



# Benevolence – Associations With Stress, Mental Health, and Self-Compassion at the Workplace

Christina Andersson<sup>1,2\*</sup>, Cecilia U. D. Stenfors<sup>3,4</sup>, Peter Lillengren<sup>5</sup>, Stefan Einhorn<sup>2,6</sup> and Walter Osika<sup>2,7</sup>

<sup>1</sup> Center for Psychiatry Research, Department of Clinical Neuroscience, Karolinska Institute, Stockholm, Sweden, <sup>2</sup> Center for Social Sustainability, Department of Neurobiology, Care Sciences and Society, Karolinska Institute, Stockholm, Sweden, <sup>3</sup> Department of Psychology, Stockholm University, Stockholm, Sweden, <sup>4</sup> Aging Research Center, Department of Neurobiology, Care Sciences and Society, Karolinska Institute, Stockholm, Sweden, <sup>5</sup> Department of Health Care Sciences, St. Lukas Educational Institute, Ersta Sköndal Bräcke University College, Stockholm, Sweden, <sup>6</sup> Department of Oncology-Pathology, Karolinska Institute, Stockholm, Sweden, <sup>7</sup> Stockholm Health Care Services, Center for Psychiatry Research, Department of Clinical Neuroscience, Karolinska Institute, Stockholm, Sweden

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### \*Correspondence:

Christina Andersson  
Christina.andersson@ki.se

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**Objective:** Benevolence is an emerging concept in motivation theory and research as well as in on pro-social behavior, which has stimulated increasing interest in studying factors that impair or facilitate benevolence and effects thereof. This exploratory study examines the associations between benevolence, stress, mental health, self-compassion, and satisfaction with life in two workplace samples.

**Methods:** In the first study  $n = 522$  (38% = female, median age = 42) participants answered questionnaires regarding self-reported stress symptoms (i.e., emotional exhaustion), depressive symptoms and benevolence. In the second study  $n = 49$  (female = 96%) participants answered questionnaires regarding perceived stress, self-compassion, anxiety, depression symptoms, and benevolence.

**Results:** In study 1, measures of emotional exhaustion ( $r = -0.295$ ) and depression ( $r = -0.190$ ) were significantly negatively correlated with benevolence. In study 2, benevolence was significantly negatively correlated with stress ( $r = -0.392$ ) and depression ( $r = -0.310$ ), whereas self-compassion (0.401) was significantly positively correlated with benevolence. While correlations were in expected directions, benevolence was not significantly associated with Satisfaction with Life ( $r = 0.148$ ) or anxiety ( $r = -0.199$ ) in study 2.

**Conclusion:** Self-assessed benevolence is associated with levels of perceived stress, exhaustion, depression, and self-compassion. Future studies are warranted on how benevolence is related to stress and mental ill health such as depression and anxiety, and if benevolence can be trained in order to decrease stress and mental ill health such as depression and anxiety in workplace settings.

**Keywords:** benevolence, stress, self-compassion, well-being, workplace, mental health

## INTRODUCTION

Stress-related problems are global phenomena (OECD, 2013; Vigo et al., 2016) and stress-related health problems (OECD, 2010) and sick-leave (The Swedish Social Insurance Agency, 2017) are also common in Sweden. It entails substantial individual costs in terms of reduced wellbeing and functioning, as well as societal costs in terms of lost productivity, provision of health care and economic support (Ekman et al., 2013; Jonsdottir et al., 2017).

Many employees report high levels of stress in the workplace, which affects the business as well as the working environment (Ishtiak-Ahmed et al., 2014; Savic et al., 2017; The Swedish Social Insurance Agency, 2020). Stress in the workplace is connected to e.g., levels of demand and control (Karasek et al., 1982), support (Turner et al., 2012), effort reward imbalance (Siegrist, 1996), high work pace, constant change, increasing expectations for self-actualization, increasing reliance on interpersonal coordination in the execution of work tasks, and increasing job insecurity (Seidler et al., 2014). Hence, the psychosocial conditions in an organization plays a crucial role on the individuals' mental health and productivity (Magnusson Hanson et al., 2008; Stenfors et al., 2013).

