



Article

Analysis of the Predictive Role of Self-Compassion on Emotional Distress during COVID-19 Lockdown

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Abstract: Research has shown that the COVID-19 pandemic has caused a mental health burden worldwide. Most studies have focused on the factors associated with a higher risk of mental health problems, and only a few studies have looked at the potential protective factors. The general objective of this study was to determine whether self-compassion has a protective effect against the risk of mental health problems and especially on perceived infectability. If so, we intended to determine which of the three specific facets of self-compassion (i.e., mindfulness vs. over-identification; self-kindness vs. self-judgment; common humanity vs. isolation;) has the greatest weight in predicting emotional distress. We conducted a cross-sectional study through an online survey completed by 855 participants in Spain. Results confirmed that the three facets of self-compassion reduce the negative correlation between perceived infectability and emotional distress, diminishing its role in predicting emotional distress. These results are discussed in relation to the protective role of self-compassion and the need to further explore the variables associated with a lower risk of mental problems derived from the SARS-CoV-2 pandemic.

Keywords: mindfulness; mental health; emotional disorders; self-compassion; perceived infectability



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1. Introduction

More than two years have lapsed since the coronavirus disease 19 (COVID-19) pandemic was declared. This situation continues to deeply affect the life of the global population and the morbidity and mortality rates of COVID-19 remain very high. By August 2021, 6 million deaths due to COVID-19 had been recorded (World Health Oranization n.d.). A huge amount of resources has been allocated to save lives and implement preventive measures, such as vaccines. The measures imposed to combat the pandemic have led to a sudden transformation in the academic, professional, social and family lives of individuals (Cachón-Zagalaz et al. 2020; El Keshky et al. 2020; Emily A. et al. 2020; García-Morales et al. 2021).

In catastrophic situations, there is typically an increase in anxiety and depression (Makwana 2019). In fact, the COVID-19 pandemic has had a considerable impact on the mental health of the general population, as shown by several systematic reviews (Bueno-Notivol et al. 2020; Kunzler et al. 2021; Ren et al. 2020; Salari et al. 2020; Wu et al. 2021; Xiong et al. 2020). High levels of anxiety, depression and stress have been recorded in 30% of the general population during this pandemic (Gutiérrez-Hernández et al. 2021; Salari et al.

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2020; Tang et al. 2020). In addition, a high prevalence of anxiety and depression disorders has been observed in specific populations such as adolescents (Zhou et al. 2020) and health workers (Ni et al. 2020). Anxiety and depression are the most frequently analyzed disorders. However, studies have also been conducted on other disorders such as PTSD (Liang et al. 2020; Tang et al. 2020) and even on negative emotional responses such as anger (Li et al. 2020b).

Many research studies conducted in 2020 have explored the potential risk and protective factors for emotional distress during the COVID-19 pandemic (Lai et al. 2020; Mazza et al. 2020; Parrado-González and León-Jariego 2020). The purpose of this study was to further explore the links between mental health and the consequences of adverse situations.

The most widely studied sociodemographic risk and protective factors are gender (Brooks et al. 2020; Parrado-González and León-Jariego 2020; Salari et al. 2020) and age (Huang and Zhao 2020; McGinty et al. 2020; Wang et al. 2020c). The role of previous mental disorders has also been studied (Gutiérrez-Hernández et al. 2021; Lei et al. 2020; Li et al. 2020a; Tang et al. 2020).

