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To cite this article: Anna M. Ehret, Jutta Joormann & Matthias Berking (2015) Examining risk and resilience factors for depression: The role of self-criticism and self-compassion, Cognition and Emotion, 29:8, 1496-1504, DOI: 10.1080/02699931.2014.992394

To link to this article: http://dx.doi.org/10.1080/02699931.2014.992394
Examining risk and resilience factors for depression:  
The role of self-criticism and self-compassion

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(Received 2 June 2014; accepted 21 November 2014)

Whereas self-criticism has been proposed as an important risk factor for major depressive disorder (MDD), self-compassion has been suggested as a resilience factor that protects against the development and maintenance of depressive episodes. This study aimed to test the hypothesis that frequent self-criticism and low habitual self-compassion are related to concurrent depression and to vulnerability to depression by comparing groups of currently, remitted and never depressed individuals. As expected, both currently and remitted depressed individuals reported higher levels of self-criticism and lower self-compassion than never depressed controls. Individual differences in self-criticism and self-compassion were related to depression status above and beyond additional potential correlates of MDD (i.e., perfectionistic beliefs and cognitions, rumination and overall adaptive emotion regulation). The findings provide support for the idea that increased self-criticism and decreased self-compassion place certain individuals at increased risk for experiencing depression repeatedly or chronically over the course of their lives.

Keywords: Depression; Vulnerability; Self-criticism; Self-compassion.

High rates of chronicity and recurrence of depression (e.g., Boland & Keller, 2002) almost certainly reflect the presence of enduring vulnerability factors, which place certain individuals at increased risk for experiencing depression chronically or repeatedly over the course of their lives. A number of authors have emphasised the importance of maladaptive responses to negative emotions for the development and maintenance of depressive episodes. The current study focuses on the role of self-criticism versus self-compassion as alternative responses to perceived failure and associated negative emotions for vulnerability to depression in remitted depressed individuals.

Self-criticism can be defined as a response style to perceived failure that is characterised by negative self-judgement and self-evaluation (e.g., Gilbert, Clarke, Hempel, Miles, & Irons, 2004).
Self-criticism is associated with negative emotions, especially contempt and disgust for the self (Gilbert et al., 2004). Research suggests that it is the strength of negative emotions towards oneself and an inability to adequately cope with these emotions that put highly self-critical individuals at risk for the development and maintenance of depressive episodes (Gilbert et al., 2004). In previous research, self-criticism has, respectively, been linked to higher depressive symptoms in healthy and some clinical samples (Blatt, 2004). Furthermore, self-criticism has been linked to vulnerability for the experience of depressive symptoms (Brewin & Firth-Cozens, 1997) and for relapse in depression (Zuroff, Santor, & Mongrain, 2005). One previous study (Mongrain & Leather, 2006) linked a past history of depression to higher habitual self-criticism. In another study (Ehring, Fischer, Schnülle, Bösterling, & Tuschen-Caffier, 2008), a recovered depressed student sample compared to a never depressed control group did not show significantly higher ratings for self-blame.

As opposed to self-criticism, self-compassion is thought to be a more adaptive, alternative response to perceived failure (Gilbert et al., 2004). Self-compassion entails being kind, understanding, and supportive towards oneself in instances of pain or failure rather than being harshly self-critical (e.g., Berking & Whitley, 2014). Self-compassion is regarded as an adaptive emotion regulation (ER) strategy that helps create distance from the own suffering and transforms negative affects towards oneself into more positive self-referential affects (e.g., Berking & Whitley, 2014). Considering the importance of adaptive ER for mental health (e.g., Berking & Whitley, 2014), self-compassion should serve as a resilience factor that protects against the development and maintenance of depressive episodes. In healthy, often student, samples, previous cross-sectional and longitudinal studies have provided preliminary support for negative associations between the frequency of self-compassion and depressive symptoms (e.g., Gilbert et al., 2004). Research on associations between self-compassion and depression in clinically diagnosed major depressive disorder (MDD) samples is sparse (Krieger, Altenstein, Baettig, Doerig, & Holtforth, 2013). No study has examined self-compassion in remitted depressed individuals. Thus, more research is needed to clarify the importance of decreased use of self-compassion for concurrent, clinically diagnosed depression as well as for vulnerability to depression.

