

Secondary-Stress and Mental-wellbeing in Dutch Crisis Line Volunteers: The Moderating Role of
Self-compassion

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Abstract

Background: In Various professions working with traumatized individuals, workers have been found to express symptoms of Secondary-Traumatic-Stress. However, few studies have examined Secondary-Traumatic-Stress in crisis line volunteers and even fewer their positive Mental Wellbeing (including their emotional, psychological and social wellbeing). Possible personal resources such as Self-Compassion have to the knowledge of the author not been investigated by now. Further, findings regarding the relation of Secondary-traumatic-stress to age and professional training (in human caregiving) are mixed.

Aim: The current study is concerned with investigating the prevalence of Secondary-Traumatic-Stress, Mental Wellbeing and Self-Compassion, as well as their associations in crisis line volunteers. Also, a possible moderation effect of Self-Compassion on the relation between Secondary-Traumatic-Stress and Mental Wellbeing was explored. Lastly, the relation of age and professional training (in human caregiving) to Secondary-traumatic-stress were investigated.

Methods: A cross-sectional, descriptive, correlational, online survey study design was applied. The sample was taken from three Dutch crisis line services and included 593 active crisis line workers, of which most worked voluntarily.

Results: Mental Wellbeing (MHC-SF) was (with Mean of 51.7) found to be high. Secondary-Traumatic-Stress (ProQOL) was not common, only ca. 6.4% expressed moderate to high symptomatology (with Mean of 16.5). Self-Compassion was found to be high (with mean of 22.2). The correlation between Secondary-traumatic-stress and well being was only weak ($r = -0.17$) and was not moderated by self compassion. Neither age nor professional training (in human caregiving) showed to be associated with Secondary-traumatic-stress.

Conclusion: Secondary-Traumatic-Stress is not a phenomenon that can be observed in the majority of Dutch crisis line volunteers. It is weakly associated to Mental-Wellbeing, supporting the notion that one cannot be seen as the outcome of the other. Self-Compassion seems to be a factor that is

directly related to mental Mental-Wellbeing, but only weakly to Secondary-Traumatic-Stress. However future research should focus on indirect effects, possible mediators could be emotion regulation, mindfulness or empathy.

Keywords: Crisis-Line-Volunteers; Secondary-Traumatic-Stress; Mental Wellbeing; Self-Compassion

Introduction

Annually, the Luisterlijn (Dutch crisis line) takes over 350.000 calls, (Luisterlijn, n.d.), highlighting crisis lines growing societal relevance. However, the increasing number of clients who are seeking for help on crisis lines may be accompanied by a heightened risk for the helpers themselves: Since Crisis line workers care for individuals with psychological problems, including traumatization, the growing number of clients may put them at heightened risk to develop Secondary-traumatic-stress. In the health care context, Secondary-traumatic-stress is describing the phenomenon of formerly non-traumatized mental-healthcare workers developing trauma symptomatology due to empathic engagements with traumatized clients (Makadia, Sabin-Farrell, & Turpin 2017). Whilst, various studies examined Secondary-traumatic-stress in formal mental health workers (Pelon, 2017; Makadia et al., 2017; Dominguez-Gomez, & Rutledge, 2009), fewer studies focus on Secondary-traumatic-stress in crisis line volunteers (O'Sullivan & Whelan, 2011). Consequently, little is known about how Secondary-traumatic-stress related to crisis line volunteers' Mental-Wellbeing, even though van Zelst, de Beurs, Beekman, van Dyck, and Deeg (2006) suggest trauma symptomatology to impair Mental-wellbeing. Particularly for crisis line volunteers, Secondary-traumatic-stress may lead to lower quality of care, and the absence of high turnover rates (Kitchingman, Wilson, Caputi, Wilson, & Woodward, 2017; Kitchingman, Wilson, Woodward, Caputi, & Wilson, 2018). To understand this problem, Rauvola, Vega and Lavigne (2019) conducted a qualitative review to examine how Secondary-traumatic-stress is related to other constructs, discovering that age may be function-

ing as a risk factor, whilst training may be functioning as a potential resource, however, findings are mixed, and further clarification is needed. Moreover, Self-compassion was recently found to be effective in the treatment of trauma symptoms and may, therefore, be effective in decreasing Secondary-traumatic-stress (Winders, Murphy, Looney, & O'Reilly, 2020). By now, however, little is known about the prevalence of Self-Compassion in crisis line volunteers. To expand the current body of knowledge, this study investigates the prevalence of Secondary-traumatic-stress, as well as its relation to Self-Compassion, professional training (in human caregiving), and age. Additionally, Secondary-traumatic-stress's influence on Mental-wellbeing and the moderating effect of Self-Compassion on their relationship was examined.

Mental Wellbeing in Crisis-Line-Volunteers

Even though research is concerned with crisis line volunteers' mental health, e.g. by assessing Secondary-traumatic-stress, their level of Mental-wellbeing has received less attention. The World-Health-Organization (2004) conceives Mental-wellbeing as a state in which an individual is able to deal with normal life stressors, can be productive, whilst acknowledging their own potential and provides a contribution to their societal environment. Yet, Mental-wellbeing is frequently left out of the concept of mental health as research focusses primarily on the level of pathological symptoms, such as Secondary-traumatic-stress, e.g. Kitchingman et al. (2018). In contrast, other studies put forward the notion that the level of pathological symptoms represents the degree of mental illness, whilst mental health is characterized by two factors, namely the absence of mental illness, i.e. pathological symptoms and the presence of Mental-wellbeing (Westerhof & Keyes, 2009; Massé et al., 1998; Keyes, 2005). Therefore, to adequately assess the mental health of crisis line volunteers, it is advisable to include Mental-wellbeing as an additional measure to Secondary-traumatic-stress. Ad hoc, little attention has been paid to crisis line volunteers Mental-wellbeing. In general, crisis line volunteers prominent motivations of feeling rewarded, finding meaning in existence or "Altru-

ism and giving back to the community“ (Aguirre, & Bolton, 2013), may be seen as factors that could positively influence psychological and social wellbeing, sub-dimensions of Mental-wellbeing (Keyes, 2002). Yet, to be able to understand crisis line volunteers' mental health, it is not only relevant to study the level of Mental-wellbeing and symptomatology but also to understand their relation. That is because researchers such as Van Zelst et al. (2006), showed that symptoms characteristic of Secondary-traumatic-stress, can be associated with Mental-wellbeing, in dutch elderlies. Therefore, investigating the prevalence of Secondary-traumatic-stress and Mental-wellbeing and their relationship is one aim of the current study.

Potential Risks of Working at a Crisis Line

Even though crisis line volunteering represents a rewarding opportunity for many, there are various factors that could potentially impair crisis line volunteers' mental health. Whilst being less trained than formal helpers (Kitchingman et al., 2018), crisis line volunteers, face various stressors: Anonymity (O'Sullivan, & Whelan, 2011), the fact that a caller can terminate at any second (Kitchingman et al., 2018), whilst crisis line volunteers solely have auditive cues, possibly leading them to overemphasize certain stimuli and conjure distressing imagery (O'Sullivan, & Whelan, 2011). This may cause findings like that of O'Sullivan and Whelan, (2011), which found that three quarters of crisis line workers experience symptoms of Compassion Fatigue meaning that they experience Secondary-traumatic-stress and Burnout. In contrast, Kitchingman et al. (2018) found low symptoms of Compassion Fatigue in every participant. Conclusively, findings are mixed in regards to Secondary-traumatic-stress and often studies do not target Secondary-traumatic-stress specifically, but assess it as a sub-dimension of Compassion Fatigue. The risk factors for Secondary-traumatic-stress have been elaborated. Makadia et al. (2017), for example, proposed that the amount of trauma exposure, type and time of trauma training, as well as the amount of work stress showed to be correlated with an increase in Secondary-traumatic-stress. Contrastingly the review of Rauvola et al.