Very diverse psychological variables have been explored, such as coping styles (Liang et al. 2020; Wang et al. 2020b), personality traits (Xiong et al. 2020), dispositional optimism (Zayas et al. 2021), self-esteem (Zhu et al. 2021), resilience (Vos et al. 2021), fear of infection (Ahorsu et al., 2020) and mindfulness and self-compassion (González-García et al. 2021; Kam et al. 2021). Of these, it has been observed that the main risk factor is fear of infection/perceived infectability (Bavel et al. 2020) and the main protective factor is the level of mindfulness and/or self-compassion (Gutiérrez-Hernández et al. 2021). Fear of infection is a psychological variable that greatly affects the general population during epidemics (Desclaux et al. 2017; Jeong et al. 2016; Reynolds et al. 2008). The fight against epidemics has been constant throughout history as our immune system is limited and cannot ward off all infectious diseases. According to the evolutionary disease-avoidance model (Park et al. 2003), humans perceive they are susceptible to infectious diseases (i.e., perceived infectability) in order to promote proactive behaviors that reduce the spread of such diseases (Díaz et al. 2016; Shook et al. 2020). The level of perceived infectability varies depending on external circumstances, such as the prevalence of and the mortality caused by the pathogenic agent (Schaller and Duncan 2007). The collateral effects of fear of infection are anxiety (A), stress (S) and depression (D) (Ahorsu et al. 2020; Bavel et al. 2020; Chen et al. 2021; Gutiérrez-Hernández et al. 2021; Lawal 2021; Olagoke et al. 2020; Wakashima et al. 2020; Winter et al. 2020). However, this psychological phenomenon leads the population to be more cautious and to apply preventive measures to slow down the spread of the virus. As a result, it would be counterproductive to take action to reduce this fear of the virus, but it would be beneficial to minimize the psychological impact of perceived infectability on the population. Researchers have also explored the psychological factors that protect individuals from mental health problems during situations such as a pandemic. For example, Wachinger et al. (2013) analyzed potential protective factors in the face of threatening situations and found that emotional regulation was one of them. It has been observed that self-compassion facilitates emotional regulation (Inwood and Ferrari 2018). Self-compassion training has been found to be a preventive and even therapeutic factor in emotional disorders (Cleare et al. 2019; Gilbert and Procter 2006; Hofmann et al. 2011; Inwood and Ferrari 2018; Kirby et al. 2017; MacBeth and Gumley 2012; Neff 2003a, 2003b; Wilson et al. 2019). Self-compassion has also been observed to be a protective factor from emotional distress during the COVID-19 pandemic in the general population in China (Lau et al. 2020; Li et al. 2021) and Spain (Gutiérrez-Hernández et al. 2021; Jiménez et al. 2020) and also among doctors (Kotera et al. 2020), pregnant women (Taubman-Ben-Ari et al. 2020) and parents (Preuss et al. 2021). In 2021, some studies have been published on the role of self-compassion on mental health during the COVID-19 pandemic. Nevertheless, more empirical robustness would be necessary to gain greater insight on the mechanisms that lead to the benefits observed. The authors of the present study found diverse studies on the mediating role of some psychological factors between SC and mental health: coping

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strategies as a mediator between SC and life satisfaction (Li et al. 2021) and resilience as a mediator between SC and depression (Pérez-Aranda et al. 2021). In a recently published study, it was observed that SC could be a moderator of the relationship between perceived threat of COVID-19 and emotional distress (Matos et al. 2022).

Considering the beneficial effects of self-compassion, we consider that it is essential to conduct research analyzing the mediator and moderator roles of SC during the COVID-19 pandemic to be better prepared for future disasters.

Self-compassion is defined as the attitude of being open to our painful situations and having a genuine intention to relieve the suffering they cause (Neff 2003a). Conceptually, self-compassion includes three pairs of facets, each of which has two complementary components (Raes et al. 2011): mindfulness vs. over-identification (M/OI), self-kindness vs. self-judgment (SK/SJ) and common humanity vs. isolation (CH/I). The M/OI pair represents the ability to be objectively conscious of adverse situations and the emotions they elicit in us. The SK/SJ pair refers to exploring our essential needs that become evident at difficult times. The CH/I pair helps us to remember that suffering and imperfection are implicit to human beings, thus reducing our resistance to accepting inevitable situations.

