

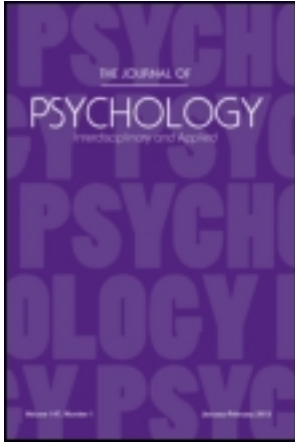
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The Role of Self-Compassion in Physical and Psychological Well-Being

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ABSTRACT. The relation of self-compassion to physical and psychological well-being was investigated among 182 college students. The self-compassion scale was delineated into three composites, following the proposition by Neff that self-compassion consists of three main components: self-judgment versus self-kindness (SJ–SK), a sense of isolation versus common humanity (I–CH), and over-identification versus mindfulness (OI–M). Findings support the association between self-compassion and psychological and physical well-being, but the composites demonstrate different influences. SJ–SK and I–CH were predictive of both depressive symptomatology and physical well-being, and SJ–SK and OI–M were predictive of managing life stressors. The results of this study support and expand prior research on self-compassion.

Keywords: depression, health, physical well-being, psychological well-being, self-compassion, stress

THE RELATIONSHIP BETWEEN PSYCHOLOGICAL AND PHYSICAL well-being has been a major focus of research over the past several decades. The influence of psychological factors on physical well-being has been found in regard to depression and cancer (Persky, Kempthorne-Rawson, & Shekelle, 1987), life stressors and immune system functioning (Danese, Pariante, Caspi, Taylor, & Poulton, 2007; Miller & Cohen, 2001), stress responses and cardiac reactivity (Salomon, Clift, Karlsdottir & Rottenberg, 2009), social functioning and cortisol regulation (Alink, Cicchetti, Kim, & Rogosch, 2011; Kagan, Reznick, & Snidman, 1988), conscientiousness and physical health, including longevity (Bogg & Roberts, 2004; Friedman et al., 1993), and even a link between obesity and the personality factors of high neuroticism and low conscientiousness (Sutin, Ferrucci, Zonderman, & Terracciano, 2011).

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Personality traits have been linked to psychological health. Research by Brissette, Scheier, and Carver (2002) linked optimism with lower self-reported stress and depression in young adults as they transitioned from high school to college. The trait of forgiveness has been linked to psychological as well as physical well-being (Lawler et al., 2003, 2005; Toussaint, Williams, Musick, & Everson, 2001). Block, Gjerde, and Block (1991) found certain personality traits were linked to depression based on gender. In women the personality traits of shyness/reserved, self-punishing, and over-control were linked to depression. However, in men the traits of being unsociable, aggressive, and under-control were linked to depression.

Personality traits linked to physical and psychological health have been viewed as key components in the field of positive psychology. Positive psychology emerged as a scientific field of study in the late 1990s, and research in this field has flourished (Seligman, Steen, Park, & Peterson, 2005). This field has led to an abundance of research on what have been termed positive traits, and how these traits are linked to physical and psychological well-being (Fredrickson & Losada, 2005). Positive psychology has been defined as “the study of positive emotions, positive character traits, and enabling institutions” (Seligman et al., 2005, p. 410).

One of the traits often included under the field of positive psychology is self-compassion. Self-compassion reflects concern and compassion toward others, but it also reflects being able to express this same concern and compassion toward oneself (Goldstein, 2003). Neff (2003a) defined self-compassion as the ability to treat oneself with kindness, recognizing one’s shared humanity, and being mindful when considering one’s negative aspects. A key aspect of self-compassion is a healthy self-acceptance, in light of a realistic understanding of one’s inadequacies, represented as an “active approach-oriented view of emotional regulation” (Neely, Schallert, Mohammed, Roberts, & Chen, 2009, p. 89). Neff underscored the distinction between self-compassion and self-esteem, citing self-compassion as being a more realistic understanding of one’s own strengths as well as weaknesses (Neff, 2009a, 2009b). She further noted that the potential negative aspects often associated with self-esteem, narcissism, and the need to feel superior, were not seen with self-compassion (2009a).

