The Relationship of Self-Compassion and Self-Esteem with Coping and Well-Being

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Abstract

Self-compassion and self-esteem are related concepts that both refer to a specific way of self-to-self relating. For decades promoting self-esteem has been the method of choice for enhancing peoples' well-being. However, research indicates that there are side-effects associated with high self-esteem. For this reason, the Buddhist concept of self-compassion found its way into academic psychology as a healthier alternative. Because both concepts are related to well-being, it was hypothesized that they share a common feature. The aim of the present study was to find this underlying mechanism that explains the relationship with psychological well-being. Because both ways of self-to-self relating affect the way people respond to stressful experiences, it was assumed that coping mechanisms act as mediator. To investigate the hypothesized model, an online survey was conducted. The results showed that positive coping partially mediated the relationship of self-compassion and self-esteem with psychological well-being. Negative coping showed no such mediation effect. However, self-compassion and self-esteem remained better predictors for well-being than coping. This indicates that they are either mainly related to well-being in a direct manner, or other variables, that were not investigated in this study, mediate the relationship with well-being. Future research should be directed at these two interpretations and also clarify causality, as the present study had a cross-sectional, correlational design.

Keywords: self-compassion, self-esteem, coping, psychological well-being

Introduction

Nowadays clinical psychologists discover more and more the advantages of applying methods in psychotherapy and counselling that have its origin in the Buddhist tradition. One of the most famous techniques that is now widely used, is mindfulness meditation. In 1979, John Kabat-Zinn successfully applied mindfulness in his treatment for chronic pain patients, calling his therapy program *Mindfulness Based Stress Reduction* (*MBSR*). Soon afterwards, other clinicians started using mindfulness for diverse somatic and psychological health issues, more and more supported by a great number of scientific studies that confirmed its effectiveness (Gotink, et al., 2015).

Recently, another Buddhist concept received increasing attention in mental health research. Neff (2003a) was one of the first to investigate *self-compassion* from an academic point of view. According to her definition, self-compassion "involves being touched by and open to one's own suffering, not avoiding or disconnecting from it, generating the desire to alleviate one's suffering and to heal oneself with kindness" (p.87). It can be considered a friendly attitude towards oneself that is adaptive especially in the face of personal failure. In this way, Neff regards self-compassion as a 'healthier' alternative to the promotion of high self-esteem, that is particularly valued in Western society. Neff separated self-compassion into three interrelated components, namely (1) self-kindness, (2) common humanity and (3) mindfulness. Self-kindness involves, as the name implies, treating oneself kindly and in an understanding, instead of a criticizing and judging manner. Common humanity means viewing ourselves not isolated, but connected to others due to our common experience as human beings. Taking this perspective, an individual becomes aware of the fact that failure and suffering are inevitable in human life, which eventually reduces self-blame. The mindfulness component refers to a balanced awareness of one's negative thoughts and feelings, while not judging these inner experiences.

Apart from Neff's definition, one should keep in mind that there is another

conceptualization of self-compassion that emerged from research conducted by Gilbert (2014). His approach is rooted in a biological-evolutionary approach and refers to our socially-oriented motivations. According to Gilbert, there are several motivational systems in us which are essential for our social life. Among others there are systems for *competing and social ranking, cooperation/sharing, caring and nurturing* and *seeking and responding to care*. Especially the system associated with caring is considered to play a major role when it comes to compassion. While it motivates us to take care of others it also to take care of ourselves. Correspondingly, Gilbert considers compassion a result of special motivational systems and their application, as well as cultivation in interpersonal but also intrapersonal interactions (self-compassion). Obviously, Neff (2003a) and Gilbert (2014) have different perspectives on the concept of self-compassion. While Neff lays the accent on a clear definition, including an analysis of its elements and the way these might influence people's emotions and cognition, Gilbert investigates its origin applying evolutionary principles, thereby being less clear about the conceptualization of self-compassion. For its clarity, the emphasis in the present study will be laid on Neff's definition of self-compassion.

Literature Review

Self-Compassion. As with mindfulness, self-compassion is considered a useful means for enhancing one's well-being and alleviating psychological problems. In fact, since its introduction to the academic psychology, a great number of studies have shown its positive relationship with several aspects of mental health. Self-compassion has been found to be negatively related to depression, perceived stress, anxiety, trauma symptoms and several other mental disorders as eating disorders, personality disorders, schizophrenia spectrum disorders as well as psychoses (Beaumont & Hollins-Martin, 2015; Hall, Row, Wuensch & Godley, 2013; Leaviss & Uttley, 2015). The relationship between self-compassion and psychopathological symptoms was also investigated by Macbeth and Gumley (2012). In their

review they analysed 14 publications, with a total of 32 effect sizes. Based on these studies, they found a large effect size for the relationship between self-compassion and psychopathology, including mainly symptoms of anxiety, depression and stress. Similar results were found by Muris, Meesters, Pierik and de Kock (2016) when they looked at a sample of adolescents aged between 12 and 17 years. However, they found smaller effect sizes for the relationship between self-compassion, anxiety and depression, compared to the Macbeth and Gumley (2012). Nevertheless, there is considerable evidence for a significant link between self-compassion and low psychopathology.

Research findings indicate that self-compassion appears to be involved when it comes to coping with negative experiences, possibly providing an explanation for the plain relationship between psychopathology and self-compassion. A series of studies conducted by Leary, Tate, Adams, Batts Allen and Hancock (2007) showed self-compassion to be related to less negative emotions and a more adaptive way of thinking in the face of adverse events, that were either real, remembered or imagined. Moreover, self-compassionate participants took more personal responsibility for negative events and showed greater internal attribution when confronted with a mediocre evaluation. In this situation, self-compassionate people also tended to ruminate less about their results, or to be emotionally affected by them. Apparently, self-compassion has a protective function, acting as mediator when it comes to negative experiences.

