

# Coping Mechanisms of College Students with Low Scores in the Mental Health Index During the COVID-19 Pandemic

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**Abstract**—The COVID-19 pandemic affected college students' mental health, leading them to use different coping mechanisms to minimize distress. The college students of the University of Saint Louis showed low scores on the Mental Health Index (MHI) based on the University's Guidance Office's survey. Thus, the study was developed to assess the coping mechanism in more specific means in terms of problem-focused, emotion-focused, and avoidant coping of the college students with low MHI scores as their response to the pandemic. This study utilized a descriptive design to determine the significant association between coping mechanisms and profile variables of college students with low mental health index. A self-made questionnaire with a basis of Brief-Coping Orientation to Problems Experienced Inventory (COPE) developed by Carver (1997) was used wherein the questions were made to fit the study's respondents. It was then distributed online by University's college psychometrician using Google Forms to 132 college students with low MHI. Frequency and percentage and Chi square were used to analyze the data collected. The study found that emotion-focused coping was the most used coping mechanism and was linked with factors like gender, department, and hours spent using social media daily. Moreover, avoidant coping was the second most used by college students and is mostly observed in female students with low MHI. Problem-focused mechanism ranked last and was linked with the hours spent on social media. The findings will be used to create a more comprehensive understanding of the respondent's coping styles and can serve as a basis for future activities and research

**Keywords**— *Clinical simulation, online laboratory skills simulation, educational practices, self-satisfaction, self-confidence.*

## I. INTRODUCTION

Mental health is defined as the condition with regard to a person's psychological and emotional well-being that affects how they act, think, and feel about others. It is an integral part of overall health that establishes a state of balance within one's self, thus, allowing a person to function at their full mental capacity (Bhugra et al., 2013). For the past millennia, mental

health issues have been brought to light as it shifted towards the information age (Bashir & Bhat, 2017). Various methods were developed to measure and quantify the quality of one's mental health, one of which is the Mental Health Index (MHI) which assesses general psychological distress and well-being. Using these methods, researchers can identify different coping mechanisms people use in stressful situations (Baqutayan, 2015).

Expanding the idea and importance of coping mechanisms with the present time, coping organizes one's thoughts and actions in response to internal and external stressors. It is a term that refers to the conscious and voluntary taking of acts to reduce or tolerate stress (Algorani & Gupta, 2021). There are several types of coping mechanisms. Among these are three prominent types; problem-focused, emotion-focused, and avoidant-focused (Algorani & Gupta, 2021; American Psychological Association, 2020). It is therefore important to assess the coping mechanism and the factors affecting it to better understand the behavior patterns when subjected to stressful situations.

On March 11, 2020, the World Health Organization (WHO) declared the 2019 coronavirus disease pandemic. This pandemic was caused by the severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) and had put people from all countries, continents, races and socioeconomic classes under a health crisis (Faisal et al., 2020). Among the individuals who are greatly affected are college students with specific indications of their mental health. It was observed that there was associated disruption in college students' mental health during the pandemic. The said disruption is further elaborated as major depressive disorder and positive generalized anxiety disorder (Charles et al., 2021; Chirikov et al., 2020). In the Philippines, a study revealed that among the 1879 college student-respondents, 16.3% of the respondents reported moderate to severe psychological impact, 16.9% for moderate

## II. METHODS

### A. Research Design

The study used a quantitative design, specifically a descriptive research design, to assess the coping mechanism of college students with low mental health index during the COVID-19 pandemic.

### B. Locale and Respondents

The study was conducted in the University of St. Louis, Tuguegarao City's college departments during the academic year 2021 – 2022. The study's respondents are college students with low mental health index scores at the University of Saint Louis. According to requested data from the University's Guidance office, from the 1,186 college students who took part in the MHI, 132 or 11.17% had low mental health index scores. Thus, a purposive technique was used to determine the study's respondents. A total of 95 respondents only responded.

