

# Coping Responses and Psychological Well-Being as Predictors of College Persistence in New Normal among Science Majors

Mary Grace T. Booc

marygracebooc2@gmail.com

University of Mindanao-Tagum City, 8100, Philippines

---

## Abstract

The main purpose of this study was to determine if the coping responses and psychological well-being significantly predict the college persistence among Science Major in tertiary school of Tagum City. The researcher employed the quantitative non-experimental design using causal effect technique with Regression Analysis. The total sample size of the study was 320 Science major students. Respondents were students from tertiary school of Tagum City. Data analysis included Average weighted Mean, Pearson-r, and Multiple Regression Analysis as statistical tools. The final analysis revealed that the levels of independent variables namely coping responses and psychological well-being among the respondents are high while the level of college persistence among the respondents is very high. Also, it was revealed that there is a significant relationship between the coping responses and the college persistence as well as between psychological well-being and the college persistence among science major. Furthermore, only psychological well-being can predict the college persistence among respondents and all domains under the psychological well-being – autonomy, environmental mastery, personal growth, positive relations, purpose in life and self-acceptance – cannot predict the college persistence among the respondents. Based on the findings, it has been recommended to implement assessments and consultations of students psychosocial functioning, to introduce workshops, maintain adequate nutrition and hygiene, and academic and university support services to maintain the optimum level of coping responses and psychological well-being among the respondents.

**Keyword:** MAED- Teaching Science; coping responses; psychological well-being; College persistence; Science major, Philippines

---

## 1. Introduction

Students' college persistence both in and outside of the classroom, including their engagement in university life and relationships with peers and faculty have been detrimentally affected. This is all because the novel coronavirus disease 2019 (COVID-19) outbreak began in China in December 2019. In view of the absence of vaccines or effective treatments, current global efforts are largely focused on containing the virus spread by implementing different precautionary measures, including cancellation and indefinite postponement of colleges. This left many college students despondent that their personal and professional milestones have been left unfulfilled (Peltier et al., 2020).

Meanwhile, college persistence is known to be a very important aspect among college students' social, psychological, and academic outcomes. Studies consistently find that weak sense of college persistence is associated with poor mental and physical health and even suicide, whereas strong sense of persistence is a

predictor of flourishing positive mental health. With over 178,000 known COVID-19 cases on college campuses as of early October 2020, a return to normalcy is unlikely for the foreseeable future. College persistence among students have been significantly disrupted by the new normal and that the major health risks they already face are now even more severe (Gopalan & Brady, 2020).

On the other hand, research on coping responses in the aftermath of COVID-19 pandemic contain useful information that provide guidance regarding how to cope with the psychological well-being wrought by the new normal. Those people who found meaning in the new normal system by aligning with their personal values and responsibilities, while acknowledging the emotional weight of the pandemic, fared particularly well in terms of low rates of psychological complications and increased resilience. Many experienced a sense of control, self-esteem, and belonging by providing emotional and practical support to family, friends, and the larger community and interpreted their actions in a positive manner (Eakman, Schelly, & Henry, 2020).

Moreover, the coping responses towards the new normal has exacerbated college persistence and known mental health risk factors and other health concerns while simultaneously imperiling students' academic outcomes, putting their prospects dependent on college retention in jeopardy. College campuses are their own communities where students live, learn, work, and connect with one another. But the new normal has and continues to impede this college persistence and experience at multiple levels, causing students personal distress and dismantling their interpersonal, institutional, and community networks regardless of where they are physically situated (American College Health Association, 2020).

Seemingly, the researcher has not come across any research published in Tagum City that studied the relationship between the coping responses towards the new normal and the psychological well-being towards the new normal to the college persistence among Science majors. Moreover, this study is expected to contribute to the current literature, and especially in the education industry context, thus, establishing the research gap of the study. Based on the scenarios mentioned above, the researcher desired to conduct a study exploring the said variables, hence the urgency to conduct the study.

### 1.1. Conceptual Framework

Presented in Figure 1 is the conceptual framework of the study. As the framework shows, the first independent variable of this study is the coping responses towards the new normal with three indicators namely problem-focused coping, emotion-focused coping, and avoidant coping as proposed by Carver (2020). Problem-focused coping refers to the facets of active coping, use of informational support, planning, and positive reframing. Emotion-focused coping refers to the facets of venting, use of emotional support, humor, acceptance, self-blame, and religion. Avoidant coping refers to the facets of self-distraction, denial, substance use, and behavioral disengagement.

On the other hand, the second independent variable of this study is the psychological well-being with six indicators namely autonomy, environmental mastery, personal growth, positive relations, purpose in life, and self-acceptance as proposed by Springer & Hauser (2016). Autonomy refers to the sense of self-determination, independence, and freedom from norms. Environmental mastery refers to the ability to manage life and one's surroundings. Personal growth refers to being open to new experiences as well as having continued personal growth. Positive relations refers to the high quality, satisfying relationships with others. Self-acceptance refers to the positive attitude toward oneself and one's past life.