Besides this mediating effect, self-compassion also seems to promote well-being and positive emotions. Satici, Uysal and Akin (2013) found support for the association between self-compassion and peoples' ability to flourish. Strong evidence for the link between self-compassion and well-being comes from a meta-analysis conducted by Zessin, Dickhäuser and Garbade (2015). Investigating 65 studies, including 79 samples and 134 effect sizes, they found moderate to strong, positive correlations with psychological, cognitive and positive affective well-being, and a moderate, negative correlation with negative affective well-being,

highly supporting the association of self-compassion and mental health. In summary, self-compassion appears to be related to less psychopathological symptoms, including depression and anxiety, better coping with negative experiences and diverse forms of well-being.

Self-Esteem. In the present study, the focus will not only lie on self-compassion, but also on self-esteem. Opposed to the relatively new concept of self-compassion, self-esteem reflects another, much more common way of self-to-self relating. For decades, increasing self-esteem was considered an effective way of enhancing one's psychological health and well-being. Looking at the evidence, it becomes apparent that there are indeed some advantages associated with high self-esteem. Interestingly, some of these positive relationships are shared with self-compassion. Baumeister, Campbell, Krueger and Vohs (2003) conducted a literature review on the effects of self-esteem. They found self-esteem to be related to happiness, better performance in certain jobs and tasks and higher perseverance in cases of failure. Moreover, results indicate a buffer-effect of self-esteem, when it comes to stressful events and other negative experiences.

Nevertheless, there are also negative side-effects of high self-esteem. Baumeister et al. (2003) found that people with high self-esteem think that they are more likeable than it is actually the case. Moreover, in some situations people with high self-esteem might even be prone to be disliked by other people. Another side effect of high self-esteem is the in-group favouritism that is associated with it, possibly leading to prejudice and discrimination. Specific aspects of high self-esteem (e.g. narcissism) may also be a risk factor for aggression, being a bully, as well as supporting a bully. However, other forms of self-esteem might also produce pro-social behaviour, indicating a less clear image when it comes to socially-related effects.

Considering that self-compassion and self-esteem are both associated with positive mental health, one might conclude that enhancing self-compassion has no additional value compared to the classical approach of enhancing people's self-esteem. However, shifting

focus to the adverse side-effects of both concepts, high self-esteem appears to be problematic, especially for the social environment of such a person. Aggression, being disliked and prejudiced when it comes to out-group members, can be considered a high price for the positive effects of self-esteem, especially when a reasonable alternative exists. Promoting self-compassion may have an enormous positive influence on people's mental health, while being free from negative side-effects.

Although there are clearly differences when it comes to side-effects, self-esteem and self-compassion both appear to be highly advantageous for a person's well-being. Considering that both terms refer to a mainly beneficial way of self-to-self relating, one might ask whether there is an underlying mechanism that they share – a mechanism which might explain the similarities referring to their positive relationship with people's mental health. The aim of the present study is to assess exactly this potentially common feature of self-compassion and self-esteem, thereby finding an explanation for their shared associations with benefits for a person's psyche.

Coping Behaviours. Considering that self-compassion, as well as self-esteem both show a buffer-effect against negative experiences, similarities in coping styles could provide an answer. In fact, evidence indicates that self-compassion is related to different coping strategies than self-esteem. In their literature review, Allen and Leary (2010) discovered a significant positive link between self-compassion and positive restructuring, as well as a negative one with avoidance coping, while the relationships with problem-solving, seeking support and distraction were less clear, due to poor evidence. Yet, a more recent study conducted by Sirois, Molnar and Hirsch (2015) found self-compassion to be significantly positively related to problem-oriented coping and instrumental support seeking among two samples of chronic-ill people. Although Sirois, Molnar and Hirsch (2015) provided evidence that was missing in the review of Allen and Leary (2010), one should keep in mind that this is the first study showing a clear link between self-compassion, problem-solving and seeking

support. Any interpretations should therefore be made with caution.

Referring to self-esteem, the relationship to coping strategies provides a clearer picture, though most research had been done in the last century and could therefore be considered as outdated. One of the studies on coping and self-esteem was conducted by Carver, Scheier and Weintraub (1989). They found a positive link between self-esteem, active coping and planning, as well as a negative link between self-esteem, denial and behavioural disengagement. Other results come from Terry (1994), who found a tendency of people scoring high on self-esteem to make use of problem-focused coping. Furthermore, an association was found between self-esteem and escapism. However, there was evidence that this relationship was mediated through situational appraisal variables. Finally, a more recent study by Martyn-Nemeth, Penckofer, Gulanick, Velsor-Friedrich and Bryant (2009) showed a link between low self-esteem and avoidant coping.

In conclusion, there are indeed some similarities between self-compassion and self-esteem when it comes to coping strategies. Nonetheless, there are also differences. This in part due to the fact that coping strategies are diverse and most studies focused on different kinds of coping. However, another reason is simply that there is not enough research conducted on this matter. Looking at the available evidence, there are still uncertainties that need further investigation. Allen and Leary (2010) clearly showed that the relationship between self-compassion and coping is either ambiguous or not well-researched up to now (except for cognitive restructuring and avoidance coping). Although Sirois et al. (2015) provided valuable additions to the review of Allen and Leary (2010), one should consider that the results of chronic-ill patients might not be generalizable to other parts of the population and that they were not replicated so far. However, despite the absence of many shared specific coping strategies one could still argue that self-compassionate people and people with a higher self-esteem have something in common when it comes to coping. All of the above-mentioned relationships referred to coping strategies that can be judged as positive or

beneficial. Working actively on problems, seeking support from others, cognitively restructuring situations in a positive manner and planning can be judged quite adaptive in many problematic situations. For this reason, stating that positive coping strategies are shared by self-compassionate people and people who have a high self-esteem can be justified on that account. Moreover, it appears that coping styles that are less adaptive (or even negative) are also significantly less associated with high self-compassion and high self-esteem. Examples are the apparent omitting of avoidance coping, denial and behavioural disengagement. Therefore, the present study will focus on the mediating role of coping strategies on the relationship between self-compassion and psychological well-being, as well as on the relationship between self-esteem and psychological well-being. For assessing these mediation effects, it is necessary to break the assumption of mediation down into four hypotheses.

