

# Responding to the COVID-19 public health emergency: The usefulness of an online brief psychological intervention with Italian university students

Rita Cerutti  | Valentina Spensieri | Simone Amendola  |  
Giuseppe Stefano Biuso | Alessia Renzi | Renata Tambelli

Department of Dynamic and Clinical Psychology, and Health Studies, Faculty of Medicine and Psychology, Sapienza University of Rome, Rome, Italy

## Correspondence

Rita Cerutti, Department of Dynamic and Clinical Psychology, and Health Studies, Faculty of Medicine and Psychology, Sapienza University of Rome, Via degli Apuli 1, 00185 Roma, Italy.  
Email: [rita.cerutti@uniroma1.it](mailto:rita.cerutti@uniroma1.it)

## Abstract

The COVID-19 pandemic has brought about new stressors on university students, with a negative impact on their mental health and well-being. The purpose of this study was to examine the usefulness of a brief psychodynamically oriented intervention on general functioning by investigating changes in symptoms of depression, anxiety, hopelessness, and burnout. The sample was comprised of 67 university students (22.4% males), with a mean age of 23.27 (standard deviation (SD) = 3.27), who asked for psychological help at a psychological university service. Pre- and posttreatment data showed a significant improvement in general functioning and symptom reduction due to the psychological intervention. The mean change was very high for depression ( $d = 1.11$ ) and high for general functioning ( $d = 0.70$ ) and anxiety ( $d = 0.69$ ). Our findings showed the importance of considering university students a vulnerable population that requires specific services within the university context and underlined the fact that mental-health-promotion policies should be extensively implemented.

## KEYWORDS

brief psychodynamically oriented intervention, COVID-19, university students

## 1 | INTRODUCTION

Over the last 2 years, several studies have shown that the ongoing COVID-19 pandemic is having a considerable negative impact on the psychological and emotional well-being of people around the world (Sankhi & Marasine, 2020; Vindegaard & Benros, 2020). An increased rate of anxiety and depressive symptoms, along with various psychological problems and stress-related symptoms, have been well documented among the population (Rajkumar, 2020; Torales et al., 2020; Wang et al., 2020), as well as increased anxiety and burnout in university students (Harries et al., 2021). This seems to be related to specific stress factors: fears regarding the consequences of infection with a potentially fatal virus on one's personal health and the health of loved ones (Xiang et al., 2020), social isolation resulting from necessary governmental restrictions (Brooks et al., 2020), economic issues, and a general state of uncertainty (Ahmed et al., 2020).

Among the general population, university students have been identified as a particularly vulnerable population during the COVID-19 pandemic (Browning et al., 2021). Even before the COVID-19 pandemic, the mental health of young adults was already a global concern. The results of previous studies have highlighted the fact that mental disorders are prevalent in the university student population. Specifically, anxiety and depression are the most frequently diagnosed mental disorders (American College Health Association, 2020; Musiat et al., 2018), as well as hopelessness (Gulec Oyekcin et al., 2017) and an increased risk of burnout, which may influence academic success and impact every aspect of an individual's life. Yao et al. (2020) demonstrated how individuals with pre-existing mental health problems may be predisposed to experience worse mental health outcomes during the pandemic because of their high susceptibility to stress as compared with the general population. In addition, the importance of understanding that students attending university must cope with the developmental tasks of the life period they are going through, commonly known as "emerging adulthood" (Wood et al., 2018), must be emphasized. Emerging adulthood is a period of life characterized by instability and exploration concerning identity and changes in relationships (Riva Crugnola et al., 2021), as well as additional stressors that make university students more vulnerable to mental health problems (Wood et al., 2018).

The ongoing pandemic, along with fears and associated limitations, has worsened the psychological condition of university students with psychopathological risks, as shown by several studies (Batra et al., 2021; Musiat et al., 2018; Sankhi & Marasine, 2020; Wilson et al., 2021). Considerable uncertainty about the immediate and distant futures, stress, lifestyle disruptions (Chirikov et al., 2020; Sahu, 2020), as well as a variety of concerns related to health, productivity, and well-being (Wasil et al., 2021) have been observed in the majority of students.

