CHAPTER 7

The development and pilot testing of the Brief Self-Compassion Questionnaire (BSCQ)

Angélica López, Robbert Sanderman, Josué Almansa, Maya J. Schroeters
Abstract

Giving the shortage of measurement tools to explore self-compassion, this study aimed to develop and pilot test a self-report questionnaire to assess self-compassion as a positive unipolar construct, the Brief Self-Compassion Questionnaire (BSCQ). The factor structure, validity, and reliability of the BSCQ were tested in a large representative sample of community adults (N = 718). The BSCQ exhibited a single-factor structure established by exploratory and confirmatory factor analyses. The scale showed adequate criterion validity, as indicated by its strong correlation with an existing self-report measure of self-compassion. Its construct validity was confirmed with expected patterns of correlations with self-report measures of psychological wellbeing and related psychological constructs, and with higher scores in individuals with meditation experience compared to their counterparts. The scale also showed a good internal consistency. The BSCQ presents a novel and brief way to measure self-compassion, as a separate construct from related concepts as self-criticism and mindfulness, allowing a better understanding of the value of self-compassion for psychological wellbeing.
Introduction

There is a growing body of evidence that supports the benefits of self-compassion for psychological health. A recent meta-analysis found a large effect for the relationship between self-compassion and psychological symptoms, with lower levels of self-compassion being associated with higher levels of symptoms (MacBeth & Gumley, 2012). Self-compassion has also been positively related to positive affect (Neff, Rude, & Kirkpatrick, 2007). In addition, it has been evaluated as an outcome and/or mechanism of change in mindfulness-based interventions (Birnie, Specia, & Carlson, 2010; Keng, Smoski, Robins, Ekblad, & Brantley, 2012) and more recently, in self-compassion based interventions (Jazaieri et al., 2013; Neff & Germer, 2012). Despite this increased research interest in the concept of self-compassion, relatively little attention has been paid to its measurement.

Different conceptualizations of self-compassion have been proposed, with no agreement of a common definition. According to Neff (2003a) self-compassion entails three components: (1) self-kindness - treating oneself with tenderness and understanding when facing suffering rather than with harshness and self-judgment, (2) a sense of common humanity - seeing one’s failures as part of the human condition rather than feeling isolated, and (3) mindfulness - having a balanced awareness of the present experience instead of over-identifying with painful thoughts and emotions. Gilbert (2010) proposed an evolutionary approach of compassion, suggesting that (self)-compassion involves a range of feelings, thoughts and behaviors, that aimed to nurture, look after, and soothe. Compassion is conceptualized as being related to the contentment-soothing system, which is developed early in life through attachment relationships and has neuro-hormonal basis. The caring behavior of the attachment figures helps individuals to create emotional memories of safeness and affiliation that become available later in life in times of stress (Gilbert & Procter, 2006). Therefore, the contentment-soothing system can be activated by signals of holding, stroking, warm tone of voice, touching, among others. Others have defined self-compassion more broadly as the capacity to feel concern with the pain and suffering of oneself and the wish to relieve this pain (van den Brink & Koster, 2012). Finally, it has been proposed that it encompasses understanding, acceptance, and forgiveness for the self (McKay & Fanning, 2000).

To date, most studies have used the Self-Compassion Scale (SCS; Neff, 2003b) to measure self-compassion. This 26-item questionnaire was developed based on Neff’s (2003a) three component model of self-compassion. Each of these three components is measured by positively and negatively worded items. In the original
study, a six-factor structure was found, with the positive and negative worded items of each component forming separated factors. As a result, the SCS contains six subscales that can be summed to obtain a total score of self-compassion. Most researchers have used this total score as an indicator of levels of self-compassion.

