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Coping strategies and mental health in a sample of students accessing a university counselling service

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Abstract

The aim of this study was to evaluate the coping strategies used by college students and their association with socio-demographic characteristics and distress. The sample was composed of 219 students, who had previously accessed the university counselling service over a 5-year period. The Symptom Checklist-90-Revised, the General Health Questionnaire-12 and the Brief COPE Inventory were administered. Results showed that male students tended to use more active strategies than female students and that students studying health-related subjects presented less distress than those studying technical subjects. Moreover, the results indicated that the self-blame coping strategy is a major predictor of mental health issues and that interaction between age and area of study aggravated the symptomatology. Further research is needed to better understand the experience of distress from the college students' perspective, and to identify what interventions are really effective in supporting students to cope with distress.

KEYWORDS

college students, coping, counselling, mental health, symptomatology

1 | INTRODUCTION

Emerging adulthood is defined as the specific developmental period running from late adolescence to young adulthood (Arnett, 2000). During this transitional phase, different changes occur, including modifications in social roles, re-definition of identity, establishment of significant personal relationships and start of university or a working career (Lefkowitz, 2005). Recently, Hochberg and Konner (2020) showed that emerging adulthood is a life-history stage that is a foundation of the high reproductive success of human beings, has an evolutionary context and developmental markers, and requires protection because people are still learning and maturing. These changes often involve considerable developmental challenges, which may inspire opportunities to evolve, or on the contrary, can place young adults under intense pressure (Roisman et al., 2004). In college students, this transitional period can also affect their academic performance (Galbraith & Merrill, 2015; Stallman, 2010), with a high risk of college dropout (Hunt et al., 2010). Furthermore, it can also affect their quality of life and psychological well-being (Goldstein et al., 2015). Many longitudinal studies have shown an increase in distress among college students (Benton et al., 2003; Ibrahim et al., 2013). Some studies have also found that distress is particularly burdensome and prevalent in younger students (Jackson & Finney, 2002; Mahmoud et al., 2012).

Students may cope with this distress differently: using problemor emotion-focused coping strategies (Folkman & Lazarus, 1980). Generally, problem-focused strategies lead to positive or adaptive health and performance outcomes and are used more often by

This is an open access article under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made. © 2022 The Authors. *Counselling and Psychotherapy Research* published by John Wiley & Sons Ltd on behalf of British Association for Counselling and Psychotherapy male students. Emotion-focused strategies can lead to negative or maladaptive health and performance outcomes and are used more often by female students (Brougham et al., 2009; Eaton & Bradley, 2008; Sawhney et al., 2020). However, other evidence has shown that female students counterbalance the negative effect of maladaptive emotion-focused strategies with more social support (Eisenbarth, 2019; Freire et al., 2016; Lawrence et al., 2006), which can be considered a functional emotion-focused coping strategy. Correlations between the two main coping categories and age have also found that young people tend to use more maladaptive styles, whereas older people use more adaptive ones (Cabras & Mondo, 2018; Julal, 2013; Wingo et al., 2015). Interestingly, Flannery et al. (2018) studied gender differences in coping styles during the transition from adolescence to early adulthood. They found the greatest gender differences during middle to late adolescence, with girls reporting higher levels of active coping, social support seeking, planning and venting than boys did. The use of these strategies by male students became equivalent to that of female students after age 19-20, and gender differences in humour strategy became evident only after age 22. Moreover, according to Mahmoud et al. (2012), some young adults can also seek spiritual support as a coping strategy, with some possible benefits for their well-being.

Some studies have found a relationship between psychopathology and coping strategies: for example, avoidance, denial and venting are strongly associated with psychopathology, especially with depression (Chao, 2012; Mohr et al., 2014; Coiro et al., 2017; Sawhney et al., 2020), anxiety, eating and personality disorders (Costorphine et al., 2007; Kocovski et al., 2005). Researchers have also observed associations between coping styles and symptom severity (Ravindran et al., 2002). Moreover, Lew et al. (2019) found that coping strategies such as self-distraction, self-blame and substance use were risk factors for suicidal behaviours in a sample of Chinese college students. In particular, self-blame was a predictor of stress among college female students, and behavioural disengagement among men (Eisenbarth, 2019). On the contrary, a positive attitude (e.g. acceptance, holding, positive reframing) and problem-oriented strategies (e.g. suppression, planning, active coping) serve as protective factors towards psychological distress and support in promoting well-being (Sica et al., 2008).