Furthermore, the measures adopted by governments in many countries around the world in response to the pandemic have had a remarkable impact on the psychological well-being of university students (Cerutti et al., 2022; Chirikov et al., 2020; Elmer et al., 2020; Nania et al., 2020; Romeo et al., 2021; Son et al., 2020). The restrictions intended to reduce the worldwide propagation of COVID-19 led to a quick shift from traditional face-to-face teaching-learning methods to new online teaching-learning scenarios (Taylor et al., 2020), contributing to an increase in difficulties for students attempting to carry out their studies (Camargo et al., 2020). Moreover, university students had to cope with limitations in daily life, social relationships, leisure activities, and study methods (Charles et al., 2020; Hoyt et al., 2021; Son et al., 2020; Wang et al., 2020), which produced considerable changes in students' daily routines. These changes, in turn, have facilitated an increase in feelings of loneliness, insecurity, isolation, and difficulties in staying in touch with friends, colleagues, and professors (Grubic et al., 2020). However, in comparison, a Swedish study did not support the worsening of mental health among university students during the COVID-19 pandemic (Johansson et al., 2021). The authors concluded that the Swedish public-health strategies used to reduce the transmission of COVID-19 were likely less intrusive than those adopted in many other countries, thereby providing one potential reason their findings were not in accordance with the existing literature.

Given the overall consensus in terms of considering university students a particularly at-risk population, especially during the COVID-19 pandemic, several authors worldwide have emphasized the importance of providing psychological support to address the mental health concerns of university students during this difficult

period (Cao et al., 2020; Grubic et al., 2020; Zhai & Du, 2020). In general, there is evidence supporting the effectiveness of psychological interventions in reducing distress and improving emotional well-being and academic adaptation in university students (McAleavey et al., 2017; Østergård et al., 2017). Two recent meta-analyses (Barnett et al., 2021; Fu et al., 2020) showed the efficacy of psychological interventions for students who had or were at risk of developing common mental health problems (i.e., depression, anxiety, and eating disorders).

With regard to the Italian context, Bani et al. (2020) showed the effectiveness of a cognitive behavioral counseling service in reducing psychological distress and improving academic self-efficacy in a sample of university students using a pre-post assessment design. The findings suggest that counseling services represent common first-line services for students. Similarly, the effectiveness of a brief psychodynamic intervention on university students was demonstrated with a significant decrease in psychopathological symptoms, as evaluated at the end of the fourth psychotherapy session and after 3 months of follow-up (Cerutti et al., 2020). Furthermore, the efficacy of counseling interventions among university students has been principally observed in some areas such as psychological well-being, coping behavior, the ability to positively reframe problems, and a decreased sense of guilt (Ghilardi et al., 2018). Also, Biasi et al. (2017) highlighted the effectiveness of a university counseling intervention in obtaining a significant decrease in several internalizing and externalizing symptoms among students, as well as in distress symptoms and relationship difficulties. Moreover, recovery regarding progress in their studies was also found. With respect to studies on the effectiveness of university counseling services in supporting students during the pandemic, a recent qualitative study (Bloc et al., 2022) demonstrated that students' main motivations for participating in virtual clinical listening groups were feeling vulnerable; the fear of contamination; the desire to share experiences; a search for a way to control anxiety, depression, and stress; concerns about mental health; a willingness to promote listening and thus provide psychological support for themselves and others, and a desire for self-knowledge. Xiao et al. (2020) described improvements in university students' mental health status and sleep quality after a comprehensive psychological intervention including online and onsite psychological counseling. Similarly, Savarese et al. (2020) found that an online counseling intervention, in times of emergency, increased resilience and help identify psychological problems so as to allow for their timely management.