Lastly, the dependent variable of this study is the college persistence with five indicators namely academic integration, supportive services satisfaction, degree commitment, institutional commitment, and academic conscientiousness as proposed by Davidson, Beck, & Milligan (2019). Academic integration refers to the ways in which students change based on their interactions with the campus environment, incorporating academic and social experiences into their perceptions and involvement behaviors. Supportive services satisfaction refers to the attitudes that students develop toward the school based on how well it meets their out-of-classroom, school-related needs. Degree commitment refers to the level of importance they attach to earning a diploma. Institutional commitment refers to the students' intentions (to re-enroll and to earn a degree from that institution), their confidence (in having selected the right institution), and their thoughts (of continuing or stopping). Academic conscientiousness refers to the personality trait among students of being careful and diligent in doing their academic tasks well, and to take obligations to others seriously.

Subsequently, those mentioned above are the representations of good indicators of the variables which lead to a better result in progressing extensive development in the conduct of this study among Science majors in Tagum City Division. The conceptual paradigm of the study is shown in Figure 1.

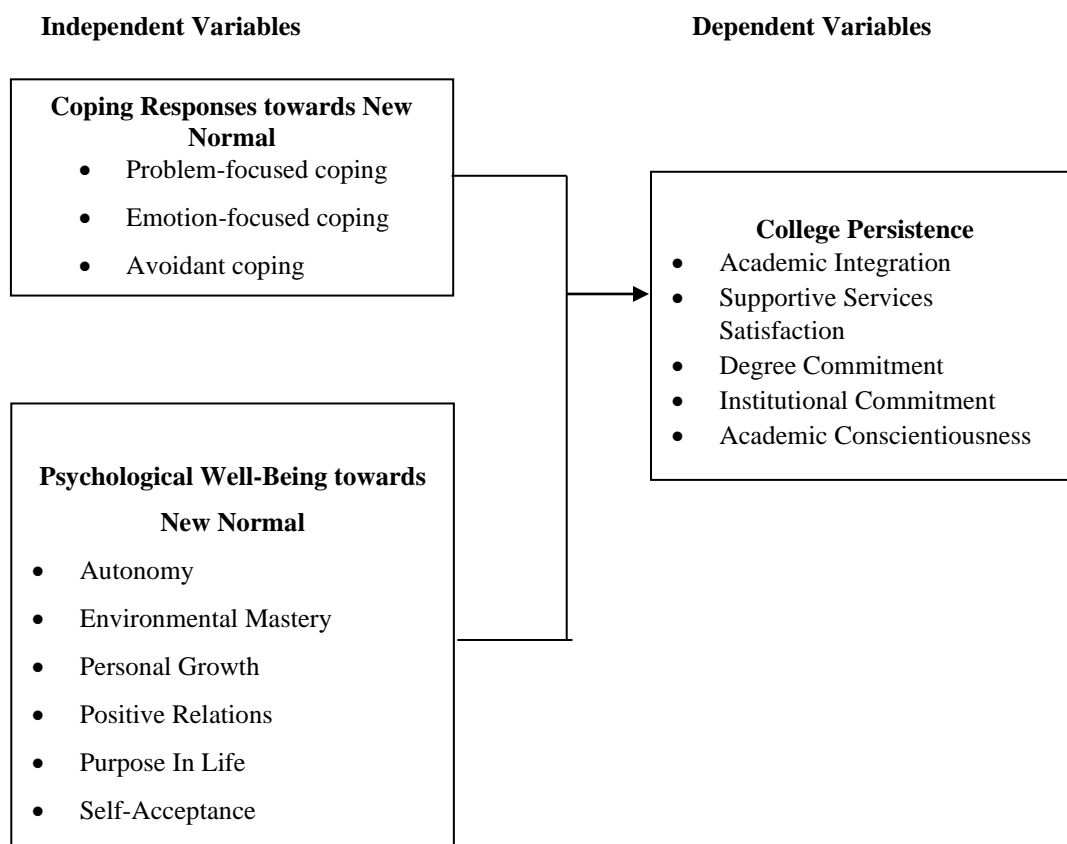


Figure 1. Conceptual Framework of the Study

## 1.2. Statement of the Problem

This study aimed to determine if the coping responses and the psychological well-being significantly predict the college persistence among Science majors in selected colleges of Tagum City. Specifically, it sought:

1. To describe the level of coping responses towards the new normal among Science majors in terms of:
  - 1.1 problem-focused coping;
  - 1.2 emotion-focused coping, and
  - 1.3 avoidant coping.
2. To describe the level of psychological well-being towards the new normal among Science majors in terms of:
  - 2.1 autonomy;
  - 2.2 environmental mastery;
  - 2.3 personal growth;
  - 2.4 positive relations
  - 2.5 purpose in life; and
  - 2.6 self-acceptance.
3. To describe the level of college persistence among Science majors in terms of:
  - 3.1 academic integration;
  - 3.2 supportive services satisfaction;
  - 3.3 degree commitment;
  - 3.4 institutional commitment; and
  - 3.5 academic conscientiousness.
4. To determine the relationship between:
  - 4.1 the coping responses towards the new normal and the college persistence among Science majors;
  - and
  - 4.2 the psychological well-being towards the new normal and the college persistence among Science majors.
5. To determine if the coping responses and the psychological well-being predict the college persistence among Science majors.