To further establish increased self-criticism and decreased self-compassion as relevant and stable risk factors for MDD, it also seems important to examine whether associations between these constructs and current or former depression would hold over and above the influence of individual differences in depressive symptoms and additional potential correlates of MDD as perfectionistic beliefs and cognitions, rumination and overall adaptive ER. Perfectionism, including perfectionistic beliefs and frequent perfectionistic cognitions about standards and failures to meet these standards, has frequently been discussed as a trait marker for various forms of psychopathology, including MDD (Shafran, Cooper, & Fairburn, 2002). Perfectionism has been linked closely to increased habitual self-criticism (e.g., Shafran et al., 2002). Rumination is the most frequently studied, maladaptive response to negative emotions. In an extensive research programme, Nolen-Hoeksema and colleagues investigated rumination in depression and dysphoria and analysed how this response style exacerbates sad mood and contributes to the onset, recurrence and maintenance of depressive episodes (e.g., Nolen-Hoeksema, 2000). Positive associations have been reported among ruminative responses to distress, frequent perfectionistic thoughts and increased self-criticism (e.g., Flett, Hewitt, Blankstein, & Gray, 1998; Shafran et al., 2002). Overall adaptive ER is defined as the situation-dependent interplay among the following components: emotional awareness, clarity, understanding, modification, acceptance and tolerance as well as the abilities to identify emotions, to confront distressing situations and to support oneself in distressing situations (Berking & Whitley, 2014). As adaptive responses to negative emotions, the single components as well as an overall score of adaptive ER have concurrently and prospectively been linked to lower depressive symptom severity in numerous studies (Berking
Little is known about the role of increased perfectionism and deficits in adaptive ER for vulnerability to depression in recovered depressed individuals.

The present study was designed to compare levels of self-reported, habitual self-criticism, self-compassion and additional potential correlates of MDD (i.e., perfectionistic beliefs and cognitions, rumination and overall adaptive ER) among groups of currently, remitted and never depressed individuals. We expected both concurrent depression and vulnerability to depression to be related to increased self-criticism and decreased self-compassion. Self-criticism and self-compassion should be related to the status of concurrent or former depression above and beyond individual differences in depressive symptoms and potential correlates of MDD. Exploratory analyses served to examine group differences in perfectionistic beliefs and cognitions, rumination and overall adaptive ER.

METHOD

Participants and procedures

A sample of 101 MDD patients completed several self-report questionnaires on depressive symptoms, self-criticism, self-compassion and additional potential correlates of MDD (i.e., perfectionistic beliefs and cognitions, rumination, and overall adaptive ER) after enrollment in a treatment outcome study for depression in two outpatient treatment centres in Germany. For our main analyses, we randomly selected 30 individuals of the total MDD sample and recruited groups of remitted depressed and never depressed control participants \( n = 30 \) each. Remitted and never depressed participants were matched to the selected MDD participants with regard to age, sex and level of education; they were solicited in one of the two outpatient treatment centres in Germany as well as through advertisements posted in numerous locations within the local communities and in local newspapers. Participants were assigned to the groups on the basis of a Structured Clinical Interview for DSM-IV (SCID; German version: Wittchen, Zaudig, & Fydrich, 1997). The diagnostic interviews were administered by trained raters with bachelor’s degrees or above in clinical psychology.

Individuals in the MDD group were diagnosed with MDD as the primary diagnosis. Participants in the remitted depressed group had experienced at least one major depressive episode in the past and had been remitted for at least two months prior to inclusion in this study. Never depressed controls did not meet criteria for any mental disorder and had no history of MDD at the time of the study. Further inclusion criteria for all groups included age 18 or above and sufficient German language skills. Exclusion criteria included acute risk for suicide or comorbid psychotic, substance-related, bipolar disorders, organic brain or other severe medical disorders and severe cognitive impairments.

Individuals who were interested and eligible for participation in the study received further information on the study and a battery of self-report questionnaires by mail. They returned the questionnaires to the investigators of the study at a follow-up appointment for an experimental investigation of ER skills in one of the two outpatient treatment centres. All participants received €20 in return for their participation in this study and the experimental investigation. Written informed consent was obtained from all participants, and all procedures were approved by the ethics committees of the Universities of Mainz and Marburg.