Some studies have focused on demonstrating that coping strategies do not follow psychopathology, but can be predictors and/or maintenance factors of emotional problems, inasmuch as they are activated to regulate disturbing emotions (Spira et al., 2004). This research area investigates dispositional traits, as opposed to situational context behaviour, to explain why some people are more likely to use certain types of coping strategies (Carver et al., 1989; Volrath et al., 2003), and how this may affect their health. For instance, dispositional coping was linked to personality disorders (Bijttebier & Vertommen, 1999; Watson & Sinha, 2000), where avoidance and self-blame were recognised as major predictors. Furthermore, Akhtar and Kroener-Herwig (2019) found that suppressive coping and reactive coping were strong predictors of a low level of psychological well-being in a sample of international college students. In this regard, Compas et al. (2014) suggested that there is an interaction of dispositional coping styles with

Implications for Practice

- Stress is pervasive in all aspects of undergraduates' everyday lives. If universities 'take care' of their students, through stress-management interventions, they can limit distress and improve personal, social and academic well-being.
- 2. This study highlights the need to promote interventions to improve coping strategies, especially for technical students and male students. Social support is a key factor and strictly observed phenomenon by researchers in relation to coping within the college environment.

Implication for Policy

Improving strategies to cope with stress in college students could have a positive impact on students' psychological well-being, becoming a protective factor to prevent mental health issues. It is well known that university studies represent a crucial period of development, with young adulthood considered a sensitive time for the onset of common psychiatric conditions. It is believed that the presence of a counselling service within universities is essential for the delicate evolutionary phase that students go through. College counselling represents a key front-line service in early detection and management of subthreshold symptoms related mostly to generic mental distress within young adults.

emotional regulation strategies as a pathway to protect or expose individuals to general distress and psychopathology.

The aims of this study were to understand which coping strategies were used most frequently by a sample of college students who accessed a university counselling service, and whether these strategies, when combined with socio-demographic characteristics, can be associated with student distress. The socio-demographic characteristics were as follows: gender, age, area of study, supplementary year of study, working status, previous access to psychological services and family history of mental disorders.

2 | MATERIALS AND METHODS

2.1 | Participants and procedure

This study was conducted in a medium-sized public university, located in Northern Italy, with about 15,000 students enrolled. The sample consisted of students who had freely asked for psychological support at the university counselling service. Before the initial interview with the counsellor, students were asked to fill in three questionnaires: the Symptom Checklist-90-Revised (SCL-90-R), the General Health Questionnaire-12 (GHQ-12) and the Brief COPE Inventory (see below). Students were also asked to fill in a socio-demographic form. Data collected included the following: gender, age, area of study, supplementary year of study, WILEY

working status, previous access to psychological services and family history of mental disorders. The sample consisted of 219 students: 125 women (57.1%) and 94 men (42.9%), with a mean age of 24.9 years (SD = 5.7). Most students were Italian (86.3%), younger than 30 years (89%) and not married (96.3%). One-third (30.6%) worked alongside their studies, had previous access to psychological services (34.9%) and had a family history of mental disorders (31.1%). The university's course studies were divided into two areas: 41.6% of the sample was enrolled in health area faculties (Medicine and Surgery, Dietetics, Biotechnologies, Nursery, Professional Education), while 58.4% was enrolled in technical area faculties (Engineering, Economics, and Law). More than half of the sample (58.4%) were studying for a bachelor's degree, while 41.6% were studying for a master's degree. Finally, 61.2% of the students were up-to-date with examinations, while 38.8% were in their supplementary year(s), which meant they had already finished the regular time allowed and had not yet completed their studies.

2.2 | Counselling service: general aspects

The counselling service was open to all enrolled students and offered four psychological interviews. To access the service, students had to schedule an appointment by telephone or email. Each interview lasted 60 min, and their frequency depended on the students' needs and was established together with the counsellor. The assessment took place at the end of the first and last interview, and it lasted around 30 min. The 4-month follow-up interview lasted 60 min and included both the questionnaire assessment and a re-evaluation of the counselling contents. All students provided written informed consent before starting counselling and were informed that their participation was confidential, anonymous and not compulsory and that their personal data would be respected.

