015.06.052

Gilbert, P. (2014a). Compassion-focused therapy: Preface and introduction for special section. *British Journal of Clinical Psychology*, *53*(1), 1–5. doi:10.1111/bjc.12045

Gilbert, P. (2014b). The origins and nature of compassion focused therapy. *British Journal of Clinical Psychology*, *53*(1), 6–41. doi:10.1111/bjc.12043

Gilbert, P., Baldwin, M. W., Irons, C., Baccus, J. R., & Palmer, M. (2006). Self-Criticism and Self-Warmth: An Imagery Study Exploring Their Relation to Depression. *Journal of Cognitive Psychotherapy: An International Quarterly*, *20*(2), 183–201.

Gilbert, P., Clarke, M., Hempel, S., Miles, J. N. V, & Irons, C. (2004). Criticizing and reassuring oneself: An exploration of forms, styles and reasons in female students. *The British Journal of Clinical Psychology / the British Psychological Society*, *43*(Pt 1), 31–50.

doi:10.1348/014466504772812959

Gilbert, P., & Irons, C. (2004). A pilot exploration of the use of compassionate images in a group of self-critical people. *Memory (Hove, England)*, *12*(4), 507–516. doi:10.1080/09658210444000115

Gilbert, P., & Procter, S. (2006). Compassionate mind training for people with high shame and self-criticism: Overview and pilot study of a group therapy approach. *Clinical Psychology and Psychotherapy*, *13*(6), 353–379. doi:10.1002/cpp.507

Hadjistavropoulos, H. D., Pugh, N. E., Hesser, H., & Andersson, G. (2016). Predicting Response to Therapist-Assisted Internet-Delivered Cognitive Behavior Therapy for Depression or Anxiety Within an Open Dissemination Trial. *Behavior Therapy*, *47*(2), 155–165. doi:10.1016/j.beth.2015.10.006

Hayes, A., F. (2013). *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach*. London, England: The Guilford Press

Hollis-Walker, L., & Colosimo, K. (2011). Mindfulness, self-compassion, and happiness in non-meditators: A theoretical and empirical examination. *Personality and Individual Differences*, *50*(2), 222–227. doi:10.1016/j.paid.2010.09.033

Keyes, C. L. M. (2002). The mental health continuum: from languishing to flourishing in life. *Journal of Health and Social Behavior*, *43*(2), 207–222. doi:10.2307/3090197

Keyes, C. L. M. (2007). Promoting and protecting mental health as flourishing: A complementary strategy for improving national mental health. *American Psychologist*, *62*(2), 95–108. doi:10.1037/0003-066X.62.2.95

Keyes, C. L. M. (2013). Promoting and Protecting Positive Mental Health: Early and Often Throughout the Lifespan. In C. L. M. Keyes (Ed.), *Mental Well-Being - International Contributions to the Study of Positive Mental Health* (pp. 3–28). Dordrecht: Springer Science+Business Media. doi:10.1007/978-94-007-5195-8

Keyes, C. L. M., Wissing, M., Potgieter, J. P., Temane, M., Kruger, a, & van Rooy, S. (2008). Evaluation of the mental health continuum- short form (MHC-SF) in Setswana-speaking South Africans. *Clinical Psychology and Psychotherapy*, *15*, 181–192. doi:10.1002/cpp.572

Kim, H.Y. (2013). Statistical notes for clinical researchers: assessing normal distribution (2) using skewness and kurtosis. *Restorative Dentistry & Endodontics*, *38*(1), 52–4. doi:10.5395/rde.2013.38.1.52

Knapp, M. (2001). Hidden costs of mental illness, 3–4. Retrieved from http://upperbay.org/DO NOT TOUCH - WEBSITE/articles/costs of mental illness.pdf

Körner, A., Coroiu, A., Copeland, L., Gomez-Garibello, C., Albani, C., Zenger, M., & Brähler, E. (2015). The role of self-compassion in buffering symptoms of depression in the general population. *PLoS ONE*, *10*(10), 1–14. doi:10.1371/journal.pone.0136598

Lamers, S. M. a, Westerhof, G. J., Bohlmeijer, E. T., Ten Klooster, P. M., & Keyes, C. L. M. (2011). Evaluating the psychometric properties of the mental health Continuum-Short Form (MHC-SF).

Journal of Clinical Psychology, *67*(1), 99–110. doi:10.1002/jclp.20741

Little, Roderick, J. A. (1988). A Test of Missing Completely at Radom for Multivariate Data With Missing Values. *American Statistical Association*, *83*(404), 1198–1202.