Measures

Participants completed self-report questionnaires that were provided in German. Validated translations were applied whenever available. For the other scales [i.e., the Forms of Self-Criticizing/Attacking and Self-Reassuring Scale (FSCRS), Gilbert et al., 2004; the Perfectionism Cognitions Inventory (PCI), Flett et al., 1998 and the Rumination on Sadness Scale (RSS), Conway, Csank, Holm, & Blake, 2000], we used a team of native English and German speakers to translate and back translate the English questionnaires.
Patient Health Questionnaire

The German version of the brief Patient Health Questionnaire (PHQ; Löwe, Spitzer, Zipfel, & Herzog, 2002) was used to assess participants’ current symptom levels of depression. Participants indicate on a 4-point Likert scale (0 = not at all to 3 = nearly every day) how frequently they have experienced each of the nine DSM-IV symptoms for MDD (e.g., “little pleasure or interest in doing things”) during the past two weeks. The German version of the PHQ has been found to have good convergent and discriminant validity and excellent internal consistency (Löwe et al., 2002).

Forms of Self-Criticizing/Attacking and Self-Reassuring Scale

The FSCRS (Gilbert et al., 2004) is a measure of people’s responses to setbacks or disappointments. Participants respond on a 5-point Likert scale (0 = not at all like me to 4 = extremely like me) on a series of questions on self-criticism (e.g., “when things go wrong for me, I call myself names” [hated self]; “when things go wrong for me, there is a part of me that puts me down” [inadequate self]) and self-compassion (e.g., “when things go wrong for me, I find it easy to forgive myself”). In the original validation study (Gilbert et al., 2004), sound psychometric properties have been reported for the FSCRS. The two subscales of self-criticism (i.e., hated self and inadequate self) have been found to be highly correlated in the original validation study (r = .68; Gilbert et al., 2004) and in our study (r = .75). All analyses led to the same results for both subscales within this study. Therefore, we combined the two subscales into one scale.

Dysfunctional Attitude Scale—Perfectionism

The Dysfunctional Attitude Scale—Perfectionism (DAS—Perfectionism; German: Hautzinger, Luka, & Trautmann, 1985) was used to assess participants’ levels of maladaptive perfectionistic beliefs. On a 7-point Likert scale (0 = totally disagree to 7 = totally agree), respondents indicate their agreement with 15 statements, such as “if I fail at my work, then I am a failure as a person”. Several factor analytic studies have supported the DAS as a measure of perfectionism (e.g., De Graaf, Roelofs, & Huibers, 2009). The German translation of the scale has been found to demonstrate adequate psychometric properties (Hautzinger et al., 1985).

Perfectionism Cognitions Inventory

The PCI (Flett et al., 1998) was used as measure of perfectionistic thoughts. On a 5-point Likert scale (0 = not at all to 4 = almost always), participants rate how frequently 25 thoughts, such as “things are seldom ideal”, have occurred to them over the last week. Validation analyses have indicated adequate internal consistency and concurrent validity for the PCI (Flett et al., 1998).

Rumination on Sadness Scale

The RSS (Conway et al., 2000) is a self-report measure of ruminative responses to the experience of sadness. The measure is composed of 13 items (e.g., “I repeatedly analyze and keep thinking about the reasons for my sadness”). The items are answered on a 5-point Likert scale (1 = not at all to 5 = very much). Good psychometric qualities have previously been reported for the RSS (Conway et al., 2000).

Emotion Regulation Skills Questionnaire

The Emotion Regulation Skills Questionnaire (ERSQ; Berking & Znoj, 2008) was used as a measure of overall adaptive ER, including emotional awareness, clarity, understanding, modification, acceptance and tolerance as well as the abilities to identify emotions, to confront distressing situations and to support oneself in distressing situations. On a 5-point Likert scale (0 = not at all to 4 = almost always), participants indicate the extent to which items referring to these nine components of adaptive ER have applied to them within the past week. The scale was originally developed in German. Results from validation studies indicate good psychometric properties (Berking & Znoj, 2008).
RESULTS

Participant characteristics

Demographic participant characteristics are presented in Table 1. As expected, the matched groups of currently, remitted and never depressed participants did not differ significantly in age \[F(2, 87) = .20; \ p = .82\]. Remitted and currently depressed participants did significantly differ in the mean number of previous episodes reported \[t(54) = 2.47; \ p = .02\]. The last depressive episode in remitted depressed participants had occurred on average 32.87 months before the assessment \[standard \ deviation (SD) = 37.10 \text{ months}; \text{range: } 2–132 \text{ months}\]. The MDD group had significantly higher PHQ-depression scores than did both the remitted depressed \[d = 1.72\] and never depressed \[d = 2.68\] participants \[both \ p s < .01\] who did not significantly differ from each other \[t(58) = .23; \ p = .06\]; see Table 1. All participants were Caucasian.