The use of the SCS, nevertheless, presents a series of important limitations. First, evidence regarding its six-factor structure is inconsistent, with a number of studies showing that they could not replicate the hierarchical six-factor structure (Deniz, Kesici, & Süm, 2008; Petrocchi, Ottaviani, & Couyoumdjian, 2013; Williams, Dalgleish, Karl, & Kuyken, 2014). Second, given the use of positively and negatively worded items, a high score on the SCS may indicate high levels of self-compassion (e.g., ‘I am kind with myself’) but it may also indicate low levels of its opposite form, that is, being hard and critical to oneself (e.g., ‘I am judgmental towards myself’). Thus, the SCS measures self-compassion as a bipolar construct. Accordingly, some studies have found that the positive and negative items of the SCS formed two separate factors, concluding that one factor measures self-compassion (positive items) and the other measures its opposite form, referred to as self-criticism or self-coldness (negative items) (Costa, Marôco, Pinto-Gouveia, Ferreira, & Castilho 2015; López et al. 2015). Recent studies have shown that the SCS’s negative items are more strongly related to psychopathology/mental distress than the SCS’s positive items (Dundas et al., 2015; Muris & Petrocchi, 2016). Thus, when using the SCS total score the true nature and effects of self-compassion on psychological wellbeing cannot be clearly explored. Previous literature has shown that self-compassion is distinct from self-criticism and related to a different neurophysiological system (Longe et al., 2010). In line with this reasoning, Gilbert and colleagues (2011) have argued that these two processes involve two independent dimensions of affect and therefore should be measured independently. Together, this evidence suggests that self-compassion can be understood as a unipolar instead of a bipolar construct.

A third limitation of the SCS is that, following Neff’s definition, the SCS contains a mindfulness component. This content overlapping might obscure the understanding of the unique effects of self-compassion and mindfulness on wellbeing, and their role as mechanisms of change underlying psychological interventions. Others regard self-compassion and mindfulness as related but independent constructs (Birnie et al., 2010). Firstly, self-compassion focuses on the experience of suffering while mindfulness can be applied to any ongoing experience, pleasant, unpleasant, or neutral (Baer, Lykins, & Peters, 2012). Next, self-compassion is always directed towards the self, whereas mindfulness can be directed to the self and to experiences
in general (e.g., sounds, smells) (Boellinghaus, Jones, & Hutton, 2014). Finally, self-compassion emphasizes affective components like feelings of caring and concern, as compared to mindfulness that focuses on an open, non-judgmental, and accepting attitude (Birnie et al., 2010). These conceptual differences between self-compassion and mindfulness highlight the importance of distinguishing these two constructs.

The aim of this study was to develop and pilot test a self-report questionnaire to measure self-compassion, the Brief Self-Compassion Questionnaire (BSCQ). We aimed to develop a questionnaire that measures self-compassion as a positive and unipolar construct, distinct from self-criticism and mindfulness. For this purpose, we focused on a broad view of self-compassion as a healthy self-related response to suffering that involves compassionate behaviors and cognitions meant to reassure, encourage, and take care of oneself.

We explored the factor structure, validity, and reliability of the BSCQ on a large community sample of adults. The factor structure of the BSCQ was tested using exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). The association of the BSCQ with the SCS was examined as an indication of criterion validity. Although findings are inconsistent regarding the validity of the SCS total score, it is currently the most commonly used measure of self-compassion and therefore, we presented relationships between the BSCQ and both the SCS total score and two sub-dimensions of the SCS (i.e., sum scores of the positive and negative items, respectively). We expected a moderate to strong positive association between the BSCQ and the SCS total score giving that both questionnaires aim to assess self-compassion yet their conceptualizations differ. In addition, we compared the BSCQ scores of individuals with and without meditation experience to explore its discriminative validity. Given the evidence showing positive correlations between self-compassion and the practice of meditation (Baer et al., 2012), we expected significant higher scores in the BSCQ for individuals with meditation experience. To further test the construct validity of the BSCQ, we explored its associations with measures of psychological wellbeing (i.e., depressive symptoms, negative affect, and positive affect) and related psychological constructs (i.e., mindfulness, neuroticism, and rumination). We expected weak to moderate negative correlations between the BSCQ and both depressive symptoms and negative affect (Mills, Gilbert, Bellew, McEwan, & Gale, 2007; Muris & Petrocchi, 2016). In addition, we expected a moderate positive association between the BSCQ and positive affect (Neff et al., 2007; Neff & Vonk, 2009). We also predicted a strong positive correlation between
the BSCQ and mindfulness (Baer et al., 2012; Hollis-Walker & Colosimo, 2011) and a moderate negative relationship with neuroticism and rumination.