In summary, relatively few studies have explored the effectiveness of psychological counseling interventions for university students, especially during the COVID-19 pandemic. It is important to note that insufficient efforts to recognize and address university students' mental health challenges during a pandemic could have long-term consequences for their health and education (Browning et al., 2021).

## 1.1 | Study objectives and hypotheses

In light of the above considerations, the present study aimed to explore the usefulness of a brief psychological intervention for university students seeking help at a university psychological counseling service by examining the following:

- (1) changes in general functioning;
- (2) changes in depression, anxiety, hopelessness, and personal burnout levels;
- (3) whether potential changes in general functioning were explained by changes in depression, anxiety, hopelessness, and personal burnout.

We hypothesized that general functioning and symptoms of depression, anxiety, hopelessness, and personal burnout would be significantly decreased after the conclusion of a brief psychodynamically oriented intervention. Furthermore, we expected that reductions in symptoms of depression, anxiety, hopelessness, and personal burnout will be associated with improvements in general functioning.

## 2 | METHODS

### 2.1 | Participants and context of the study

Following government restrictions imposed to manage the COVID-19 pandemic, providing online psychological interventions became an accepted necessity in most mental health public services to respond promptly to the unprecedented situation. Consequently, a brief online psychodynamically oriented treatment was freely offered to university students who sought help at the Sapienza University Psychological Counselling Service (Rome, Italy) from May 2020 to December 2020, during the COVID-19 outbreak. The psychodynamically oriented intervention aims at promoting a process of self-reflection, self-discovery, and meaning-making, focusing on overcoming an ongoing crisis between the student and his or her academic project (S. Adamo et al., 2010; Sommantico et al., 2017). The adopted approach is derived from the conceptualizations of several authors working with young adults in short-term interventions at the Tavistock Clinic and the Brent Consultation Centre in London (Copley, 1976; Noonan, 1983), as applied to the Italian context by Adamo et al. (2010, 2012). Four weekly sessions and, successively, one follow-up session after 3 months were offered to all university students seeking help at the service. For more details on the intervention, interested readers may refer to Cerutti et al. (2020).

Seventy-five university students who contacted the Psychological Counselling Service within the university setting were included in the present study. The responses of two participants were removed due to their incomplete questionnaires. The exclusion criteria for participation were applied retrospectively and included the following: (i) being involved in a simultaneous psychotherapy treatment; in this case only, a psychological session was offered, and the students did not benefit from the full service for clinical reasons ( $n = 1$ ); (ii) being older than 40 years, to avoid sample bias related to the underrepresentation of this age group ( $n = 3$ ); and (iii) a lack of understanding of the Italian language, which would not allow for the administration of our tests ( $n = 2$ ). Furthermore, participants with severe psychopathology (i.e., psychotic and bipolar disorders) are usually directed to the mental health territorial services of the National Health System and do not benefit from the full service for clinical reasons. The final sample was comprised of 67 university students (22.4% males), with a mean age of 23.27 ( $SD = 3.27$ ). The majority of students were Italian natives (65.7%) and enrolled in a bachelor's degree program (58.2%) when they presented for psychological intervention.

### 2.2 | Data collection and procedure

All subjects recruited into the study received a brief online psychodynamically oriented intervention at the Psychological Counselling Service of Sapienza University of Rome (Italy). In particular, four free weekly sessions each lasting 50 min and, successively, one 3-month follow-up session were offered to all students seeking help. Data collection took place entirely online after the acquisition of informed consent. All participants completed the questionnaires before the first session and at the end of the fourth intervention session. The anonymity and privacy of the participants were ensured by assigning them a code and allowing data access only to researchers involved in the statistical analyses.

### 2.3 | Ethical considerations

Written permission was obtained from the institutions where the research was conducted. This study was approved by the Ethics Committee of the Department of Dynamic and Clinical Psychology, and Health Studies, Sapienza University of Rom.