Preliminary analyses on the total MDD sample \[N = 101\] supported significant associations between levels of depression and self-criticism \[r = .44; \ p < .01\], self-compassion \[r = −.36; \ p < .01\], perfectionistic beliefs \[r = .34; \ p < .01\] and cognitions \[r = .23; \ p = .04\], rumination \[r = −.44; \ p < .01\] and overall adaptive ER \[r = −.40; \ p < .01\].

Test for group differences

Descriptive characteristics (i.e., means, SDs and internal consistency scores) and results of group comparisons are presented in Table 2. The mean scores indicate a decrease in self-reported habitual self-criticism and an increase in self-compassion from currently to remitted and never depressed individuals. A similar pattern also emerged for indicators of perfectionism, rumination and overall adaptive ER (see Table 2).

To explore differences in the main constructs among participants, we conducted a multivariate analysis of variance (MANOVA) with group (currently depressed, remitted depressed and never depressed) as the independent variable and levels of self-criticism, self-compassion, and the additional potential correlates of MDD (i.e., perfectionistic beliefs and cognitions, rumination and overall adaptive ER) as the dependent variables. Group differences that remained significant after Bonferroni correction were followed up by \(t\) tests using the least significant difference procedure. Effect sizes of the overall group differences are reported by partial eta squared \(\eta_p^2\), whereby values up to .01 refer to small, .06 to moderate and .14 to large effect sizes (Cohen, 1988). Between group differences are reported with Cohen’s \(d\), whereby values up to .2 refer to small, .5 to moderate and .8 to large effect sizes (Cohen, 1988).

The MANOVA supported significant group differences on all scales, Wilk’s lambda = .35; \(F(12, 164) = 9.51; \ p < .01\). Currently depressed participants reported higher self-criticism and lower self-compassion than did both remitted depressed (self-criticism: \(d = 1.25\) and self-compassion: \(d = −1.65\)) and never depressed control (self-criticism: \(d = 2.40\) and self-compassion: \(d = −2.20\)) participants.

Table 1. Sample characteristics

<table>
<thead>
<tr>
<th></th>
<th>Total MDD (N = 101)</th>
<th>MDD (n = 30)</th>
<th>RMD (n = 30)</th>
<th>NC (n = 30)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female (%)</td>
<td>67.3</td>
<td>66.7</td>
<td>66.7</td>
<td>66.7</td>
</tr>
<tr>
<td>Age (SD)</td>
<td>36.11 (11.91)</td>
<td>41.03 (12.45)</td>
<td>39.50 (12.13)</td>
<td>39.17 (12.42)</td>
</tr>
<tr>
<td>Percent with Abitur degree</td>
<td>61.0</td>
<td>60.0</td>
<td>60.0</td>
<td>60.0</td>
</tr>
<tr>
<td>Number of episodes (SD, range)</td>
<td>1.98 (1.67, 0–9)</td>
<td>2.38 (1.92, 0–9)</td>
<td>1.47 (1.63, 1–3)</td>
<td>0</td>
</tr>
<tr>
<td>PHQ-depression (SD)</td>
<td>13.95 (5.09)</td>
<td>13.59 (5.00)</td>
<td>5.38 (4.57)</td>
<td>3.17 (3.24)</td>
</tr>
</tbody>
</table>

MDD, major depressive disorder, currently depressed participants; RMD, remitted depressed participants; NC, never depressed controls.
Remitted depressed participants reported higher self-criticism ($d = 1.05$) and lower self-compassion ($d = -0.42$) than never depressed controls. Significant group differences were also found on all of the additional potential correlates of MDD. MDD participants reported higher perfectionistic beliefs and cognitions and rumination as well as lower overall adaptive ER than did both remitted depressed (perfectionistic beliefs: $d = 1.00$; perfectionistic cognitions: $d = .79$ and overall adaptive ER: $d = -1.59$) and never depressed (perfectionistic beliefs: $d = 1.42$; perfectionistic cognitions: $d = 1.04$; rumination: $d = 1.62$ and overall adaptive ER: $d = -2.03$) participants. Remitted depressed participants reported being more prone to ruminate than did never depressed controls ($d = .72$). Remitted and never depressed individuals did not differ, however, in their reported perfectionistic beliefs and cognitions and in their levels of overall adaptive ER.