Method

Item development and procedure

The first phase of construction of the questionnaire included the study of literature on conceptualizations of self-compassion (Germer, 2009; Gilbert, 2010; McKay & Fanning, 2000; Neff, 2003a; Van den Brink & Koster, 2012), the opinion of clinical experts in the field of self-compassion, and discussions within the project group. Following recommendations of Terwee and colleagues (2007), all items were written in simple language (i.e., short and concrete items), difficult words or jargon were avoided, and only one question was asked per item. Moreover, all items were formulated in the same direction in order to assess self-compassion as a positive unipolar construct. A five-point Likert scale was used, with each number having a label to ensure that responders interpret similarly the rating values. The questionnaire instructions asked participants to rate, from 1 (not at all) to 5 (completely), the extent to which each statement applied to them, when they experience negative feelings.

A list of 12 items was generated and pilot-tested with a sample of students (N = 15), using a think aloud procedure. This procedure allows to have an idea of the cognitive process of the participants while responding to the questionnaire, effectively outlining semantic or syntactic problems of the items or instructions. Students of different university programs were approached to voluntarily participate. Those who agreed to participate were instructed to fill in the self-report questionnaire and to say at loud everything that came into their minds during the process. The verbalizations of the students were recorded and analysed. Additionally, a team formed by two doctoral students and a methodologist, was asked to evaluate the clarity of the items and instructions. The authors examined and discussed the previous information to derive a final list of 7 items that constituted the BSCQ.

In order to include the target population in the validation of the questionnaire (Terwee et al., 2007), the psychometric properties of the BSCQ were tested in a large sample from the general population. Data was collected as part of a follow-up assessment of a larger study on self-compassion, mindfulness, and quality of life. The study was conducted among a community-based sample selected from the register offices of five middle size cities in The Netherlands. Participants were sent a letter
with information of the follow-up assessment, the self-report questionnaire package, and a return envelope. Participants that failed to complete 15% or more of the questionnaire package were excluded. A total of 734 adults constituted the follow-up sample. For the present study, cases with missing values on any of the BSCQ’s items were excluded. Analyses were then performed with a sample of 718 adults. Among the 718 individuals, gender was similarly distributed (55.2% female), with a mean age of 56.6 years old (SD = 15.1), ranging from 21 to 89 years old. Most of the participants were middle educated (50%), followed by high (35%) and low educated (15%). The majority of the sample was married or with a partner (78.3%), 8.3% was single, 7.6% was widowed, 3.2% was divorced, and other (2.6%). The version of the BSCQ that we pilot tested was formulated in Dutch (the mother language of the participants). An officially translated English version of the BSCQ is provided, yet has not been validated (Appendix 1).

Measures

Positive and negative affect

The 20-item Positive and Negative Affect Schedule (PANAS; Watson, Clark & Tellegen, 1988; Peeters et al, 1999) was used to measure positive and negative affect. This self-report questionnaire is divided into two 10-item scales that measure feelings of activeness, enthusiasm, and alertness (i.e., positive affect), and subjective distress and unpleasant engagement (i.e., negative affect). Participants rated the extent to which they experienced each particular emotion during the last week using a five-point likert scale (1 indicating very slightly or not at all and 5 indicating very much). Total scores can range from 10 to 50 and are calculated for each scale by summing the 10 items. Higher scores indicate greater levels of positive and negative affect. In this study, both the positive affect and negative affect scales of the PANAS showed good internal consistency (α = .88).