## 2.4 | Measures

### 2.4.1 | Sociodemographic data

A brief sociodemographic questionnaire was used to collect information on gender, age, birthplace, pursued degree, academic credits (i.e., European Credit Transfer and Accumulation System credits), and grade point average.

### 2.4.2 | The Outcome Questionnaire-45 (OQ-45)

The OQ-45 (Lambert et al., 2004; Lo Coco et al., 2008) is a 45-item self-report instrument that requires participants to rate their functioning on a 5-point Likert scale. In addition, it was developed as a brief measure of patient progress in psychotherapy, tracking patient change over time. The total OQ-45 score represents one's overall level of psychological dysfunction or general mental health distress and can range from 0 to 180. Higher scores indicate greater distress. The psychometric properties of the OQ-45 appear to be quite strong, particularly for total scores (Lo Coco, 2008). In the present study, Cronbach's  $\alpha$  values were 0.92 at preintervention and 0.94 at postintervention.

### 2.4.3 | The Beck Anxiety Inventory (BAI)

The BAI (Beck & Steer, 1993; Coradeschi et al., 2007) is a self-report measure composed of 21 items assessing the severity of anxious symptoms (e.g., physiological, emotional, and cognitive symptoms of anxiety) on a 4-point scale ranging from 0 ("not at all") to 3 ("severely—I could barely stand it") based on the manifestation of the symptoms in the last week. Total scores range from 0 to 63. In the original version, the authors reported a high Cronbach's  $\alpha$  (.92) and good test-retest reliability (.75) for the BAI with a 1-week gap. The BAI Italian version also has good internal consistency reliabilities (0.91–0.95). In the present study, the BAI had good internal consistency reliability (a Cronbach's  $\alpha$  of .92 preintervention and 0.94 postintervention).

### 2.4.4 | The Beck Depression Inventory—2nd edition (BDI-II)

The BDI-II (Beck et al., 1996; Ghisi et al., 2006) is a 21-item self-report rating inventory that assesses the existence and severity of symptoms of depression using a four-point scale (0–3). Total scores range from 0 to 63. The BDI-II demonstrates high internal consistency, and the  $\alpha$  coefficient ranges from .92 (for outpatients) to .93 (for college students; Beck et al., 1996). In the present study, the BDI-II Cronbach's  $\alpha$  was .92 preintervention and 0.94 postintervention.

### 2.4.5 | The Beck Hopelessness Scale (BHS)

Hopelessness was assessed using three items of the BHS (Beck et al., 1974; Innamorati et al., 2014; Perczel Forintos et al., 2001). Hopelessness was considered one of the most important psychological risk factors. It can be defined as a negative perspective on the future or a set of negative expectations regarding the future (Perczel Forintos & Sallai, 2010). The short scale includes one item for each of the three components of hopelessness: affective (item 7: "My future seems dark to me"), cognitive (item 14: "Things just won't work out the way I want them to"), and motivational (item 20: "There's no use in really trying to get something I want because I probably won't get it"). Each

item is scored between zero and three points. Previous studies showed a good internal consistency (Cronbach's  $\alpha$  coefficient = .80) (Perczel Forintos et al., 2001). In the present study, Cronbach's  $\alpha$  value was .53 preintervention and .61 postintervention.

