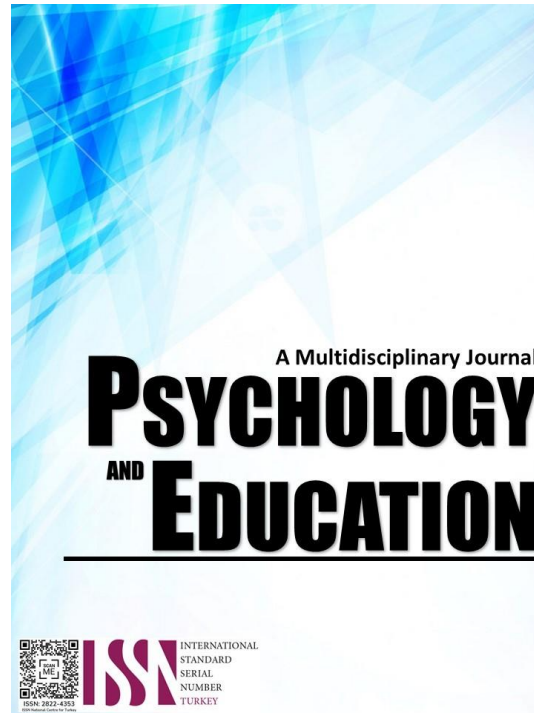


# PERCEIVED STRESS AND COPING LEVELS OF COLLEGE STUDENTS DURING PANDEMIC



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## Perceived Stress and Coping Levels of College Students During Pandemic

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### Abstract

This study aimed to describe the perceived stress and coping levels of college students during the pandemic. It utilized the descriptive research design. Two hundred sixty-six college students were randomly selected and participated in the study. Perceived Stress Scale-10 (PSS-10) was used to measure the perceived stress level, while the Brief Resilient Coping Scale (BRCS) was used to measure the coping level. The results of the study revealed that college students have moderate stress. In terms of study variables, they were moderately stressed. As a whole, college students have medium resilient coping. In terms of the study variables, they have medium resilient coping with the exception of the Fourth Year college students having slow resilient coping. The Covid-19 pandemic has given a significant adverse impact on the mental health of college students. The school, through the Guidance Office, should work on programs that would assist college students in dealing with life's daily stressors in this time of the pandemic.

**Keywords:** *college students, perceived stress, coping levels, COVID-19 pandemic*

### Introduction

The first cases of a respiratory illness caused by a novel coronavirus (2019-nCoV, also known as COVID-19) were reported in Wuhan, Hubei Province, China in December of 2019. The disease has spread outside the Chinese border to other countries and regions and to the world. COVID-19 has officially declared a global pandemic in March 2020 which confirmed the danger of the disease to human health and well-being (Truc et al., 2021).

The COVID-19 pandemic has been shown to have negative psychological impacts on otherwise healthy communities (Kelvin & Rubino, 2020). Due to the sudden appearance and high level of transmission, the unavailability of definitive treatment and vaccination, the fear of the danger and unknowns about COVID-19 result in psychological consequences such as anxiety, stress, and other mental disorders (Truc et al., 2021). Strict policies such as quarantine or social distancing limit personal freedom which may also lead to negative effects on mental health and well-being (Truc et al., 2021).

During this time of the pandemic, learners are exposed to diverse types of stressors, such as academic burden, financial constraints, and a host of difficulties as well as future uncertainties and opportunities for social mobility in the system. Added to this, social distancing measures and cessation of face-to-face teaching at higher educational institutes put students in an altogether new position without a well-defined estimate of how long it will last, compromising their daily life (IESALC, 2020).

The pandemic has a direct impact on the psychological well-being of the researchers who are college students. They have to cope with their own fears, stresses, and insecurity. The way of coping with a stressful event, like the COVID-19 crisis, affects physical health, medical conditions, and emotional well-being either positively or negatively (CDC, 2020).

University students are increasingly recognized as a vulnerable population, suffering from higher levels of anxiety, depression, substance abuse, and disordered eating compared to the general population (Browning et al., 2021). During this period of continuous transitions to the "new normal", college students are prone to further worsening of the above-mentioned psychological issues. Added to this, college students are facing uncertainty about their future as there is no definite end to the recent pandemic. The current situation college students are into and other factors such as financial situation, bring young adults and personal relationships, are making college students all the more vulnerable to developing mental health concerns.