Many of the studies included in the meta-analysis conducted by Chio et al. (2021) reflect a medium or large significant relationship between each of the three pairs and psychological distress (Allen 2017; Kemer et al. 2017; Psychogiou et al. 2016; Svendsen et al. 2016; Yousaf et al. 2019). Despite this, there is a lack of studies exploring the effect of the components of self-compassion (SC) separately during the COVID-19 pandemic. The current study fills this gap by presenting the various dimensions of self-compassion associated with mental health.

Considering the arguments presented above, the present study was designed with the following objectives: (i) determine the relationships between fear/perceived infectability and SC in the context of mental health; (ii) explore whether the protective role of SC can reduce the harmful effects of other risk variables such as perceived infectability; (iii) if this effect is found, determine whether this effect depends differentially on the three facets of SC.

2. Materials and Methods

2.1. Participants

The sample was composed of 855 individuals who lived in Spain during the period from 14 to 21 April 2020. There were more female participants (71.6%) than male participants. Mean age was 42.92 years, with an age range from 18 to 86 years. Level of education was as follows: 78% of participants had completed university studies, 22% had secondary studies and 6% had primary studies.

The inclusion criterion was being aged over 17 years, and the exclusion criterion was not speaking Spanish well enough to understand the questions well.

2.2. Materials

We used the Google Form application to design a questionnaire that included the sociodemographic and clinical data of interest as well as the following scales: DASS-21, PVDQ and SCS. The questionnaire was self-administered individually and anonymously.

Anxiety Stress Scale-21 (DASS-21) (Lovibond and Lovibond 1995): We used a version translated into Spanish and validated (Daza et al. 2002). The scale includes three subscales (i.e., anxiety, depression and distress). Each subscale has 7 items, and the overall scale has 21 items in total. Responses are given on a four-point Likert scale ranging from 0 (not at all) to 3 (very much). The scale can also be used as a general measure of emotional distress (Alfonsson et al. 2017; Osman et al. 2012; Valencia 2019) and has shown good psychometric properties (Anghel 2020; Camacho et al. 2016). In our sample, the following alpha coefficients were obtained: 0.94 for the total scale, 0.83 for the anxiety subscale, 0.85 for the depression subscale and 0.90 for the stress subscale. For the purposes of this research, the DASS-21 was used as a general measure of emotional distress.

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Perceived Vulnerability to Disease Questionnaire (PVDQ) (Duncan et al. 2009): We used a version translated into Spanish and validated (Díaz et al. 2016). It is composed of two subscales: perceived infectability (seven items) and germ aversion (eight items). In this study, we only administered the perceived infectability subscale. Responses are given on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The perceived infectability subscale has a Cronbach alpha of 0.78. In our sample, it had an alpha coefficient of 0.85.

Self-Compassion Scale (SCS) (Neff 2003b): We used the 12-item short form of the scale (SCS-SF, (Babenko and Guo 2019; Raes et al. 2011)). The SCS includes the three facets mentioned above and is composed of six subscales: Self-Kindness, Self-Judgment, Common Humanity, Isolation, Mindfulness and Over-Identification. We used the version validated in Spanish (Garcia-Campayo et al. 2014). Responses are given on a five-point Likert scale ranging from 1 (almost never) to 5 (almost always). The version we used had a total Cronbach alpha of 0.85 (Garcia-Campayo et al. 2014), and the alpha value obtained with our sample was 0.84.

2.3. Design

We designed a cross-sectional study using the snowball method to recruit the sample. The dependent variables were anxiety, depression and distress. The predictor variables were gender, age, level of education, job status, situation during the lockdown, perceived infectability, habit of meditation, physical symptoms in the past two weeks, previous psychiatric disorder and self-compassion levels.

2.4. Procedure

After designing the questionnaire described in the Materials section, the researchers circulated it among their professional and social contacts and relatives and asked their contacts to do the same.

2.5. Ethics

This study was approved by the Ethics Committee for Research with Drugs of the Public Health Authorities of the Canary Islands, Spain. The information provided to participants included an explanation of the study and its objectives. We obtained prior informed consent from all participants, complying with the Spanish law on the protection of personal data. The study also complied with the Declaration of Helsinki.