Depressive symptoms

Depressive symptoms were measured with the 20-item Center of Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977; Bouma, Ranchor, Sanderman, & Van Sonderen, 1995). This instrument is designed to measure current levels of depressive symptomatology in the general population. Participants specified the frequency by which each symptom was experienced during the last week using a four-point likert scale (0 indicating rarely or none of the time and 3 indicating most of the time). A total score can be calculated based on all 20 items after reversing the positively formulated items. Total scores may range from 0 to 60, with higher scores indicating
more depressive symptomatology. In this study, the scale showed a good internal consistency (α = .91).

**Self-compassion**

The 24-item Self-Compassion Scale (SCS; Neff, 2003b; Neff & Vonk, 2009) was used to measure self-compassion in order to test the criterion validity of the BSCQ. The items can be rated on a five-point likert scale with 1 indicating *almost never* and 5 indicating *almost always*. A total score can be calculated by summing all items and after reversing the negatively worded items. Total scores can range from 24 to 120, with higher scores indicating greater levels of self-compassion. Following suggestions of Gilbert et al (2010), in the present study the sum score of the SCS’s positive items was used as a measure of self-compassion (referred in this study as SCS positive) and the sum score of the SCS’s negative items was used as an indicator of self-criticism (referred in this study as SCS negative). The internal consistency was good for the SCS total score (α = .88), as well as for the SCS positive (α = .86) and for the SCS negative (α = .90).

**Mindfulness**

Mindfulness was assessed with the Five-Facets of Mindfulness Questionnaire (FFMQ; Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006; de Bruin, Topper, Muskens, Bögels, & Kamphuis, 2012). This 39-item scale is composed by five subscales designed to measure five fundamental skills of mindfulness, namely, observing, describing, non-judging of experience, acting with awareness, and non-reactivity to inner experience. Participants rated in a five-point likert scale the degree to which every statements is true for them ranging from 1 (*never or very rarely true*) to 5 (*very often or always true*). A total score can be calculated after reversing the negatively worded items and summing all the items, with total scores ranging from 39 to 195. Higher scores indicate greater levels of mindfulness. In the present study, the internal consistency of the FFMQ was good (α = .87).

**Rumination**

Rumination was measured with the 12-item rumination subscale of the Rumination-Reflection Questionnaire (RRQ; Trapnell & Campbell, 1999; Luyckx et al., 2008). Using a five-point likert scale (1 indicating *strongly disagree* and 5 indicating *strongly agree*), participants rated the extent to which they involve in ruminative thinking. A total score can be calculated after reversing the positively worded items and
summing the 12 items, with total score ranging from 12 to 60. Higher scores indicate greater levels of rumination. This scale had a good internal consistency in the present study (α = .90).

**Neuroticism**
The 12-item neuroticism scale of the NEO Five-Factor Inventory (NEO-FFI; Costa & McCrae, 1992; Hoekstra, De Fruyt, & Ormel, 2003) was used to measure neuroticism. Participants specified the extent to which they agreed with the 12 items using a five-point likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). A total score can be calculated based on the 12 items after reversing the positively worded items. Total scores can range from 12 to 60 with higher scores indicating higher neuroticism. In this study, the scale showed a good internal consistency (α = .88).

**Meditation experience**
Participants were asked to indicate, using a ‘yes’ or ‘no’ response category, whether they had meditation experience.