## 2. Methodology

### 2.1 Research Design

This study employed the Quantitative Non-Experimental Design using Causal Effect Technique with Regression Analysis. This method was used to explore the relationship and describe causes of phenomena. This method utilized correlation research and regression analysis which generally measured if relationship exists and find out the strength or level of the relationship existing between two or more quantifiable variables (Gay, Mills, & Airasian, 2018). Moreover, regression analysis is a statistical tool that employs quantitative approach to determine the nature of relationships among variables being studied (Dudovskiy, 2019). It was an appropriate design to use in determining the influence of the coping responses and psychological well-being towards new normal to the college persistence among Science majors in Tagum City.

The process of gathering data was using questionnaires. The researcher selected and integrated questionnaires of different authors to be used as primary tools in conducting the study. It was constructed

based on the scope of the coping responses and psychological well-being towards new normal and then correlated to the college persistence among Science majors. This research design was helpful in determining the levels of coping responses and psychological well-being towards new normal, and the college persistence among Science majors in Tagum City and the significant relationship between the three variables.

## 2.2 Participants of the Study

The respondents of this study were only Science majors-college students from selected colleges and universities in Tagum City for the academic year 2021-2022. Inclusion criteria for the respondents included: (1) should be bona fide student in any college or university in Tagum City; (2) should be enrolled in Education-degree related program majoring in Science; (3) should have experience in distance learning amidst the COVID-19 pandemic. The study only considered the college students as respondents to avoid bias in responding to the questions stated in the survey questionnaire. On the other hand, excluded in this study are non-Science major college students. The respondents could withdraw anytime if they feel threatened with the conduct of the study. The study employed random sampling where everyone is chosen by chance and each teachers has equal opportunity to be included in the sample (Salaria, 2017).

Since it is impossible and impractical to survey every member of the population, the Slovin's formula was used to get a sample that most represented the population being studied. A total of 320 was considered as respondents. The following shows the distribution of respondents.

College/University	Population Size	Sample Size
College A	2289	118
College B	3863	135
College C	2112	43
College D	5675	24
<b>Total</b>	<b>13939</b>	<b>320</b>

## 2.3 Data Gathering Procedure

In gathering the data for this study, the researcher employed the following procedures:

First, the researcher prepared three sets of questionnaires. Second, the questionnaires were validated by the pool of experts, internal and external validators. Third, after validations, corrections and suggestions were incorporated in the questionnaires. Fourth, after the validation of the questionnaires, a letter of permission to conduct study was requested by the researcher from the Dean of the Graduate School. Fifth, the researcher asked permission from the offices of the administrators or deans from the colleges and/or universities. Sixth, after the approval, the approved letters and research forms were submitted to the department heads of the campuses.

Seventh, the researcher approached the department heads then the faculty members for the distribution of the questionnaires to the students. Eighth, the researcher personally handed in the questionnaires and explained the research tool and its purpose. Ninth, the researcher retrieved the survey questionnaires after the

respondents have answered all the items. Lastly, the researcher tallied and tabulated all the data gathered from the respondents and subjected it to statistical computation and analysis.

### Statistical Tools

The answers gathered from the questionnaire were counted and tabularized in a master data sheet. The researcher sought assistance from the statistician to evaluate and read the results utilizing appropriate tools.

**Mean.** This was used to measure the levels of coping responses and psychological well-being towards new normal, and the college persistence among Science majors.

**Pearson-r.** This was used to determine the significance of the relationship between the coping response towards new normal and college persistence among Science majors and the relationship between the psychological well-being and the college persistence among Science majors.

**Multiple Regression Analysis.** This was used to determine if the coping response towards new normal and the psychological well-being would significantly predict the college persistence among Science majors.

### 2.4 Data Analysis

The researcher prepared three sets of questionnaires that tackle coping responses and psychological well-being towards new normal, and the college persistence. In this study, the survey questionnaires were downloaded from the internet, adopted, and modified to gather the necessary information and data. The format of the questionnaire was in Likert point scale, where the respondents were given the questions about coping responses and psychological well-being towards new normal, and the college persistence. Likert established the principles of assessing attitudes through asking individuals to respond to a series of statements regarding the topic that was used to definite choice response formats and were designed to assess the opinions or attitudes (McLeod, 2019).