### C. Instrument

This study utilized a questionnaire to gather information from the respondents. A self-made questionnaire was made on the basis of the Brief- Coping Orientation to Problems Experienced Inventory (COPE) that was developed by Carver (1997) to assess the coping mechanism of the respondents. The respondents' profile, which comprises sex, age, year of study, college department, learning environment, family type, residence, and hours spent using social media, will also be a part of the questionnaire.

The questionnaire for the assessment of the respondent's coping mechanism is a scale that encompasses 14 subscales. Each subscale is assessed using two items graded on a 4-point scale ranging from 1 (I usually do not do this at all) to 4 (I usually do this a lot). Each dimension's score runs from 2 to 8, with a high score indicating extensive use of coping methods. Problem-focused coping (planning, active coping, and use of instrumental support), emotion-focused coping (acceptance, religion, use of emotional support, humor, and positive reframing), and avoidant coping (denial, self-blame, venting, self-distraction, substance use, and behavioral disengagement) are the 14 dimensions of the Brief COPE (El-Monshed et al., 2021). The researchers modified the statements with situations that concern mental well-being during the COVID-19 pandemic to assess the respondent's coping mechanisms about the said statements. The number of items from the Brief-COPE is retained; hence, the questionnaire contains 28 self-report items.

### D. Data Analysis

The researchers tabulated the gathered data and used several statistical analyses to interpret numerical data collected from the respondents. The researchers' use of frequency counts and percentages determined the total number and percentages for the socio demographic profile of the respondents. Frequency and percentage were utilized to get the respondents' coping mechanisms. The data were analyzed using the Chi-square to determine the significant association of the coping mechanism, namely problem-focused, emotion-focused, and avoidant coping to the different demographic profiles of the respondents.

to severe depression, and 13.4% reported moderate to severe stress signals (Tee et al., 2020).

College students at the University of Saint Louis also showed the same indications, as seen in the results of the MHI. The survey was conducted on July 10, 2021, under the Louisian Wellness Check program spearheaded by the University's Guidance Office. A range score of 100 to 226 is considered a high score, indicative of greater psychological well-being and less psychological distress, while a low score ranges from 38 to 99. In the University's Guidance Office's survey, among 1,186 college students who took the said survey, 132 or 11.17% of the total college respondents had low scores in the MHI. The low scores present a poor state of mental health.

According to the results of the study of Nurunnabi et al. (2020), with the COVID-19 pandemic and its indication on mental health, the respondents stated that coping mechanisms were critical to reducing high anxiety levels and psychological pressure. In addition, only about half of the college students reported being able to cope adequately with the stress of the current circumstances. Some college students indicated that they used other coping mechanisms to reduce stress during the COVID-19 and provided elaboration in the free-response field (Wang et al., 2020). Although the research focused on coping mechanisms in the pandemic are plenty, only a few focused on college students. Moreover, the learning environment differs from country to country. Thus, students from the Philippines may have different coping mechanisms compared to other countries.

Employing the conducted Mental Health Index by the University's Guidance Office's survey, this study aims to assess the coping mechanism in a more specific means in terms of problem-focused, emotion-focused, and avoidant coping of the college students as their response to the pandemic's indication with their mental health as seen in their low scores in the Mental Health Index.

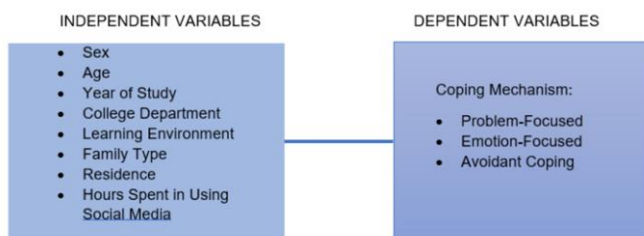


Fig. 1. The connectedness of the Student Profile in the Coping Mechanism.

The figure shows the independent and dependent variables that concern the recent study. The independent variables consist of the student's sociodemographic profile, namely sex, age, year of study, college department, learning environment, family type, residence, and hours spent using social media. The dependent variable coping mechanism: the problem-focused, emotion-focused, and avoidant-focused that can be affected by the student's sociodemographic profile. The line represents the association of the sociodemographic profile and coping mechanism.