#### 2.4.6 | The Copenhagen Burnout Inventory (CBI)

The CBI (Kristensen et al., 2005) is a public domain questionnaire measuring the degree of physical and psychological fatigue experienced in terms of three subdimensions of burnout: personal, work-related, and client-related burnout. In the current study, we used the Italian version created by Avanzi et al. (2013). In particular, we employed the first subscale, "Personal Burnout," which focused on the general life context. It is comprised of six items (e.g., "How often do you feel tired?"; "How often do you feel worn out?") concerning the physical and psychological fatigue and overall exhaustion experienced by an individual. This is in accordance with the historical development of the burnout concept, as well as with a recent definition proposed by Schaufeli and Greenglass (2001), who define burnout as "a state of physical, emotional and mental exhaustion that results from long-term involvement in work situations that are emotionally demanding." All items were rated on a five-point Likert scale: *never* (1), *rarely* (2), *sometimes* (3), *often* (4), and *always* (5). The Cronbach's  $\alpha$  for internal reliability in the original version was .87 for the personal burnout subscale. In the Italian version, the reliability analysis of the personal burnout subscale measured through Cronbach's  $\alpha$  and composite reliability (Raykov, 1997) revealed excellent values of .89 and .89, respectively (Fiorilli et al., 2015). In the present study, the internal consistency was good (0.82 preintervention and 0.89 postintervention).

### 2.5 | Analyses

Descriptive statistics (i.e., prevalence, means, and standard deviations) were calculated to evaluate the characteristics of the sample. The mean-level change was analyzed with paired-sample *t*-tests and differential stability with Pearson's correlations between baseline ( $T_0$  = at the first session of the brief psychodynamic intervention) and follow-up ( $T_1$  = at the fourth session of the intervention) questionnaire scores. Furthermore, Pearson's correlation analysis between questionnaire scores at various time points (i.e.,  $T_0$ ,  $T_1$ ,  $T_0$ - $T_1$ ) is presented in the Supporting Information: Appendix 1.

Subsequently, we used a series of linear mixed models (LMMs) to examine changes in general functioning and psychological symptoms over time, including age and sex as time-constant covariates. Furthermore, an additional LMM was performed to investigate changes in general functioning over time and associations with psychological symptoms as time-varying covariates (i.e., measured at  $T_0$  and  $T_1$ : symptoms of depression, anxiety, personal burnout, and hopelessness). The continuous outcome models included a random (subject-specific) intercept and an autoregressive model of order 1 for the residuals within participants using restricted maximum likelihood estimates of parameters. All continuous predictor variables were mean-centered before they were entered into the LMMs. All data were analyzed using SPSS Version 25.  $p < .05$  were considered statistically significant.

## 3 | RESULTS

Table 1 shows the sample characteristics at baseline. The present sample was comprised of 67 university students (77.6% female), with a mean age of 23.27 (SD = 3.27). Fifty-eight percent of the sample were pursuing a bachelor's-level program, 28.4% a master's-level program, and 13.4% a single-cycle degree program. The average participant in this sample had completed approximately half of his or her degree credits at the beginning of the intervention.

**TABLE 1** Sociodemographic characteristics

	Number (%) or mean $\pm$ SD
<b>Sex</b>	
Female	52 (77.6)
Male	15 (22.4)
Age	23.27 $\pm$ 3.27
<b>Birthplace</b>	
Same as university location	14 (20.9)
Italian city different from university location	30 (44.8)
Other country	5 (7.5)
Missing	18 (26.9)
<b>Pursued degree</b>	
Bachelor	39 (58.2)
Master	19 (28.4)
Single-cycle	9 (13.4)
<b>Academic credits</b>	
Bachelor (max 180)	85.55 $\pm$ 57.23
Master (max 120)	70.37 $\pm$ 49.75
Single-cycle (max 360)	155.67 $\pm$ 86.66
<b>Grade point average (min 18–max 30)</b>	
Bachelor	25.38 $\pm$ 2.38
Master	28.38 $\pm$ 2.7
Single-cycle	27.06 $\pm$ 2.11
<b>Academic credits—last 6 months</b>	
Bachelor	21.15 $\pm$ 15.06
Master	20 $\pm$ 16.03
Single-cycle	20.22 $\pm$ 13.35

Abbreviation: SD, standard deviation.