The first independent variable of this study which is the coping responses towards new normal was measured through an adopted questionnaire called the Coping Orientation to Problems Experienced Inventory (Brief-COPE) by Carver (2020). The parameter of limits for coping responses towards new normal were as follows:

Range of Means	Descriptive Equivalent	Interpretation
4.20-5.00	Very High	This means that the coping response towards the new normal is very much felt.
3.40-4.19	High	This means that the coping response towards the new normal is much felt.
2.60-3.39	Moderate	This means that the coping response towards the new normal is moderately felt.
1.80-2.59	Low	This means that the coping response towards the new normal is seldom felt.
1.00-1.79	Very Low	This means that the coping response towards the new normal is never felt at all.

Meanwhile, the second independent variable of this study – psychological well-being – was measured through an adopted questionnaire called Scales of Psychological Well-Being by Springer & Hauser (2016). It has the parameter of limits as follows:

Range of Means	Level/Extent	Interpretation
<b>4.20-5.09</b>	Very High	This means that the psychological well-being is very much felt.
<b>3.40-4.19</b>	High	This means that the psychological well-being is much felt.
<b>2.60-3.39</b>	Moderate	This means that the psychological well-being is moderately felt.
<b>1.80-2.59</b>	Low	This means that the psychological well-being is seldom felt.
<b>1.00-1.79</b>	Very Low	This means that the psychological well-being is never felt at all.

Lastly, the dependent variable of this study, which is the college persistence, was measured through an adopted questionnaire called College Persistence Questionnaire by Davidson, Beck, and Milligan (2019). The average time for the teachers to complete the survey was about 12-15 minutes. It has the parameter of limits as follows:

Range of Means	Level/Extent	Interpretation
<b>4.20-5.09</b>	Very High	This means that the college persistence is very much felt.
<b>3.40-4.19</b>	High	This means that the college persistence is much felt.
<b>2.60-3.39</b>	Moderate	This means that the college persistence is moderately felt.
<b>1.80-2.59</b>	Low	This means that the college persistence is seldom felt.
<b>1.00-1.79</b>	Very Low	This means that the college persistence is never felt at all.

### 3. Results and Discussion

#### 3.1 Level of Coping Responses

Indicator	Mean	SD	Descriptive Level
Problem-focused coping	4.37	0.52	Very High
Emotion-focused coping	4.03	0.57	High
Avoidant coping	3.00	0.64	Moderate
<b>Overall</b>	<b>3.82</b>	<b>0.47</b>	<b>High</b>

Shown in Table 3.1 is the level of coping responses in terms of problem-focused coping, emotion-focused coping, and avoidant coping. It can be gleaned that the overall mean was 3.82 described as high. This means that the coping response towards the new normal is much felt among Science majors.

Among the three indicators, problem-focused coping had the highest mean score of 4.37 with a descriptive level of very high. This means that the coping response towards the new normal in terms of problem-focused coping is very much felt among Science majors. Second is emotion-focused coping with a mean score of 4.03 with a descriptive level of high. This means that the coping response towards the new normal in terms of emotion-focused coping is much felt among Science majors. Third is avoidant coping with a mean score of 3.00 with a descriptive level of moderate. This means that the coping response towards the new normal in terms of avoidant coping is moderately felt among Science majors.

The results show that effective methods of coping with COVID-19 include a reflective style of coping that entails adopting a positive attitude in the face of the crisis and demonstrating adaptability in the midst of the modifications and limitations in the various aspects of one's life. In the context of the study's respondents, the results prove that in spite of the impending danger posed by COVID-19, engaging in these problem-focused coping methods helped Science majors to achieve strong college persistence by finding purpose in their lives, developing a tolerance for discomfort, and expressing their hopefulness and optimism.

### 3.2 Level of Psychological Well-Being

Indicators	Mean	SD	Descriptive Level
Autonomy	3.90	0.47	High
Environmental mastery	3.88	0.49	High
Personal growth	4.22	0.39	Very High
Positive relations	4.22	0.50	Very High
Purpose in life	4.36	0.39	Very High
Self-acceptance	4.28	0.39	Very High
<b>Overall</b>	<b>4.15</b>	<b>0.37</b>	<b>High</b>

Shown in Table 3.2 is the level of psychological well-being in terms of autonomy, environmental mastery, personal growth, positive relations, purpose in life and self-acceptance. It can be gleaned that the overall mean was 4.15 described as high. This means that the psychological well-being is much felt among Science majors.

Among the six indicators, purpose in life had the highest mean score of 4.36 with a descriptive level of very high. This means that the psychological well-being in terms of purpose in life is very much felt among Science majors. Second is self-acceptance with a mean score of 4.28 with a descriptive level of very high. This means that the psychological well-being in terms of self-acceptance is very much felt among Science majors. Third is both the positive relations and personal growth with a mean score of 4.22 both with a descriptive level of very high. This means that the psychological well-being in terms of positive relations and personal growth are very much felt among Science majors. Fourth is the autonomy with a mean score of 3.90 described as high. This means that the psychological well-being in terms of autonomy is much felt among Science majors. Meanwhile, environmental mastery got the lowest mean value of 3.88 described as high. This means that the psychological well-being in terms of environmental mastery is much felt among Science majors.