2.6. Data Analysis

We performed descriptive analyses of sociodemographic variables. We assessed the relationship between sociodemographic and clinical variables with Pearson correlation coefficients (for continuous variables) and ANOVA (for categorical variables). We conducted a hierarchical regression analysis to explore predictive effects. Sociodemographic variables were the first ones introduced. Perceived infectability was introduced in a second step, and self-compassion (general and for each facet) was considered in a third step.

3. Results

Table 1 shows the main sociodemographic and clinical characteristics of the sample. We performed a first group of analyses to explore the relationship between general emotional distress (i.e., total DASS-21 score) and the main sociodemographic variables. Female participants obtained a higher and significant score in emotional distress (females: mean (M) = 11.55; standard deviation (SD) = 8.07; males: M = 8.52; SD = 6.86 (F = 13.19; p = 0.000)). In addition, participants with a diagnosis of mental disorder had a higher and significant score in the total DASS-21 (participants with a mental disorder diagnosis: M = 16.21; SD = 8.73; without a mental disorder diagnosis: M = 10.39; SD = 7.67 (F = 16.06; p = 0.000)). We found a negative and significant correlation coefficient (i.e., Pearson)

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between DASS-21 score and age (r = -0.17; p = 0.000). No other significant correlations were observed.

Table 1. Sociodeme	ographic and clinica	l characteristics of	the sample	(n = 855).
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Variables	Categories	n (%)
Gender	Female Male	616 (72%) 239 (28%)
Level of education	University graduate or higher Lower than university graduate	616 (72%) 239 (28%)
Mean age (n (SE))	43 (14)	
MDD	No Yes	788 (94%) 53 (6%)

Abbreviations: MDD = mental disorder diagnosis.

The analysis of the relationship between emotional distress scores and psychological variables showed a significant correlation with the perceived infectability factor (r = 0.16; p = 0.000) but not with the germ aversion factor (r = 0.01). In addition, the DASS-21 total score showed a negative and significant correlation with self-compassion (r = -0.46; p = 0.000). According to these last correlations, the three specific self-compassion factors also showed a similar relationship pattern to emotional distress: self-kindness/self-judgment: r = -0.35 (p = 0.000); common humanity/isolation: r = -0.35 (p = 0.000); mindfulness/over-identification: r = -0.47 (p = 0.000).

Based on these data, we performed a regression analysis of significant psychological factors (i.e., perceived infectability and self-compassion) on general emotional distress. For that purpose, we conducted a hierarchical regression analysis. The first group of variables included sociodemographic variables associated with DASS-21 score (i.e., gender, age and presence of a mental disorder diagnosis). The next step was perceived infectability. After that, self-compassion was introduced, and the interaction between infectability and self-compassion was introduced as a last step. Table 2 summarizes the main coefficients obtained.

As expected, all variables participated in the prediction of DASS-21 scores. In the first step of the regression analysis, the three sociodemographic variables played a significant role in predicting emotional distress. Being diagnosed with a mental disorder and age (negatively) played a similar contribution, followed by gender (female). This equation model reached statistical significance (F = 25.34; p = 0.000) and explained close to 10% of the variance ($R^2 = 0.08$).

In the second step, we introduced the perceived infectability variable. Coefficients were very similar to those found in the first step. When perceived infectability became part of the equation, it did not lead to relevant changes in the coefficients obtained by sociodemographic variables. This model was also significant (F = 23.01; p = 0.000) and increased the variance explained by two points (R² = 0.10).

The third step introduced was self-compassion. In this case, the equation coefficients changed. The first variable in predicting emotional distress was self-compassion. The second variable was gender, which decreased its beta coefficients, similar to the rest of variables. Interestingly, having a mental disorder diagnosis and perceived infectability almost lost statistical significance. Again, the model was significant (F = 51.02; p = 0.000), and the variance explained increased by 14 points (R² = 0.24).

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Table 2. Hierarchical regression analysis showing the prediction of DASS-21 total score by sociodemographic and psychological variables.