**Data analyses**
The total sample was split using random sampling into sample 1 (N = 361) for the EFA and sample 2 (N = 357) for the CFA. For the EFA, the number of relevant factors was determined based on the scree plot, analyses were performed in SPSS 20.0. The factor structure found with EFA was tested with CFA in MPlus 7.1. The goodness of fit of the models was evaluated using the chi-squared to degree of freedom ratio ($\chi^2/df$), the comparative fit index (CFI), the tucker-lewis index (TLI), the root mean square error of approximation (RMSEA), and the weighted root mean residual (WRMR). The $\chi^2/df$ values close to or less than 2 and less than 5 were interpreted as indicative of good and acceptable fit of the model, respectively (Watkins, 1989). CFI and TLI values ≥ .90 and ≥.95, respectively, were considered to show acceptable and good model fit. RMSEA values ≤.06 were considered as an indication of good model fit, and in the range of .06 to .08 were considered to indicate an acceptable fit (Hu & Bentler, 1999). WRMR values ≤1.0 were considered to indicate a good fit (Yu, 2002). The total sample (N = 718) was used to test the reliability, construct, and criterion validity of the BSCQ; analyses were carried out in SPSS 20.0. The internal consistency was analysed with Cronbach’s alpha, with values of .80 or higher considered as good (Nunnally, 1978). The construct and criterion validity of the BSCQ were tested by examining its correlations with measures of psychological wellbeing, related
psychological constructs and another measure of self-compassion (SCS; Neff, 2003b). Correlations coefficients below 0.3 were interpreted as weak, from 0.3 to 0.5 as moderate, and above 0.5 as strong (Cohen, 1988). Finally, t-test was used to test for differences in the BSCQ between participants with and without meditation experience.

Results

Exploratory and confirmatory factor analyses
An EFA with maximum likelihood method was conducted in sample 1. The scree plot suggested the presence of one factor, explaining 55.7% of the variance (eigenvalue of 3.9). All items loaded >.50 and correlated strongly with the total scale score (> .66) (Table 1). These results suggested the presence of one latent factor of self-compassion. Thus, a single-factor model for the BSCQ was tested using CFA in sample 2. The fit indices indicated a non-sufficient fit of the data: $\chi^2/df = 9.91$ (138.72/14), CFI = 0.96, TLI = 0.94, RMSEA = 0.16, WRMR = 1.21. The modification indices (MI) showed a correlation between residuals of the item pairs 1-2 and 3-4 that could not be explained by the latent factor. A plausible solution was to specify in the model a correlation between items pairs 1-2 and 3-4 (7-item MI model). A second solution was to remove one item of each item pair (5-item model); content wise, we decided to test a model that included items 1 and 3, thus removing items 2 and 4. Next, we tested these two models using CFA. The 5-item model showed a good data fit: $\chi^2/df = 2.93$ (14.68/5), CFI = 0.99, TLI = 0.99, RMSEA = 0.07, WRMR = 0.44. The 7-item MI model didn’t show an acceptable fit among all indices: $\chi^2/df = 3.82$ (45.79/12), CFI = 0.99, TLI = 0.98, RMSEA = 0.09, WRMR = 0.63. Considering these results we chose for the 5-item model. The following analyses focus on these 5 items and were conducted in the total sample (N = 718).

Reliability: internal consistency
The 5-item BSCQ exhibited a good internal consistency ($\alpha = .83$). The internal consistency did not improved when specific items were removed. Inter-item correlations were moderate to strong, ranging from .38 to .63 (Table 2).
Criterion validity
The 5-item BSCQ was strongly positively related with the SCS total score, as well as with the SCS positive. The 5-item BSCQ had a moderate, negative correlation with the SCS negative (Table 3).

Construct validity
Correlations with related constructs
The 5-item BSCQ had a moderate negative correlation with depressive symptoms and a weak negative correlation with negative affect. The BSCQ was moderately positively related to positive affect (Table 3). The 5-item BSCQ had a strong positive correlation with mindfulness, a moderate negative correlation with neuroticism, and a marginally moderate negative association with rumination (Table 3).

Discriminative validity: meditation experience
The participants who reported to have meditation experience (N = 160), were compared with the rest of the sample (N = 558). T-test showed that the participants with meditation experience had significant higher scores in the 5-item BSCQ (t(714) = -3.35, \( p < .001 \)), with M = 16.00 (SD = 3.80) for individuals with meditation experience and M = 14.85 (SD = 3.82) for those without meditation experience.