These results of the study imply that Science majors of Tagum City were able to maintain their mental health despite the challenges faced amidst the new normal system caused by the COVID-19 pandemic. It just shows that with the many factors around them, they are both intrinsically and extrinsically motivated to keep their sanity especially in school. They might be faced with many hardships in their academic journey, but they always go back to the real purpose of their determination and persistence which is to finish the college degree that they have started. When much news on social media have been reported about students who get depressed because of their academics, the respondents were able to face all problems with a healthy psychological well-being.

Shown in Table 3.3 is the level of college persistence in terms of academic integration, supportive services satisfactions, degree commitment, institutional commitment, and academic conscientiousness. It can be gleaned that the overall mean was 4.20 described as very high. This means that the college persistence is very much felt among Science majors.

3.3 Level of College Persistence

Indicators	Mean	SD	Descriptive Level
Academic integration	4.01	0.57	High
Supportive services satisfactions	3.92	0.61	High
Degree commitment	4.46	0.61	Very High
Institutional commitment	4.44	0.70	Very High
Academic conscientiousness	4.30	0.75	Very High
<b>Overall</b>	<b>4.20</b>	<b>0.50</b>	<b>Very High</b>

In the context of this study, the results clearly imply that the Science majors are committed to finishing a degree of their choice. Regardless of whatever obstacles that come along their ways, they have all the reasons and motivations to pursue and end the journey successfully. This further implies a good future for the tertiary education industry. It means more professionals are coming through their ways.

3.4 Significance on the Relationship between Coping Responses and Psychological Well-Being to College Persistence

Independent Variables	Dependent Variable	r-value	r-square	p-value	Decision
Coping Responses	College Persistence	0.117*	0.0137	0.036	H <sub>0</sub> is Rejected
Psychological Well-being		0.150*	0.0225	0.007	H <sub>0</sub> is Rejected

\*Significant at 0.05 level of significance

Presented in Table 3.4 is the correlation between coping responses and psychological well-being to college persistence among Science majors. The r-value and p-value of coping responses and college

persistence are 0.117 and 0.036 respectively, translating to a positive correlation. In addition, the r-value of psychological well-being is 0.150 with a p-value of 0.007 which also shows a positive correlation.

Among the two independent variables which r-values and p-values are reflected on the table, all independent variables – coping responses and psychological well-being – have attained p-values that are less than the 0.05 level of significance. This only means that the null hypotheses pertaining to these independent variables are rejected. This indicates that there is a significant relationship between coping responses and college persistence among Science majors. Also, there is a significant relationship between psychological well-being and college persistence among Science majors. These results imply that Science majors should work on their coping responses in order for them to be able to persist in their college endeavor. Aside from that, they should engage themselves to more psychologically healthy activities for their well-being which eventually leads to their strong college persistence.

### 3.5 Regression Analysis on Coping Responses and Psychological Well-Being as Predictors of College Persistence

Independent Variables	Unstandardized Coefficients		Standardized Coefficients	t-value	p-value	Decision
	B	SE	Beta			
(Constant)	3.007	0.365				
Coping Responses	0.107	0.059	0.101	1.812	0.071	$H_0$ is not Rejected
Psychological well-being	0.188	0.076	0.138*	2.488	0.013	$H_0$ is Rejected

\*Significant at 0.05 level of significance

Dependent Variable: College Persistence

R= 0.181

R<sup>2</sup>= 0.033

F-value= 5.349

p-value= 0.005

Table 3.5 shows the regression analysis on coping responses and psychological well-being as predictors of college persistence among Science majors. The table shows that the coping responses has a p-value of 0.071 which is higher than the 0.05 level of significance. This allows the acceptance of the null hypothesis. It means that the coping responses do not significantly predict college persistence among Science majors. On the other hand, psychological well-being has a p-value of 0.013 which is lower than the 0.05 level of significance. This allows the rejection of the null hypothesis. It means that the psychological well-being can significantly predict college persistence among Science majors.

The R-value of 0.181 specifies a very weak positive relationship between the coping responses and psychological well-being and the college persistence among Science majors. The coefficient of determination which is 0.033 connotes that only 3.3% of the variation in the coping responses and the psychological well-being among the Science majors could be attributed to the college persistence that they observed. The rest, 96.7% is the chance variation which indicates that the coping responses and the psychological well-being among Science majors could be attributed to other factors which are not included in the study.