Changes in general functioning and psychological symptoms after the brief psychodynamic intervention are displayed in Table 2. Significant decreases in mean scores were shown for general (dys)functioning (mean change: 15.63, SD = 22.31,  $T = 5.734$ ,  $df = 66$ ,  $p < .001$ ), depression (mean change: 11.54, SD = 10.38,  $T = 9.098$ ,  $df = 66$ ,  $p < .001$ ), anxiety (mean change: 7.33, SD = 10.68,  $T = 5.617$ ,  $df = 66$ ,  $p < .001$ ), burnout (mean change: 2.27, SD = 4.95,  $T = 3.749$ ,  $df = 66$ ,  $p < .001$ ), and hopelessness (mean change: 0.33, SD = 0.93,  $T = 2.898$ ,  $df = 66$ ,  $p = .005$ ). According to these findings, the mean-level change was very high for depression ( $d = 1.11$ ), high for general functioning and anxiety ( $d = 0.70$  and  $d = 0.69$ , respectively), and low to moderate for hopelessness ( $d = 0.35$ ) and burnout ( $d = 0.46$ ). Differential stability was moderate and ranged from  $r = 0.57$  for hopelessness to  $r = 0.65$  for anxiety (all  $p < .001$ ).

All LMMs including sex and age as covariates showed a significant effect on the part of time (all  $p < .01$ ) (Table 3). General functioning increased, while symptoms of depression, anxiety, personal burnout, and hopelessness significantly decreased, between T0 and T1. Sex and age showed no association with the outcome variables.

**TABLE 2** Questionnaire scores at the beginning (T0) and after four sessions of the brief psychodynamic intervention (T1) and stability over time

Variable	T0		T1		Stability over time	
	M (SD)	$\alpha$	M (SD)	$\alpha$	r	d
Primary outcome						
General functioning	80.16 (24.02)	0.92	64.54 (27.01)	0.94	0.624**	0.70**
Secondary outcomes						
Depression	27.76 (12.22)	0.92	16.22 (11.90)	0.94	0.630**	1.11**
Anxiety	21.61 (12.88)	0.92	14.28 (12.56)	0.94	0.648**	0.69**
Personal burnout	19.96 (5.06)	0.82	17.69 (5.8)	0.89	0.592**	0.46**
Hopelessness	1.78 (0.95)	0.53	1.45 (1.05)	0.61	0.573**	0.35*

Abbreviations:  $\alpha$ , Cronbach's alpha; d, Cohen's d; M, mean; r, Pearson's correlation; SD, standard deviation.

\* $p < .01$ ; \*\* $p < .001$

**TABLE 3** Estimated fixed effects of linear mixed models covaried for sex and age

	B (SE)	95% CI	p Value
Primary outcome			
General functioning			
Sex (male)	2.07 (6.99)	-11.9, 16.04	.768
Age	-0.82 (0.9)	-2.61, 0.97	.365
Time	-15.58 (2.72)	-21.01, -10.14	<.001
Secondary outcome			
Depression			
Sex (male)	0.17 (3.29)	-6.41, 6.75	.959
Age	-0.54 (0.42)	-1.39, 0.3	.204
Time	-11.5 (1.27)	-14.03, -8.98	<.001
Anxiety			
Sex (male)	0.4 (3.54)	-6.66, 7.47	.909
Age	0 (0.45)	-0.91, 0.9	.994
Time	-7.33 (1.31)	-9.93, -4.72	<.001
Personal burnout			
Sex (male)	-0.94 (1.47)	-3.88, 2	.525
Age	0.11 (0.19)	-0.27, 0.49	.565
Time	-2.28 (0.61)	-3.48, -1.07	<.001
Hopelessness			
Sex (male)	-0.05 (0.27)	-0.59, 0.49	.859
Age	-0.04 (0.03)	-0.11, 0.03	.240
Time	-0.33 (0.11)	-0.55, -0.1	.005

Abbreviations: B, unstandardized coefficient; CI, confidence interval; SE, standard error.