**Prediction of depression status**

In order to test how well concurrent and past depression status can be predicted by individual differences in self-criticism and self-compassion, we conducted two hierarchical multiple logistic regression analyses. Group status (i.e., currently depressed, never depressed in model 1 and remitted depressed and never depressed in model 2) served as the dependent variable. Levels of depressive symptoms, perfectionistic beliefs and cognitions, rumination and overall adaptive ER were entered as predictors in Step 1. In Step 2, we entered self-criticism and self-compassion to test whether these variables added significantly to the prediction of concurrent or past depression above and beyond differences in depressive symptoms and the potentially related correlates of MDD.

For currently and never depressed participants, the model for Step 1 was significant ($\chi^2 = 68.53; df = 5; p < .01$). The variables entered in Step 2 did add significantly to the prediction of concurrent depression status ($\Delta \chi^2 = 14.69; df = 2; p < .01$). The total model was significant ($\chi^2 = 83.18; df = 7; p < .01$) and correctly classified 75.0% of the participants as currently or never depressed. For remitted and never depressed control participants, the variables entered in Step 1 did not significantly predict depression status ($\chi^2 = 8.32; df = 5; p = .14$). The inclusion of self-criticism and self-compassion in Step 2 led to a significant increase in explained variance ($\Delta \chi^2 = 10.46; df = 5; p < .01$) and a significant overall model ($\chi^2 = 18.78; df = 7; p < .01$). The total model correctly classified 26.9% of the participants as individuals with versus without a past history of depression. There

<table>
<thead>
<tr>
<th>Scale</th>
<th>MDDa (M, SD)</th>
<th>α</th>
<th>RMDa (M, SD)</th>
<th>α</th>
<th>NCa (M, SD)</th>
<th>α</th>
<th>MANOVA F(df, 12, 164)</th>
<th>ηp²</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSCRS-criticism</td>
<td>33.47c,b (8.90)</td>
<td>.86</td>
<td>22.27a,c (8.92)</td>
<td>.80</td>
<td>14.03a,b (7.10)</td>
<td>.80</td>
<td>41.05* .49</td>
<td></td>
</tr>
<tr>
<td>FSCRS-reassurance</td>
<td>9.70c,b (4.93)</td>
<td>.83</td>
<td>17.20a,c (4.29)</td>
<td>.77</td>
<td>21.47a,b (5.23)</td>
<td>.85</td>
<td>45.57* .51</td>
<td></td>
</tr>
<tr>
<td>DAS-perfectionism</td>
<td>3.96c,b (1.56)</td>
<td>.96</td>
<td>2.54a (1.28)</td>
<td>.95</td>
<td>2.14a (0.92)</td>
<td>.92</td>
<td>16.66* .28</td>
<td></td>
</tr>
<tr>
<td>PCI-perfectionism</td>
<td>2.36c,b (1.07)</td>
<td>.96</td>
<td>1.68a (0.83)</td>
<td>.94</td>
<td>1.38a (0.79)</td>
<td>.95</td>
<td>9.32* .18</td>
<td></td>
</tr>
<tr>
<td>RSS-rumination</td>
<td>3.15c,b (6.6)</td>
<td>.86</td>
<td>2.58a,c (0.78)</td>
<td>.82</td>
<td>2.04a,b (0.71)</td>
<td>.90</td>
<td>17.96* .29</td>
<td></td>
</tr>
<tr>
<td>ERSQ-adaptive ER</td>
<td>1.74c,b (.62)</td>
<td>.94</td>
<td>2.68a (.56)</td>
<td>.95</td>
<td>2.90a (.52)</td>
<td>.95</td>
<td>34.90* .45</td>
<td></td>
</tr>
</tbody>
</table>

MDD, major depressive disorder, currently depressed participants; RMD, remitted depressed participants; NC, never depressed controls; FSCRS, Forms of Self-Criticizing/Attacking and Self-Reassuring Scale; DAS, Dysfunctional Attitude Scale; PCI, Perfectionism Cognitions Inventory; RSS, Rumination on Sadness Scale; ERSQ, Emotion Regulation Skills Questionnaire.