### 3.6 Regression Analysis on the Domains of Psychological Well-Being that significantly predict College Persistence

Indicators	Unstandardized Coefficients		Standardized Coefficients Beta	t-value	p-value	Decision
	B	SE				
(Constant)	3.403	0.364				
Autonomy	-0.026	0.075	-0.029	-0.346	0.729	H <sub>0</sub> is not Rejected
Environmental Mastery	0.118	0.080	0.115	1.475	0.141	H <sub>0</sub> is not Rejected
Personal Growth	-0.044	0.111	-0.034	-0.394	0.694	H <sub>0</sub> is not Rejected
Positive Relations	0.110	0.093	0.109	1.180	0.239	H <sub>0</sub> is not Rejected
Purpose in Life	0.015	0.098	0.012	0.157	0.875	H <sub>0</sub> is not Rejected
Self-acceptance	0.021	0.090	0.020	0.237	0.813	H <sub>0</sub> is not Rejected

\*Significant at 0.05 level of significance

Dependent Variable: College Persistence

R= 0.168

R<sup>2</sup>= 0.028

F-value= 1.524

p-value= 0.170

Table 3.6 shows the regression analysis on the domains of psychological well-being that significantly predict college persistence among Science majors. The table shows the F-value of 1.524 and p-value of 0.170 which is evidently higher than the 0.05 level of significance. This allows the researcher to not reject the null hypothesis which states that there is no domain in psychological well-being that significantly predict college persistence among Science majors. Thus, there is no domain in psychological well-being that can significantly predict college persistence among Science majors. Specifically, all indicators of psychological well-being – autonomy, environmental mastery, personal growth, positive relations, purpose in life and self-acceptance – have p-values that are higher than the 0.05 level of significance. This means that all domains/indicators of psychological well-being cannot significantly predict college persistence among Science majors.

The R-value of 0.168 specifies a very weak positive relationship between psychological well-being and college persistence among Science majors. The coefficient of determination which is 0.028 connotes that only 2.8% of the variation in the psychological well-being of Science majors could be attributed to the college persistence that they observed. The rest, 97.2% is the chance variation which indicates that the psychological well-being among Science majors could be attributed to other factors which are not included in the study.

## 4. Conclusions

Based on the results of the study, the following conclusions are drawn:

1. The level of coping responses among the respondents is high.
2. The level of psychological well-being among the respondents is high.

3. The level of college persistence among the respondents is very high.
4. There is a significant relationship between the coping responses and the college persistence among the respondents.
5. There is a significant relationship between the psychological well-being and the college persistence among the respondents.
6. Only psychological well-being can predict the college persistence among the respondents.
7. All domains under the psychological well-being cannot predict the college persistence among the respondents.

## 5. Recommendations

After a profound consideration and the possible implications of the findings and conclusion of the study, the researcher came up with several recommendations on how to achieve the optimum level of coping responses and psychological well-being among Science majors to further enhance or sustain their college persistence. For the coping responses, the current study led to formulating several recommendations for universities regarding the organization of teaching in ways that consider the students' coping responses to a greater extent.

These suggestions include first, implementing assessments of students' psychological well-being in order to determine the potential need for emotional, social, and psychological support, and establishing psychological consultation points for students requiring such support. Second, it seems warranted to introduce interpersonal training and stress coping workshops for individual student groups. Regarding organizational support, the current results are an argument for providing material support and career counseling in part-time employment for students. Third, college students are recommended to maintain a routine. They should start their day at about the same time each day. Set a goal for coursework to be completed for each morning and afternoon. Maintain adequate nutrition by eating three healthy meals per day and do other healthy activities. Fourth, they should practice good sleep hygiene. The goal should be 7-9 hours per night. Limit screen time in the evening and avoid caffeine starting in the afternoon. Fifth, they should take a break. Step away from the news and from their coursework to do something they enjoy and that they find relaxing or rejuvenating.

Meanwhile, to further enrich psychological well-being of the college students, universities could increase student psychological well-being by giving support to student studies and their career and job prospects. This support should come from a wide range of university services that are responsible for all aspects of the student learning experience. For example, program faculty and directors should provide students sufficient and timely information about upcoming mandatory internships. Career centers should utilize their partnerships and networks in the local community to assist in finding their first job after graduation and/or internships. This support should include course instructors, program directors, university management and administration, digital and IT support, and supports from partnership universities for international exchange programs. Supervisors and administration should work closely with students conducting research projects related to their theses or dissertations. They should support them in setting the dissertation topic and research questions, data collection and data analysis, discussion of initiation findings, text drafting, and defending.

Second, universities should ensure visibility and accessibility of support, which in the context of online learning would require integration and collaboration between academic and university support services (e.g., IT support, career centers, academic advising, and international exchange programs). They help students

navigate the support systems and access all the resources they require to succeed academically and professionally. Universities should not only provide the resources needed for students to engage with online learning, but also propose training on different online pedagogies to course instructors, as these two points could ensure more a positive learning experience for students and their psychological well-being outcome. In addition, universities should monitor the student well-being experience and provide relevant resources and interventions.

Third, with online learning, face-to-face social interactions are missing. Therefore, lecturers and administrative staff should concentrate more on relationship building. They should facilitate the online learning experience, adopt clear communication strategies, improve the learning tools (e.g., PowerPoint and recorded lectures) and diversify assessment methods (e.g., moving from traditional exams to video-based oral presentation and using applications to motivate students to engage in online discussions).