	First step				
	В	t	p	95%	· CI
Constant		2.61	0.009	1.09	7.74
Gender	0.15	4.44	0.000	1.44	3.74
Age	-0.17	-4.99	0.000	-0.13	-0.06
MDD	0.17	5.10	0.000	3.38	7.61
	Second step				
	В	t	p	95%	CI
Constant		1.10	0.272	-1.55	5.50
Gender	0.15	4.51	0.000	1.48	3.75
Age	-0.15	-4.55	0.000	-0.12	-0.05
MDD	0.16	4.87	0.000	3.11	7.32
PI	0.13	3.87	0.000	0.06	0.17
	Third step				
	В	t	p	95%	· CI
Constant		9.14	0.000	16.24	25.12
Gender	0.10	3.27	0.001	0.71	2.82
Age	-0.09	-2.87	0.004	-0.08	-0.02
MDD	0.07	2.30	0.022	0.35	4.32
PI	0.07	2.21	0.027	0.01	0.11
	Fourth step				
	В	t	p	95%	CI
Constant	0.93	3.89	0.000	0.46	1.40
Gender	0.18	3.21	0.001	0.07	0.29
Age	-0.01	-2.92	0.004	-0.01	-0.00
MDD	0.26	2.40	0.017	0.05	0.46
PI	0.01	2.17	0.030	0.00	0.01
SC	-0.04	-11.85	0.000	-0.04	-0.03
$PI \times SC$ interaction	0.00	0.10	0.484	0.00	0.00

Abbreviations: MDD = mental disorder diagnosis (0 = no; 1 = yes); B = beta coefficients; t = t-test contrast; p = probability; CI = confidence interval; SC = self-compassion; PI = perceived infectability.

Finally, the interaction between total scores in perceived infectability and self-compassion was introduced. The final model continued to be significant ($R^2 = 0.24$; F = 41.33; p = 0.000), but the interaction variable did not participate significantly in the equation.

After observing the significant role of self-compassion, we tested the specific role of the three factors of self-compassion. Pearson correlation coefficients among these factors were appreciable and significant (i.e., self-kindness/self-judgment with common humanity/isolation = 0.54, p = 0.000; self-kindness/self-judgment with mindfulness/over-identification = 0.65, p = 0.000; common humanity/isolation with mindfulness/over-identification = 0.61, p = 0.000). We conducted one regression analysis per facet, introducing the remaining variables (i.e., gender, age, mental disorder, perceived infectability and the interaction between each factor of self-compassion with perceived infectability). Table 3 shows the main coefficients obtained in each analysis.

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Table 3. Regression analysis on the prediction of DASS-21 scores by gender, age, mental disorder diagnosis, perceived infectability and each factor of self-compassion.

Self-compassion factor: se	en minariess, i	Jen jaagment (
	В	t	р	95%	CI
Constant	0.97	4.08	0.000	0.51	1.44
Gender	0.19	3.30	0.001	0.08	0.30
Age	-0.01	-2.86	0.004	-0.01	-0.00
MDD	0.24	2.26	0.024	0.03	0.45
PI	0.01	2.13	0.034	0.00	0.01
SK-SJ	-0.04	-12.18	0.000	-0.04	-0.03
PI × SK-SJ interaction	0.00	0.28	0.783	-0.00	0.00
Self-compassion factor: co	ommon huma	nity/isolation ((CH-I)		
	В	t	р	95% CI	
Constant	0.92	3.87	0.000	0.45	1.40
Gender	0.19	3.28	0.001	0.08	0.30
Age	-0.01	-2.90	0.004	-0.01	-0.00
MDD	0.25	2.36	0.019	0.04	0.46
PI	0.01	2.16	0.031	0.00	0.01
CH-I	-0.04	-11.85	0.000	-0.04	-0.03
Pi × CH-I interaction	0.00	1.00	0.318	-0.00	0.00
Self-compassion factor: n	nindfulness/o	ver-identificati	on (M-OI)		
	В	t	р	95% CI	
Constant	0.92	3.85	0.000	0.45	1.38
Gender	0.18	3.24	0.001	0.07	0.29
Age	-0.01	-2.84	0.005	-0.01	-0.00
MDD	0.25	2.38	0.017	0.05	0.46
PI	0.01	2.29	0.022	0.00	0.01
M-OI	-0.04	-11.94	0.000	-0.05	-0.03
PI × M-OI interaction	0.00	0.60	0.547	-0.00	0.00