Hypotheses

H_1: Positive coping acts as mediator for the positive relation between self-compassion and psychological well-being.

$H_{1.1}$: Self-compassion is positively related to psychological well-being.

$H_{1.2}$: Self-compassion is positively related to positive coping.

$H_{1.3}$: Positive coping is positively related to psychological well-being, when taking self-compassion into the model, while the initial relationship between self-compassion and psychological well-being becomes weaker.

H_2: Negative coping acts as mediator for the positive relation between self-compassion and psychological well-being.

$H_{2.1}$: Self-compassion is positively related to psychological well-being.

$H_{2.2}$: Self-compassion is negatively related to negative coping.

$H_{2.3}$: Negative coping is negatively related to psychological well-being, when taking self-compassion into the model, while the initial relationship between self-compassion and psychological well-being becomes weaker.

H_3: Positive coping acts as partial mediator for the positive relation between self-esteem and psychological well-being.

$H_{3.1}$: Self-esteem is positively related to psychological well-being.

$H_{3.2}$: Self-esteem is positively related to positive coping.

$H_{3.3}$: Positive coping is positively related to psychological well-being, when taking self-esteem into the model, while the initial relationship between self-esteem and psychological well-being becomes weaker.

H_4: Negative coping acts as partial mediator for the relation between self-esteem and psychological well-being.

$H_{4.1}$: Self-esteem is positively related to psychological well-being.

$H_{4.2}$: Self-esteem is negatively related to negative coping.

$H_{4.3}$: Negative coping is negatively related to psychological well-being, when taking self-esteem into the mode, while the initial relationship between self-esteem and psychological well-being becomes weaker.

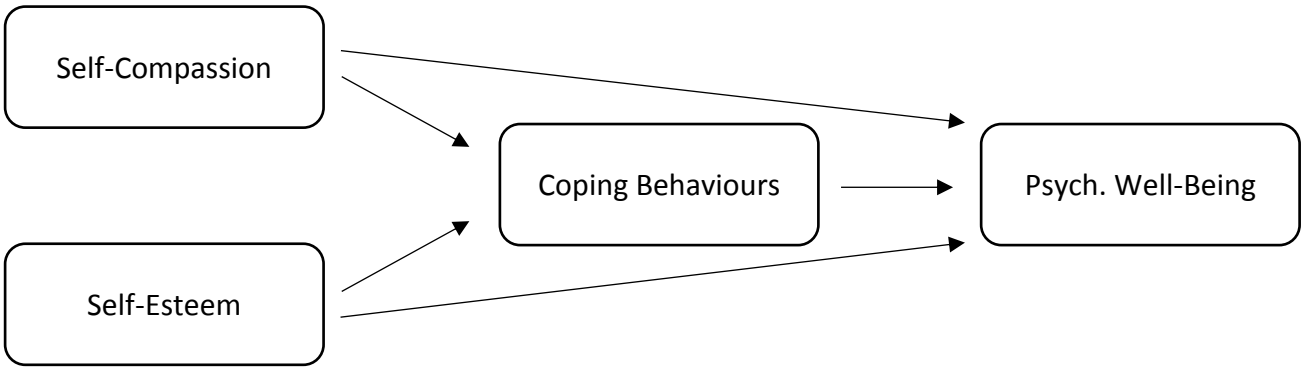

Figure 1. Conceptual model. The relation between self-compassion and psychological well-being as well as self-esteem and psychological well-being is mediated by coping behaviours.

Methods

Research Design

The present study had a cross sectional, correlational design with convenience sampling.

Participants

A convenience sampling strategy was employed in order to draw a sample from the research population (n = 212). Over a period of two weeks, participants were recruited via *Sona Systems*, the test subject pool of the University of Twente, and via the social networks *WhatsApp* and *Facebook*. As table 1 shows, the majority of the participants were German (76.9%) females (73.1%) with higher secondary education (78.8%) and side-job employment (42.5%).

Table 1

Demographic Information

	N	%
Gender		
Male	57	26.9
Female	155	73.1
Age		
18-40	203	95.8
41-60	3	1.4
> 60	3	1.4
Nationality		
German	163	76.9
Dutch	28	13.2
Other	21	9.9
Education		
Vocational Education	1	0.5
Secondary Education	5	2.4
Higher Secondary Education	167	78.8
Completed Apprenticeship	5	2.4
Bachelor's Degree	22	10.4
Master's Degree	10	4.7
Doctorate Degree	1	0.5
Employment		
Full-time[1]	34	16.0
Part-time[2]	7	3.3
Side job[3]	90	42.5
Unemployed	81	38.2

Note. [1]. 40 hours or more per week. [2]. Less than 40 hours per week.
[3]. In addition to studies.

Measuring

For measuring the above-mentioned variables, an online survey was designed using *Qualtrics* (2017). Five instruments were used to sample data relevant to the research question: a biographic questionnaire, the *Self-Compassion Scale* (Neff, 2003b), the *Rosenberg Self-Esteem Scale* (Gray-Little, Williams & Hancock, 1997), the *Cognitive Emotion Regulation Questionnaire* (Garnefski & Kraaij, 2007, and the *Mental Health Continuum Short Form* (Lamers et al., 2011).

Biographic Questionnaire. For measuring demographic variables, a biographic questionnaire was designed and applied. The measured variables included sex, age, nationality as well as occupational status (full-time job, part-time job, side job or unemployed).