Emerging international and local literature documents the many challenges faced by college students during the COVID-19 pandemic (Logel, Oreopoulos, & Petronijevic, 2021).

The scarcity is obvious, however, when the topic is on the perceived stress and coping levels of college students as they respond to the challenged brought about by COVID – 19. Moreover, a little to none of the said topic was conducted in the Island of Negros Occidental specifically in the City of Kabankalan. This paper contributes to a small but growing literature

on perceived stress and coping levels of college students during the pandemic.

## Methodology

The researchers employed the descriptive research design. The intent of using this research design is to describe the distribution of one or more variables, without regard to any causal or another hypothesis (Aggarwal & Ranganathan, 2019). In this research design, the researchers do not manipulate any of the variables but rather only describe the sample or variables.

Although a descriptive study can explore multiple variables, it is the only design that can also explore a single variable. Descriptive studies look at the characteristics of a population, identify problems that exist within a unit, an organization, or a population, or look at variations in characteristics or practices between institutions or even countries (Siedlecki, 2020).

The participants of the present study were the two hundred sixty-six college students officially enrolled at Kabankalan Catholic College for the Second Semester of the School Year 2021 – 2022. Specifically, they belonged to the First Year, Second Year, Third Year, and Fourth Year classes. Moreover, participants belong to one of these academic courses, Bachelor in Elementary Education, Bachelor of Secondary Education, Bachelor of Early Childhood Education, Bachelor of Physical Education, Bachelor of Science in Psychology, Bachelor of Arts in English Language Studies, Bachelor of Science in Information Technology, Bachelor of Science in Business Administration, and Bachelor of Science in Accountancy.

To gather the required data for this study, the researchers used three instruments: the socio-demographic questionnaire, Perceived Stress Scale – 10 (PSS – 10), and Brief Resilient Coping Scale (BRCS).

The socio-demographic questionnaire collects data such as sex, year level, and academic program. Perceived Stress Scale-10 (PSS – 10). The PSS-10 is a 10-item self-report measure of global perceived stress

developed by Cohen, Kamarck, and Mermelstein in 1983. A total score ranging from 0 to 40 is computed by reverse scoring the four positively worded items and then summing all the scale items. Higher scores indicate greater levels of perceived stress. Subscale scores were computed by summing the six negatively worded items (Items 1, 2, 3, 6, 9, and 10) for Factor 1 (“Negative”) and the four positively worded items (Items 4, 5, 7, and 8) for Factor 2 (“Positive”), with higher scores indicating greater negative distress/stress feelings and greater positive stress feelings and coping abilities, respectively (Baik, Larcombe, & Brooker, 2019).

The PSS was originally developed as a 14-item scale (PSS-14) that assesses how respondents found their lives unpredictable, uncontrollable, and overloaded, which was designed for use in community samples with at least a junior high education (Liu et al., 2020; Cohen, Kamarck & Mermelstein, 1983). Many studies have utilized the PSS to measure self-reported stress in various adolescent samples such as middle school students (and clinical adolescents (Liu et al., 2020)). While the PSS-14 shows adequate validity and reliability, the shorter 10-item version (PSS-10) was reported to show superior psychometric properties and has been recommended for use in future research (Liu et al., 2020; Cohen, 1988). The PSS-10 was derived from the 10 items with high factor loadings from the original PSS-14 based on a sample of 2,387 US residents (Liu et al., 2020; Cohen, 1988).

The PSS-10 possesses adequate internal consistency with Cronbach’s alpha coefficients ranging from 0.67 to 0.91 (Liu et al., 2020; Denovan et al., 2019; Kaya et al., 2019; Taylor, 2015; Ng, 2013; Roberti, Harrington, & Storch, 2006), moderate convergent validity with stressful life events (Liu et al., 2020; Mitchell, Crane, & Kim, 2008), and good concurrent validity with mental health problems such as depression and anxiety (Liu et al., 2020; Baik et al., 2020; Perera et al., 2017; Örüücü & Demir, 2009).