The psychological interviews followed the psychodynamic model of the Tavistock Clinic for young adult patients (Copley, 1976; Polacco Williams, 1990; Salzberger Wittenberg, 1977). The following areas received particular attention by the counsellor during the interviews: (a) relationship between counsellor and student and which experiences it recalled in the here and now; (b) the student's evolution in relation to his or her family, personal origin and life experiences; and (c) the current situation of the student and his or her motivation for accessing the counselling service.

The counsellor was an external professional; his goal was to help students gain a deeper insight into their own emotional issues. The counsellor attended regular meetings with one psychotherapist and the departmental director in order to discuss the organisation of the service and to assess the clinical methodological aspects of individual cases.

2.3 | Measures

The General Health Questionnaire (GHQ-12, Goldberg & Blackwell, 1970) is a 12-item self-administered questionnaire for

common mental disorders and psychophysical well-being, which investigates the presence and frequency of non-chronic symptoms during the most recent weeks. Each item is scored from 0 (*better than usual*) to 3 (*much less than usual*). The total score ranges from 0 to 36, and the value is directly proportional to the perception of the disease (cut-off = 13). We can group the total score into five categories: scores between 1–10 mean low psychological disease; scores of 11–12 denote a typical value range; scores between 13–15 denote a value slightly higher than the common range; scores between 16–20 mean an explicit psychological disease; and a score higher than 20 denotes the presence of serious distress. Politi et al. (1994) gathered some evidence supporting the claims of reliability of the Italian version of the GHQ-12, as indicated by a Cronbach's alpha of 0.81.

The Brief COPE Inventory (Carver, 1997) is composed of 28 items grouped into 14 scales, representing strategies for coping with stressful situations: self-distraction, active coping, denial, substance use, use of emotional support, use of instrumental support, behavioural disengagement, venting, positive reframing, planning, sense of humour, acceptance, religion and self-blame. Each item is scored from 1 (I haven't been doing this at all) to 4 (I've been doing this *a lot*), and the score for each scale ranges from 2 to 8, where a high score is related to a greater ability to cope. Since there was not a cutoff or any intervals to interpret scores, we set a value of 6, requiring a rating of at least 3 out of 4 per item, in order to take the scale into consideration. Scales with a value higher than 6 were considered significant in this study, indicating the coping strategies most used by the sample. The Italian version of the Brief COPE Inventory has shown good reliability for each scale, with Cronbach's alpha values ranging between 0.50 and 0.90 (Sica et al., 2008).

The Symptom Checklist-90-Revised (SCL-90-R: Derogatis, 1994) contains 90 items and aims to evaluate a broad range of psychological problems and psychopathological symptoms. Each item is rated on a 5-point Likert scale, ranging from 0 (not at all) to 4 (extremely). Items are grouped into nine scales: somatisation, obsessivecompulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation and psychoticism. In the Italian version of the SCL-90-R, the internal coherence was good for all scales, with Cronbach's alpha values ranging between 0.70 and 0.96 (Sarno et al., 2011). Moreover, three indices evaluate global symptomatology: Global Severity Index (GSI) measures overall psychological distress; Positive Symptom Distress Index (PSDI) evaluates the intensity of symptoms; and Positive Symptom Total (PST) assesses the number of self-reported symptoms. The Italian version of the SCL-90-R proved reliable only for the GSI (Cronbach's $\alpha = 0.97$). For scoring, raw points (of scales and indices) were transformed into standardised T area points, using source data from the normalised sample of the Italian version of the test (mean and standard deviation). The interpretation of results recognises four intervals, based on the values of the T points scored: a value lower than 45 indicates the absence of disease, values between 45-54 are a normal range, values between 55-64 represent a medium-high presence of symptoms and disease, while a value higher than 65 requires specific clinical attention.

The average time taken to fill out the questionnaires was about 40 min.

2.4 | Statistical analysis

In this study, we analysed only baseline data, at the start of the counselling. Two series of comparative tests (parametric and non-parametric) were performed for six variables, including gender (male/female), area of study (health/technical), supplementary year of study (yes/not), working student (yes/not), previous access to psy-chological services (yes/not) and family history of mental disorders (yes/not). Since the Brief COPE scales were not normally distributed, a non-parametric test (Mann-Whitney's *U* test) was utilised, whereas when comparing scores on the SCL-90-R and the GHQ-12, *t* tests were used. All tests were two-tailed, and the probability of a type I error was set at p < 0.05.