(2019) concludes that findings concerning amount of exposure are mixed, just as when related to age or previous trauma, leading them to conclude that fit with the workload, organizational values, and environment are predictive of Secondary-traumatic-stress, underlining that further investigation is necessary. More clarity is to be found in the consequences of high levels in Secondary-traumatic-stress. Additionally to the symptomatology, functional impairment poses a risk for both the volunteer and the caller, for it has been related to unethical as well as inappropriate behavior when dealing with callers (Kitchingman et al., 2017). Nonetheless, factors that decrease Secondary-traumatic-stress and following, functional impairment have also been identified, namely, emotion regulation, as well as seeking help vis-a-vis (Kitchingman et al., 2017; Pelon, 2017). It should, however, not go without mentioning that line-volunteering also has positive aspects and that positive and negative outcomes are not mutually exclusive. Depending on the coping mechanism that is chosen for the work stress experienced, including Secondary-traumatic-stress (Rajandram, Jenewein, Mcgrath, & Zwahlen, 2011), Post-Traumatic-Growth (O'Sullivan, & Whelan, 2011) and Compassion Satisfaction (Pelon, 2017) may show as consequences that possibly increase Mental-wellbeing (Tedeschi, & Calhoun, 2004). In contrast, coping mechanisms such as not being able to identify and describe one's own emotions showed to be ineffective, (Willems, Drossaert, Vuijk & Bohlmeijer, 2020), strengthening the importance of emotion regulation, which includes doing the opposite (Eisenberg & Eggum, 2009). To conclude, research suggests that crisis line volunteering can be regarded as a profession that may bear detrimental consequences. It is therefore, of relevance to gain clarity of the extent to which crisis line volunteers face Secondary-traumatic-stress and which factors could decrease it, wherefore an overview of Secondary-traumatic-stress literature is needed.

Empathetic-Helping and its Costs: Secondary-Traumatic-Stress

Whilst helping in itself may already pose certain stressors to the helper, empathically working with traumatized clients poses the risk of experiencing similar symptoms as the client. As, Post-Trauma-

tic-Stress-Disorder (PTSD), a possible consequence of traumatization, is linked to several physiological, as well as behavioral dysfunctions (Mc Farlane, 2010), besides the conceptual criteria for PTSD (as defined in the DSM-5), it becomes clear why help is needed. This is further underlined by the study of De Vries and Olf (2009), suggesting a PTSD prevalence of 7.4% in the Dutch population. One of the key aspects of helping is empathy, which has been stressed since the beginning of humanistic psychology (Rogers, 1989) and was later empirically validated to explain about 10% of the variance in therapy outcomes (Bohart, Elliot, Greenberg, & Watson, 2002). Still, it bears risks in certain scenarios. It has been found that the “process of trauma exposure (i.e., a stressor) combined with the experience of empathy [...] results in empathy-based strain, adverse occupational health reactions, and other work-relevant outcomes“ (Rauvola et al., 2019). Makadia et al. (2017), empirically investigated empathy-based stress, according to them helping traumatized individuals fosters PTSD similar symptoms such as Intrusion, Avoidance, and heightened Arousal in the helpers themselves. Similar findings were found in various target groups, including mental health nurses (Dominguez-Gomez, & Rutledge, 2009), psychologists (Makadia et al., 2017), social workers (Pelon, 2017), as well as crisis line volunteers (Kitchingman, et al. 2017). Nowadays, neuroscience suggests that Secondary-traumatic-stress can be explained through affect sharing, realized through the activity of mirror-neurons (Decety, & Lamm, 2006; Gallese, 2005). It is relevant to keep this finding in mind, because it stresses the preventive character of emotion regulation (Eisenberg & Eggum, 2009), while it highlights the difference between work stress and empathy-based stress, as laid out by Rauvola et al. (2019). However, the review of Rauvola et al. (2019) also stresses that Burnout, Secondary-traumatic-stress and Compassion Fatigue, as well as resources and risk factors related, were never mapped out in an empirically justifiable manner (Rauvola et al., 2019). Emphasizing that in order to understand empathic helpers’ sufferings and to be capable of mapping out the related factors, a specific investigation of preventive or decreasing factors for Secondary-traumatic-stress is a necessity. As argued above, Self-Compassion may prove to be an effective resource.

Self-Compassion and Secondary-Traumatic-Stress

By investigating the relationship between Secondary-traumatic-stress and Self-Compassion, a potential resource for crisis line volunteers sufferings may be found. In order to understand this relationship, it is crucial to define Self-Compassion. Neff (2003), conceives Self-Compassion as “a way of relating to ourselves in times of suffering that is characterized by increased kindness and reduced self-judgment, increased feelings of common humanity and decreased isolation, and greater mindfulness and less over-identification with difficult thoughts and feelings“. Ehlers and Clark (2000) showed that an increase in Self-Compassion was associated with decreased avoidance of stimuli, associated with the traumatic experience/s. Similarly, individuals with Secondary-traumatic-stress stimuli, associated with the traumatic experience/s of others (Makadia et al., 2017). Moreover, the decreasing impact of Self-Compassion on other trauma characteristic symptoms such as rumination and suppression of unwanted thoughts has been investigated and confirmed (Neff, Kirkpatrick, & Rude, 2007). Also, when related to neuroscientific research, Self-Compassion shows as a valid factor to explore, as it seems to be related to increased emotion regulation (Finlay-Jones, 2017), which was considered to be a protecting factor when empathically engaging with distressed others (Decety, & Lamm, 2006; Eisenberg, & Eggumm, 2009). Another construct that was found to be negatively correlated with Secondary-traumatic-stress is an inherent sub-quality of Self-Compassion, namely mindfulness (Yip, Mak, Chio, & Law, 2016; Turgoose, & Maddox, 2017). Also, empathy is a skill that enhances through Self-Compassion and is associated with Post-Traumatic-Growth, the possibility of positive outcomes facing trauma symptoms (Raab, 2014). Therefore it seems promising to investigate Self-Compassion as a potential resource for individuals facing Secondary-traumatic-stress symptomatology.

Ad hoc, little is known about the prevalence of Self-Compassion in crisis line workers. Still, there are reasons why Self-Compassion may not only prove to be an efficient factor in reducing Secondary-traumatic-stress-symptoms in general but also for elaborating their possible benefits speci-

fically for crisis line volunteers. One of which is that Self-Compassion can be trained (Bluth, Gaylord, Campo, Mullarkey, & Hobbs, 2015) and that this training reduces Self-Criticism (Gilbert & Procter, 2006), which could be relevant in relation to the finding that many helpers blame themselves as being incompetent for experiencing Secondary-traumatic-stress and consequently may drop out (Leon, Altholz, & Dziegielewski, 1999). Conclusively, current research shows that Self-Compassion may be a resource for crisis line volunteers facing Secondary-traumatic-stress, wherefore the aim of the current study is to investigate its potential.

Synthesis

Investigating crisis line volunteers' Mental-Wellbeing, as well as the prevalence of Secondary-traumatic-stress, are therefore central aspects of this study. Additionally, this study aims to explore factors that may influence Secondary-traumatic-stress in crisis line volunteers, such as professional training (in human caregiving) and age. Further, because Self-Compassion may reduce Secondary-traumatic-stress symptoms, Self-Compassion as a decreasing factor in the relationship between Secondary-Traumatic-Stress (Secondary-traumatic-stress) and Mental Wellbeing in line volunteers is assessed in this study. Conclusively this leads to the following research questions:

- 1: What is the level of Mental Wellbeing (MHC-SF), Secondary Traumatic Stress (ProQol-SS) and Self-Compassion (SCS-SF) of crisis line volunteers?
- 2: Do age and professional training (in human caregiving) show to be associated with crisis line volunteers self-reported level of Secondary Traumatic Stress (ProQol-SS)
- 3: Does Secondary-traumatic-stress (ProQol-SS) correlate with Mental Wellbeing (MHC-SF) or one of its sub-scales (Emotional-, Social-, Psychological-wellbeing)?
- 4: Does Self-Compassion (SCS-SF) or one of its sub-scales (Self-Compassion-Sub-Scale, Self-Criticism), moderate the relation between Secondary-traumatic-stress (ProQol-SS) and

Mental Wellbeing (MHC-SF) or one of its sub-scales (Emotional-, Social-, Psychological-wellbeing) and if so, to what extent?