The BRCS is a 4-item measure designed to capture tendencies to cope with stress in a highly adaptive manner. The test was developed by Sinclair and Wallston in 2004. The scale focuses on the tendency to effectively use coping strategies in flexible, committed ways to actively solve problems despite stressful circumstances. Each question has a 5-point Likert item from “Does not describe me at all” to “Describes me very well” (1 = Does not describe me at all, 2 = Does not describe me”, 3 = Neutral, 4 = Describes me, 5= Describes me very well). The BRCS has adequate internal consistency ( $r = .76$ ) and test-retest



reliability ( $r = .71$ ). Convergent validity of the scale is demonstrated by predictable correlations with measures of personal coping resources (e.g., optimism, helplessness, self-efficacy), pain coping behaviors, and psychological well-being (Kocalevent et al., 2017).

The researchers sent the letter of approval to the Vice President for Academic Affairs, College Dean, and Program Heads of Kabankalan Catholic College – College Department to conduct descriptive research to determine the perceived stress and coping levels of college students for the Second Semester of School Year 2021 – 2022.

After obtaining the data on the total number of officially enrolled college students for the Second Semester of the School Year 2021 – 2022, the researchers determined the required sample size for quantitative research based on the population size using a 5.0% margin of error. Once the required sample size is obtained, the researchers used random sampling to determine the participants of the study.

The participants were asked about their participation in the present study by receiving the invitation letter and answering the participants' informed consent form. The researchers then administered the Socio-Demographic Questionnaire, PSS – 10 Scale (PSS – 10), and Brief Coping Resilient Scale (BCRS) to the participants after an orientation with a registered Psychologist. The researchers did the scoring after the retrieval of the study measures with the supervision of the same registered Psychologist. The study employed a descriptive-analytical scheme based on the objectives of the study. The descriptive analytical scheme was used to describe the perceived stress and coping levels of the participants. The researcher used the mean and the standard deviation as measures for a central tendency. The perceived stress and coping levels are both interval variables, and the mean and the standard deviation are appropriate for interval and ratio variables (Lucerna & Gayoles, 2018).

## Results and Discussion

### Perceived stress level of college students.

The perceived stress level of college students was measured using the PSS – 10.

Table 1. *Present the perceived stress level of college students when taken as a whole.*

<i>Stress Level</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Int.</i>
As a whole	21.36	3.42	Moderate Stress

As a whole, ( $M = 21.36$ ,  $SD = 3.42$ ), the perceived stress level of college students indicated “moderate stress”. College students are prone to experience stress in this time of pandemic because of the sudden disruptive changes in the education and social systems such as distance learning, reduced social interactions, and strict observation of health and safety protocols. Added to this, college students experienced stress due to fear of contracting the virus.

Adjeponga et al. (2022) corroborate with the results of this study. Using PSS – 10 as an instrument in determining the stress level of college students, the majority of students ( $n = 90$ , 69.8%) reported moderate stress levels (Adjeponga et al., 2022). Also congruent to the present study, Kostić et al. (2021) found that the mental health of students is negatively affected during the pandemic. The results of their study showed that of 966 students surveyed, 936 (96.9%) reported having experienced stress (moderate stress = 82.5% and high stress = 14.4%). There were only 30 (3.1%) students who reported having experienced low stress.

### Demographic Characteristics and Perceived Stress Level of College Students

#### Sex and Perceived Stress Levels

Table 2 presents the perceived stress level of college students when grouped according to sex.

Table 2. *Perceived Stress Level of the College students when grouped according to sex*

<i>Sex</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Int.</i>
Male	19.72	3.58	Moderate Stress
Female	21.77	3.26	Moderate Stress



The results of the present study showed that both sexes indicated “moderate stress”. When grouped, table 3 shows that females have a higher perceived stress level (M = 21.77, SD = 3.26) than males (M = 19.72, SD = 3.58).

There were significant differences between males and females concerning their reactions to stress. Recent research has begun to recognize the significance of gender's influence on stress, revealing that women report higher levels of chronic and daily stressors than men (Anbumalar, 2017). When it came to stress reactions, females experienced higher levels of depression, frustration, and anxiety than males (Calvarese, 2015).