Fourth, universities should be aware of the students' changing emotional responses from positive to negative during the COVID-19 pandemic. Given that the impact of COVID-19 would probably induce more negative emotional states, universities should offer more support for emotional management. This should encourage students to talk about their concerns, worries, and anxiety toward COVID-19 and to help them destigmatize the fear of COVID-19 on their studies and future. This support should not be a one-time-event, but ongoing. With positive emotions, students are more capable to counterbalance the perceived negative impact of COVID-19 on their degree completion and job prospects by effectively using different resources to reduce resource loss.

Finally, it is important to note that staff well-being is essential in order to support this student learning experience. Therefore, while universities propose different support activities to promote student learning, academic performance, and future job opportunities, they should also put in place a variety of resources to support staff. Pedagogy training, digital support, online well-ness programs, high quality information related to Covid-19, peer learning, appreciation attitude, and positive thinking should be promoted. University support and well-being feeling of their staff are a must for their adjustment to this "new normal" work context and a better service to students. It should be acknowledged that although many of the recommendations in this section are best practice in non-crisis times, this research has shown that the current acute pandemic situation and its effect on students (and staff) requires a sustained and reliable response, which utilizes existing policies and procedures to their maximum potential.

## References

- American College Health Association. (2019). American college health association-national college health assessment II: Undergraduate students reference group executive summary spring 2014. Hanover, MD.
- American College Health Association. (2020). Considerations for reopening institutions of higher education in the COVID-19 era.
- Baloran, E. T. (2020). Knowledge, attitudes, anxiety, and coping strategies of students during COVID-19 pandemic. *Journal of loss and trauma*, 25(8), 635-642.
- Banerjee, D., & Rai, M. (2020). Social isolation in Covid-19: The impact of loneliness.
- Brooks, J. T., Kirkcaldy, R. D., & King, B. A. (2020). COVID-19 and postinfection immunity: limited

evidence, many remaining questions. *Jama*, 323(22), 2245-2246.

Bobdey, S., & Ray, S. (2020). Going viral–Covid-19 impact assessment: a perspective beyond clinical practice. *Journal of Marine Medical Society*, 22(1), 9.

Bowen, W. G., Chingos, M. M., & McPherson, M. S. (2019). *Crossing the finish line*. Princeton University Press.

Cabrera, A. F., Nora, A., & Castaneda, M. B. (2018). The role of finances in the persistence process: A structural model. *Research in higher education*, 33(5), 571-593.

Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J., & Zheng, J. (2020). The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry research*, 287, 112934.

Carver, C. S. (2020). You want to measure coping but your protocol's too long: Consider the brief cope. *International journal of behavioral medicine*, 4(1), 92-100.

Chew, Q. H., Wei, K. C., Vasoo, S., Chua, H. C., & Sim, K. (2020). Narrative synthesis of psychological and coping responses towards emerging infectious disease outbreaks in the general population: practical considerations for the COVID-19 pandemic. *Singapore medical journal*, 61(7), 350.

Cleofas, J. V. (2021). Life interruptions, learnings and hopes among Filipino college students during COVID-19 pandemic. *Journal of Loss and Trauma*, 26(6), 552-560.

Corbett, C., Hill, C., & St Rose, A. (2018). *Where the Girls Are: The Facts about Gender Equity in Education*. American Association of University Women Educational Foundation. 1111 Sixteenth Street NW, Washington, DC 20036.

Davidson, W. B., Beck, H. P., & Milligan, M. (2019). The college persistence questionnaire: Development and validation of an instrument that predicts student attrition. *Journal of College Student Development*, 50(4), 373-390.

Dudovskiy, J., 2019. *Qualitative Data Analysis - Research-Methodology*. [online] Research-Methodology. Available at: <<https://research-methodology.net/research-methods/data-analysis/qualitative-data-analysis/>> [Accessed 13 April 2019].

Eakman, A. M., Schelly, C., & Henry, K. L. (2020). Protective and vulnerability factors contributing to resilience in post-9/11 veterans with service-related injuries in postsecondary education. *American Journal of Occupational Therapy*, 70(1), 7001260010p1-7001260010p10.

Gay, L., Mills, G. & Airasian, P. (2018). *Educational research: competencies for analysis and application* (9th ed.). Upper Saddle River, NJ: Merrill.

Gopalan, M., & Brady, S. T. (2020). College students' sense of belonging: A national perspective. *Educational Researcher*, 49(2), 134-137.

Goyal, K., Chauhan, P., Chhikara, K., Gupta, P., & Singh, M. P. (2020). Fear of COVID 2019: First suicidal case in India!