Table 1
Means, standard deviations, factor loadings and item-total correlations for the BSCQ’s items (sample 1, N = 361)

<table>
<thead>
<tr>
<th>Items</th>
<th>M</th>
<th>SD</th>
<th>Factor loading</th>
<th>Item-total correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I take the time to reflect on my feelings</td>
<td>2.88</td>
<td>1.02</td>
<td>.52</td>
<td>.66***</td>
</tr>
<tr>
<td>2. I pay attention to my needs</td>
<td>3.18</td>
<td>1.00</td>
<td>.54</td>
<td>.68***</td>
</tr>
<tr>
<td>3. I am understanding towards myself</td>
<td>3.09</td>
<td>1.01</td>
<td>.77</td>
<td>.79***</td>
</tr>
<tr>
<td>4. I am forgiving towards myself</td>
<td>2.94</td>
<td>1.03</td>
<td>.79</td>
<td>.78***</td>
</tr>
<tr>
<td>5. I am kind to myself</td>
<td>3.01</td>
<td>1.00</td>
<td>.79</td>
<td>.79***</td>
</tr>
<tr>
<td>6. I have thoughts that encourage me</td>
<td>3.17</td>
<td>0.94</td>
<td>.69</td>
<td>.75***</td>
</tr>
<tr>
<td>7. I take good care of myself</td>
<td>3.25</td>
<td>0.99</td>
<td>.72</td>
<td>.76***</td>
</tr>
</tbody>
</table>

\( ** p < .001 \)
Table 2

**BSCQ inter-item correlations (total sample, N = 718)**

<table>
<thead>
<tr>
<th>Items</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I take the time to reflect on my feelings</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I am understanding towards myself</td>
<td>.39***</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I am kind to myself</td>
<td>.38***</td>
<td>.58***</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>4. I have thoughts that encourage me</td>
<td>.42***</td>
<td>.48***</td>
<td>.58***</td>
<td>-</td>
</tr>
<tr>
<td>5. I take good care of myself</td>
<td>.39***</td>
<td>.52***</td>
<td>.63***</td>
<td>.52***</td>
</tr>
</tbody>
</table>

*** p < .001

Table 3

**Correlations between the BSCQ and related constructs (total sample, N = 718)**

<table>
<thead>
<tr>
<th>Psychological wellbeing</th>
<th>BSCQ</th>
<th>SCS positive</th>
<th>SCS negative</th>
<th>SCS total score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depressive symptoms (CES-D)</td>
<td>-.36***</td>
<td>-.31***</td>
<td>.51***</td>
<td>-.54***</td>
</tr>
<tr>
<td>Negative affect (PANAS-NA)</td>
<td>-.24***</td>
<td>-.19***</td>
<td>.52***</td>
<td>-.48***</td>
</tr>
<tr>
<td>Positive affect (PANAS-PA)</td>
<td>.33***</td>
<td>.34***</td>
<td>-.17***</td>
<td>.32***</td>
</tr>
<tr>
<td><strong>Related constructs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-compassion (SCS positive)</td>
<td>.61***</td>
<td>.51***</td>
<td>.14***</td>
<td></td>
</tr>
<tr>
<td>Self-criticism (SCS negative)</td>
<td>-.35***</td>
<td>-.37***</td>
<td>-.50***</td>
<td>-.65***</td>
</tr>
<tr>
<td>SCS total score</td>
<td>.60***</td>
<td>.51***</td>
<td>-.50***</td>
<td>.65***</td>
</tr>
<tr>
<td>Rumination (RRQ-Rumin)</td>
<td>-.28***</td>
<td>-.24***</td>
<td>.64***</td>
<td>-.58***</td>
</tr>
<tr>
<td>Neuroticism (NEO-FFI-Neuro)</td>
<td>-.36***</td>
<td>-.37***</td>
<td>.69***</td>
<td>-.70***</td>
</tr>
<tr>
<td>Mindfulness (FFMQ)</td>
<td>.50***</td>
<td>.51***</td>
<td>-.50***</td>
<td>.65***</td>
</tr>
<tr>
<td>Observe</td>
<td>.28***</td>
<td>.36***</td>
<td>.10***</td>
<td>.14***</td>
</tr>
<tr>
<td>Describe</td>
<td>.37***</td>
<td>.36***</td>
<td>-.25***</td>
<td>.39***</td>
</tr>
<tr>
<td>Act awareness</td>
<td>.33***</td>
<td>.26***</td>
<td>-.58***</td>
<td>.56***</td>
</tr>
<tr>
<td>Non-judgment</td>
<td>.20***</td>
<td>.11***</td>
<td>-.56***</td>
<td>.46***</td>
</tr>
<tr>
<td>Non-reactivity</td>
<td>.38***</td>
<td>.53***</td>
<td>-.20***</td>
<td>.45***</td>
</tr>
</tbody>
</table>