Self-Compassion Scale (SCS*).* The SCS is a 26-item questionnaire for measuring overall self-compassion as well as its three subcomponents *self-kindness* (five items; e.g. 'I try to be loving towards myself when I'm feeling emotional pain'), *common humanity* (four items; e.g. 'When things are going badly for me, I see the difficulties as part of life that everyone goes through') and *mindfulness* (four items; e.g. 'When something upsets me I try to keep my emotions in balance') (Neff, 2003b). Furthermore, the respective counterparts of these subcomponents are measured, namely *self-judgment* (five items; e.g. 'I'm disapproving and judgmental about my own flaws and inadequacies'), *isolation* (four items; e.g. 'When I think about my inadequacies, it tends to make me feel more separate and cut off from the rest of the world') and *over-identification* (four items; e.g. 'When I'm feeling down I tend to obsess and fixate on everything that's wrong'). Respondents indicate on a 5-point Likert scale how much they agree or disagree with a certain statement about themselves, reaching from 1 (*Almost never*) to 5 (*Almost always*). To obtain the total self-compassion score the mean value of all the subscale mean values needs to be calculated. For this purpose, the subscales self-

judgment, isolation and over-identification must be reversed. The higher the value, the more self-compassionate is a person.

The internal consistency reliability of the subscales was found to be satisfactory, reaching from .75 (mindfulness subscale) to .81 (over-identification subscale) (Neff, 2003b). Overall internal consistency for the 26-item scale was very high (=.92). The same was true for the test-retest reliability (=.93). The present study could also support the very high internal consistency reliability (=.92).

Rosenberg Self-Esteem Scale (RSES*).* The RSES is a 10-item scale to assess a person's self-esteem (Gray-Little, Williams & Hancock, 1997). Respondents indicate on a 4-point Likert scale how strongly they agree or disagree with a statement about themselves, with response options ranging from *Strongly agree* to *Strongly disagree* (e.g. 'I feel that I have a number of good qualities'). For assessing how high someone's self-esteem is, the sum score of all items needs to be calculated, with higher values indicating higher self-esteem.

In a large-scale study Sinclair et al. (2010) analysed the psychometric quality of the RSES across several samples, that differed in sex, age, education, employment status, income as well as marital status. Overall, they found a high internal consistency reliability with values ranging between .84 (older than 66 years) and .95 (unemployed). Summarizing a number of studies, Gray-Little et al. (1997) reported that the test-retest reliability varied as a function of the temporal distance between the measurements, showing a reliability coefficient of .82 for a one-week period, .63 for a 6-month period and .50 for a period of one year. In the present study, the internal consistency reliability was also found to be high (=.89).

Cognitive Emotion Regulation Questionnaire (CERQ). The CERQ is a 36-item questionnaire to assess respondents regularly used coping strategies in the face of stressful life experiences (Garnefski & Kraaij, 2007). It consists of nine subscales, each referring to a specific coping response. For the present study, five of the coping strategies were categorized as positive coping and four as negative coping. Positive coping strategies are *putting into*

*perspective (*e.g. 'I think that it all could have been much worse), *positive refocusing* (e.g. 'I think about pleasant experiences'), *positive reappraisal* (e.g. 'I look for the positive sides to the matter'), *acceptance* (e.g. 'I think that I have to accept that this has happened') and *planning* (e.g. 'I think of what I can do best'). Negative coping strategies are *self-blame* (e.g. 'I feel that I am the one to blame for it'), *other-blame* (e.g. 'I feel that others are to blame for it'), *rumination* (e.g. 'I often think about how I feel about what I have experienced') and *catastrophizing* (e.g. 'I continually think how horrible the situation has been'). Every subscale respectively consists of four items. Responses are given on a 5-point Likert scale, reaching from 1 (*almost never*) to 5 (*almost always*). For assessing how high a person scores on a coping strategy, a sum score is calculated for the subscale, with high values indicating that the respective coping strategy is often used.

Garnefski and Kraaij (2007) assessed Cronbach's alpha at two points in time, showing acceptable to good internal reliability for the subscales, ranging from .75 (self-blame) to .87 (positive refocusing). Considering the temporal distance between the measurements (one year), the test-retest reliability can be judged as moderate to good, reaching from .48 (refocusing) to .65. (blaming others). The reduced model in the present study also showed high internal consistency reliability with .88 for positive coping and .81 for negative coping.

Mental Health Continuum Short Form (MHC-SF). The MHC-SF is a 14-items questionnaire for measuring different aspects of a person's well-being (Lamers et al., 2011). Its items are taken from the 40-items *Mental Health Continuum Long Form* (MHC-LF) and are considered the most prototypical items for each dimension of well-being. The MHC-SF includes three subscales, measuring emotional (three items), psychological (six items), as well as social well-being (five items), however, for the present study only the subscale for psychological well-being was employed. Responses are given on a 6-point Likert scale, ranging from *Never* (1) to *Every day* (6), indicating how often the person felt in a specific kind of way during the last month (e.g. 'confident to think or express your own ideas and

opinions'). To assess the psychological well-being of a person, a sum score is calculated with high values indicating higher psychological well-being.

The subscale for psychological well-being showed a good internal consistency reliability ($\alpha = .83$) and scores were respectively significantly related to follow-up measures after three and nine months, with correlation coefficients reaching from .45 to .54 (Lamers et al., 2011). The present study also found satisfactory internal consistency reliability for the subscale psychological well-being (=.78).