Methods

Design

A cross-sectional, exploratory, descriptive, correlational study design was applied in order to investigate the relationship between Secondary-traumatic-stress, Self-Compassion and Mental-Wellbeing in crisis line workers via an online survey. This study is part of a larger PhD research conducted by Renate Willems.

Participants and Procedures

Ethical approval was being granted by the Ethics Committee from the Faculty of Behavioral, Management and Social Sciences at the University of Twente (no. 190943). Crisis line workers were being included when they actively worked in a crisis line (talking calls, chatting, answering e-mails). Participants were recruited via an e-mail link, sent to them by their organization (Luisterlijne $n = 543$; 113 Zelfmoord-Preventie $n = 39$; MIND Korrelatie $n = 11$). Thereby 1435 Dutch crisis line workers received an invitation, whilst 593 participated (41.3%). When following the link, the participants were given an information letter (Appendix A) and an informed consent (Appendix B), leaving them the option to drop out of the study at any point in time. Following that, an online survey, which took about 30 minutes to complete was being presented. The questionnaire was created with Lime Survey. Lastly, participants were thanked for their participation and offered to receive the study results via mail, followed by the offer of winning a voucher (Appendix C). The study was held during the period: November - December 2019.

Instruments

Whilst the larger research by Willems includes more questionnaires, in the current study the following were used: Demographics and Job related characteristics, Mental Wellbeing as investigated by the MHC-SF (Keyes, 2006), Secondary-Traumatic-Stress as measured by the Secondary-traumatic-stress sub-scale of the ProQOL (Stamm, 2010) and Self-Compassion, measured through the SCS-SF (Neff, 2003).

Demographics and Job related characteristics

Demographics were gathered using a self-report questionnaire, including questions for age and gender, specific wording, which can be found in table 1. Also sample specific information was gathered via self-report and included questions regarding their organization, for how long they have been working for their crisis line, whether they received financial rewards for their work, whether they received professional training (in human caregiving), how many hours they worked and how much of their working life took place at home versus at the organization (Table 1).

Mental Wellbeing

Mental Wellbeing was investigated through the 14 item- Mental Health Continuum Short Form (MHC-SF) (Keyes, 2006). The MHC-SF is constructed out of three sub-scales, namely “Emotional Wellbeing“ (3 items); “Social Wellbeing“ (5 items); “Psychological Wellbeing“ (6 items).

Emotional Wellbeing is measured through three items measuring happiness, interest in life (e.g. interested in life) and satisfaction with life. Social Wellbeing consists out of four Items, measuring social contribution, social integration (e.g. that you belonged to a community (like a social group, or your neighborhood)), social actualization, social acceptance and social coherence. The Psychological Wellbeing sub-scale is created out of self-acceptance, environmental mastery, positive relations with others, personal growth, autonomy, purpose in life (e.g. that your life has a

sense of direction or meaning to it). Participants are asked to respond on a five point Likert-Scale, how often they experience the presented states (1 = never, 5 = everyday). Mental wellbeing, as well as the three sub scales were calculated by summing the item-responses, giving a range for Mental-Wellbeing between 14 to 70, as well as a range between 3 to 15 for “Emotional Wellbeing“, between 5 to 25 for “Social Wellbeing“ and between 6 to 30 for “Psychological Wellbeing“. The MHC-SF, showed a good reliability in this study ($\alpha = 0.88$). The sub-scales ranged from acceptable, “Emotional Wellbeing“ ($\alpha = 0.75$), “Social Wellbeing“ ($\alpha = 0.70$) to good “Psychological Wellbeing“ ($\alpha = 0.83$).

Secondary-Traumatic-Stress

Crisis line workers' level of secondary-traumatic-stress (Secondary-traumatic-stress) was measured via the Secondary-traumatic-stress subscale of the Professional Quality of Life Scale (ProQOL). (Stamm, 2010). This subscale consists out of 10 items. The participants are asked on a 5-point Likert-Scale (1 = Never, 5 = Very Often) how much they experience the symptomatology characteristic of Secondary-traumatic-stress, e.g. “I think that I might have been affected by the traumatic stress of those I [help]“ (Stamm, 2010). The item-responses were summed, enabling a range of 10-50. 22 was seen as the cut-off point for moderate secondary-traumatic-stress, whilst 41 was seen as the initiating point for high symptomatology of secondary-traumatic-stress, as suggested by Stamm (2010), it should however not go without noticing that the ProQOL is not diagnostic. The ProQOL sub-scale for Secondary-traumatic-stress (ProQOL-SS) proved acceptable reliability ($\alpha = 0.71$) in the current study.

Self-Compassion

The extent to which participants' showed to be Self-Compassionate was assessed using the 12 items of the Self-Compassion-Scale-Short-Form (SCS-SF) (Raes, Pommier, Neff, & Van Gucht, 2011).

The English version of the SCS-SF was translated into Dutch. As suggested by Lopez et al. (2015) the SCS-SF can be seen as constructed out of two sub-scales, each consisting out of six items, Self-Compassion positive and Self-Criticism. The crisis line workers were being asked to state on a five point Likert-Scale, how often they behaved in the way that was presented in the items (1 = Almost never, 5 = Almost always)(e.g. When I fail at something important to me I become consumed by feelings of inadequacy). The item-responses were summed, enabling a range of 12-60. The SCS-SF had an acceptable reliability in the current study ($\alpha = 0.79$). The sub-scales of Self-Criticism (6 Items) and Self-Compassion-positive (6 Items) were being checked for reliability and both showed to be sufficient, Self-Criticism ($\alpha = 0.82$), Self-Compassion positive ($\alpha = 0.71$) and were conclusively utilized. Neff (2003) proposes that with a mean item-response below 2.5 the sample can be seen as low in Self-Compassion, following moderate between 2.5 and 3.5 and high when exceeding 3.5, in line with. As sum-scores were used, low Self-Compassion was understood as a score below 30, whilst high in Self-Compassion was given when exceeding 42.

Data Analysis

The Data Analysis was done using SPSS (Version: 26) and the Process macro (Version: 3.5) by Hayes (2020). Firstly data was screened for missing values, showing that one participant had a missing value for age, so that this participant was excluded from any analysis including the variable age.

In order to investigate crisis line volunteers' demographics and work specific characteristics, descriptive statistics (frequencies, means, standard deviations) were being explored.

For assessing the level of Mental-Wellbeing, Secondary-traumatic-stress and Self-Compassion in crisis line workers, means, standard deviations, as well as confidence intervals were calculated, from the scales of the MHC-SF, the ProQOL-SS and the SCS-SF. Comparative reference groups, were used in the current study to interpret the results, they can be found in Table 3. One

sample t-tests were used to assess whether the sample significantly differs from the mean of the reference groups.

To be able to answer the question whether age is related to Secondary-traumatic-stress, a parametric association test was calculated, (Pearson's r).

In order to see whether professional training (in human caregiving) was associated with Secondary-traumatic-stress, a T-test for independent samples was used.

For examining the question whether Secondary-traumatic-stress and Mental Wellbeing show an association, the Pearson's correlation coefficient was computed, after using a scatterplot to check for linearity.

Lastly, to investigate the possible moderation effect of Self-Compassion (and its sub-scales) on the relationship between Secondary-traumatic-stress and Mental-Wellbeing (and its sub-scales) and in order to investigate relations that might be of interest, Pearson's r were calculated between all variables, thereby examining the possibility of multicollinearity. Heteroscedasticity was ignored as the Heteroscedasticity estimator HC4 by Cribari-Neto (2004) was used. Due to the sample size ($n > 20$), the normality assumption was ignored as suggested by the central limit theorem.

Moreover, in regards to autocorrelated residuals a Durbin-Watson-Statistic was calculated to gather a first overview and then checked for by graphic means. Given the circumstance that multicollinearity and autocorrelation of residuals can be rejected, Haye's (2020) PROCESS macro was used to assess a possible moderation effect. Any model showing multicollinearity would have been excluded. Models showing autocorrelation were checked and planned to be worked on with the usage of autocorrelation robust standard errors (HAC) as proven to be effective by Newey and West (1987).