Spearman's R bivariate correlational analysis was performed among GHQ-12 total score, age, Brief COPE scales and SCL-90-R scales and indices. Only values at p < 0.001 level of significance were considered relevant, and no intra-test correlations were carried out. Two series of multiple regression analyses were performed, on both outcomes of psychological distress (GHQ total score and GSI), while all Brief COPE scales were entered as predictors. For both analyses, the aim was to confirm observations through correlations and to obtain a model of explaining distress and/or symptoms by coping strategies. All analyses were performed with SPSS 26.

2.5 | Ethical considerations

All procedures performed in this study involving human participants were in accordance with the ethical standards of the University of Brescia Institutional Board Review, and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study.

3 | RESULTS

3.1 | Characteristics of the sample across the three measures

The GHQ-12 average was 22.6 (SD = 6.5), indicative of severe distress. Concerning the SCL-90-R, the GSI average was 59.8 (SD = 13.5), indicative of a medium-high presence of symptoms and disease. Male students had more depressive (t = 2.220, p = 0.027) and obsessive-compulsive (t = 2.139, p = 0.034) symptoms than female students. Students from the technical area reported more symptoms than health area students related to paranoid ideation (t = 2.247, p = 0.026), anxiety (t = 2.362, p = 0.019), obsessive-compulsive symptoms (t = 2.229, p = 0.027), interpersonal sensitivity (t = 2.120,

p = 0.035) and psychoticism (t = 2.606, p = 0.010). Relating to the Brief COPE, self-blame (M = 6.6; SD = 1.3) and planning (M = 6.0; SD = 1.5) were the most used coping strategies. Female students had a higher score on the use of instrumental support (U = 6.803, p = 0.021), whereas male students were more likely to make use of sense of humour (U = 4.704, p = 0.018). Students in supplementary years reported using more religious (U = 4.562, p = 0.018) and positive reframing (U = 4.652, p = 0.040) strategies, while those on the regular schedule reported more emotional support (U = 6.584, p = 0.021). Working students reported more positive reframing (U = 3.803, p < 0.010) and acceptance (U = 3.916, p = 0.010). Non-working students reported more behavioural disengagement (U = 5.786, p = 0.049). Students who had previously accessed psychological services reported more use of humour (U = 4.497, p = 0.046) and planning (U = 4.418, p = 0.030) than students who had not. Finally, students with a family history of mental disorders reported more positive reframing (U = 3.047, p = 0.011) than students without this history.

3.2 | Correlations

Given the high number of variables included in the exploratory bivariate correlations, we opted to only report the most significant observations. The results showed a strong positive correlation $(r_{c} = 0.57)$ between the GHQ-12 total score and the depression scale of SCL-90-R. Medium-sized positive correlations (0.30 $< r_{s} < 0.50$) were identified between the GHQ-12 total score and SCL-90-R scales, between Brief COPE's denial scale and SCL-90-R scalesmostly with psychoticism ($r_s = 0.40$)-and between Brief COPE's self-blame scale and SCL-90-R scales-mostly with depression ($r_s = 0.45$). Weak positive correlations (0.20 < $r_s < 0.30$) were found between Brief COPE's behavioural disengagement scale and venting with SCL-90-R scales. Finally, age correlated weakly and positively with Brief COPE's religion scale ($r_c = 0.22$), whereas GHQ-12 total score correlated weakly and positively with Brief COPE's self-blame scale ($r_c = 0.27$). Concerning the first aim, there were major associations between Brief COPE's self-blame and denial scales with SCL-90-R scales, especially depression and psychoticism.

3.3 | Identifying predictors

In order to validate results obtained from correlations and identify predictors of distress among coping styles, we proceeded with two multiple linear regression analyses. In the first model, the GHQ-12 total score was the dependent variable and the Brief COPE scales were potential predictors. The resulting model of four coping strategies explained the outcome for roughly 17% of its variance. The predictors were selected based on the respective beta coefficients: self-blame, acceptance, venting and active coping made the list (Table 1). In the second analysis, the dependent was set to SCL-90-R's GSI, maintaining predictors and method. This time, the model

accounted for 30% of the total variance of the outcome, comprising the predictors self-blame, denial, behavioural disengagement and venting (Table 2). In both models, self-blame was the major predictor, explaining more than 16% of the variance in the model that had the GSI as a dependent factor.