The study conducted by Malik and Javed (2021) supports the results of the present study. They found out that female students (M = 22.2, SD = 4.2) showed higher symptoms of stress compared to male students (M = 21.0, SD = 4.3). Recent research has begun to recognize the significance of gender's influence on stress, revealing that women report higher levels of chronic and daily stressors than men (Anbumalar, 2017). When it came to stress reactions, females experienced higher levels of depression, frustration, and anxiety than males (Calvarese, 2015). However, contrary to the present investigation, Adjeponga et al. (2022) found no differences in mean scores observed between genders.

**Year Level and Perceived Stress Level**

Table 3 . Presents the perceived stress level of college students when grouped according to year level

<i>Year of Study</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Int.</i>
First Year	21.17	3.38	Moderate Stress
Second Year	22.42	3.95	Moderate Stress
Third Year	20.84	2.61	Moderate Stress
Fourth Year	19.27	2.24	Moderate Stress

The result of the study showed that when grouped

according to the year level, college students indicated “moderate stress”. Nonetheless, the Second Year has the highest perceived stress level (M = 22.42, SD = 3.95) while the Fourth Year has the lowest perceived stress level (M = 19.27, SD = 2.24). The second year college students were the batch who spent the first year of their tertiary education during the pandemic. In fact, they were also the batch who experienced the pandemic during their Senior High School. It has been observed that the Second Year has also maximum academic load and thus a lot of performance tasks to comply. With these observations, it is of no wonder why they are the year level who has the highest perceived stress level. On the other hand, the Fourth Year has a minimum academic load and performance tasks to comply among the participants. This probably explains why the Fourth Year has the lowest perceived stress level.

According to Yang, Chen, and Chen (2021), the role of academic workload, separation from school, and fears of contagion, they found out that academic workload, separation from school, and fears of contagion had negative effects on college students’ health via perceived stress.

The study conducted by Marcen et al. (2021) negates the results of the present study. They found that the third-year occupational therapy students perceived more stress (50%) than the rest of the year levels. The third-year physiotherapy students, and significantly the nursing students, perceived less stress at only 10% and 40% respectively. This could be because, despite almost all their curricular placements taking place in hospitals, they did not directly work with Covid-19 patients. Added to this, some studies indicate that final-year students perceived more stress because their future work was academically uncertain and unsure (Marcen et al., 2021). Moreover, contrary to the results of the present study, Abdulghani et al. (2020) found that the prevalence of stress was highest among the year of study at 3rd year (48.8%), whereas, by 5th year (24.3%), 1st year (25%), 4th year (17.3%), and 2nd year only (9.4%) levels ( $\chi^2= 23.71$ ;  $P=0.000$ ).

**Academic Program and Perceived Stress Level**

Table 4 presents the perceived stress level of college students when grouped according to the academic program.

Table 4. *Perceived Stress Level of the College students when grouped according to academic program*

<i>Academic Program</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Int.</i>
Bachelor in Elementary Education	21.00	2.76	Moderate Stress
Bachelor of Secondary Education	21.92	3.67	Moderate Stress
Bachelor of Early Childhood Education	18.50	0.58	Moderate Stress
Bachelor of Physical Education	21.73	3.52	Moderate Stress
Bachelor of Science in Psychology	22.00	3.51	Moderate Stress
Bachelor of Arts in English Language Studies	22.64	3.79	Moderate Stress
Bachelor of Science in Information Technology	19.34	2.47	Moderate Stress
Bachelor of Science in Business Administration	20.58	2.04	Moderate Stress
Bachelor of Science in Accountancy	20.07	3.20	Moderate Stress

When grouped according to academic program, college students were “moderately stressed”. Participants from the Bachelor of Arts in English Language Studies has the highest perceived stress level ( $M = 22.64$ ,  $SD = 3.79$ ) while participants from the Bachelor of Early Childhood Education have the lowest perceived stress level ( $M = 18.50$ ,  $SD = 0.58$ ).

College students from the Bachelor of Arts in English Language have maximum academic loads to study and a lot of performance tasks to comply via distance learning. Although college students are also in distance learning, their academic loads and performance tasks to comply are less. Undeniably, participants from the two academic programs, also have to grapple with their family’s financial instability, fear of the virus, and uncertainty in general.

Dwivedi et al. (2020) conducted a comparative study using PSS-10 to compare the stress level between two groups of undergraduate medical students. Group I used digital e-learning methods while Group II did not use digital e-learning methods. The results of their study show that the PSS-10 score was significantly high (high-stress level) in the group who was not using digital online e-learning methods compared to the group who was using digital online e-learning during Covid-19 pandemic lockdown.