Marshall, M. B., Zuroff, D. C., McBride, C., & Bagby, R. M. (2008). Self-criticism predicts differential response to treatment for major depression. *Journal of Clinical Psychology*, *64*(3), 231–244. doi:10.1002/jclp.20438

Neff, K. D. (2003). The development and validation of a scale to measure self-compassion. *Self and Identity*, *2*, 223–250. doi:10.1080/15298860390209035

Neff, K. D. (2011). Self-compassion, self-esteem, and well-being. *Social and Personality Psychology Compass*, *5*(1), 1–12. doi:10.1111/j.1751-9004.2010.00330.x

Neff, K. D. (2011). *Self-Compassion: Stop Beating Yourself Up and Leave Insecurity Behind*. New York, NY: William Morrow.

Neff, K. D., & Dahm, K. A. (2015). Self-Compassion: What It Is, What It Does, and How it Relates to Mindfullness. In B. D. Ostafin, M. D. Robinson, & B. P. Meier (Eds.), *Handbook of Mindfulness and Self-Regulation* (pp. 121–137). New York, NY: Springer Science+Business Media. doi:10.1007/978-1-4939-2263-5

Neff, K. D., Rude, S. S., & Kirkpatrick, K. L. (2007). An examination of self-compassion in relation to positive psychological functioning and personality traits. *Journal of Research in Personality*, *41*(4), 908–916. doi:10.1016/j.jrp.2006.08.002

Neff, K. D., & Vonk, R. (2009). Self-compassion versus global self-esteem: Two different ways of relating to oneself. *Journal of Personality*, *77*(1), 23–50. doi:10.1111/j.1467-6494.2008.00537.x

Neff, K., & McGehee, P. (2010). Self-compassion and psychological resilience among adolescents and young adults. *Self and Identity*, *9*(3), 225–240. doi:10.1080/15298860902979307

Petrocchi, N., & Couyoumdjian, A. (2015). The impact of gratitude on depression and anxiety: the mediating role of criticizing, attacking, and reassuring the self. *Self and Identity*, *0*(0), 1–15. doi:10.1080/15298868.2015.1095794

Raes, F., Pommier, E., Neff, K. D., & Van Gucht, D. (2011). Construction and factorial validation of a short form of the Self-Compassion Scale, *18*, 250–255. doi:10.1002/cpp.702

Rector, N. A., Bagby, R. M., Segal, Z. V., Joffe, R. T., & Levitt, A. (2000). Self-criticism and dependency in depressed patients treated with cognitive therapy or pharmacotherapy. *Cognitive Therapy and Research*, *24*(5), 571–584. doi:10.1023/A:1005566112869

Trompetter, H. R., de Kleine, E., & Bohlmeijer, E. T. (2016). Why Does Positive Mental Health Buffer Against Psychopathology? An Exploratory Study on Self-Compassion as a Resilience Mechanism and Adaptive Emotion Regulation Strategy. *Cognitive Therapy and Research*. doi:10.1007/s10608-016-9774-0

Westerhof, G. J., & Keyes, C. L. M. (2010). Mental illness and mental health: The two continua model across the lifespan. *Journal of Adult Development*, *17*(2), 110–119. doi:10.1007/s10804-009-

9082-y

WHO. (2004). *Promoting mental health: concepts, emerging evidence, practice (summary report)*. *Geneva: World Health Organization*. doi:10.1111/j.1466-7657.2004.00268.x

Yang, X. (2016). Self-compassion, relationship harmony, versus self-enhancement: Different ways of relating to well-being in Hong Kong Chinese. *Personality and Individual Differences*, *89*, 24–27. doi:10.1016/j.paid.2015.09.006

Yang, Y., Zhang, M., & Kou, Y. (2016). Self-compassion and life satisfaction: The mediating role of hope. *Personality and Individual Differences*, *98*, 91–95. doi:10.1016/j.paid.2016.03.086

Zessin, U., Dickhäuser, O., & Garbade, S. (2015). The Relationship Between Self-Compassion and Well-Being: A Meta-Analysis. *Applied Psychology: Health and Well-Being*, *7*(3), 340–364. doi:10.1111/aphw.12051

Zuroff, D. C., Igreja, I., & Mongrain, M. (1990). Dysfunctional Attitudes, Dependency, and Self-Criticism as predictors of depressive mood states: A 12-month longitudinal study. *Cognitive Therapy and Research*, *14*(3), 315–326. doi:10.1007/BF01183999