4 | DISCUSSION

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This study aimed to identify coping strategies that may be associated with psychological distress and could risk compromising mental health in a sample of college students who had accessed the university counselling service.

4.1 | Socio-demographic characteristics, coping strategies and symptomatology

The first significant result showed that female students tended to use more active strategies, such as instrumental support, compared with male students. In contrast, previous studies have reported that women tend to use more passive strategies (Freire et al., 2016; Pierceall & Keim, 2007).

Other interesting findings concerned working students, students with a family history of mental disorders and students in their supplementary year of study. In all these categories, the recurring similarity factors were age and positive reframing. This strategy can be recognised as a maturational style, as it occurs with older students.

Positive reframing and instrumental support can be hypothesised as protective factors against psychopathology. Although generally providing students with maturity, in this study, age was not always as beneficial as previous literature has supposed (Jackson & Finney, 2002). Indeed, in the correlational analysis, age was associated not only with the SCL-90-R's GSI (among other symptomatology scales) but also with expected positive coping styles (active coping, acceptance and positive reframing). Furthermore, in interaction with the study area, age was a good predictor of many symptoms, including those relating to depression and obsessive-compulsive scales. This interaction shows that, for technical students, ageing was detrimental, while the opposite was the case for health science students, making this study field a significant moderator. As a result, we can say that our first aim was generally achieved.

4.2 | Self-blame as main predictor of distress

In regard to the second aim, coping can be considered as a trigger, a vulnerability trait presumably contributing to the emerging of distress and symptomatology (Leong et al., 1997). Unsurprisingly, bivariate correlations showed that GHQ-12 total score and SCL-90-R scales (especially depression) are highly correlated. Given the high correlation power of the SCL-90-R scale, the best way to interpret our results was to find which coping strategies triggered more symptoms. As a result, we discovered that the most negative coping strategies tended to be self-blame, denial, behavioural disengagement and venting. Indeed, subsequent multiple regressions on both GHQ-12 total score and GSI confirmed self-blame as the major predictor. This was somewhat expected, mainly because self-blame was also the coping strategy most employed by the sample. In a previous study, self-blame was also the most highly scored of all coping strategies adopted (Ghilardi et al., 2018).

However, while in this study planning was the second major coping style used, it was also employed more by male students. Male students, however, showed less distress than female students. Thus, an interesting note, besides the apparent trend inversion of female students showing less distress, was that instrumental support serves today how planning served in the past; that is, it protected the subjects from symptomatology. Therefore, the main outcome for the second goal was self-blame, common to all our students. This is not totally new to the literature, since lack of positive reframing (reappraisal) and the presence of self-blame, together with rumination and catastrophising, often lead to difficulties in emotional regulation (Garnefski & Kraaij, 2006).

Aggregating the model, this will include and start from selfblame, a constant for each student who accessed the counselling service, and which led to general symptomatology. It would seem that studying technical subjects aggravated this symptomatology, especially as the study progressed and students aged.

4.3 | Developing coping skills among college students

Being female, using social support (use of instrumental support), ageing in a mature way and using coping styles such as reappraising (positive reframing) protect from symptomatology. This supports existing literature (Chao, 2012; Mahmoud et al., 2012; Stallman, 2010), as social support has been shown to be a key factor and strictly observed phenomenon by researchers regarding coping within the college environment. Building good social support can often be the primary aim of educators, psychologists and social workers in many social environments. On the contrary, it is also important to strengthen individuals' coping skills, especially inner skills such as positive reframing and acceptance. In this regard, recent evidence has shown stress decreases for college students attending coping courses (Coiro et al., 2017). We would therefore suggest that interventions designed to improve students' coping strategies could be an effective way to reduce mental health problems on college campuses. Students with more interpersonal stress tended to report more depression, anxiety and somatisation, less use of engagement coping strategies and greater use of disengagement coping strategies. Engagement coping strategies account for a significant portion of the association between interpersonal stress and mental health symptoms. Indeed, a recent study demonstrated how taking risk and resilience courses helped reduce stress and increase coping abilities in college students (Shatkin et al., 2016).