Research Procedure

Participants were asked to fill in the online survey from their home computer, tablet or smartphone. By clicking on a link, participants were directed to the *Qualtrics* webpage, where a short text provided them with all the necessary information for their participation, including a short description of the study, as well as a declaration of the participants' rights. Furthermore, to progress to the online survey, participants had to give their informed consent. Afterwards questions about demographic data had to be answered, including sex, marital- and employment status, nationality and education. Next, participants had to fill in the above-mentioned questionnaires, starting with the SCS, followed by the CERQ, the RSES, the NPI-16 and finally the MHC-SF. Before the RSES and before the MHC-SF, a short phrase informed the participants about their progress in the survey (e.g. *There will be two short questionnaires about this subject, followed by a last short bundle of questions*). After filling in the MHC-SF, participants were thanked for their participation and could close the browser window. By the end of the data collection, the online survey was stopped and could not be filled in anymore. The dataset was downloaded and prepared for the analysis. For this purpose, data of the researchers' practice trials as well as data of participants who did not finish the study completely, were excluded.

Data Analysis

Data was processed by using SPSS v. 24 (IBM, 2017). Before the actual analysis, the nine coping strategies measured by the CERQ were reduced into a two-factorial model, containing positive and negative coping. This model was supported by an analysis conducted by a co-researcher. Positive coping included the coping strategies acceptance, positive refocusing, planning, positive reappraisal and putting into perspective. Negative coping included self-blaming, rumination, catastrophizing and blaming others. Descriptive statistics were used to determine normality, including the usage of histograms, normal Q-Q plots, mean values, standard deviations, skewness as well as kurtosis values. For the statistical analysis, a significance level of $\alpha = .05$ was applied. Pearson correlation coefficients were calculated. The effect size cut-off scores were $r \geq .10$ for a weak correlation, $r \geq .30$ for a moderate correlation, $r \geq .50$ for a strong correlation. After that, stepwise multiple regressions were conducted to control for the conditions that need to be satisfied to speak about mediation. These conditions are: (1) variable ‘a’ is related to variable ‘b’ (direct path); (2) variable ‘a’ is related to the mediator; and (3) the mediator is related to the variable ‘b’, when taking ‘a’ into the model as second predictor (indirect path), while the initial relationship between variable ‘a’ and ‘b’ disappears or diminishes. Testing the last condition represents the actual mediation analysis. Finally, the indirect effects were tested by bootstrapping (5000) with a 95% confidence interval using the *Process* macro for SPSS (Hayes, 2013).

Results

Descriptive Statistics

Before the actual analyses, the relevant variables were tested for normal distribution. This was done by using histograms and normal Q-Q plots, as well as by calculating skewness and kurtosis values (see table 2). The histograms and normal Q-Q plots showed that the variables self-compassion, self-esteem, psychological well-being, positive coping and negative coping were normal distributed. Moreover, assessing the kurtosis and skewness, it became apparent that none of the values were above or below 1 or -1, indicating no substantial skewness or deviation from a normal kurtosis. In addition to the assessment of the normal distribution, linearity was controlled for the relevant related variables by using scatter plots. For all relations linearity could be justified based on the graphs. Finally, for all relevant variables mean values, standard deviations and Cronbach's alpha were calculated and a correlation matrix was created (see table 2).

Correlation Analyses

Pearson correlations were used to assess the relationship between the relevant variables. As can be seen in table 2, all variables were significantly related with each other except for positive and negative coping. Self-compassion and self-esteem showed a strong positive correlation. Furthermore, self-compassion was moderately positively related to psychological well-being. Referring to positive coping, again, self-compassion showed a strong positive correlation. Contrary to this, a strong negative relationship was found between self-compassion and negative coping. For self-esteem, a strong positive correlation was found with psychological well-being and a moderate positive correlation with positive coping. In addition, self-esteem was found to be moderately, negatively related to negative coping. Finally, psychological well-being showed a moderate positive correlation with positive coping and a weak correlation with negative coping.

Table 2

Descriptive Statistics and Correlation Matrix

	M	*SD*	Alpha	Skewness	Kurtosis	Self-Compassion	Self-Esteem	Psych. Well-Being	Positive Coping	Negative Coping
Self-Compassion	3.10	0.64	.92	0.23	0.13	1				
Self-Esteem	30.00	5.30	.89	-0.16	-0.39	.61*	1			
Psych. Well-Being	25.01	5.06	.78	-0.24	-0.47	.49*	.69*	1		
Positive Coping	12.80	2.37	.88	-0.05	-0.17	.60*	.40*	.42*	1	
Negative Coping	10.14	2.12	.81	0.51	0.05	-.52*	-.41*	-.28*	-.08	1

Note. * $p < .01$.

Regression Analyses

As can be seen in table 3, self-compassion was predictive for psychological well-being as well as for positive and negative coping. Based on this, the first two conditions for mediation were satisfied. Moreover, self-esteem was also predictive for psychological well-being as well as for positive and negative coping. Again, the first two necessary conditions for mediation were satisfied.

Table 3

Regression Analyses for Testing the Conditions for Mediation

Predictor	Dependent Variable	*B*	*SE B*	*β*	*p*
Self-Compassion	Psych. Well-Being	3.87	0.47	.49	< .001
Self-Compassion	Positive Coping	2.19	0.20	.60	< .001
Self-Compassion	Negative Coping	-1.71	0.19	-.52	< .001
Self-Esteem	Psych. Well-Being	0.66	0.05	.69	< .001
Self-Esteem	Positive Coping	0.18	0.03	.40	< .001
Self-Esteem	Negative Coping	-0.16	0.03	-.41	<.001

Note. The conditions for the following mediation analysis were tested and fulfilled.

Mediation Analysis

As the previous regression analyses were all significant with the predicted direction of correlation, the conditions for testing a mediation were all fulfilled. Based on the conceptual model (figure 1) positive and negative coping were tested for a mediation effect between self-compassion and psychological well-being as well as self-esteem and psychological well-being. For assessing the potential mediation effect, hierarchical regression analyses were conducted (see table 4).