Results

Demographics and sample specific characteristics of Crisis line Volunteers

Table 1 summarizes the demographics and job-related characteristics of the current sample. The 593 participants were predominantly female, for the biggest part, they did not receive any formal

Table 1: Demographics and Sample specific characteristics of Dutch crisis line workers, employed by Luisterlijne, 113 Zelfmoordprevenite and MIND-Korrelatie ($n = 593$)

	Overall ($n = 593^*$)	Luisterlijne/ ($n=543^*$)	113 Zelfmoord- prevenite ¹ ($n=39$)	MIND - Korrelatie/ ($n = 11$)
Age				
Mean:	61	63.1	35.7	48.2
Standard-Deviation:	13	10.6	13.9	15.7
Minimum:	18	22	18	23
Maximum:	87	87	72	73
Percentiles: 25:	56	58	25	37
50:	65	65	30	41
75:	69	70	49	59
Gender				
Male:	28%	28.5%	23%	18%
Female:	71.8%	71.3	76%	81%
Other:	0.2%	0.2%		
Financial Reward²				
No:	94.4%	100%	35%	54%
Yes:	5.1%	0%	64%	45%
Training³				
Yes:	39.5%	36.1%	69%	100%
No:	60.5%	63.9%	30%	0%
Years of Experience⁴				
<1:	22.6%	19.3%	69%	18%
1-3:	34.4%	35.5%	25%	9%
3-6:	15.7%	16.4%	5%	18%
6-10:	10.6%	10.7%		45%
>10:	16.7%	18%		9%
Work-Hours per Week⁵				
<4:	17.5%	17.9%	10%	27%
4-6:	69.8%	75.1%	7%	27%
6-8:	5.9%	5.7%	7%	9%
8-10:	1.5%	0.7%	10%	9%
>10:	5.3%	0.6%	64%	27%
Location vs. At Home⁶				
Always Location:	26.6%	24.5%	53%	36%
Mostly Location:	18.7%	16.8%	38%	45%
Evenly:	9.4%	10.1%	2%	0%
Mostly At Home:	21.2%	23.2%	0%	0%
Always At Home:	23.9%	45.4%	5%	18%

*For Age $n - 1$

¹At which organization are you working? (Item: Welke organisatie?)¹

²Do you receive financial rewards (Item: Vrijwillig of betaald?)²

³Have you completed a professional training (in human caregiving) focused on assistance (for example nursing, social work, psychology, medicine)? (Item: Opleiding gericht op hulpverlening?)³

⁴For how long have you been working at crisis line (Item: Hoe lang werkt u al bij de telefonische hulpdienst?)⁴

⁵How many hours do you work per week? (Item: Hoeveel uur per week gemiddeld?)⁵

⁶Do you work from home or from your organization? (Item: Op de locatie of vanuit huis?)⁶ Response Items: Altijd op locatie; Meestal op locatie, soms thuis; Soms op locatie, soms thuis; Meestal thuis, soms op locatie; Altijd thuis

training (in human caregiving) such as nursing, social work, psychology or medicine and most worked without financial rewards. Moreover, most of them worked between four and six hours per week for the crisis line, either predominantly at home or at their organization's location.

Furthermore, half of the participants were aged between 56 and 69, whilst more than half of them shared an experience level between zero and three years.

Secondary-Traumatic-Stress, Mental Wellbeing and Self-Compassion in Crisis Line Volunteers

In Table 2 self-reported levels of Mental-Wellbeing, secondary-traumatic-stress and Self-Compassion, as well as reference groups for secondary-traumatic-stress (Secondary-traumatic-stress) and Self-Compassion can be found.

Crisis line volunteers mean level of self-reported Secondary-traumatic-stress is slightly higher than in Kitchingman et al. (2018) study of Australian crisis line volunteers. Altogether, 6.4% of crisis line volunteers experienced moderate to high levels of Secondary-traumatic-stress. More information can be found in Table 2.

The extent to which crisis line volunteers experience Self-Compassion, is nearly one standard-deviation (SD) higher than Raes, Pommier, Neff, and Van Gucht (2010) sample of US students (SD taken from their study). Further when viewed in line with Neff (2003), their average level of Self-Compassion can be regarded as high. Specific information can be viewed in Table 2.

Table 2: Crisis Line Workers' level of self-reported Secondary-Traumatic-Stress (ProQOL-SS), Mental (Emotional/ Social and Psychological) Wellbeing (MHC-SF) and Self-Compassion (Self-Criticism/ Self-Compassion-Sub-Scale) (SCS-SF)($n = 593$)

	Range	Mean (SD)	Confidence Interval (95%)		N (%) [*]	Comparison-group	
			Lower Bound	Upper Bound		Mean (SD)	p
Secondary-Traumatic-Stress	10-50	16.4 (3.9)	16.1	16.8		15.8 (3.3) ¹ 15.1 (3.8) ²	<0.01 <0.01
Low					555 (93.6%)		
Moderate					37 (6.2%)		
High					1 (0.2%)		
Mental Wellbeing	14-70	51.7 (8)	51.1	52.4			
Emotional Wellbeing	3-15	12.04 (1.84)	12	12.2			
Social Wellbeing	5-25	16.6 (3.4)	16.4	16.9			
Psychological Wellbeing	6-30	23.05 (3.9)	22.7	23.4			
Self-Compassion	12-60	43.3 (5.4)	42.8	43.8		36.0 (7.3) ³	<0.01
Low	12-30				8 (1.3%)		
Moderate	31-41				187 (31.5%)		
High	42-60				398 (67.1%)		
Self-Criticism	6-30	14.9 (4)	14.6	15.2			
Self-Compassion Sub-Scale	6-30	22.2 (2.8)	22.1	22.5			

^{*}Only shown when $n < 593$ (100%)

¹ Kitchingman, Caputi, Woodward, Wilson, Wilson (2018): Study of 110 Australian Crisis Line Workers aging between 19-84 years experience of secondary-traumatic-stress (ProQOL-SS) during a week pre-shift

² Kitchingman, Caputi, Woodward, Wilson, Wilson (2018): Study of 110 Australian Crisis Line Workers aging between 19-84 years experience of secondary-traumatic-stress (ProQOL-SS) during a week post-shift

³ Raes, Pommier, Neff, and Van Gucht (2010): Study of Self-Compassion (SCS-SF) in 415 students at the University of Texas at Austin, USA

Secondary-Traumatic-Stress in Crisis Line Volunteers with and without Training (in human caregiving)

In table 3, information on differences between a professional training (in human caregiving)(e.g. nursing, social work, psychology, medicine) group and a group without can be found. There was no significant difference of Secondary traumatic stress between the groups.

Table 3: Unpaired T-Test for comparing groups with and without professional training (in human caregiving) focused on assistance (e.g.) in regards to self-reported experience of secondary-traumatic-stress (ProQOL-SS)

Groups	N	M (SD)	Df	T	P
Training	234	16.4 (4.1)	592	-0.29	0.772
No Training	359	16.5 (3.7)			

The associations between Secondary-Traumatic-Stress, Mental Wellbeing, Self-Compassion, and Age

Table 4 summarizes the Pearsons' correlation coefficients, of the relations of Secondary-Traumatic-Stress (ProQOL-SS), Mental/ Emotional/ Social and Psychological Wellbeing (MHC-SF), Self-Compassion, as well as Self-Criticism and Self-Compassion (Sub-Scale) (SCS-SF) as well as age in crisis line workers.

Age had no significant relation to Secondary-traumatic-stress.

An increase in Secondary-traumatic-stress, was significantly associated with a weak decrease in reported Mental-Wellbeing. Also for emotional well-being and psychological well-being, a significantly relation with Secondary-traumatic-stress was found. Both were negative and weak. The association between Secondary-traumatic-stress and the social well-being sub-scale showed to be near zero and further moderately significant.

Similarly, individuals high in reported Secondary-traumatic-stress, showed to be weakly lower in Self-Compassion.

The association between Self-Compassion and Mental-Wellbeing, as a whole as well as the three sub-categories individually was found to be significantly positive, but weak to moderate (Table 4).