TABLE 1 Multiple linear regression on GHQ total score

| Model summary | | | | | | | | | |
|---------------|-------------|----------------|-------------------------|----------------|-----------------------|--------------|--------|------|---------|
| Model | R | R ² | Adjusted R ² | RMSE | R ² Change | F Change | df1 | df2 | р |
| 1 | 0.000 | 0.000 | 0.000 | 6.522 | 0.000 | | 0 | 216 | |
| 2 | 0.265 | 0.070 | 0.066 | 6.303 | 0.070 | 16.286 | 1 | 215 | < 0.001 |
| 3 | 0.353 | 0.125 | 0.116 | 6.131 | 0.054 | 13.226 | 1 | 214 | < 0.001 |
| 4 | 0.386 | 0.149 | 0.137 | 6.059 | 0.024 | 6.126 | 1 | 213 | 0.014 |
| 5 | 0.412 | 0.170 | 0.154 | 5.998 | 0.021 | 5.358 | 1 | 212 | 0.022 |
| Coefficien | ts | | | | | | | | |
| Model | Predictors | | Unstandardised | Standard error | | Standardised | t | | р |
| 1 | (Intercept) | | 22.664 | 0.443 | | | 51 | .188 | < 0.001 |
| 2 | (Intercept) | | 13.708 | 2.260 | | | 6.065 | | < 0.001 |
| | Self-blame | | 1.353 | 0.335 | | 0.265 | 4.036 | | < 0.001 |
| 3 | (Intercept) | | 18.589 | 2.576 | | | 7.217 | | < 0.001 |
| | Self-blame | | 1.547 | 0.331 | | 0.303 | 4.680 | | < 0.001 |
| | Acceptance | | -1.133 | 0.312 | | -0.236 | -3.637 | | < 0.001 |
| 4 | (Intercept) | | 17.133 | 2.613 | | | 6.558 | | < 0.001 |
| | Self-bla | ame | 1.400 | 0.332 | | 0.274 | 4.2 | 217 | < 0.001 |
| | Acceptance | | -1.220 | 0.310 | | -0.254 | -3.936 | | < 0.001 |
| | Venting | | 0.596 | 0.241 | | 0.161 | 2.475 | | 0.014 |
| 5 | (Interce | ept) | 19.398 | 2.765 | | | 7.0 | 015 | < 0.001 |
| | Self-blame | | 1.445 | 0.329 | | 0.283 | 4.3 | 389 | < 0.001 |
| | Accept | ance | -1.050 | 0.315 | | -0.218 | -3 | .329 | 0.001 |
| | Ventin | 8 | 0.626 | 0.239 | | 0.169 | 2.0 | 622 | 0.009 |
| | Active | coping | -0.631 | 0.272 | | -0.150 | -2 | .315 | 0.022 |

This study highlights the need to promote interventions to improve coping strategies in college students, especially for technical students and male students. Improving strategies to cope with stress, in particular, positive reframing and instrumental support, could have a positive impact on students' psychological well-being, becoming a protective factor to prevent mental health issues. It is well known that university studies often correspond to the age of onset of some of the most common mental disorders (Kessler et al., 2005, 2007) and that stress plays an important role. It is believed that the presence of a counselling service within universities is essential for the delicate evolutionary phase that students go through. College counselling represents an important front-line service in detecting and managing mental health issues within young adults. In turn, strengthening psychological wellbeing may also have positive consequences for academic performance (Eisenberg et al., 2009), reducing the length of the course of study or minimising student dropout, with a consequent reduction in costs affecting families and the whole community. Promoting interventions for stress reduction in college students, particularly group counselling, would be useful, given the difficulties that students have in seeking help (Eisenberg et al., 2012). Indeed, distressed students have to cope with many self-limitations, a major one being the perceived stigma associated with stress or mental illness and the fear that they will be considered as being weak by others (Chew-Graham et al., 2003; Dyrbye et al., 2015). Interventions on coping strategies/reducing stress should be specifically tailored for the student population (e.g. incorporating new learning strategies in the undergraduate curriculum to facilitate the learning needs of millennial students).