Abbreviations: MDD = mental disorder diagnosis (0 = no; 1 = yes); B = beta coefficients; t = t-test contrast; p = probability; CI = confidence interval; SC = self-compassion; PI = perceived infectability.

As can be observed, the four-step regression analysis was consistent with the results obtained when the general self-compassion score was introduced. Nevertheless, there were several differences between self-compassion factors. The first step of the analysis, in which the self-kindness/self-judgment factor was introduced, yielded an equation that showed the following: this factor revealed a higher beta coefficient in predicting general emotional distress but without a moderator effect, because the remaining variables maintained their significant contribution, except for the interaction between infectability and self-kindness/self-judgment. The model explained a little over 20% of the variance ($R^2 = 0.23$) and reached statistical significance ($R^2 = 0.23$) and reached significance ($R^2 = 0.23$). Moreover, the mindfulness/over-identification factor had a similar participation in the equation ($R^2 = 0.23$).

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4. Discussion

The aim of the present study was to analyze the possible protective role of self-compassion on mental health associated with the experience of the COVID-19 pandemic. Specifically, results are consistent with those of previous studies and show the relationship between psychological distress and certain sociodemographic variables and fear of infection. However, when the self-compassion variable was introduced, the impact of these variables on distress decreased. The protective effect was also studied while considering the three facets of SC were separately.

The analysis of the role of sociodemographic variables showed that women suffer more than men during pandemics. This finding has also been obtained by previous studies (Brooks et al. 2020; Parrado-González and León-Jariego 2020; Salari et al. 2020), probably because women continue to take on a greater responsibility in the home and in child-rearing. These responsibilities have an even greater impact with the increase of teleworking and make it difficult to separate between professional and family life.

Age was negatively associated with emotional distress. This relationship has also been found previous studies (Huang and Zhao 2020; McGinty et al. 2020; Wang et al. 2020c). The higher psychological distress found in younger participants may be due to the reduction of social contacts associated with the need to control the pandemic and uncertainties about the future in academic and professional terms.

The existence of a previous mental disorder increased the probability of having greater emotional distress, in line with prior studies conducted during the COVID-19 pandemic (Pan et al. 2020; Ren et al. 2020; Wang et al. 2020a). Although psychological disorders may result from an initial affective predisposition (Peñate et al. 2020), individuals with a previous diagnosis of mental disorders are highly vulnerable to stressful events (Li et al. 2020a; Tang et al. 2020).

Among psychological factors, perceived infectability was positively and significantly correlated with psychological impact. Not surprisingly, high levels of perceived infectability are associated with greater concern in the general population (Shook et al. 2020). Such concern in turn leads to poorer mental health (Ahorsu et al. 2020; Wakashima et al. 2020; Winter et al. 2020). In a pandemic, such as the one due to SARS-CoV-2, individuals' fear of infection and its impact on their own health and that of their relatives is a direct source of concern and emotional distress (Gutiérrez-Hernández et al. 2021; Hedderman et al. 2020; Jiménez et al. 2020).