## Coping Level of College Students

The coping level of college students was measured using BRCS.

Table 5. *Presents the coping level of college students when taken as a whole.*

<i>Coping Level</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Int.</i>
As a whole	14.37	2.52	Medium Resilient Coping

As a group ( $M = 14.37$ ,  $SD = 2.52$ ), the coping level of college students was “medium resilient coping”.

The COVID-19 pandemic has had a negative impact on higher education due to the long-term pandemic situation and onerous measures such as lockdowns and stay-at-home orders (Son et al., 2020). In maintaining a stable self-condition to deal with uncertainty and stressful situations, coping strategies are needed by college students to overcome the negative impact of the Covid-19 pandemic.

Sartika et al. (2021) conform to the results of the present study. College students implement a good coping strategy toward Covid-19 stressors. It is evidenced by positive actions with regard to task orientation, emotion orientation, and acceptance orientation. In the same study, in reducing or managing emotional distress during quarantine, the majority of college students seek out social support.

They share their anxiety with families and close friends. Even though they are physically distanced, they still communicate and maintain relationships with friends and relatives.

Another coping strategy that has been implemented by college students was acceptance (Sartika et al., 2021). According to the authors of the said study, college students accept the stressful moment caused by the pandemic and deal with the situation. College students accept that the pandemic has happened in the first place and search for the optimistic aspects of the situation. Moreover, they try to see it from a different perspective to make it seem more positive. They learn something from this experience and keep developing themselves in the midst of difficulties.

Moreover, according to a study conducted by



According to Falasifah et al. (2020), the Covid-19 pandemic has had a negative impact on college students' mental health. Thus, the majority of the college students adopted a problem-focused coping by seeking social support from their friends, family members and university.

**Demographic Characteristics and Coping Level of College Students**

**Sex and Coping Level**

Table 6. Presents the coping level of college students when grouped according to sex.

Sex	Mean	Standard Deviation	Int.
Male	14.07	2.43	Medium Resilient Coping
Female	14.44	2.54	Medium Resilient Coping

College students from the two sexes have “medium resilient coping”. Female participants have a higher coping level (M = 14.44, SD = 2.54) than the male participants (M = 14.07, SD = 2.43).

As there are significant differences between males and females concerning their reactions to stress, it is healthy to presume that this is true also when it comes to coping. Hagan et al. (2022) contradict the results of the present study. Using the multivariate regression analysis, revealed that Covid-19 risk perception was positively related to active coping (Hagan et al., 2022). The outcome of the moderation analysis showed that while males were more likely than females to adopt active and emotional support in coping with heightened risk perception, a contrary outcome was observed for behavior disengagement. This result is an indication that female students are likely to be overwhelmed with a high level of risk perception and easily give up trying to adopt effective strategies to reduce the effect of the COVID-19 pandemic situation. Also, contrary to the results of this present study, During the COVID-19 pandemic, Kruse et al. (2021) discovered that women struggled more to adapt to the pandemic and felt less prepared than men.

In a study conducted by Adasi et al. (2020), they found out that females utilized adaptive coping stratagems whilst males utilized maladaptive and avoidance coping stratagems although the difference between genders was also not significant.

**Year Level and Coping Level**

Table 7. Presents the coping level of college students when grouped according to year level

Year of Study	Mean	Standard Deviation	Interpretation
First Year	14.56	2.31	Medium Resilient Coping
Second Year	14.24	2.67	Medium Resilient Coping
Third Year	14.38	2.63	Medium Resilient Coping
Fourth Year	13.00	3.13	Low Resilient Coping

When grouped according to year level, college students from First Year, Second Year and Third Year have “medium resilient coping” with the exception of the Fourth Year (M=13.00, SD=3.13) who had “low resilient coping”.

Based on age, Fourth Year college students are older than First Year college students. Different age groups do not only display different emotional reactions to problematic situations, but also tend to practice different coping strategies (Malesza, 2021) researcher confirm the result of the study at hand. The researcher found out older adults experience less intense than younger ones. Emotion-focused coping strategies were more commonly used by younger adults than middle-aged or older ones at the first peak of the outbreak; however, this trend had reversed during the second peak of the pandemic, as the older age groups demonstrated a far greater increase in the use of this form of coping.