Table 4: Pearsons Correlations between Secondary-Traumatic-Stress (ProQOL-SS), Mental/ Emotional/ Social and Psychological Wellbeing (MHC-SF), Self-Compassion, as well as Self-Criticism and Self-Compassion (Sub-Scale) (SCS-SF) and age in crisis line workers ($n = 593$)

$N = 593$	Secondary-Traumatic-Stress	Mental Wellbeing	Emotional Wellbeing	Social Wellbeing	Psychological Wellbeing	Self-Compassion	Self-Criticism	Self-Compassion (Sub-Scale)	Age
Secondary - Traumatic-Stress	1								
Mental Wellbeing	-0.17**	1							
Emotional Wellbeing	-0.15**	0.76**	1						
Social Wellbeing	-0.08*	0.87**	0.49**	1					
Psychological Wellbeing	-0.19**	0.92**	0.63**	0.66**	1				
Self-Compassion	-0.25**	0.40**	0.35**	0.28**	0.41**	1			
Self-Criticism	0.26**	-0.38**	-0.32**	-0.27**	-0.38**	-0.87**	1		
Self-Compassion (Sub-Scale)	-0.12**	0.25**	0.22**	0.16**	0.26**	0.71**	0.28**	1	
Age	0,06 ²	-0.00	0.04	0.11	-0.03	-0,14**	0,21**	-0.03	1

** 2-Tailed Significance ($p < 0.01$) using Pearson's Correlation Coefficient

*2-Tailed Significance ($p = 0.048 < 0.05$) using Pearson's Correlation Coefficient

² $p = 0,122$

The moderating effect of Self-Compassion on the relation between Secondary-Traumatic-Stress and Mental Wellbeing

In table 5 the results of the moderation analysis of Self-Compassion on the relation between Secondary-Traumatic-Stress and Mental Wellbeing are presented. Assumptions for investigating a possible moderation effect through a multiple regression analysis include the absence of Multicollinearity, which was seen as a given, relating to the rather low Pearsons' correlation coefficients of the dependent and independent variables ($r < 0.5$) (Table 4).

The Durbin-Watson-Statistic seems to point at an absence of Autocorrelation and the scatterplots (Appendix D-O) seem to legitimize this assumption. Altogether all moderations proved that there is no significant moderation effect of Self-Compassion on the relation between Secondary-Traumatic-Stress and Mental Wellbeing (Table 5) or one of its dimensions, Emotional-Wellbeing (Appendix H) ,Social-Wellbeing (Appendix I) or Psychological-Wellbeing (Appendix J). Similar results were found when using the Self-Criticism or Self-Compassion sub-scales of SCS-SF

Table 5: The moderating effects of Self-Compassion (Self-Criticism/ Self-Compassion (Sub-Scale))(SCS-SF) on the relationship between Secondary-Traumatic-Stress (ProQOL-SS) and Mental Wellbeing (MHC-SF) in crisis line workers ($N = 593$)

$N = 593$	R-squared	B	SE B (HC4)**	F (HC4)**	df	<i>t</i>	<i>p</i>
Model Summary:	0,16			29.5	592		<0,01
DV: Secondary-Traumatic-Stress		-0.06	0.044			-1.246	0.23
M: Self-Compassion		6.75	0.846			7.979	<0,01
Int: Secondary-traumatic-stress x Self-Compassion		-0.018	0.088			-0.202	0,840

Note: Shapiro-Wilk-Test: $p < 0.05$, therefore not normally distributed ($n < 20$) / Durbin-Watson: 1.923

**Heteroskedasticity estimator estimate: HC4 Cribari-Neto (2004)

Discussion

The current study aimed at exploring the prevalence and relation between secondary-traumatic-stress, Mental-Wellbeing, and Self-Compassion in crisis line workers in order to fill the gap of empirical knowledge that currently exists. The second aim of the study was to contribute to the mixed findings of age and professional training (in human caregiving) as associated to Secondary-traumatic-stress. Thirdly, to investigate a potential resource for Secondary-traumatic-stress, a possible moderation effect of Self-Compassion on the relationship between Secondary-Traumatic-Stress and Mental Wellbeing was explored.

In line with the first aim, the prevalence of Mental-wellbeing was assessed and regarded as high in the current study, because the mean (51.7) was seen as high on the related range (14-70).

This finding may be explained by the factors that are also reported as prominent motivations for crisis line volunteers, namely contributing to society, feeling rewarded, and finding meaning (Aguirre, & Bolton, 2013). Whilst the former may be seen as related to social wellbeing, the two latter factors could be associated with psychological wellbeing. Notably, it was that emotional wellbeing showed to be highest when compared to its range. This, in turn, may be explained by the fact that "a strong correlation exists between the wellbeing, happiness, health, and longevity of people who are emotionally kind and compassionate in their charitable helping activities—as long as they are not overwhelmed" (Post, 2005).

Crisis line workers' high Mental-wellbeing may further be seen as supported by Mental-wellbeing's correlation of moderate size to Self-Compassion, especially its sub-dimension of psychological wellbeing. This relationship may have been of influence as crisis line volunteers level of Self-Compassion is higher than the reference group of Raes et al. (2010) and also shows to be high when applying Neff's (2003) categorization. The high level of Self-Compassion in crisis line volunteers, could be explained by the likelihood that crisis line volunteering is a profession that is attractive for compassionate individuals, whilst Self-Compassion and compassion appear to be related (Neff, & Pommier, 2013). Moreover, age was found to be positively related to Self-Compassion, whilst the investigated sample was rather old. Particularly in Self-Compassion's sub-dimension of Self-Criticism, the trend was found that the older the participants were, the lower their level of Self-Criticism tended to be. Self-criticism may be seen as a crucial factor when facing Secondary-traumatic-stress, as Leon et al. (1999) found that following Secondary-traumatic-stress self-blame patterns in crisis line volunteers emerge. Additionally, it may be possible that crisis line workers in the current sample adapted to job-stressors with effective coping mechanisms, such as emotion regulation (Finlay-Jones, 2017; Decety, & Lamm, 2006; Eisenberg, & Eggumm, 2009) or mindfulness (Yip et al., 2016; Turgoose, & Maddox, 2017). This could be attributed to Self-Compassion's association with these coping mechanisms when facing Secondary-traumatic-stress.

Using effective coping mechanisms may also explain why crisis line workers exhibit a low prevalence of Secondary-traumatic-stress's symptomatology in the present study. Only a minority of 6.4% were found to score moderate to high on Secondary-traumatic-stress. This finding may also be explained by the unknown prevalence of trauma in crisis line callers. Leading to question the results of studies like that of O'Sullivan and Whelan (2011): When crisis line workers experience heightened levels of Compassion-Fatigue, do they rather experience Burnout than Secondary-traumatic-stress? Future research could target this question by measuring both Secondary-traumatic-stress and Burnout, as is about to be investigated by Willems (2022). Moreover, future research should aim to explain the relation of motivations and ways of coping, to Mental-Wellbeing.

The second aim of the study was to investigate the effects of age and professional training (in human caregiving) on Secondary-traumatic-stress. Neither age nor professional training (in human caregiving) had a relevant impact on Secondary-traumatic-stress, which emphasizes Rauvola et al. (2019) conclusion that a focus on organizational studies may be more promising.

In line with Winefield, Gill, Taylor, & Pilkington (2012) demand to explore in which contexts Mental-wellbeing and symptomatology are associated, the third aim of this study was to explore the relation of Mental-wellbeing with Secondary-traumatic-stress. The results showed that Mental-wellbeing and Secondary-traumatic-stress are related, but only moderately ($r = -0.17$), indicating that experiencing Secondary-traumatic-stress is not necessarily accompanied by low Mental-wellbeing. This finding supports the two-continua model of mental health (Westerhof & Keyes, 2009). Thus, when future studies aim to conclude on crisis line workers' level of mental health, they should integrate a measure of Mental-wellbeing.