Stress affects people in different ways, and several definitions of stress have been proposed (Folkman et al., 1986; McEwen, 1998, 2007; Lupien et al., 2009). For example, Lazarus and Folkman (1987) defined stress as a perceived imbalance between demands and resources. Ursin and Eriksen (2010) further argued that the stress response is a healthy and necessary response to something that is perceived as a threat or a challenge, in the cognitive activation theory of stress (CATS). Brosschot et al. (2005) highlighted the detrimental effects regarding prolonged activation of the stress response. They argue that prolonged physiological stress activity can be noticed in (1) Anticipatory responses to potential stressors, (2) Slow recovery from stressors, and (3) Recurrent activity related to past stressors. The stress response can hence be a reaction to something that happens in a specific situation, but it can also be a response to a (sometimes unconscious) ongoing mental process, over a long time period. Brosschot et al. (2018) further argue that it is not the stressor that triggers the stress response, but instead that all humans have a default stress response which is inhibited when safety is perceived generalized unsafety theory of stress (GUTS).

Benevolence is an emerging concept in e.g., motivation theory and research on altruism, pro-social behavior and psychological wellness. One definition of benevolence is the sense of *being able to give* (Martela and Ryan, 2015). Martela and Ryan (2015) developed and studied a new sub-scale comprising four items about benevolence in relation to well-being and mood, in four different sub-studies. It is a complement to the already established three dimensions of internal motivation; autonomy, competence, and relatedness, according to Self Determination Theory (Deci and Ryan, 1985; Ryan and Deci, 2000).

Research is still lacking regarding what factors are of importance for benevolence and how it is related to other aspects of mental health. According to prior research on stress and burn-out, employees are reporting emotional exhaustion,

depersonalization, and reduced personal accomplishment when they reach a level of work-related burnout (Maslach and Jackson, 1981; Maslach et al., 2001; Maslach and Leiter, 2017), which hypothetically could decrease benevolence. It has been suggested but is not known if benevolence may act as a buffer against stress-related problems.

The ability to share the feelings of others is often referred to as empathy, and the ability to care for and show concern for others is the core aspect of compassion (Goetz et al., 2010; Singer and Klimecki, 2014). Recent descriptions and research on compassion includes, e.g., evolutionary theory, affective and cognitive neuroscience and attachment psychology, where all humans are thought to have an innate caring motivation to respond to the ones, they are close to, if they are in need (Gilbert, 2010). In a prior study (Andersson et al., 2020 submitted), a self-compassion intervention was shown to have a significant impact on decreasing stress. One definition of self-compassion is how you relate to yourself in a time of suffering (Neff, 2003b) and it is related to a decrease in stress and psychological ill-health, as anxiety and depression (MacBeth and Gumley, 2012; Muris et al., 2016; Kirby et al., 2017; Cuppage et al., 2018). Also, compassion directed toward others have been found to have a buffering effect against stress (Cosley et al., 2010). Experiencing stress or burnout is associated with compassion fatigue (Joinson, 1992) and empathy fatigue (Singer and Klimecki, 2014) and these mental states (that in themselves are related to stress) could have an impact on benevolence.

## Aim of Study

The aim of study 1 was to investigate how benevolence, measured by a newly developed short scale, was associated with stress in terms of emotional exhaustion and depression in a large workplace sample.

The aim of study 2 was to examine if the results from study 1 was replicated in an additional sample, as well as to explore additional associations with self-compassion and satisfaction with life.

## Research Questions and Hypotheses

Is there a relationship between the levels of benevolence, perceived stress, emotional exhaustion, depression, and self-compassion? Based on theory and previous research we expect benevolence to be negatively associated with measures of stress and mental health and positively associated with self-compassion.