Table 4

Hierarchical Regression Analyses for Testing the Mediation Effect of Positive and Negative Coping

Model		*B*	*SE B*	*β*	*p*	R^2	R^2 Change	*p* (Model)
1	Self-Compassion	3.87	0.47	.49	< .001	.24		
2.1	Self-Compassion	2.99	0.58	.38	< .001	.27	.02	< .001
	Positive Coping	0.41	0.16	.19	.01			
2.2	Self-Compassion	3.72	0.55	.47	< .001	.24	.00	< .001
	Negative Coping	-0.09	0.17	-.04	.60			
1	Self-Esteem	0.66	0.05	.69	< .001	.48		
2.1	Self-Esteem	0.60	0.05	.63	< .001	.50	.02	< .001
	Positive Coping	0.35	0.11	.16	.003			
2.2	Self-Esteem	0.66	0.05	.69	< .001	.48	.00	< .001
	Negative Coping	0.00	0.13	.00	.99			

Note. Dependent variable: psychological well-being.

Self-Compassion – Positive Coping. For testing whether positive coping mediated the relation between self-compassion and psychological well-being, the first multiple regression analysed the relationship between positive coping and psychological-wellbeing while taking self-compassion into the model as second independent variable. In case of a mediation effect, a relation between positive coping and psychological well-being had to be found, while the relation between self-compassion and psychological well-being should become weaker. In fact, this was shown by the analysis. As can be seen in table 4, positive coping and psychological well-being were significantly positively related and self-compassion became less predictive for psychological well-being while being still significant, thereby indicating a partial mediation (see figure 2). To test the indirect effect, bootstrapping (5000) was conducted using a 95% confidence interval. The analysis revealed a significant indirect effect, $B = 0.89$, 95% CI [0.16; 1.67], supporting the hypothesis of positive coping being a partial mediator for the relationship between self-compassion and psychological well-being.

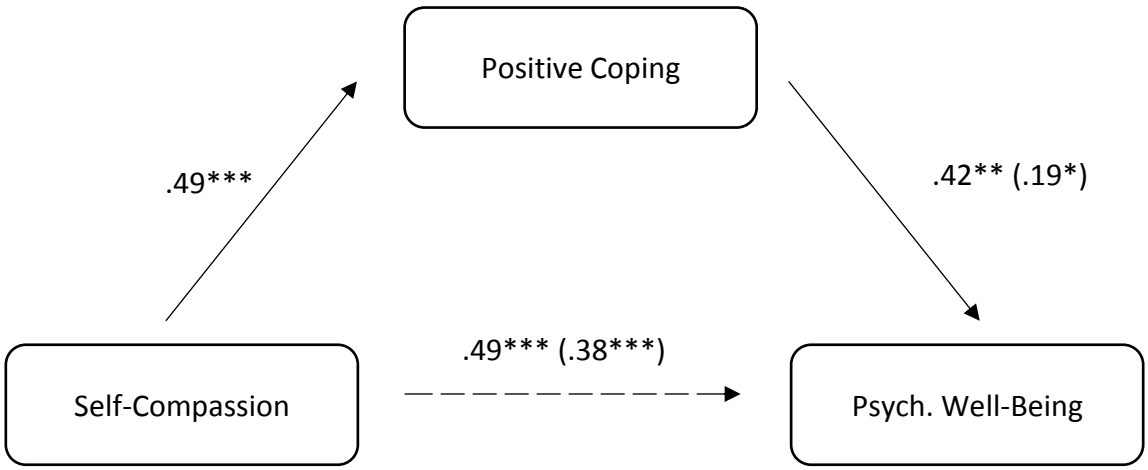

Figure 2. Mediation Model 1. Positive coping partially mediates the relationship between self-compassion and psychological well-being. Coefficients in brackets refer to the indirect path. * $p < .05$. ** $p < .01$. *** $p < .001$.

Self-Compassion – Negative Coping. The second multiple regression analysis assessed negative coping as potential mediator between self-compassion and psychological well-being. For this purpose, the relationship between negative coping and psychological well-being was analysed while taking self-compassion into the model as second independent variable. As mentioned before, a significant relation between negative coping and psychological well-being had to be found, while the relation between self-compassion and psychological well-being had to become weaker to be able to speak about mediation. In this case, as can be seen in table 4, negative coping was not significantly related to psychological well-being thereby contradicting the hypothesized mediation.

Self-Esteem – Positive Coping. The third multiple regression analysed whether positive coping mediates the relationship between self-esteem and psychological well-being. For this end, positive coping and self-esteem were used as independent variables for predicting psychological well-being. An indication for a mediation effect would have been a significant relation between positive coping and psychological well-being, with a weakened relation between self-esteem and psychological well-being. In fact, this was found by the analysis. As table 4 shows, positive coping was significantly positively related to psychological well-being, while the relationship between self-esteem and psychological well-being became weaker but stayed significant (see figure 3). This indicated a partial mediation. Again, bootstrapping (5000) was conducted for testing the indirect effect, showing significant results, $B = 0.06$, 95% CI [0.02; 0.12]. For this reason, the hypothesized mediation effect of positive coping was supported.