E. Ethical Considerations

Researchers provided informed consent to the respondents for them to be fully informed about the purpose of the study and will be given the right to refuse to participate. The University's Guidance Office distributed the questionnaire to the students with low Mental Health Index scores. Thus, only the college psychometrician had access to the respondents' identities to keep confidentiality. The university psychometrician then handed data to the statistician and research adviser of the researchers to assure that no raw data would be passed to the researchers. After tabulation, raw and tabulated data were kept by the University's Guidance office, statistician, and research adviser of the researchers; all files containing the respondents' data are password protected to ensure confidentiality. The raw data remained confidential even after the tabulation. After handing the tabulated data to the researchers, the data will be deleted once the study is complete. Thus, all data contributing to the final results were deleted once the study was concluded.

Furthermore, Ethics Clearance from Region 2 Trauma and Medical Center- Institutional Review Board (R2TMC-IRB) was obtained prior to the implementation of the data collection procedure of this research to ensure that it is carried out in a responsible and ethically accountable manner.

III. RESULTS

The tables presented below show the data which were retrieved from the questionnaires floated by the researchers with the assistance of the University Guidance. Moreover, it answered the following research questions of this study, whereas the study aims to assess the coping mechanism in a more specific means in terms of problem- focused, emotion-focused, and avoidant coping of the college students with low scores on the Mental Health Index.

TABLE I. PROFILE OF THE RESPONDENTS

Variable	Categories	Frequency (n=95)	Percentage
Age	18	4	4.2
	19	30	31.6
	20	27	28.4
	21	29	30.5
	22	5	5.3
Sex	Male	27	28.4
	Female	68	71.6
Year Level	First Year	28	29.5
	Second Year	28	29.5
	Third Year	28	29.5
	Fourth Year	11	11.6
Department	SHAS	30	31.6
	SEAS	11	11.6
	SEAITE	28	29.5
	SABH	26	27.4
Learning Modality	Online	42	44.2
	Blended	53	55.8
Family Type	Dual Parent	79	83.2

	Single Parent	14	14.7
	Step Parent	2	2.1
Living Environment	Living with Parents	68	71.6
	Living with Relatives	16	16.8
	Boarding	11	11.6
Hours spent in Social Media per Day	More than 8 hours	54	56.8
	6- 8 hours	35	36.8
	Less than 2 hours	6	6.3

Table I shows the profile of the college students with a low score on the Mental Health Index. The majority of the respondents are female. The highest number of respondents are aged 19 years old. Most respondents use a blended learning environment and spend more than 8 hours using social media. Most respondents' year levels are the first year, second, and the third year; most are from the SHAS department. Most respondents have dual parents and live at home with their parents.

TABLE II. TYPE OF COPING MECHANISM OF COLLEGE STUDENTS WITH LOW SCORE IN MENTAL HEALTH INDEX

Variable	Frequency	Percentage	Rank
Problem Focused Coping	80	30.77	3
Emotion Focused Coping	91	35.00	1
Avoidant Coping	89	34.23	2

Table II shows the coping mechanism of college students with low Mental Health Index scores. With a percentage of 35, 91 respondents utilized emotion-focused coping. Emotion Focused Coping includes venting, using emotional support, humor, acceptance, self-blame, and religion. They employ emotion-focused coping with managing the feelings linked with stressful events. At the same time, 89 respondents utilized avoidant coping with a percentage of 34, which is characterized by self-distraction, denial, substance use, and behavioral disengagement. They utilize avoidant coping to withdraw from the stressor through physical or cognitive efforts. 80 respondents used problem-focused coping with a percentage of 30.77, defined by a lack of active coping, informational assistance, planning, and positive reframing, and in which they do not use psychological strength, grit, or a practical approach to problem-solving. This suggests that the responders employ all three coping mechanisms, namely emotion-focused coping, problem-focused coping, and avoidant coping, at the same time.