4.4 | Limitations

We need to point out some limitations of this study. The first concerns the generalisability of our results. Our sample was not very large, but above all, it was taken from just one university and, specifically, included only individuals accessing the counselling service. This sampling was not arbitrary, nor was it fully randomised. It is possible that the high scores on depression or self-blame may be typical traits for the type of sample, similar to a clinical one. This limitation leads to a second one. As for the root causes for self-blame, it would have been interesting to design the study with two groups, one accessing the counselling service and the other a control group. The control group could have been either the general young adult population in the same city or students at the same university who have not accessed the counselling service. In this way, it would have

TABLE 2 Multiple linear regression on GSI

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| Model summary | | | | | | | | | |
|---------------|---------------------------|----------------|-------------------------|--------|-----------------------|--------------|--------------|--------|---------|
| Model | R | R ² | Adjusted R ² | RMSE | R ² Change | F Change | df1 | df2 | р |
| 1 | 0.000 | 0.000 | 0.000 | 13.476 | 0.000 | | 0 | 213 | |
| 2 | 0.399 | 0.160 | 0.156 | 12.383 | 0.160 | 40.241 | 1 | 212 | < 0.001 |
| 3 | 0.510 | 0.260 | 0.253 | 11.646 | 0.101 | 28.693 | 1 | 211 | < 0.001 |
| 4 | 0.532 | 0.283 | 0.272 | 11.496 | 0.022 | 6.545 | 1 | 210 | 0.011 |
| 5 | 0.547 | 0.300 | 0.286 | 11.385 | 0.017 | 5.114 | 1 | 209 | 0.025 |
| Coefficien | ts | | | | | | | | |
| Model | Predictors | | Unstandardised | | Standard error | Standardised | Standardised | | р |
| 1 | (Intercept) | | 59.799 | | 0.921 | | | 64.915 | < 0.001 |
| 2 | (Intercept) | | 32.067 | | 4.453 | | - | 7.201 | < 0.001 |
| | Self-blame | | 4.194 | | 0.661 | 0.399 | | 6.344 | < 0.001 |
| 3 | (Intercept) | | 25.638 | | 4.356 | | ! | 5.885 | < 0.001 |
| | Self-blame | | 3.782 | | 0.627 | 0.360 | | 6.036 | < 0.001 |
| | Denial | | 3.155 | | 0.589 | 0.320 | | 5.357 | < 0.001 |
| 4 | (Intercept) | | 23.499 | | 4.381 | | - | 5.364 | < 0.001 |
| | Self-blame | | 3.520 | | 0.627 | 0.335 | | 5.616 | < 0.001 |
| | Denial | | 2.838 | | 0.595 | 0.287 | | 4.773 | < 0.001 |
| | Behavioural disengagement | | 1.387 | | 0.542 | 0.156 | : | 2.558 | 0.011 |
| 5 | (Intercept) | | 20.524 | | 4.534 | | 4 | 4.527 | < 0.001 |
| | Self-blame | | 3.258 | | 0.632 | 0.310 | : | 5.159 | < 0.001 |
| | Denial | | 2.713 | | 0.591 | 0.275 | 4 | 4.587 | < 0.001 |
| | Behavioural disengagement | | 1.407 | | 0.537 | 0.158 | : | 2.621 | 0.009 |
| | Venting | | 1.033 | | 0.457 | 0.134 | : | 2.261 | 0.025 |

been interesting to differentiate between these two groups and consider any differences in symptomatology or coping strategies. We intend to consider this in future studies. A third limitation relates to some missing socio-demographic and academic data that could have helped us to make additional conclusions. These include data concerning lifestyle, social life, family economic status and academic performance. This issue has already been addressed and the sociodemographic questionnaire has been updated for future research. Finally, the study only considered a binomial gender differentiation, with participants being male or female students. No other genders were considered.

5 | CONCLUSION

If universities 'take care' of their students, through stress-management interventions, they can limit distress and improve personal, social and academic well-being. Stress is pervasive in all aspects of undergraduates' everyday lives. There is a need for a growing awareness of the potential sources of stress impacting both students and academic staff. Most of all, it is important to share knowledge about the consequences that such negative experiences could have on students mentally, physically, psychologically and socially. To date, there is no clearly identified stress-management intervention to help students cope with stress during their undergraduate education programmes. Studies are often limited, without a sound theoretical basis, focused on different interventions and conducted over different periods of time (McCarthy et al., 2018). Further research is needed to better understand the experience of stress from college students' perspectives, and to identify and compare which interventions are really effective in supporting students to cope with stress.

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