A reciprocal relationship between self-compassion and mindfulness has been proposed linking acceptance of self with the dispositional framework of mindfulness (Germer, 2009; Neff, 2003a; Neff, 2009c). The broad concept of mindfulness is based upon eastern philosophy of Buddhism and reflects being in the present with a total clarity that requires a detachment from judgments and extreme emotions—a state of being actively passive (Watts, 1957). To engage in mindfulness requires living in the present moment while engaging in passive observation of inner experiences, a release of ego, and continual contact with experience (Hollis-Walker & Colosimo, 2011, p. 222). Research on psychological well-being has shown

Mindfulness Based Stress Reduction (MBSR; Kabat-Zinn, 1982, 1990) to be effective in developing positive emotional coping when dealing with stress related to illnesses. This program emphasizes detached observation, awareness of each moment, and non-goal orientation. Shapiro, Astin, Bishop and Cordova (2005) demonstrated the benefits of mindfulness training in reducing stress among health care professionals as well as an increase in self-compassion.

In a study by Hollis-Walker and Colosimo (2011) self-compassion was found to be a key attitudinal factor in mindfulness, and mindfulness was partially linked to happiness through self-compassion. It should be noted that the study used Neff's measure of Self-Compassion (Neff, 2003a) which has a subscale labeled mindfulness. However, Neff's use of the term mindfulness is more reflective of recognizing and controlling emotions and perspective taking rather than the broader conceptualization as applied in MBSR. They found significant positive relationships for mindfulness and common humanity and a negative relationship for isolation in predicting happiness. They suggested that these factors play a key role in living well.

Recent research has demonstrated a link between self-compassion and psychological health, including happiness, conscientiousness, optimism and decreased anxiety, depressive symptomatology, and rumination (Neff, 2009a, 2009b, 2009c). A study by Neff and McGehee (2010) found that self-compassion was linked to resilience in adolescents and young adults. They found attachment styles, family functioning, and maternal support were predictors of self-compassion. Neff, Kirkpatrick, and Rude's (2007) research indicated that self-compassion could serve as a buffer against anxiety, and it was related to psychological well-being as measured through self-reports as well as therapists' reports a month later.

The current study assesses the relationship between physical and psychological well-being and self-compassion using Neff's *Self-Compassion Scale* (SCS; 2003a). The SCS includes six subscales of which three are positive (self-kindness - SK; common humanity - CH; and mindfulness - M) and three negative (self-judgment - SJ; isolation - I; and over-identification - OI). Given the strong correlations among some of the subscales and considering the subscales are not orthogonal, the six subscales were delineated into three composites for the purpose of this study: composite 1 (self-judgment minus self-kindness); composite 2 (isolation minus common humanity); and composite 3 (over-identification minus mindfulness). This delineation follows the proposition by Neff (2003a, 2003b), that self-compassion consists of three main components: self-judgment versus self-kindness, a sense of isolation versus common humanity, and over-identification versus mindfulness. Based upon prior research (Alink et al., 2011; Block et al., 1991; Bogg & Roberts, 2004; Danese et al., 2007; Neely et al., 2009; Neff, 2003a, 2007, 2009a, 2009b, 2009c), we posited that all three composites of Self-Compassion would be associated with better physical and psychological well-being.

Method

Participants

Participants were 182 college students (41 men, 141 women), recruited from upper level psychology courses. Of a possible 224 participants, 191 agreed to participate. Of the 191 initial data sets, nine were incomplete and eliminated from analysis leaving 182 complete data sets. Participation was voluntary, and students' decision to participate or not participate did not influence their class standing. The study was approved by the university's Institutional Review Board and met APA ethical guidelines for research with human subjects.