The current study assessed the student respondents' coping mechanisms based on the subtypes provided by the Brief-Coping Orientation to Problems Experienced Inventory (COPE) developed by Carver (1997). The data collected were analyzed to test the hypothesis, and as indicated in the preceding chapter, the data is interpreted in a descriptive form. Furthermore, this study stimulates critical insights regarding the coping mechanism of the student-response who previously had low scores on the Mental Health Index (MHI). The study results revealed that most of the student respondents use

emotion focused coping and that the three types of coping mechanisms are simultaneously utilized by students with low MHI.

This study also revealed that among the three coping mechanism subtypes, the most used coping strategy among the college students who scored low on the Mental Health Index is Emotion-focused coping. This means that the respondents use positive reframing, acceptance, turning to religion, humor, self-blame, venting, and emotional support to lessen their negative emotions. This is supported by the study of Rogowska et al. (2020), stating that university students frequently used emotion-focused coping when experiencing anxiety and stress. Furthermore, a study claims that the most common coping strategies were seeking emotional and religious support, which are categorized as emotion-focused coping (El-Monshed et al., 2021). Lastly, according to Gurvich et al. (2020), respondents with anxiety and who experience stress use self-blame as a coping mechanism; additionally, venting is used by respondents experiencing stress. All of which are characterized by emotion-focused coping. Contradictory to this, a study states that problem-focused coping was the primary coping mechanism used by students. Mainly the students use positive reframing and planning, as stated in a study by Guskowska and Dąbrowska-Zimakowska (2022).

In the study of Mayordomo-Rodríguez et al. (2014), emotion-focused coping negatively predicted well-being. The meta-analysis also showed that an emotion-focused coping mechanism strategy results in poor health outcomes, with most respondents resorting to drinking or taking recreational substances. Meanwhile, problem-focused coping predicts positive well-being because it is associated with lower stress levels and better mental health as it aims to remove stressors and deal with the cause of the existing problem leading to a long-term solution.

TABLE III. ASSOCIATION BETWEEN THE TYPE OF COPING MECHANISM OF COLLEGE STUDENTS AND PROFILE VARIABLES

Variable	Problem Focused Coping		Emotion Focused Coping		Avoidant Coping	
	X-value	p-value	X-value	p-value	X-value	p-value
Age	2.083	0.720	2.550	0.636	2.214	0.713
Gender	0.211	0.646	10.517	0.001*	4.605	0.032*
Year Level	2.748	0.432	4.679	0.197	2.979	0.395
Department	1.142	0.703	9.992	0.019*	2.424	0.489
Learning Modality	2.223	0.136	3.309	0.069	0.087	0.768
Family Type	0.731	0.694	0.846	0.655	1.847	0.397
Living Environment	2.223	0.136	1.658	0.436	0.865	0.649
Hours spent on Social Media a day	22.378	0.000*	14.190	0.001*	0.758	0.684

SIGNIFICANT AT 0.05 LEVEL

The table above shows that problem focused coping is associated with the hours spent by a student on social media per day. Emotion-focused coping on the other is associated with the student's gender, department, and also the hours spent on social media per day. Moreover, avoidant coping is associated with the student's gender.

This study significantly correlates problem-focused and hours spent using social media. Specifically, problem-focused coping is likely to be observed among students who spend more than 8 hours on social media and not likely among students who spend less than 2 hours on social media. Anxious and stressed students use social media for hours to reframe their current circumstances and are favorably associated with their psychological well-being outcomes (Eden et al., 2020). Students reported that social media plays a role in problem-focused coping correspondence with eudemonic entertainment. In addition, Aebi et al. (2014) support that problem-focused coping strategies appear to be associated with higher mental health outcomes and well-being. However, according to Liu (2020), statistical evidence strongly suggested that those who utilized social media for extended periods tended to select emotion-focused over problem focused coping when dealing with stress. In other words, individuals are more likely to employ a coping method that allows them to escape rather than confront an issue.