Further, investigating the relationships of the variables of interest, showed that Self-Compassion was associated with Mental-wellbeing ($r = 0.40$) and Secondary-traumatic-stress ($r = -0.25$), whilst Self-Compassion's relationship to Mental-wellbeing was stronger. Self-Compassion's weak association to Secondary-traumatic-stress stands in contrast to studies reporting that trauma symp-

tomatology can be reduced by Self-Compassion (Ehlers, & Clark, 2000; Neff et al., 2007). It has to be noted that the relation of trauma symptoms following PTSD and Self-Compassion were studied (Ehlers, & Clark, 2000; Neff et al., 2007), emphasizing that PTSD and Secondary-traumatic-stress might be distinct constructs, even though their symptoms are similar. Secondary-traumatic-stress differs from PTSD in its origin, whilst PTSD follows a traumatic event, Secondary-traumatic-stress is acquired by empathic engagement with traumatized individuals. This raises the question for future research in how far the origin of trauma symptomatology influences the effectiveness of the coping mechanism Self-Compassion. Still, it has to be noted that Self-Compassion may prove to be a resource when trying to improve crisis line volunteers Mental-wellbeing, which would be in line with Neff, Pisitsungkagarn and Hsieh (2008) study. Yet, it should not be forgotten, that self compassion increases factors that have been shown to decrease Secondary-traumatic-stress, namely emotion regulation (Finlay-Jones, 2017; Eisenberg & Eggum, 2009), empathy as a possible precursor of Post-Traumatic-Growth (Raab, 2014) and mindfulness (Yip et al., 2016; Turgoose, & Maddox, 2017). This leads to the question, whether Self-Compassion training may still prove to be an efficient resource for crisis line volunteers facing low Mental-Wellbeing and Secondary-traumatic-stress. Future research could answer this practically relevant question by studying Self-Compassion, Mental-wellbeing and emotion regulation, mindfulness as well as empathy, in crisis line workers.

The fourth aim of the study was to investigate a possible moderation effect of Self-Compassion on the relation of Secondary-traumatic-stress and Mental-wellbeing. There was neither a moderation effect of Self-Compassion found on the relation between Secondary-traumatic-stress and Mental-wellbeing nor on the relation between Secondary-traumatic-stress and one of Mental-wellbeing's sub-dimensions, namely emotional-, social- and psychological-wellbeing. Similar results were found when using Self-Criticism or Self-Compassion positive, two sub-dimensions of Self-Compassion, as moderators. This stands in contrast to the presupposed expectation that Self-Compassion would help to alleviate the symptoms of Secondary-traumatic-stress e.g., Intrusive

Thoughts (Makadia et al., 2017), which possibly decrease Mental-wellbeing. Whereby, Self-Compassion could have shown to express a decreasing impact on the relation between Secondary-traumatic-stress and Mental-wellbeing. As this expectation was shown to be wrong, one may conclude that the relation of Secondary-traumatic-stress and Mental-wellbeing is independent of the "way we relate to ourselves in times of suffering" (Neff, 2003). This could mean that because Self-Compassion is decreasing Secondary-traumatic-stress symptoms, but has no influence on the relation of Secondary-traumatic-stress and Mental-wellbeing, the relation between Secondary-traumatic-stress and Mental-wellbeing cannot be explained by the symptoms. This would again be in line with the two-continua model (Westerhof, & Keyes, 2009), showing that symptomatology and Mental-wellbeing are distinct continua. Future research should, therefore, investigate which factors explain the relation between Secondary-traumatic-stress and Mental-wellbeing. Factors that may play a role may be consequences of symptoms, such as functional impairment, thereby also explaining that the sub-dimension of Mental-wellbeing, showing the strongest association to Secondary-traumatic-stress, was psychological wellbeing, part of the functioning in life aspect of Mental-wellbeing, emphasized by Keyes (2002).

Lastly, the fact that Self-Criticism was found to express a stronger relation to Secondary-traumatic-stress ($r = 0.26$) than Self-Compassion positive ($r = -0.12$), whilst both are sub-dimension of Self-Compassion, it might explain the relation of Self-Compassion and Secondary-traumatic-stress to a greater extent than Self-Compassion positive. Future research has to replicate this finding. However, if it turns out to be validated, this could imply that when considering to help crisis line volunteers through Self-Compassion training, a focus on Self-Criticism should be implemented.

Strengths and Limitations

The current study has several strengths. Firstly, the current study contributes to the expanding literature on Self-Compassion in crisis line volunteers. Secondly, it follows Rauvola et al., (2019) de-

mand for using validated instruments. Here the MHC-SF (Keyes, 2006), the Secondary-traumatic-stress sub-scale of the ProQOL (Stamm, 2010), and the SCS-SF (Neff, 2003) have been used. Both contributions seem important as increased mental health in crisis line volunteers, reduces the risk of drop-out as well as that of functional impairment, which could influence both the caller and the crisis line worker (Kitchingman et al., 2017). A third important contribution is the fact that Self-Criticism was measured, which could be linked to the self-blame pattern Leon et al. (1999) found to be a risk-factor for drop-out.

However, results are also limited in various ways. The first one is that only active crisis line workers have been surveyed, whereby the reasons for those that left over the years are not being heard, but still might include Secondary-traumatic-stress or a pattern of self-blame connected to it. Secondly, the MHC-SF was used with a five-point Likert-scale instead of a six-point scale, as suggested by Keyes (2006), making it incomparable to other studies, also with regards to its categorical conceptualization. Thirdly, the reference groups of Raes et al. (2010), might be seen as problematic since they investigated students, which implies that their samples were younger. This was done as Self-Compassion research on prevalence is still limited. Fifthly, it has to be mentioned that the MHC-SF and the ProQOL Secondary-traumatic-stress sub-scale are validated, but not diagnostic measures, emphasizing carefulness when interpreting their results.

Conclusion

The current study showed that a minority of the screened crisis line volunteers experienced Secondary-traumatic-stress. It was further found that crisis line volunteers' level of Mental-Wellbeing and Self-Compassion was high. Neither professional training (in human caregiving) nor age was found to be associated to Secondary-traumatic-stress. The relations between Mental-wellbeing and Secondary-traumatic-stress showed to be significant, but weak, strengthening the notion to regard them as distinct measures of mental health. The investigation also showed that Self-Compassion

was more strongly associated to Mental-wellbeing than Secondary-traumatic-stress. Self-compassion did not moderate the relationship between Secondary-traumatic-stress and Mental-wellbeing. Notably, Self-Criticism, a sub-dimension of Self-Compassion, was more strongly related to both Mental-Wellbeing and Secondary-traumatic-Stress, than its other dimension Self-Compassion-positive.

Future research should assess both Mental-wellbeing and Secondary-traumatic-stress when trying to assess crisis line volunteers with regards to mental health. An additional focus on studying Self-Criticism, could be of interest when assessing Self-Compassion's potential as a resource.

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Appendices

Appendix A Toelichting (Info-Text)

Openingstekst

Werken bij een telefonische hulpdienst (zoals ‘de Luisterlijn’, ‘113-zelfmoordpreventie’ en ‘MIND-Korrelatie’) kan dankbaar zijn en veel voldoening opleveren, maar kan ook soms zwaar, moeilijk of stressvol zijn. Er is nog maar weinig bekend over de mate waarin dit werk als stressvol wordt ervaren, hoe het van invloed is op het mentaal welbevinden van de vrijwilligers/werknemers, en welke factoren hierop van invloed zijn.

Dit onderzoek, van de Hogeschool Rotterdam en de Universiteit Twente, is bedoeld om hier meer inzicht in te krijgen. De resultaten kunnen helpen bij het ontwikkelen van trainingsprogramma's gericht op het in stand houden van een goede mentale gezondheid voor (toekomstige) vrijwilligers en professionals die (willen gaan) werken bij een telefonische en online hulpdienst.

Wij vragen u om deel te nemen aan dit onderzoek. Deelnemen houdt in dat u een online vragenlijst invult. De vragen gaan over uw beleving van het werk, de organisatie van het werk, en uw mentaal welbevinden. Het invullen kost ongeveer 30 minuten. U kunt de gegevens tijdens het invullen opslaan, door rechtsboven de button ‘Later verder gaan’ aan te klikken.