Instruments

The Cohen–Hoberman Inventory of Physical Symptoms (CHIPS, 1983). The CHIPS is a list of 33 common physical symptoms. Each item is rated on a 5-point scale ranging from “not at all” to “extremely” in terms of how much that particular physical symptom has bothered or distressed the individual during the past two weeks. The primary focus of the scale is physical symptoms that may include psychosomatic complaints (i.e., constant fatigue, sleep problems), but the scale excludes psychological symptoms (i.e., feeling anxious, feeling depressed). The scale has been shown to be significantly correlated with college students' use of student health facilities and moderately correlated with depressive symptomatology. The internal reliability of the scale was reported as $\alpha = .88$ (S. Cohen & Hoberman, 1983).

The Perceived Stress Scale (PSS). The PSS is a 14 item self-report measure of the degree to which situations in one's life are thought of as stressful (S. Cohen, Kamarck, & Mermelstein, 1983). Each item is rated by the frequency with which these stressful events have occurred in the past month. Items are rated on a 5-point scale from “never” to “very often.” Coefficient alpha reliabilities for the scale were reported to range from .84 to .86 over three samples (S. Cohen et al.). Test–retest correlations were reported to be .85 in a college population, but much lower test–retest correlations of .55 were found for subjects in a smoking cessation study (S. Cohen et al.). The stress scale demonstrated high correlations with depressive symptomatology and both were predictive of physical symptomatology. However, when the measure of depression was partialled out, the stress scale was still able to predict physical symptomatology independently (S. Cohen et al.). The stress scale demonstrated concurrent and predictive validity with life events, as well as being a predictor of symptomatology, utilization of health care services and social anxiety. While slightly higher scores on the scale were reported for women, this difference was not statistically significant (S. Cohen et al.).

The Self-Compassion Scale (SCS). The SCS is a 26 item measure of the degree to which individuals display self-kindness versus self-judgment, common humanity versus isolation, and mindfulness versus over-identification (Neff, 2003a). There are six subscales with three being positive and three negative measures of

self-compassion. The scale measures how individuals typically act towards themselves in difficult times. Items are rated on a 5-point scale from “almost never” to “almost always.” Internal reliability as measured by coefficient alpha is reported at .92 and test–retest reliability is reported at .93 (Neff, 2003a; Neff et al., 2007). Neff (2003a) reports evidence of concurrent and convergent validity of the scale, citing significant correlations with measures of social connection and therapist ratings, respectively. It shows discriminate validity in that the scale was not correlated with measures of social desirability.

The Beck Depression Inventory–II (BDI-II). The BDI-II is a 21-item self-report measure (Beck, Steer, & Brown, 1996). Among student samples, internal reliability of BDI-II scores are reported to range from $[\alpha] = .89$ to $[\alpha] = .93$ (Beck et al., 1996; Steer & Clark, 1997). Beck et al. (1996) report test–retest reliability for outpatients one week apart as .93. The BDI-II demonstrates convergent and discriminant validity, with the BDI-II demonstrating higher correlations with other measures of depression than with measures of anxiety (Beck et al., 1996). The BDI-II demonstrates criterion validity, with participants diagnosed with Major Depressive Disorder (MDD) scoring significantly higher on the BDI-II than participants not diagnosed with MDD (Arnau, Meagher, Norris, & Bramson, 2001). Studies have found mixed results when assessing gender differences on the BDI-II. Some studies have found that women score significantly higher on the BDI-II than men (Arnau et al., 2001; Beck et al., 1996), but other studies have failed to find significant differences (Dozois, Dobson, & Ahnberg, 1998).

While the BDI-II has proven to be a good screening instrument to dichotomize individuals in respect to depression, it is not as effective in discriminating among differences in respondents who do not display symptoms of clinical depression. Based upon modifications previously done by Chow and Brenton, (1995), three positive statements were added to each item, with each statement mirroring the three negative scenario options on BDI-II, in order to fit better with the assessment of a nonclinical population. Chow and Brenton reported high coefficient alpha with modified version (.92), strong correlation between the classification results (.86), and a factor structure that was more readily interpretable with nonclinical population.