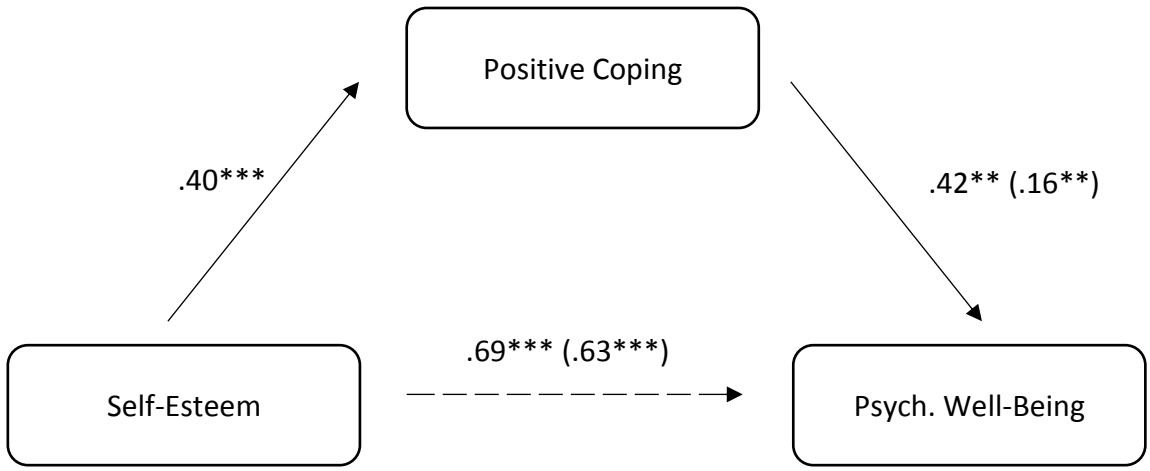

Figure 3. Mediation Model 2. Positive coping partially mediates the relationship between self-esteem and psychological well-being. Coefficients in brackets refer to the indirect path. * $p < .05$. ** $p < .01$. *** $p < .001$.

Self-Esteem – Negative Coping. For testing whether negative coping mediates the relation between self-esteem and psychological well-being, the last multiple regression analysed the relationship between negative coping and psychological well-being while taking self-esteem into the model as second independent variable. A significant relation between negative coping and psychological well-being had to be found, while the relation between self-esteem and psychological well-being had to be reduced to be able to speak about mediation. However, as can be seen in table 4, the analysis found no support for a relation between negative coping and psychological well-being. This contradicts the hypothesized mediation effect of negative coping for the relation between self-esteem and psychological well-being.

Discussion

The aim of the present study was to investigate the underlying mechanisms by which the positive association of self-compassion and self-esteem with psychological well-being could be explained. It was assumed that coping strategies represent this shared mechanism, mediating the relationship between self-compassion, self-esteem and well-being. The findings partially supported this claim. First of all, self-compassion and psychological well-being were found to be moderately related. Similarly, self-esteem and psychological well-being were also associated. However, this relationship was stronger than the one between self-compassion and well-being. Moreover, self-compassion and self-esteem were both linked to positive coping, while self-compassion showed a stronger relation. Referring to negative coping, self-compassion again showed a stronger negative association than self-esteem. Finally, the hypothesized mediative role of positive coping was supported, for both self-compassion and self-esteem. The mediative role of negative coping could not be supported at all.

Based on these results, it can be concluded that the conceptual model (figure 1) was supported by the data at least when it comes to positive coping strategies. This means, that there is indeed an underlying mechanism that is shared by self-compassion and self-esteem, partially explaining the relationship with psychological well-being. Thus, it appears that people who have higher self-esteem or higher self-compassion tend to use more positive coping strategies which is eventually related to their well-being. In this way, although the question of causality is not solved yet, the data supports the hypothesis that the way of self-to-self relating (if self-compassion or self-esteem) makes it easier for people to manage their daily problems, for example by showing more acceptance or putting problems into a different perspective. Due to this more adaptive way of coping, people might experience more satisfaction with their life. Contrary to this, negative coping plays no role as mediator, neither for self-compassion nor for self-esteem. Although negative coping is negatively related to psychological well-being, this association appears to be direct, apart from self-compassion or

self-esteem. One possible interpretation could bet that people who are self-compassionate or high in self-esteem make less use of these kind of coping strategies, thereby making them irrelevant for their satisfaction in life. Contrary to this, people who are less self-compassionate or have lower self-esteem appear to use negative coping styles more often. However, when people have low self-compassion or self-esteem, their well-being is mostly also lower and might be underneath the level where negative coping could have an influence on it.

Although these explanations seem straightforward, one has to consider that positive coping only explained a part of the relationship of self-compassion and self-esteem with psychological well-being. In fact, both remained significant predictors for well-being even when controlling for the coping style as mediator. Moreover, the indirect effect of coping that was found can be judged as rather small, especially compared to the direct effect of self-compassion and self-esteem. This implies that there are either more underlying mechanisms explaining the relationship between self-compassion, self-esteem and well-being, that were not investigated as part of the study. Or, in fact, self-compassion and self-esteem are mainly related to well-being in a direct manner, without the necessity of other mediating variables.

Referring to the first explanation, it could have been the case that the coping styles that were measured in this study did not represent all essential ways of coping that are relevant for peoples' well-being. The questionnaire that was used for assessing the coping style of the participants was the Cognitive Emotion Regulation Questionnaire (Garnefski & Kraaij, 2007). As the name implies, it measures *cognitive* ways of coping with problematic situations. Compared to other coping questionnaires like the COPE scale (Carver et al., 1989), behavioural coping is not assessed at all in the CERQ. It could be the case that in fact *behavioural* coping would represent a stronger mediator for the relationship between self-compassion, self-esteem and well-being. Moreover, coping strategies are very diverse and even other cognitive coping responses that were not part of this study, could have acted as

better mediators. However, this interpretation is rather speculative and without further research, it cannot be argued whether this is true or not.

This leads to the second explanation for the rather small mediation effect of coping, namely that self-compassion and self-esteem are mainly related to well-being in a direct manner. The results showed that even after taking positive coping as mediator into consideration, both, self-esteem and self-compassion still showed a moderate to high correlation with psychological well-being. Accordingly, a mainly direct relationship to psychological well-being appears to be probable, but again, without further research any statements about this are speculative in nature. Although the scientific literature provides evidence for the relationship between self-compassion, self-esteem and positive coping (Allen & Leary, 2010; Sirois et al., 2015;) as well as for the relationship between self-compassion, self-esteem and psychological well-being (Hall et al., 2013; Zessin et al., 2015; Baumeister et al., 2003), up to now there has been no research conducted on the mediating role of coping or any other factors that could explain how self-compassion and self-esteem are related to psychological well-being. For this reason, both explanations for the rather small mediation effect of positive coping could be true.