As regards the role of self-compassion, as explained in the introduction, several studies have been published in the last decade on the protective role of SC in mental health (De et al. 2021; Ferrari et al. 2019; Gu et al. 2015; Inam et al. 2021; Inwood and Ferrari 2018; Kirby et al. 2017; Leaviss and Uttley 2015; Murfield et al. 2020; Zeng et al. 2015; Zhang et al. 2018). This has also been observed during the COVID-19 pandemic (e.g., Gutiérrez-Hernández et al. 2021; Hedderman et al. 2020; Jiménez et al. 2020). Nevertheless, the degree to which this factor protects from psychological distress was yet to be established. Our study considered the variables that negatively affect emotional well-being (being female, being young and having previous mental disorders and higher perceived infectability) and found that self-compassion played a significant role in reducing the impact of those negative variables on emotional state. Specifically, when self-compassion was introduced into the regression equation, we observed a decrease in the role of gender, age, previous mental disorders and perceived infectability in predicted levels of emotional distress. These data are similar to those found by Matos et al. (2022) and can support the idea that SC plays a protective role against emotional distress.

However, our data are far from the idea that SC can play a moderator role. As can be observed, the introduction of SC into the equation leads to a significant increment in the beta coefficient, but the rest of variables still retain their significant contribution. It can imply that our data cannot support that SC regulates the role of other variables, especially perceived infectability/fear of infection. This last variable retains its steady positive association with emotional distress. SC can protect against emotional distress but

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does not avoid the presence of emotional disturbances if other risk variables are presents. The role of self-compassion was similar when the three facets (i.e., self-kindness/self-judgment, common humanity/isolation and mindfulness/over-identification) were used separately in the prediction of emotional distress: these facets produce a higher contribution to the equation, but they do not negate the predictive power of age, gender, being diagnosed with a mental disorder or perceived infectability. In any case, these three facets/factors were used as a tau equivalent (i.e., they had the same weight in the self-compassion total score), which may have introduced some bias in the specific role of those facets.

With these data in mind, our inferences cannot go beyond recognizing the relevant role of SC associated with a lower level of emotional distress, but SC cannot protect against the (negative) role of other variables. The hypothetical moderator role of SC needs new studies, perhaps with a longitudinal design (and, also, with the extensive version of SCS).

It is obvious that age, gender and previous mental disorder are not modifiable conditions. In addition, perceived infectability/fear of infection can be an inevitable consequence of any pandemic. Because exploring the protective factors that could promote resilience during adverse times has been a research priority for psychology and social sciences (Pollock et al. 2020), those data support the use of mindfulness/self-compassion training for promoting emotional mental health (Chan et al. 2006; Farris et al. 2021; Hedderman et al. 2020; Zhang et al. 2020). As Neff and Germer (2013) stated, "Self-compassion appears to facilitate resilience by moderating people's reaction to negative events". We hypothesized that perhaps the development of resilience could explain the predictive role of self-compassion on emotional distress during the COVID-19 lockdown. To date, however, we have not found any publications that have analyzed this during the COVID-19 pandemic. This line of inquiry could be addressed in future research.

This study has several limitations. It is cross-sectional, so it is not possible to establish causal hypotheses. When we refer to risk factors and protective factors, they should be understood as hypothetical constructions, since a cross-sectional design can only allow us to observe associations between variables. Another shortfall is that we used a convenience sample and did not include a clinical sample. In addition, the short form of the SCS is slightly less accurate than its long form and the equivalence among facets can be questioned (Chio et al. 2021).

This study was intended to provide information about the predictive role of self-compassion on emotional distress, both on a general level and in each facet in the context of the COVID-19 pandemic. Its results are provisional because of the limitations mentioned above. Regardless, if the protective role of self-compassion regarding psychopathological risk variables is confirmed, it will be possible to implement programs aimed at managing self-compassion. It would be interesting for future studies to verify these results with experimental designs and randomized controlled trials. Nevertheless, the results may have significant practical implications. It should be considered that the COVID-19 pandemic has a negative impact on mental health, and public funding is limited. Therefore, emotional distress could be lowered with effective therapies of a short duration and practical strategies.

Being younger, being female and having a mental disorder increased the psychological impact of the COVID-19 pandemic. Fear of infection led to higher psychological distress in the general population. By contrast, self-compassion decreased all the above-mentioned relationships with distress and diminished the relationship between fear of infection and emotional distress. Consequently, it is likely that self-compassion can play a protective role on emotional negative states.

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