Procedure

Participants were asked to give their written consent for participation, and then they were asked to complete the Cohen–Hoberman Inventory of Physical Symptoms (CHIPS, 1983), the Perceived Stress Scale (PSS, S. Cohen et al., 1983), the Beck Depression Inventory II - Revised (BDI-II, R, Chow & Brenton, 1995), and the SCS (Neff, 2003a).

Results

Correlations were computed to determine the relationships among the variables, and regression analyses were conducted to assess the role of the Self-Compassion composite scales in predicting physical well-being, depressive

TABLE 1. Descriptive Statistics and Correlations for Study Variables ($N = 182$)

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1 CHIPS	24.50	16.02	(.89)	.41**	.34**	.28**	.09	.23**
2 BDI–IIR	60.96	16.12		(.88)	.62**	.66**	.59**	.60**
3 Stress	24.99	8.71			(.88)	.51**	.44**	.53**
4 SJ–SK	–0.33	7.69					.72**	.79**
5 I–CH	–0.73	5.82						.75**
6 OI–M	–1.21	5.95						

Note. Alpha reliability coefficients appear along the diagonal in parentheses for CHIPS, BDI, and Stress scales. Coefficient alphas for the six Self-Compassion subscales were: Self-Kindness = .82; Self-Judgment = .84; Common Humanity = .75; Isolation = .84; Mindfulness = .72; Over-Identification = .82.

** $p \leq .01$.

symptomatology, and life stressors. Scores on the CHIPS were assessed in relation to self-compassion. Correlations, shown in Table 1, demonstrated frequency of self-reported physical symptoms was significantly correlated with two of the three composites. Individuals scoring higher on the CHIPS demonstrated higher scores on SJ–SK, $r = .28$, $p < .001$, and OI–M, $r = .23$, $p = .002$, but not I–CH, $r = .10$, $p = .22$. A regression analysis (see Table 2) was performed with

TABLE 2. Multiple Regression Models Predicting Physical Well-Being, Depressive Symptomatology, and Stress With Self-Compassion Scales

	β	<i>t</i>	<i>p</i>	<i>R</i>
Physical Well-Being				0.33
SJ–SK	0.35	2.94	<.01	
I–CH	–0.29	–2.54	.01	
OI–M	0.17	1.32	.19	
BDI–IIR				0.69
SJ–SK	0.44	4.62	<.01	
I–CH	0.19	2.14	.03	
OI–M	0.12	1.21	.23	
Stress				0.55
SJ–SK	0.22	2.10	.04	
I–CH	0.04	0.40	.69	
OI–M	0.33	2.93	<.01	

Note. SJ = Self-Judgment; SK = Self-Kindness; I = Isolation; CH = Common Humanity; OI = Over-Identification; M = Mindfulness; BDI = Beck Depression Inventory.

CHIPS as the predicted or outcome variable, with the predictors being the three composite scores. The regression equation was significant, $R = .33$, $F(3, 177) = 7.35$, $p < .01$. According to the regression analysis, two of the three predictors had significant unique effects, SJ-SK ($\beta = .35$, $p < .01$) and I-CH ($\beta = -.29$, $p \leq .01$), but OI-M did not ($\beta = .12$, $p = .19$). Upon further inspection, a suppression effect with I-CH serving as the suppressor variable was noted. I-CH was not significantly correlated with physical well-being, but it contributed significantly to the model by suppressing irrelevant variance in the SJ-SK predictor (note that the Beta value for SJ-SK exceeded the correlation coefficient between SJ-SK and physical well-being and the β for I-CH was opposite in sign from that of its zero-order r). When the irrelevant variance was removed, SJ-SK became a stronger predictor of physical well-being. OI-M was not found to be a significant predictor of physical well-being.