However, if enhancing self-compassion or self-esteem would lead to higher psychological well-being, the exact underlying mechanism would be less important for practical implications, because the enhancement would also affect the mediator variables, if there are any (apart from positive coping). Though most studies so far have shown only correlations between self-compassion, self-esteem and psychological well-being, there are some studies that indicate causality. These studies can be subdivided into experimental studies aiming at the short-term manipulation of self-compassion or self-esteem and longitudinal studies, including specific intervention programs.

Leary et al. (2007) were able to manipulate transitory state self-compassion and self-esteem. They showed that people with transitory higher self-compassion experienced less

negative emotions in evaluation situations. Although less negative affect is clearly not the same as psychological well-being, it can be argued that the absent of the former enhances the latter in the long-term. Another short-term manipulation of self-compassion was achieved in a study by Adams and Leary (2007). Although their experiment mainly addressed the promotion of self-compassion for changing eating behaviour, participants also showed higher positive affect and lower negative affect. Again, affect is not to be equalized with psychological well-being, but can be considered at least a related concept.

Apart from these short-term interventions, studies have also found evidence for the possibility of increasing self-compassion and self-esteem in the long-term. Barnard and Curry (2011) reviewed diverse programs or treatments that aim at enhancing self-compassion. They concluded that there are a number of therapies that affect self-compassion in the long-term. Moreover, this enhancement of self-compassion was associated with reduced psychopathological symptoms, anxiety, stress and self-criticism, while being also related to positive affect and quality of life. Although psychological well-being was not directly assessed, these effects are likely to be beneficial for a person's well-being. For self-esteem, studies also showed that influencing it in the long-run is possible (Hakim-Larson & Mruk, 1997; Hughes, Robinson-Whelen, Taylor, Swedlund, Nosek, 2004). However, apart from improvements in depression and self-efficacy, these studies assessed no related concepts to well-being. In summary, it is possible to enhance self-compassion and self-esteem, while especially the former is associated with concomitant improvement in variables related to psychological well-being.

Limitations and Strengths

The present study had some drawbacks. First of all, the sample used was quite homogeneous. The greatest part of the participants were German, female, young (psychology) students. This can be considered a methodological issue as women in general appear to score slightly lower

on self-compassion scores than males (Zessin et al., 2015) thereby leading to a bias in the data. Moreover, the generalizability to the male population might be restricted. The second flaw was the correlational, cross-sectional design. Without a controlled experiment, any claims about causality should therefore be made with caution. It might be, for example, that people with higher psychological well-being also tend to be more self-compassionate and not vice versa. Based on the present study, conclusions can only be made about correlations between the relevant variables. The last problem refers to the nature of self-esteem. It might be that people with higher self-esteem presented themselves in an inflated way (Neff, 2011), leading to biased responses.

Despite these methodological flaws, there were also several positive aspects referring to the study design. First, since the study was online, a great number of people could fill in the survey, leading to high statistical power. The reliability of the results can therefore be judged as high, with a low probability that the results were due to chance. Furthermore, the questionnaires used for the study were all pre-existing, validated and reliable, making the acquired data even more dependable.

Practical Implications

Apart from the theoretical background, the results also provide implications for the practical application, especially for psychotherapists and counsellors. The present study indicates that, apparently, self-compassion and self-esteem are mainly related to well-being in a direct manner. For this reason, therapists and counsellors are well-advised to direct their therapy concept on enhancing either a client's self-esteem or self-compassion. However, as positive coping strategies partially mediated the relationship between self-compassion, self-esteem and psychological well-being, addressing ways of coping like acceptance, putting into perspective or positive reappraisal should also be part of the therapy programs. Based on the present study, it appears to be most reasonable to mainly address self-esteem, as the relationship with

psychological well-being appears extraordinarily strong compared to other psychological concepts, as self-compassion. However, here is the crux of the matter: research has shown that it is quite manageable to enhance peoples' self-compassion, for example by special programs or therapies (Barnard & Curry, 2011; Neff & Germer, 2013; Newsome, Waldo & Gruszka, 2012) whereas enhancing self-esteem can be problematic as Swann points out (as cited in Neff, 2011). According to him, self-esteem is quite resistant to change, which can also be seen while looking at the high failure rate of programs that used to increase self-esteem. Moreover, as already described before, high self-esteem can have some negative side-effects, especially referring to a person's social environment (Baumeister et al., 2003). For this reason, it is advisable for therapists and counsellors to direct their interventions at the enhancement of self-compassion and positive coping strategies.

Recommendations (Research)

Considering that most of the studies on self-compassion and self-esteem have a correlational design, just like the present one, future studies should address the question about causality. Although influencing self-esteem or self-compassion in an experiment might be difficult, conducting more and more cross-sectional studies will in the long-term not broaden the knowledge about these concepts of self-to-self relating. Another way of clarifying causality could also be to carry out more longitudinal studies, including programs or trainings for enhancing self-compassion (or self-esteem), although their data might be prone to coincidental influences. In addition, addressing methods to enhance self-compassion more efficiently, instead of just replicating studies on its positive influence, should be an aim for future research on this matter to eventually improve the (mental) life of people.

Conclusion

In conclusion, the present study could show that positive coping is partly accountable for the relationship between self-compassion, self-esteem and psychological well-being. However, the effect was rather small, especially compared to the direct influence of self-compassion and self-esteem. Although both ways of self-to-self relating are considerably associated with well-being, increasing self-esteem might be difficult and could have adverse side-effects, as the literature indicates. For this reason, therapists and counsellors are well-advised to direct their therapy programs at increasing their clients' self-compassion, while also working on positive coping strategies.

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