## MATERIALS AND METHODS

### Design

Two cross sectional studies were performed on two independent samples from two different populations.

### Participants

#### Study 1

The sample included office workers in four Swedish organizations. All employees (1,194) were invited to answer

an online survey including questions about their work situation, health and wellbeing (MBI-EE and SCL-CD6), out of which 44% responded to the survey, with  $n = 522$ , responding to the benevolence questions (BS) (female = 40% age: 24–66, median age = 42).

## Study 2

This study involved 47 (97% female) participants that were recruited from a public office Social Insurance Agency and a commercial bank to participate in an intervention study evaluating the effects of a compassion training program (Andersson et al., in preparation). When entering the trial, the participants answered questionnaires (using paper and pen) regarding perceived stress (PSS14), self-compassion (SCS), anxiety and depression (HADS), satisfaction with life (SWLS), and benevolence (BS).

## Materials/Instruments

### Description of the Benevolence Subscale (BS)

Martela and Ryan (2015) developed a brief scale to assess beneficence satisfaction, or the feeling that one has been benevolent. This was to capture what has been called the immediate “warm glow” associated with acts of kindness (Andreoni, 1990). Benevolence is evaluated on a scale ranging from 1 (not at all true) to 7 (very true) and the items are the following (1) “*I feel that my actions have a positive impact on the people around me,*” (2) “*The things I do contribute to the betterment of society,*” (3) “*I have been able to improve the welfare of other people,*” (4) “*In general, my influence in the lives of other people is positive.*”

The translation of the scale from English to Swedish was conducted according to Streiner and Norman (2008). Two different bilingual (Swedish/English) persons with Swedish as a mother tongue translated the scale to Swedish from its original English version (Martela and Ryan, 2015). The translations were then back-translated into English by two other bilingual persons who were not familiar with the original BS measure or its purpose. An analysis group then compared the original and the two back-translated scales, aiming at eliminating any differences between the separate versions. Cronbach’s alpha in study 1 was 0.85 and in study 2 was 0.84.

### Symptom Checklist, Core Depression Subscale (SCL-CD6)

This scale is a subscale of the SCL-90, which measure core psychological and physical symptoms of depression during the last week. It has been validated against other comprehensive measures of clinical depression and found to have good validity and psychometric properties (Magnusson Hanson et al., 2014). The level of depressive symptoms is rated on a 5-point Likert scale ranging from 1 to 5, reflecting the perceived impact of symptoms in the previous week. Examples of items from the scale includes “*blaming yourself for things*” or “*worrying too much about things.*” Reliability in the current sample of study 1 is a Cronbach’s alpha of 0.88.

### Maslach Burnout Inventory, Emotional Exhaustion Subscale (MBI-EE)

The scale is a subscale from the Maslach Burnout Inventory general survey (MBI-GS) (Schaufeli et al., 1996; Schutte et al., 2000). The subscale has five items, and two examples are “*My job makes me feel emotionally drained*” or “*I feel burned out by work.*” The score is from 1 (a few times a year or less/never) to 6 (every day). The scale has good internal consistency with a reliability of 0.86 (Cronbach’s alpha) in the current sample of study 1.

### Perceived Stress Scale (PSS14)

Perceived Stress Scale is a widely used instrument to assess perceived stress. It is developed by Cohen et al. (1983). The original version of 14 items (Cronbach’s  $\alpha = 0.75$ ). The scale consists of questions regarding thoughts and feelings over the last month, rated on a 5-point Likert scale (0 = *Never*, 4 = *Very often*). An example question is “*In the last month, how often have you felt that you were unable to control the important things in your life?*” The maximum total score is 56, the minimum total score is 0. The scale includes reversed items. The Swedish translation used here has been developed by Eskin and Parr (1996). Reliability in the current sample in study 2 was 0.92.