- Hagedorn, L. S., Maxwell, W., & Hampton, P. (2017). Correlates of retention for African-American males in colleges. *Journal of College Student Retention: Research, Theory and Practice*, 3(3), 243-263.
- Ho, C. S., Chee, C. Y., & Ho, R. C. (2020). Mental health strategies to combat the psychological impact of COVID-19 beyond paranoia and panic. *Ann Acad Med Singapore*, 49(1), 1-3.
- Holmes, E. A., O'Connor, R. C., Perry, V. H., Tracey, I., Wessely, S., Arseneault, L., ... & Bullmore, E. (2020). Multidisciplinary research priorities for the COVID-19 pandemic: a call for action for mental health science. *The Lancet Psychiatry*, 7(6), 547-560.
- Huang, Y., & Zhao, N. (2021). Mental health burden for the public affected by the COVID-19 outbreak in China: Who will be the high-risk group?. *Psychology, health & medicine*, 26(1), 23-34.
- Kecmanovic, J. (2020). Science-based Strategies to Cope with Coronavirus Anxiety. *The Conversation*.
- Lazarus, R. S. (1993). Coping theory and research: Past, present, and future. Fifty years of the research and theory of RS Lazarus: An analysis of historical and perennial issues, 366-388.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer publishing company.
- Liang, J., Kölves, K., Lew, B., De Leo, D., Yuan, L., Abu Talib, M., & Jia, C. X. (2020). Coping strategies and suicidality: A cross-sectional study from China. *Frontiers in psychiatry*, 11, 129.
- Light, A., & Strayer, W. (2018). Determinants of college completion: School quality or student ability?. *Journal of Human resources*, 299-332.
- Lipson, S. K., Lattie, E. G., & Eisenberg, D. (2019). Increased rates of mental health service utilization by US college students: 10-year population-level trends (2007–2017). *Psychiatric services*, 70(1), 60-63.
- Liu, S., Yang, L., Zhang, C., Xiang, Y. T., Liu, Z., Hu, S., & Zhang, B. (2020). Online mental health services in China during the COVID-19 outbreak. *The Lancet Psychiatry*, 7(4), e17-e18.
- Livingston, C. H. (2017). *An Analysis of the Factors Shaping Student Graduation Rates for Virginia's Public Colleges and Universities*. ProQuest.
- McLeod, S. (2019). Likert scale definition, examples and analysis.
- Minds, Y. (2020). Coronavirus: impact on young people with mental health needs. Retrieved May, 21, 2020.
- Pascarella, E. T., & Terenzini, P. T. (2016). *How College Affects Students: A Third Decade of Research. Volume 2*. Jossey-Bass, An Imprint of Wiley. 10475 Crosspoint Blvd, Indianapolis, IN 46256.
- Paulsen, M. B., & John, E. P. S. (2017). Social class and college costs: Examining the financial nexus between college choice and persistence. *The Journal of Higher Education*, 73(2), 189-236.
- Peltier, G. L., Laden, R., & Matranga, M. (2020). Student persistence in college: A review of research. *Journal of College Student Retention: Research, Theory & Practice*, 1(4), 357-375.



Porter, O. F. (2018). Undergraduate Completion and Persistence at Four-Year Colleges and Universities: Completers, Persisters, Stopouts, and Dropouts.

Qiu, J., Shen, B., Zhao, M., Wang, Z., Xie, B., & Xu, Y. (2020). A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: implications and policy recommendations. *General psychiatry*, 33(2).

Salaria, N. (2017). Meaning of the term descriptive survey research method. *International journal of transformations in business management*, 1(6), 1-7.

Shultz, J. M., Cooper, J. L., Baingana, F., Oquendo, M. A., Espinel, Z., Althouse, B. M., ... & Rechkemmer, A. (2016). The role of fear-related behaviors in the 2013–2016 West Africa Ebola virus disease outbreak. *Current psychiatry reports*, 18(11), 1-14.

Sim, K., Chan, Y. H., Chong, P. N., Chua, H. C., & Soon, S. W. (2020). Psychosocial and coping responses within the community health care setting towards a national outbreak of an infectious disease. *Journal of psychosomatic research*, 68(2), 195-202.

Springer, K. W., & Hauser, R. M. (2016). An assessment of the construct validity of Ryff's scales of psychological well-being: Method, mode, and measurement effects. *Social science research*, 35(4), 1080-1102.

Taylor, S. E., & Stanton, A. L. (2017). Coping resources, coping processes, and mental health. *Annu. Rev. Clin. Psychol.*, 3, 377-401.

The New York Times. (2020, September 10). Tracking covid at U.S. Colleges and Universities.

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of educational research*, 45(1), 89-125.

Torales, J., O'Higgins, M., Castaldelli-Maia, J. M., & Ventriglio, A. (2020). The outbreak of COVID-19 coronavirus and its impact on global mental health. *International Journal of Social Psychiatry*, 66(4), 317-320.

Walsh, F. (2020). Loss and resilience in the time of COVID-19: Meaning making, hope, and transcendence. *Family process*, 59(3), 898-911.

Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S., & Ho, R. C. (2020). Immediate Psychological Responses and Associated Factors during the Initial Stage of the 2019 Coronavirus Disease (COVID-19) Epidemic among the General Population in China. *International journal of environmental research and public health*, 17(5), 1729. <https://doi.org/10.3390/ijerph17051729>

Yeung, D. Y. L., & Fung, H. H. (2017). Age differences in coping and emotional responses toward SARS: a longitudinal study of Hong Kong Chinese. *Aging and Mental Health*, 11(5), 579-587.