Correlations demonstrated that depressive symptomatology was significantly correlated with all three SC composites. Individuals scoring higher on the BDI-II demonstrated higher scores on SJ-SK composite, I-CH composite, and OI-M composite, indicating less self-compassion in all three areas, $r = .66$, $p < .001$; $r = .59$, $p < .01$; $r = .60$, $p < .001$, respectively. A regression analysis, shown in Table 2, was performed with depressive symptomatology as the outcome variable, and the three composite scores as the predictors. The regression equation was significant, $R = .69$, $F(3, 176) = 52.33$, $p < .01$. The multiple regression analysis revealed that SJ-SK ($\beta = .44$, $p < .01$) and I-CH ($\beta = .19$, $p < .01$) had significant unique effects, but OI-M ($\beta = .12$, $p = .23$) did not.

Stress was significantly correlated with the three composites, SJ-SK, $r = .51$, $p < .001$; I-CH, $r = .44$, $p < .001$; OI-M, $r = .53$, $p < .001$. The multiple regression model was significant, $R = .55$, $F(3, 178) = 25.99$, $p < .01$. SJ-SK ($\beta = .22$, $p = .04$) and OI-M ($\beta = .33$, $p < .01$) had significant unique effects, but I-CH ($\beta = .04$, $p = .69$) did not.

Discussion

The focus of the current study was the relationship between the composite dimensions of self-compassion and physical and psychological well-being. Findings supported a relationship between self-compassion and both psychological and physical well-being, but the composites demonstrated different influences. The composites examining self-judgment minus self-compassion (SJ-SK) and over-identification minus mindfulness (OI-M) were significantly correlated with physical well-being in the current study. However, regression analysis found that while SJ-SK and I-CH were predictive of self-reported physical well-being, OI-M was not. Further inspection found that the I-CH composite suppressed irrelevant variance, enhancing the predictive power of the SJ-SK composite. As self-judgment increased in relation to self-kindness, so did physical symptoms.

Our original hypothesis that all three composites would be predictive of physical well-being was only partially supported. From the results of the current study SJ–SK was the key predictor. It may be that when individuals engage in more self-judgment they are less likely to engage in healthy behaviors and are less likely to respond to their own physical needs, such as taking time to rest when dealing with a cold or fatigued. Conversely, Gilbert and Irons (2005) posited that the body's activation of certain hormonal response systems could play a major role in physical well-being. They proposed that engaging in self-compassionate behavior could exert an influence on physical well-being by activating the oxytocin–opiate system and reducing the body's threat system.

The present study found that all three composites were significantly correlated with depressive symptomatology. However, as with physical symptoms, the regression analysis found SJ–SK and I–CH, but not OI–M, has significant unique effects, partially supporting the study's hypothesis that all three composites would significantly contribute to the prediction of depressive symptomatology. These results lend support to prior research that has shown a significant negative relationship between self-compassion and self-reported depression (Neff, 2003a). Individuals who engaged in more self-judgmental thoughts and isolation were more likely to indicate depressive symptomatology. These individuals may be more likely to ruminate over their own perceived deficiencies and isolate themselves from others (Martell, Dimidjian, & Herman-Dunn, 2010; Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008). These negative processes can play a crucial role in the development and maintenance of depressive symptoms.

All three composites were significantly correlated with perceived stress. The multiple regression analysis indicated that all three composites (SJ–SK, I–CH, OI–M) made significant unique contributions in predicting perceived stress and supported our hypothesis. It may be that increased self-judgment in relation to self-compassion lowers an individual's ability to cognitively engage in positive coping strategies in order to effectively deal with stress. Neff and Vonk (2009) found that individuals with higher levels of self-compassion were better able to deal with negative life events and were more likely to be able to use more adaptive responses in response to these unpleasant events. The I–CH composite indicated that as isolation increased in response to common humanity, the ability to cope effectively with stressors diminished. Research has shown the importance of social support in aiding in effective coping mechanisms when faced with and recovery from stress (Fredrickson, 1998, 2001; Tugade & Fredrickson, 2004). The results found OI–M was a significant predictor of dealing with stress and support prior research on the role of mindfulness in effective coping with stress (Kabat-Zinn, 1982, 1990; Shapiro et al., 2005).