### Satisfaction With Life Scale (SWLS)

The satisfaction with life scale is developed by Diener et al. (1985). It’s a 5-item questionnaire to measure subjective well-being in one’s life as a whole. Each item is rated on a 7-point Likert scale (1–7), with 1 = *strongly disagree* and 7 = *strongly agree*. The scale has good psychometric properties with internal consistency reliability (Cronbach’s  $\alpha = 0.88$ ) Kobau et al. (2010). Reliability in the current sample of study 2 is 0.87.

### The Hospital Anxiety and Depression Scale (HAD-S)

The Hospital Anxiety and Depression Scale was developed by Zigmond and Snaith (1983) and is a 14-item questionnaire to measure self-reported anxiety and depression scores. Seven items target anxiety (HADS-A) and seven items depression (HADS-D). Each item is rated on a 4-point Likert scale (0–3) with 0 = *never* to 3 = *very often*. The total score on each respective subscale is 21. A score over 15 is interpreted as severe depression or anxiety. A score above 11 is interpreted as the individual likely having a problem related to anxiety or depression and a score around 8–10 is seen as threshold value. Test-retest reliability has been found to be strong, 0.84 for anxiety and 0.71 for depression (Andersson et al., 2003) and internal consistency (Cronbach’s alpha) between 0.68 and 0.93 for the anxiety scale and between 0.67 and 0.90 for the depression scale. Reliability in the current sample of study 2 is 0.93 for HADS total and 0.86 for the anxiety scale and 0.89 for the depression scale.

### Self-Compassion Scale (SCS)

This 26-items scale assesses levels of self-compassion (Neff, 2003a). There are three factors of positive self-compassion: Self-kindness, Common humanity and Mindfulness, and three factors that focus on a lack of self-compassion: Self-judgment, Isolation,

and Over-identification. Participants indicate how often they engage in these ways of self-relating in times of distress rated on a Likert scale 1–5. The scale includes reversed items. The scale has good reliability (Cronbach's alphas ranging from 0.75 to 0.81). Reliability in the current sample of study 2 is 0.92.

## Ethical Considerations

Both studies were approved by the regional Ethical Review Board in Stockholm, Sweden (Dnr 2014/1300-31/5 and Dnr 2015/1589-31/5).

## Statistical Analyses

The statistical analyses in study 1 and 2 were performed in SPSS 25. Bivariate Pearson  $r$  correlations were calculated between study measures. Listwise deletion was applied in the analyses. Before analyses, all variables were screened for normality. Due to the exploratory aim of the study (Bender and Lange, 2001), the two-way significance level was set to 0.05 without correction for familywise error rate (e.g., Bonferroni).

## RESULTS

### Study 1

Results are displayed in **Table 1**. Benevolence was associated with measures of psychological functioning and well-being, in that higher levels of benevolence were related to significantly less emotional exhaustion ( $r = -0.295, p < 0.01$ ) and less depressive symptoms ( $r = -0.190, p < 0.01$ ). Partial correlations with adjustment for age and gender showed similar results.

### Study 2

Results are displayed in **Table 2**. In this sample, we found that higher levels of benevolence were significantly associated with lower levels of perceived stress ( $r = -0.392, p = 0.006$ ) depression ( $r = -0.310, p = 0.034$ ) and higher levels of self-compassion ( $r = 0.401, p = 0.005$ ). The association with anxiety was negative ( $r = -0.199$ ) but did not reach significance ( $p = 0.180$ ). Similarly, the association with Satisfaction with Life was positive, but not significant ( $r = 0.148, p = 0.322$ ).

## DISCUSSION

The aim of this study was to investigate the associations between stress, mental health, self-compassion and benevolence

in two independent samples recruited from several Swedish workplaces. In study 1, a negative correlation between levels of self-rated stress, depression and benevolence was found. This was corroborated in the second study, where a similar pattern of associations between measures of perceived stress, depression, anxiety and benevolence were seen. Significant correlations were in the “moderately strong” range (e.g., 0.30–0.50) according to Cohen (1992), suggesting meaningful connections between concepts. While the correlations between benevolence, anxiety and satisfaction with life were not significant in Study 2, they were in the expected directions and non-significance may reflect limited power.