*Different superscripts denote significant differences between groups as derived from post-hoc tests with Fisher’s Least Significant Difference correction.

*p < .01.
were no significant and unique predictors in either model.

DISCUSSION

The present study aimed to test the hypothesis that frequent self-criticism and low habitual self-compassion are related to concurrent depression as well as to vulnerability to depression. As expected, both currently and remitted depressed participants reported higher habitual self-criticism and lower self-compassion than never depressed controls. Differences between currently and never depressed participants in this study are consistent with previous reports on positive/negative associations between self-criticism (e.g., Blatt, 2004)/self-compassion (e.g., Gilbert et al., 2004; Krieger et al., 2013) and concurrent depressive symptoms. Higher habitual self-criticism in remitted depressed than never depressed control participants is consistent with previous research linking self-criticism to increased vulnerability to depression (e.g., Brewin & Firth-Cozens, 1997; Mongrain & Leather, 2006; Zuroff et al., 2005). Findings on differences between remitted depressed and never depressed control participants in self-compassion extend the findings of previous studies as they provide preliminary support for the hypothesis that decreased self-compassion is not only a concomitant of acute depression but also a more enduring risk factor for the development of recurrent depressive episodes.

In logistic regression analyses, the inclusion of self-criticism and self-compassion in Step 2 significantly added to the prediction of concurrent or past depression status above and beyond levels of depressive symptoms and the additional potential correlates of MDD (i.e., perfectionistic beliefs and cognitions, rumination and overall adaptive ER) as entered in Step 1. Our findings are in line with results of previous regression analyses on self-criticism as an important predictor of maladjustment (e.g., Dunkley, Zuroff, & Blankstein, 2006). They are consistent with the hypothesis of increased self-criticism and decreased self-compassion as relevant and stable risk factors that place certain individuals at increased risk for experiencing depression repeatedly or chronically over the course of their lives and may emphasise the role of negative self-schemas for depression maintenance and enduring vulnerability (e.g., Segal, 1988).

If replicated in future research, our findings may have implications for treatment and relapse prevention. In previous treatment studies, highly self-critical patients exhibited a poorer response to cognitive therapy; the degree to which self-criticism was successfully reduced in treatment was supported as a good predictor of treatment response to cognitive therapy (Rector, Bagby, Segal, Joffe, & Levitt, 2000). Self-compassion has been thought to help decrease self-criticism (e.g., Gilbert & Procter, 2006). If depression and depression vulnerability are indeed related to decreased self-compassion, treatment approaches that aim at the promotion of this strategy appear promising.

In closing, we should note several limitations of the current study. First, because of the cross-sectional design, we cannot rule out alternative explanations for the findings, for example, that elevated self-criticism and decreased self-compassion in remitted depressed participants may be the consequence of past depression in the sense of a scar effect (e.g., Ehring et al., 2008). Results on self-criticism as a predictor of depressive symptoms in initially healthy individuals in a study by Brewin and Firth-Cozens (1997) provide preliminary support for self-criticism as a real vulnerability factor for MDD. Further longitudinal and experimental studies are needed to better understand causal relations between self-criticism, self-compassion, and the risk for maintaining or developing depressive episodes. Research on depression vulnerability should be extended by studies on individuals at risk for depression who have no current or past diagnosis of psychopathology. Second, despite careful selection of participants (i.e., use of a diagnosed clinical sample, recruiting of participants from the general population, matching of participants with regard to relevant characteristics), the modest sample
sizes should be noted. Future studies using larger samples are needed to more reliably investigate the relative importance of specific constructs in the prediction of concurrent or past depression status in regression analyses. Third, considering the relatively low percentage of correctly classified participants in the logistic regression model on remitted and never depressed participants, future studies should also extend our work by including further potentially relevant risk and resilience factors.

Acknowledgements

We thank W. Michael Vanderlind for thoroughly proofreading the manuscript.

Funding

This research was supported by the German Research Foundation [grant number BE 4510/3–1/HI 456/6–1], [grant number BE 4510/3–2/HI 456/6–2].

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