**TABLE 4** Estimated fixed effects of clinical symptoms in predicting general functioning

	Current functioning		p Value
	B (SE)	95% CI	
Time	1.66 (1.63)	-1.58, 4.89	.312
Depression	0.96 (0.13)	0.7, 1.23	<.001
Anxiety	0.15 (0.11)	-0.08, 0.37	.195
Personal burnout	1.29 (0.24)	0.81, 1.77	<.001
Hopelessness	6.59 (1.24)	4.14, 9.04	<.001

Abbreviations: B, unstandardized coefficient; CI, confidence interval; SE, standard error.

Finally, when the LMM was performed to investigate changes in general functioning (primary outcome) over time and associations with changes in symptoms of depression, anxiety, personal burnout, and hopelessness between T0 and T1, the effect on the part of time were no longer significant (Table 4). Changes in depression, personal burnout, and hopelessness, but not anxiety, were significantly associated with general functioning.

## 4 | DISCUSSION

The principal aim of the present study was to evaluate the impact of a brief psychodynamically oriented intervention on general functioning and clinical symptoms in university students seeking help at the Sapienza University Psychological Counselling Service during the COVID-19 pandemic. The results of the present investigation showed a significant improvement in general functioning and a decrease in symptoms of depression, anxiety, burnout, and hopelessness. This is in accordance with previous studies that have reported the efficacy of psychological counseling intervention in reducing depression and anxiety symptoms (Barnett et al., 2021; Broglio et al., 2021; Fu et al., 2020; Ghilardi et al., 2018) and improving general functioning (Biasi et al., 2017) in university student populations. In Europe, University Counseling Services are characterized by different approaches (Rückert, 2015), and the most common clinical models are psychodynamic, cognitive-behavioral, and humanistic. Our findings appear to be in line with those reported in the international literature, which have shown the efficacy of various models of university psychological counseling intervention in reducing psychological distress among university students (Barnett et al., 2021; Broglio et al., 2021; Fu et al., 2020; McAlevey et al., 2017; McKenzie et al., 2015), particularly psychodynamic counseling intervention models (Biasi et al., 2017; Ghilardi et al., 2018; Monti et al., 2014). With regard to the Italian context, both psychodynamic and cognitive-behavioral interventions have been shown to be effective in reducing psychological distress among university students (Bani et al., 2020; Cerutti et al., 2020; Monti et al., 2014). Importantly, to our knowledge, no previous studies have analyzed the impact of psychological counseling intervention models in terms of reducing hopelessness and personal burnout symptoms among university students. Thus, with some caution, the findings of the present study provide new evidence on the efficacy of psychodynamically oriented counseling intervention models in university settings. It is interesting to note that, despite a modest sample size, statistical analysis of pre/posttreatment change showed a large effect size with respect to changes in depression, general functioning, and anxiety; a moderate effect size in terms of changes in burnout levels; and a low effect size for changes in hopelessness scores. These effect sizes appear similar to those related to the effectiveness of open-ended psychodynamically oriented interventions, thus representing an encouraging finding in support of the relevance of university counseling services (Broglio et al., 2021; Dufour, 2020; Savarese et al., 2020).

Similar to the results of a previous study (Vescovelli et al., 2017), the students who requested university psychological counseling services during the COVID-19 pandemic were more likely to be female students. This

appears to be in line with previous studies regarding the university student population in which it has been noted that counseling service users are more commonly females, who are more favorably disposed to school guidance and counseling services than their male counterparts (Cerutti et al., 2020; Ghilardi et al., 2017). Studies show that men are more reticent to seek help for mental health problems than women (Parent et al., 2018). In general, regarding sex-related differences in asking for psychological support, it has been observed that men usually request mental health services when their symptoms prevent them from successfully functioning in their workplace (Staiger et al., 2020). One potential interpretation of this phenomenon could be that females are used to paying more attention to their emotional and psychological difficulties and less resistant to seeking help with coping with them, although sex-related differences in mental health problems did not emerge (Staiger et al., 2020). In our study, sex and age were not associated with changes in the various dimensions investigated, despite the greater use of university counseling services among female students.