Chan et al. (2022) contradicts the result of the study at hand. They found out that older adults showed better psychosocial well-being than their younger counterparts under the COVID-19 pandemic, which challenged the deeply rooted societal stereotype about the vulnerability of older adults. The stronger resilience for positive coping, technological assistance, and targeted government and community support may have protected older adults from distress during the

pandemic.

Also counter to the present study, Babicka-Wirkus et al. (2021) found that youngest students had the lowest coping skills during the coronavirus pandemic in Poland. Specifically during pandemic, their study assumes that students' maladaptive strategies of coping with stress may result in long-term consequences for their psychophysiological health and academic achievements.

### Academic Program and Coping Level

Table 8. Presents the coping level of college students when grouped according to the academic program.

Academic Program	Mean	Standard Deviation	Interpretation
Bachelor in Elementary Education	15.63	2.25	Medium Resilient Coping
Bachelor of Secondary Education	14.89	2.54	Medium Resilient Coping
Bachelor of Early Childhood Education	14.00	1.15	Medium Resilient Coping
Bachelor of Physical Education	13.95	2.46	Medium Resilient Coping
Bachelor of Science in Psychology	13.14	2.25	Medium Resilient Coping
Bachelor of Arts in English Language Studies	14.15	2.39	Medium Resilient Coping
Bachelor of Science in Information Technology	13.86	2.22	Medium Resilient Coping
Bachelor of Science in Business Administration	13.77	3.17	Medium Resilient Coping
Bachelor of Science in Accountancy	15.00	2.17	Medium Resilient Coping

When grouped according to academic program, college students have "medium resilient coping". College students from the Bachelor in Elementary Education has the highest coping level ( $M = 15.63$ ,  $SD = 2.25$ ). On the other hand, participants from the Bachelor of Science in Psychology has the lowest coping level ( $M = 13.14$ ,  $SD = 2.25$ ).

Wang et al. (2020) corroborates with the results of this study. They found that nearly half ( $n=882$ , 43.25%) of the participants indicated via multiple-choice responses that they were able to cope adequately with the stress related to the current situation, while 323 (15.84%) said they were not able to cope.

On the other hand, the study conducted by Chen and Lucock (2022) contradicts the results of the present study. They set out to investigate levels and predictors

of resilience and found that most students scored in the normal range with 26% in low resilience category and none in the high category. This is reflected in the overall mean of 3.1. An interpretation of the resilience scores is that the pandemic not only led to increases in anxiety and depression but also undermined personal resilience. For example, the restrictions of lockdown were likely to have deprived students of outlets and activities important to their wellbeing. Also, low mood may have contributed to a negative appraisal of personal resilience at the time. It is therefore possible that the low resilience is due to the adverse circumstances of the pandemic and lockdown, not stable characteristics of the individuals.

Rotas and Cahapay (2020) conducted a study using a qualitative research design exploring how Filipino university cope with distant learning during COVID-19 pandemic. The participants are enrolled in the different academic programs. The following themes emerged: looking for good space and time; borrowing learning resources; seeking support from peers; approaching the teachers; practicing time management; doing learning tasks ahead; extending the time for learning tasks; diverting attention; regulating the self; taking extra jobs; crying; and praying.

Furthermore, in the study of Sundaray, Sarangi, & Patra (2021) on the psychological vulnerability and coping among management students during COVID-19 pandemic, they concluded that students have adopted both protective and avoidance coping strategies to overcome the adverse consequences of the pandemic.

### Conclusion

The following conclusions were taken from the findings of the study: Universities and colleges are academic institutions where college students spend their time on academic courses and extra-curricular with the hope of earning an undergraduate degree later on. Recently, the educative system around the world was significantly impacted by the rapid spread of the deadly COVID-19 pandemic. Higher institutions have to make the necessary adjustments in order to respond to the needs of the students. Despite the good intentions and efforts, college students are still prone to experiencing varied psychological issues that challenge their well-being. The PSS – 10 is a good instrument in identifying the perceived stress and the BRCS is a good instrument in identifying the coping scale of college students. When used together, the PSS

– 10 and BRCS indicate the perceived stress and coping scale of college students. 10.2307/2136404

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