U beslist zelf of u wil deelnemen aan dit onderzoek, en u kunt altijd stoppen zonder opgave van reden. Onder de mensen die de vragenlijst volledig hebben ingevuld, zullen twintig cadeaubonnen van € 20,00 verloot worden.

De verzamelde gegevens worden volledig anoniem verwerkt en zullen gebruikt worden voor publicatie in een internationaal wetenschappelijk tijdschrift. Uw werkgever krijgt géén inzage in de ingevulde vragenlijsten; uitsluitend in de onderzoeksverslagen, waarin de gegevens op groepsniveau worden beschreven, en nergens naar personen kunnen worden herleid. De anonieme gegevens worden op een veilige plaats opgeslagen en, zoals de wet dat voorschrijft, ten minste 10 jaar bewaard.

Indien u – na het lezen van het bovenstaande- wilt deelnemen aan dit onderzoek, kunt u op ‘volgende’ klikken om naar het toestemmingsformulier te gaan. Indien u nog vragen heeft over het onderzoek, kunt u contact opnemen met de onderzoeker: r.c.w.j.willems@hr.nl. Indien u niet wil deelnemen kunt u dit scherm gewoon sluiten.

Appendix B: Toestemming (Informed Consent)1a: Toestemming **[TOEST]*****Toestemming deelname aan onderzoek:**

- Ik ben voldoende ingelicht over de aard en methode van het onderzoek, zoals uiteengezet in de uitnodigingsmail voor dit onderzoek.
- Ik stem geheel vrijwillig in met deelname aan dit onderzoek. Ik weet dat ik op elk moment mag stoppen met het onderzoek, zonder daarvoor een reden op te geven.
- Als mijn onderzoeksresultaten worden gebruikt in wetenschappelijke publicaties, of op een andere manier openbaar worden gemaakt, dan zal dit volledig geanonimiseerd gebeuren.
- Als ik meer informatie wil, nu of in de toekomst, dan kan ik me wenden tot Renate Willems (telefoon: 0639194357, email: r.c.w.j.willems@hr.nl).
- Voor vragen of klachten over mijn rechten als deelnemer aan dit onderzoek, of als ik informatie wil hebben, vragen wil stellen of eventuele zorgen over dit onderzoek wil bespreken met iemand anders dan de onderzoeker, dan kan ik contact opnemen met de secretaris van de ethische commissie van de faculteit van Gedrags-, Management- en Sociale Wetenschappen aan de Universiteit Twente. Mail adres: ethicscommittee-bms@utwente.nl; telefoonnummer: 053 4893399.
- Ik stem in met deelname aan dit onderzoek door 'ja' aan te klikken en op de knop 'volgende' te klikken.

Appendix C: Afsluiting (Survey End)**10a: Ruimte voor toevoegingen [SLOT]**

U bent aan het einde gekomen van de vragenlijst. Dank u wel voor het invullen van alle vragen. Als u nog iets wilt toevoegen, dan heeft u daar hieronder de ruimte voor. Anders kunt u op de button 'volgende' klikken.

10b: Samenvatting [SVAT]

Als u een samenvatting van de resultaten wilt ontvangen, dan kunt u in het tekstvak uw email adres noteren. Uw email adres wordt niet gelinkt met de antwoorden die u gegeven hebt op de vragen. De anonimiteit blijft dus gewaarborgd. Als u geen samenvatting van de resultaten wilt ontvangen, dan kunt u op de button 'volgende' klikken.

10c: Deelname loting [LOTING]

Als u alle vragen van deze vragenlijst hebt ingevuld (met uitzondering van de vraag of u een samenvatting wilt ontvangen), dan kunt u meedoen aan de verloting van 20 cadeaubonnen van € 20,00. Als u mee wilt doen aan deze loting, dan kunt u in het tekstvak uw email adres invullen. Als u dit niet wilt, dan kunt u op de button 'volgende' klikken om de vragenlijst te verzenden.

Appendix D: Scatterplot Residuals and Predictors of Mental Wellbeing as Dependent Variable

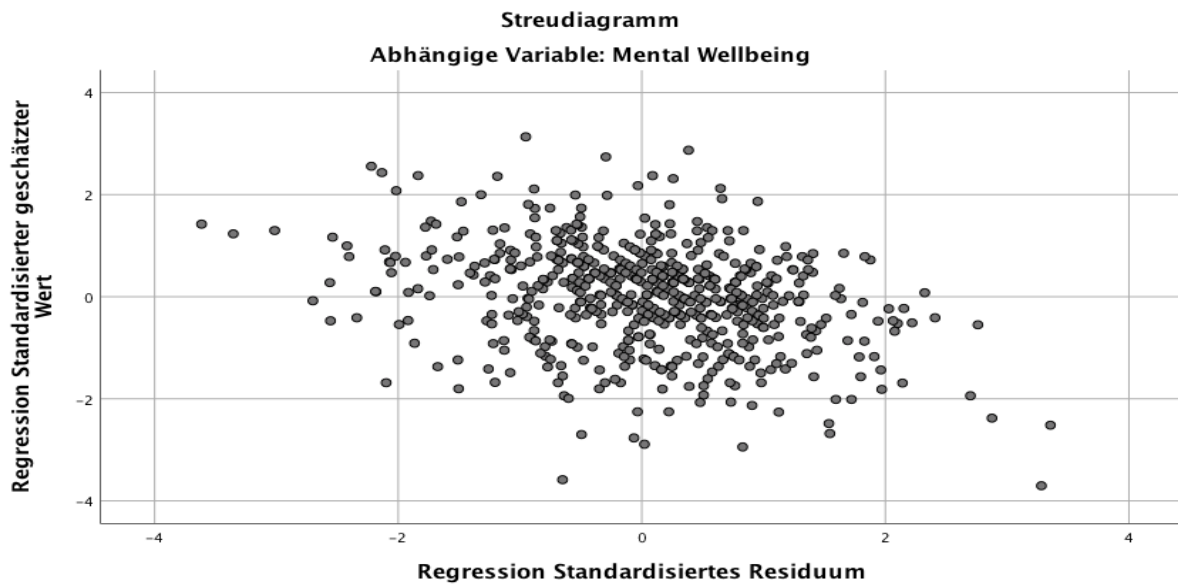


Figure 1. Residuals (x) and predictors (y) of Mental-Wellbeing (*MHC-SF*) ($n = 593$) — *Self-Compassion as a moderator of Secondary-traumatic-stress & Mental-wellbeing*

Appendix E: Scatterplot Residuals and Predictors of Emotional Wellbeing as Dependent Variable



Figure 2. Residuals (x) and predictors (y) of emotional wellbeing (MHC-SF) ($n = 593$) — Self-Compassion as a moderator of Secondary-traumatic-stress & emotional wellbeing

Appendix F: Scatterplot Residuals and Predictors of Social Wellbeing as Dependent Variable