In study 2, we also found a positive relationship between benevolence and self-compassion, which also exhibited negative correlations with stress, depression and anxiety. Hence, self-compassion was associated with psychological well-being, which confirms earlier findings (Neff, 2003b; Kirby et al., 2017). Benevolence does not target suffering explicitly as self-compassion but being benevolent has been suggested to be an innate quality in all humans (Keltner et al., 2010). Self-compassion has been described to target, e.g., self-criticism and subsequent suffering (Gilbert and Procter, 2006), and it might be easier to access a state of benevolence if one has self-compassion, not being so hard on oneself and being able to see the positive impact one has on others. The results also suggest that benevolence could have an impact on the mental health and wellbeing outcomes. One could argue that there may be a reciprocal/bidirectional relationship. For example, stress and depression could reduce benevolence, but high benevolence could also have a reducing and/or buffering effect on stress and depression (Piliavin and Siegl, 2007). Acting benevolent involves both the giving end and the receiving end of the flow of pro-social and compassion behavior. Therefore, it would be of interest to study how it relates to the fears in each direction of the compassionate flow and see if decreasing the fears and blocks (Kirby et al., 2019) will have a positive impact on benevolence.

The results in study 2 were in line with the results in study 1. In both studies the Benevolence scale was used, while different measures of stress and depression were used in the two studies due to the different study settings (i.e., workplace setting in study 1 and a psychological intervention trial in study 2 where HAD-S is more frequently used in clinical settings). The correlations between benevolence and depression (in study 1 measured by SCL-CD6 and in study 2 measured by HAD-S) were however similar. Furthermore, prior works have found the two depression measures to correlate highly (Bjelland et al., 2002). The results from study 1 and 2 together thus provide robust support to benevolence being negatively associated with depressive symptoms. Different and complimentary aspects of stress were investigated in study 1 and 2. Symptoms of chronic stress were investigated in study 1 in terms of emotional exhaustion symptoms (MBI-EE), while perceived stress (PSS14) was investigated in study 2 which tap the experience of stressors in terms of stressful situations and ability to cope with those stressors. The results from study 1 and 2 are thus complimentary and suggest that a higher degree of benevolence is associated with a lower level

**TABLE 1** | Study 1: Descriptive statistics and correlations.

	<i>n</i>	<i>M</i>	<i>SD</i>	Correlations		
				1	2	3
1. Benevolence	522	3.75	0.79	–		
2. SCL-CD6	522	1.84	0.77	–0.190**	–	
3. MBI-EE	521	2.15	1.04	–0.295**	0.619**	–

SCL-CD6, symptom checklist, core depression subscale; MBI-EE, Maslach Burnout Inventory, emotional exhaustion subscale. \*\* $p < 0.01$  (two-tailed).



**TABLE 2** | Study 2: Descriptive statistics and correlations.

	<i>n</i>	<i>M</i>	<i>SD</i>	Correlations						
				1	2	3	4	5	6	
1. Benevolence	47	15.7	2.6	–						
2. PSS14	47	27.3	10.2	–0.392**	–					
3. SWLS	47	24.3	6.30	0.148	–0.557**	–				
4. HADS-D	47	4.60	4.13	–0.310*	0.689**	–0.690**	–			
5. HADS-A	47	7.45	4.96	–0.199	–0.712**	–0.575**	0.758**	–		
6. SCS	47	79.8	18.1	0.401**	–0.652**	0.337*	–0.457**	–0.570**	–	

PSS14, perceived stress scale; SWLS, satisfaction with life scale; HADS-D, the hospital anxiety and depression scale, depression; HADS-A, the hospital anxiety and depression scale, anxiety; SCS, self-compassion scale. \* $p < 0.05$ ; \*\* $p < 0.01$  (two-tailed).

of both perceived stressors and ability to cope (PSS14) as well as symptoms of chronic stress in the form of emotional exhaustion symptoms.