Analyses performed to investigate changes in general functioning over time due to changes in depression, anxiety, burnout, and hopelessness symptoms between pre- and post-intervention showed that changes in symptoms of depression, personal burnout, and hopelessness were significantly associated with changes in general functioning, in contrast to anxiety. This latter result requires some consideration. One potential explanation of this result is offered by Levy et al. (2018), which showed that most of the anxiety-specific measures they investigated failed to predict the OQ-45 psychological distress score after controlling for depression, thus concluding that this instrument is more capable of capturing depressive symptoms than anxiety symptoms. We can also reflect on the different characteristics of the dimensions investigated. It may be possible to hypothesize that, especially in the specific period of the data collection, that is, during the COVID-19 pandemic, symptoms of depression, burnout, and hopelessness were the symptoms that most impacted psychological well-being and were, thus, more relevant to treat to promote general functioning. In contrast, some anxiety symptoms may have been part of a normal reaction to health threats/stress (Amendola et al., 2021) and, as such, are not consistently associated with general functioning, at least in this sample.

## 4.1 | Limitations

The results of the present study must be interpreted in light of some limitations. The first of these concerns the limited sample size. In this study, as in many studies on clinical interventions, the effort required on the part of every single participant may have led to a limited number of participants. Furthermore, the limited sample size was also partially due to the transition from face-to-face to online sessions, which led to some questionnaires not being fully completed. Further studies are needed to confirm our findings. Second, data were collected using only self-report measures, which may produce response biases due to social desirability. Third, the sample was composed of university students attending one university. Therefore, the generalization of our results to other groups or populations should be performed with caution. In the future, it may be important to establish collaborations with other university counseling services that share the same brief psychodynamic intervention model to collect national data using larger samples. Moreover, future investigations aimed at comparing the pre/post effect of various psychological models of intervention on university students should be realized. A fourth limitation is the absence of a control group, a point future studies should take into account.

## 4.2 | Practical implications

The present study provides significant information pertaining to the relationship between psychological support and clinical symptoms among students during the pandemic that has affected the entire world over the past 2 years. A significant improvement in general functioning and a decrease in symptoms of depression, anxiety, burnout, and hopelessness have been observed after a brief psychodynamically oriented intervention during the COVID-19

pandemic. It may be considered an efficacious way to deal with emerging psychopathological distress among students by providing strategies to use in coping with stressful situations and improving psychological resilience. The overarching goal is, in agreement with the work of other researchers (S. M. G. Adamo et al., 2012; Richards, 1999), to help students understand the unconscious meanings of their issues and translate this comprehension into more adaptive strategies with which to cope with their difficulties. Future research should be developed to confirm our results with longitudinal studies. Importantly, psychological counseling centers within university contexts may represent a front-line service in detecting and handling mental health problems among the university student population.

### 4.3 | Conclusion

The findings of the present study make an important contribution to the field of student mental health, indicating an improvement in general functioning and a decrement of symptoms of depression, anxiety, burnout, and hopelessness after a brief psychodynamically oriented intervention at a university counseling service during the COVID-19 pandemic. The results obtained seem to be encouraging with respect to the usefulness of the brief intervention offered, although further studies are required. Our study sustains the necessity of considering university students a vulnerable population that requires specific services within the university context aimed at constantly addressing students' mental health issues. This appears to be particularly relevant in consideration of the current difficult period to mitigate the emotional and mental impacts of the pandemic on students and strengthen their strategies to effectively cope with psychological distress and clinical symptoms. Mental-health-promotion policies appear to be particularly relevant for this young adult population at all times and should be extensively implemented.

### CONFLICT OF INTEREST

The authors declare no conflict of interest.

### DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

### ORCID

Rita Cerutti  <https://orcid.org/0000-0002-3276-8394>

Simone Amendola  <http://orcid.org/0000-0002-1950-4351>

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## SUPPORTING INFORMATION

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