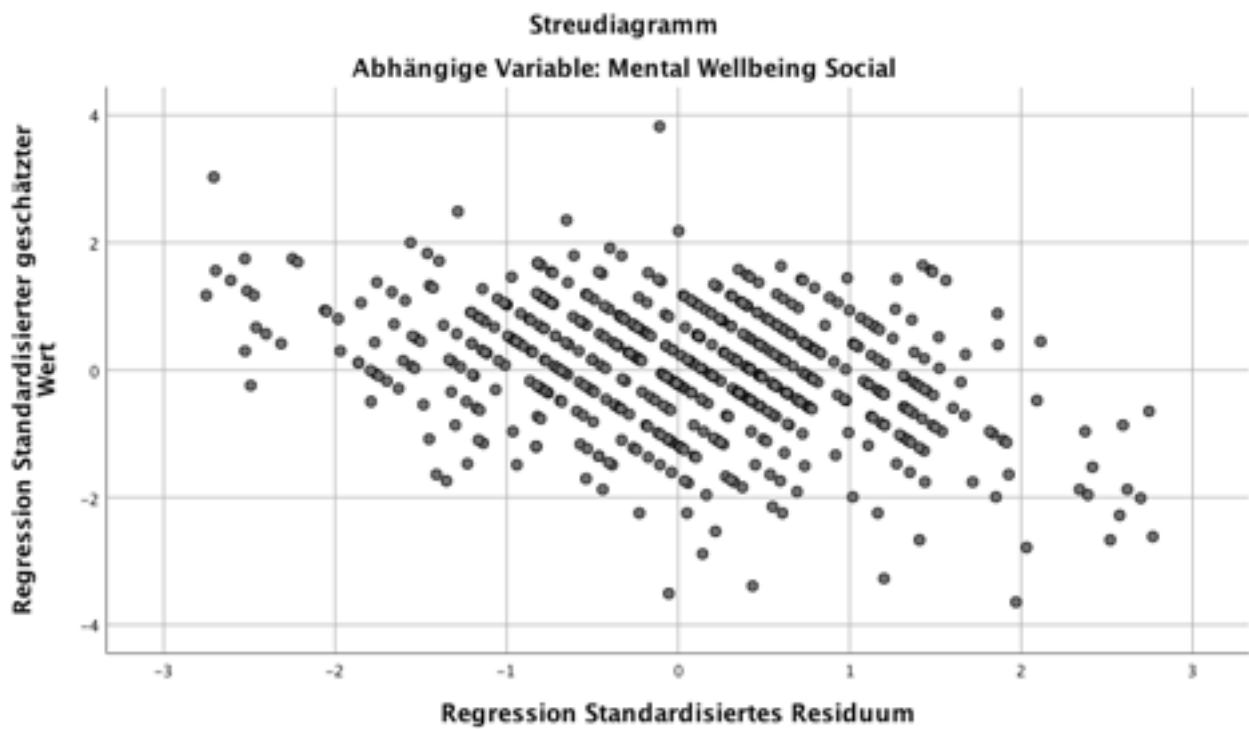


Figure 3. Residuals (x) and predictors (y) of social wellbeing (MHC-SF) (n = 593) — Self-Compassion as a moderator of Secondary-traumatic-stress & social wellbeing

Appendix G: Scatterplot Residuals and Predictors of Psychological Wellbeing as Dependent Variable

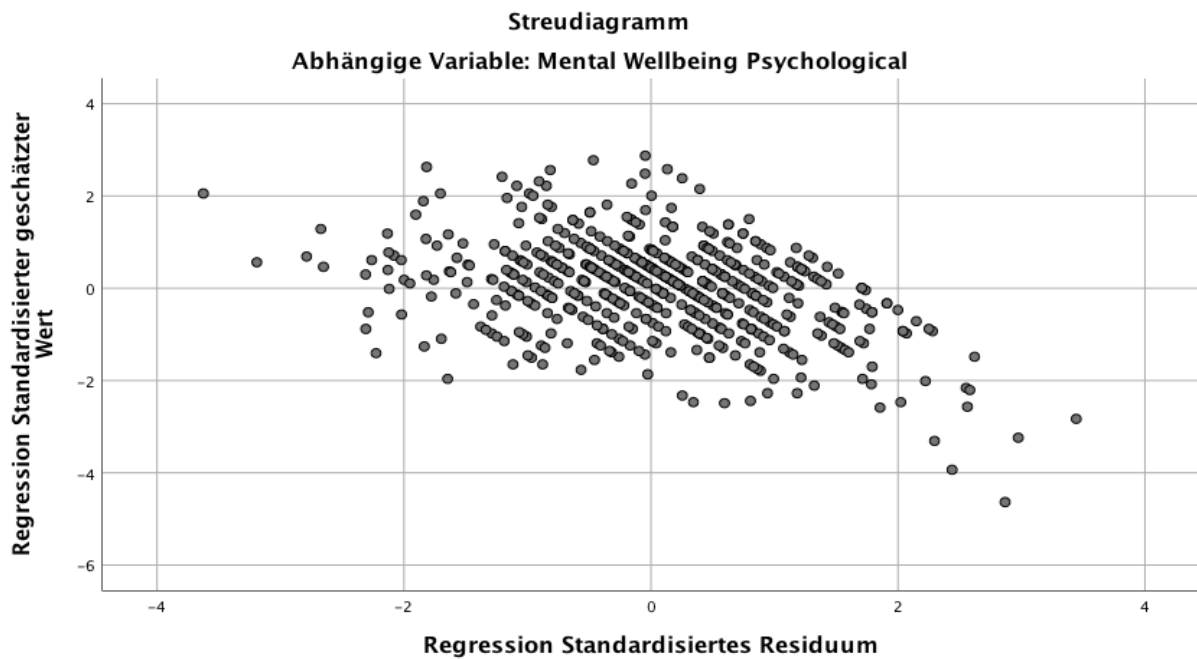


Figure 4. Residuals (x) and predictors (y) of psychological wellbeing (MHC-SF) (n = 593) — Self-Compassion as a moderator of Secondary-traumatic-stress & psychological wellbeing

Appendix H: The moderating effects of Self-Compassion(SCS-SF) on the relationship between Secondary-Traumatic-Stress (ProQOL-SS) and Emotional Wellbeing (MHC-SF) in crisis line workers ($N = 593$)

Table 6: The moderating effects of Self-Compassion(SCS-SF) on the relationship between Secondary-Traumatic-Stress (ProQOL-SS) and Emotional Wellbeing (MHC-SF) in crisis line workers ($N = 593$)

$N = 593$	R-squared	B	SE B (HC4)	F (HC4)	df	t	p
Model Summary:	0.35			24.2176	592		<0,01
DV: Secondary-Traumatic-Stress		-0.0131	0.0075			-1.7493	0.080
M: Self-Compassion		1.3483	0.1880			7.1726	<0,01
Int: Secondary-traumatic-stress x Self-Compassion		-0.0094	0.0171			-0.2516	0.8014

Note: Shapiro-Wilk-Test: $p < 0.05$, therefore not normally distributed ($n < 20$) / Durbin-Watson statistic: 1.981

**Heteroskedasticity estimator estimate: HC4 Cribari-Neto (2004)

Appendix I: The moderating effects of Self-Compassion (SCS-SF) on the relationship between Secondary-Traumatic-Stress (ProQOL-SS) and Social Wellbeing (MHC-SF) in crisis line workers ($N = 593$)

Table 7: The moderating effects of Self-Compassion (SCS-SF) on the relationship between Secondary-Traumatic-Stress (ProQOL-SS) and Social Wellbeing (MHC-SF) in crisis line workers ($N = 593$)

$N = 593$	R-squared	B	SE B (HC4)	F (HC4)	df	t	p
Model Summary:	0.27			13.3153	592		<0,01
DV: Secondary-Traumatic-Stress		-0.0059	0.0204			-0.2919	0.7705
M: Self-Compassion		2.0524	0.3702			5.5441	<0,01
Int: Secondary-traumatic-stress x Self-Compassion		-0.0094	0.0420			-0.2249	0.8221

Note: Shapiro-Wilk-Test: $p < 0.05$, therefore not normally distributed ($n < 20$) / Durbin-Watson statistic: 1.932
 **Heteroskedasticity estimator estimate: HC4 Cribari-Neto (2004)

Appendix J: The moderating effects of Self-Compassion (SCS-SF) on the relationship between Secondary-Traumatic-Stress (ProQOL-SS) and Psychological Wellbeing (MHC-SF) in crisis line workers ($N = 593$)

Table 8: The moderating effects of Self-Compassion (SCS-SF) on the relationship between Secondary-Traumatic-Stress (ProQOL-SS) and Psychological Wellbeing (MHC-SF) in crisis line workers ($N = 593$)

$N = 593$	R-squared	B	SE B (HC4)	F (HC4)	df	<i>t</i>	<i>p</i>
Model Summary:	0.17				592		<0,01
DV: Secondary-Traumatic-Stress		-0.0359	0.0228			-1.5759	0.1156
M: Self-Compassion		3.3522	0.4048			8.2813	<0,01
Int: Secondary-traumatic-stress x Self-Compassion		-0.0039	0.0431			-0.0910	0.9275

Note: Shapiro-Wilk-Test: $p < 0.05$, therefore not normally distributed ($n < 20$) / Durbin-Watson statistic: 1.923
 **Heteroskedasticity estimator estimate: HC4 Cribari-Neto (2004)