We also provided the correlations of the SCS with all study variables to allow direct comparisons.

BSCQ = Brief Self-Compassion Questionnaire; SCS positive = Self-compassion Scale - positive items;
SCS negative = Self-compassion Scale - negative items; SCS total score = Self-Compassion Scale; CES-D = Center of Epidemiologic Studies Depression Scale; PANAS-NA = Positive and Negative Affect Schedule - Negative Affect scale; PANAS-PA = Positive and Negative Affect Schedule - Positive Affect scale; NEO-FFI-Neuro = NEO Five-Factors Inventory - Neuroticism subscale; RRQ-Rumin = Rumination Reflection Questionnaire - Rumination subscale.

*** p < .001
Discussion

This study presents the development and pilot testing of a short self-report questionnaire to measure self-compassion, the Brief Self-Compassion Questionnaire (BSCQ), in a large sample from the general population. The BSCQ measures self-compassion as a positive unipolar construct, distinctly from related constructs such as mindfulness and self-criticism. The BSCQ exhibited a single-factor structure and demonstrated preliminary evidence of a good internal consistency as well as good criterion and construct validity.

The single-factor structure of the BSCQ is consistent with the conceptualization of self-compassion used in this study, with no sub-dimensions being theorized or expected. A strong and positive association of the BSCQ with the SCS total score and the SCS positive lends support for its adequate criterion validity. The association of the BSCQ with the SCS positive was strong but not very high, most likely explained by the inclusion of common humanity and mindfulness items, besides the self-kindness items, in the SCS. Only a moderate negative association was found between the BSCQ and the SCS negative, possibly due to the fact that the SCS negative assesses a self-critic attitude, as compared to the SCS positive that evaluates a kind attitude towards oneself, more in line with the BSCQ’s item content. It should be noted that the definitions underlying the BSCQ and the SCS are different, and thus the SCS might not be the best indicator for testing criterion validity. Yet, it is important to explore how the BSCQ relates to the SCS as it is currently the most widely used questionnaire to assess self-compassion and the vast majority of past and present research employs it.

The construct validity of the BSCQ was tested by comparing groups with and without meditation experience, and by examining its correlations with relevant psychological constructs. According to our hypothesis, individuals with meditation experience scored significantly higher in the BSCQ than individuals without meditation experience. In line, results from randomized-control trials have revealed increases in self-reported self-compassion after meditation-based interventions (Robins, Keng, Ekblad, & Brantley, 2012). Additionally and as expected, the BSCQ exhibited weak to moderate negative associations with self-reported levels of depressive symptoms and negative affect, and a moderate positive association with positive affect. These results are in line with previous literature showing a significant relationship between self-compassion and psychological wellbeing (MacBeth & Gumley, 2010; Neff, 2003b). It is worth to notice that the strength of the association of the BSCQ with depressive symptoms and positive affect was similar, suggesting
that self-compassion might be comparably important for negative and positive states of psychological wellbeing. Previous research has found moderate to strong correlations between psychological symptoms and self-compassion, as measured by the SCS total score (Neff, Pisitsungkagarn, & Hsieh, 2008; Neff, 2003b; Neff, Kirkpatrick, & Rude 2007). Yet, evidence shows that the negative items of the SCS correlate strongly with these symptoms while the positive items show weak correlations (Mills et al., 2007; Muris & Petrocchi, 2016). The strong associations between the negative items of the SCS and negative affectivity, suggest that self-criticism is differentially related to psychological wellbeing than self-compassion.