While there has been a proliferation of research in the field of positive psychology since the late 1990s, the field is not without its critics. McNulty and Fincham (2011) questioned defining psychological traits and processes as either

positive or negative. They go on to note that the field of positive psychology has failed to take into account various interpersonal contexts and suggest that there needs to be a different way of assessing psychological traits with respect to either promoting or hindering well-being. The authors of the current study support the self-compassion model based on Neff's (2003a, 2003b; Neff & Vonk, 2009) work as a realistic way of viewing the world. Self-compassion does not serve as an excuse for mistakes or to disregard behaviors that may be detrimental to oneself or others. Self-compassion involves discriminative wisdom by recognizing strengths as well as weaknesses and being willing to take appropriate steps to insure one's own well-being with full understanding of the complexities regarding human behavior (Neff, 2009a, p. 225). For these reasons, the authors posit that self-compassion and the three composites address the major concerns noted by McNulty and Fincham (2011) and certainly warrant continued research on their influence on physical and psychological well-being.

Certain limitations should be noted in the current study. The sample size was limited and participants were upper level college students from a specific southeastern university. Therefore, caution should be exercised in generalization of these findings. Additional research is needed with a larger sample size and a more representative sample of participants. With a larger sample size, the few correlations not found to be significant here might be found as significant. Given our sample size, power is 99% for detecting medium-sized zero-order correlations, but only 27% for small correlations. Power is not an issue for our multiple correlations, as all were statistically significant. Additional research is needed to aid in the generalizability of the results and to assess the robustness of the findings. A common convention for size of zero-order correlation coefficients is .1 is small but not trivial, .3 is medium, and .5 is large (J. Cohen, 1992). By this convention, two of the significant zero-order correlations we report fall into the small to medium range, three into the medium to large range, and nine into the large or larger range. Converting from f^2 to R , J. Cohen's (1992) benchmarks for multiple R are .14 (small), .36 (medium), and .51 (large). Two of the three multiple R values we reported are large and one falls just .02 short of medium.

All the instruments in the current study were self-report measures and therefore, dependent on participants' perceptions. It would be beneficial to obtain additional measures of physical well-being that are more objective such as visits to the student health center or asking students to maintain records of both over-the-counter and prescription medications during the semester. In addition, participants were asked to provide information on physical well-being, stress and depressive symptomatology at the same time they completed the self-compassion scale. Future research needs to assess the role of self-compassion in predicting physical and psychological well-being over extended time periods. In addition, there was not an equal representation of men and women. As in other studies with college samples, the majority of volunteer participants were women. Future research should assess

possible gender differences in the relationship of self-compassion to physical and psychological well-being.

In summary, the findings from the current study support the role of self-compassion in psychological and physical well-being; however, it may be more advantageous to look at the three composites that comprise Neff's (2003a) conceptualization of self-compassion rather than the overall measure. The three composites demonstrate different influences on physical and psychological well-being, and future research may provide additional insight into the complex patterns associated with well-being. The authors support McNulty and Fincham's (2011) position that well-being is a complex concept that requires consideration of both intrapersonal and interpersonal contexts.

AUTHOR NOTES

Cathy W. Hall is a professor at East Carolina University. Her current research interests are metacognition, emotional intelligence, and resilience. **Kathleen A. Row** is a professor emerita at East Carolina University. Her research interests center on forgiveness, positive traits and health. **Karl L. Wuensch** is a professor in the Department of Psychology at East Carolina University. He is a methodologist with broad research interests, including social psychology, health psychology, and ethical ideology. **Katelyn R. Godley** is a graduate student at East Carolina University in Substance Abuse and Clinical Counseling. Her current research interests are substance abuse prevention and treatment, reducing inmate recidivism, and juvenile delinquency concerning drug-related offenses.

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