Neff and Vonk (2009) highlight the difference between self-compassion and self-esteem, the latter being more unstable and often including the comparison of oneself against others, which can affect a person's self-worth. Hallsten et al. (2005) also connects the same aspect of a performance-based self-esteem relationship to emotional exhaustion. Even if acute stress has been described to trigger pro-social behavior (Raposa et al., 2016) chronic stress on the other hand have been shown in several studies to increase the risk for both mental (Grossi et al., 2015) and e.g., cardiovascular diseases (Steptoe and Kivimäki, 2012).

According to the Self Determination Theory (SDT), individuals are motivated by extrinsic and intrinsic factors. Extrinsic motivation refers to behaviors driven by external rewards like money, praise or fame. Intrinsic motivation refers to behaviors driven by growth and internal satisfaction (Deci and Ryan, 1985; Kasser and Ryan, 1996). The SDT recognizes three basic psychological needs which drives our behavior, autonomy, competence and relatedness. Martela and Ryan (2015, 2020) investigated if benevolence could be categorized as an additional basic psychological need, but concluded that it didn't qualify as such, but rather as a psychological factor which e.g., could enhance wellbeing. Another aspect of benevolence and its association to stress and motivation is Kaufman (2018) description of the concept of self-actualization, which involves helping others and not only seeing self-actualization as an individual project. The role of benevolence as a mental state, and if it relates to e.g., actual pro-social behavior still needs to be clarified.

## Limitations

Some limitations do apply to the current study: First, both studies were cross-sectional and hence correlational, and thus, no causal inferences can be made. Secondly, both samples were limited to certain populations—office workers in four different organizations in study 1, and self-selected participants from different workplaces to an intervention program in study 2. Future studies that use experimental designs would be needed to any establish causal links between these factors, e.g., by

investigating the effects of increased benevolence on stress and other mental health outcomes in interventions studies. Third, all the participants were from Sweden and were recruited either from a survey targeted at specific workplaces (study 1) or from intervention studies targeted at specific working populations (study 2). In order to validate the results from the current study, more studies including samples from e.g., other countries and cultural backgrounds are needed. Fourth, age was not registered in study 2, which limits the generalizability. All the participants were in the age range 25–65 years. Finally, the outcome measures were limited to self-assessment scales, and in order to further investigate the validity of the associations, it would be valuable to add measures of behavioral and physiological variables.

## CONCLUSION

This is the first study to our knowledge to show that there is an association between self-reported stress levels and benevolence, as well as between self-compassion and benevolence. Future intervention studies should investigate if it is possible to change levels of benevolence and its effect on outcomes such as collaboration, innovation and performance (Condon, 2019). Future studies could also look at the concept of organizational virtuousness and benevolence and its effect on creating a positive organizational culture but also how it affects turnover rate and well-being (Cameron and Caza, 2004). In future studies it would also be of interest to include the “reduced personal accomplishment” aspect of burnout from the MBI scale, to investigate its relationship with the benevolence scale.

## DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

## ETHICS STATEMENT

The studies involving human participants were reviewed and approved by the regional Ethical Review Board in Stockholm,

Sweden (Dnr 2014/1300-31/5 and Dnr 2015/1589-31/5). The patients/participants provided their written informed consent to participate in this study.

## AUTHOR CONTRIBUTIONS

CA, WO, and SE designed study 1. CA sampled the data. PL analyzed the data, in collaboration with CA. CS and WO designed study 2 and selected the study measures. CS sampled the data and analyzed the data in study 2. All authors contributed to the article and approved the submitted version.

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**Conflict of Interest:** The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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