The association of the BSCQ with neuroticism and rumination was also examined. As expected, the BSCQ was moderately related to neuroticism. The BSCQ showed a marginally moderate association to rumination. Contrary to our findings, past research has shown strong correlations between self-compassion, as measured by the SCS total score, with both neuroticism and rumination (Johnson & O’Brien, 2013; Neff, 2003b; Neff et al., 2007; Neff & Vonk, 2009; Raes, 2010). We believe that the reported strong associations are due to the fact that some of the SCS’s negative items measure self-criticism, a construct that has been strongly related to neuroticism and rumination (Bagby & Rector, 1998; Spasojević & Alloy, 2001), and that when self-compassion is conceptualized and measured as a positive construct, its associations with neuroticism and rumination are less strong.

Our findings showed a strong positive association of the BSCQ with mindfulness, also in line with previous literature (Baer et al., 2012; Hollis-Walker & Colosimo, 2011). This relationship was strong but not too high suggesting that these are related but independent constructs. During the development of the BSCQ, we paid special attention in preventing the use of items that tap into the construct of mindfulness. Interestingly, the BSCQ was equally strongly related to mindfulness as the SCS (Baer et al., 2012; Hollis-Walker & Colosimo, 2011) which do include items that measure mindfulness. Accordingly, as the BSCQ does not contain mindfulness items, our results provide evidence for the assumption that self-compassion and mindfulness are complementary, related constructs (Birnie et al., 2010; Maex, 2011).

The BSCQ measures self-compassion as a unipolar and positive construct, filling an important gap in the research literature of self-compassion. The strengths of the BSCQ include its briefness, the exclusive use of positively formulated items and the operationalized measurement of self-compassion as a construct distinct from self-criticism and mindfulness. The major limitation of this study is the lack of measures to test the discriminant validity of the BSCQ. In addition, the test-retest reliability of
The development and pilot testing of the BSCQ

the BSCQ still needs to be confirmed. This can be further studied to gain more insight on the validity and reliability of the BSCQ. For future research it would also be valuable to examine the sensitivity to change of the BSCQ and its performance detecting treatment effects when used as an outcome measure of self-compassion or mindfulness-based interventions.

The BSCQ is a novel self-report questionnaire to measure self-compassion. Its briefness, concreteness, and easy language allow its use in different populations. The development of the BSCQ intends to stimulate research on self-compassion as a positive and unipolar construct, at the time that facilitates the interpretation of levels and associations of self-compassion by measuring it distinctly from self-criticism and mindfulness.
Appendix 1

Brief Self-Compassion Questionnaire (BSCQ)
Description: The Brief Self-Compassion Questionnaire (BSCQ) is a 5-item self-report questionnaire designed to measure self-compassion as a positive unipolar construct. The questionnaire contains five positively formulated items that can be rated in a likert scale from 1 (not at all) to 5 (completely).

Scoring information: To obtain a total score sum up the 5 items. Higher scores reflect higher levels of self-compassion.

English version
Instructions: Please rate each of the following statements and circle the number that best describes how much each statement is true for you when you experience negative feelings.

<table>
<thead>
<tr>
<th>When I am experiencing negative feelings...</th>
<th>Not at all</th>
<th>A little bit</th>
<th>Moderately</th>
<th>Quite a lot</th>
<th>Completely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I take the time to reflect on my feelings</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. I am understanding towards myself</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. I am kind to myself</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. I have thoughts that encourage me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. I take good care of myself</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
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English version

Instructions: Please rate each of the following statements and circle the number that best describes how much each statement is true for you when you experience negative feelings.

When I am experiencing negative feelings…

1. I take the time to reflect on my feelings
2. I am understanding towards myself
3. I am kind to myself
4. I have thoughts that encourage me
5. I take good care of myself