Another finding of this study is that there is a significant association between emotion-focused and hours spent using social media. Specifically, emotion-focused coping is likely to be observed among students who spend about 6 hours on social media and not likely among students who spend less than 2 hours on social media. The impact of social media addiction (more than 9 hours a day) on the decision to utilize emotion-focused rather than problem-focused coping is also consistent with studies that suggest some people rely on social media to cope with stress (George et al., 2013; Seidman, 2013). Furthermore, statistical evidence strongly suggested that those addicted to social media preferred to adopt emotion-focused coping over problem-focused coping when dealing with stress. This means that those who utilized social media for long periods tended to select emotion-focused coping. In other words, individuals lack mindfulness of their situation through the use of emotion-focused coping as spending more time with social media humor them, making it easy for them to forget about their current status (Liu, 2020). In contrast, anxious and stressed students prefer to use problem-focused coping through social media, presumably to address anxiety's more persistent nature. Respondents gain insights and ways to associate social media with their psychological well-being (Eden et al., 2020).

There is also a significant association between emotion-focused and department. Specifically, Emotion-focused coping is likely to be observed among students of SHAS and SABH. According to Wu et al. (2018), health allied students reported using more emotion-focused coping strategies when dealing with situations over which they had no control, such as being overscheduled. With the exception of avoidance and wishful thinking, they assessed most of their coping mechanisms as effective (Wu et al., 2018).

Yet, the study of Shiva et al. (2018) showed that planned problem solving and taking accountability (problem-focused coping) were the most popular coping strategies among health-allied students, while seeking social support, which is categorized under emotion focused coping, was the most popular among engineering students. However, no study states that programs under the SABH department use emotion-focused coping as a coping mechanism.

In contrast, a study revealed that health-allied students used problem-focused coping techniques rather than emotion-focused coping strategies such as problem-solving behaviors, self-confidence techniques, and seeking assistance from family and friends (Labrague et al., 2017). While the study by Tsaour et al. (2015) states that students from Hotel and Restaurant Management, Tourism Management, and Food and Beverage Management use problem-focused coping as a primary coping mechanism, respondents rely on personal experience engaging in discussions to deal with stressors.

Also, there is a significant association between emotion-focused and gender. Specifically, emotion-focused coping is likely to be observed among female students and not likely to be observed among male students. Females utilized emotion-focused techniques more than males in the main dimensions of coping. Emotion-focused coping usually provides short-term stress alleviation but seldom leads to situational change, i.e., resolution of the stressor (Graves et al., 2021). Generally, college females rely on this support more than college males because females may feel they require it (Eisenbarth, 2019). Madhyastha et al. (2014) supported that female students employed much more emotion-focused coping methods of emotional support than male students. In contrast, a study revealed that male students were more likely than female students to employ emotion-focused coping techniques such as humor, acceptance, and emotional support (Ryan, 2013).

There is also a significant association between avoidant-focused and gender. Specifically, Avoidant coping is likely to be observed among female students and not likely to be observed among male students. Female students reported a higher rate of negative emotional responses, which was linked to the employment of avoidance coping mechanisms (Puhl & Luedicke, 2012). Moreover, Mani et al. (2020) stated that the avoidance coping strategy can be a helpful tool for female students in reducing stress during difficult situations. In contrast, male students utilized avoidance coping methods more often than female students and reported higher levels of optimism and individual life satisfaction (Cabras & Mondo, 2017).

#### IV. CONCLUSION

The study showed that in 95 college students utilizing coping mechanisms, emotion-focused coping was the most used coping mechanism of college students with low scores on the mental health index. At the same time, the problem-focused was least used by the college students with low mental health index scores. However, the three types of coping mechanisms were simultaneously utilized by students with low MHI. Meanwhile, emotion-focused coping is linked with the factors like gender, department, and hours spent using social media in a day. More females utilize emotion focused coping mechanisms compared to males. Moreover, students exposed to social media for 6 hours a day are mostly associated with this type of coping mechanism. SHAS and SABH are more likely to use emotion-focused coping. The researchers found no studies related to emotion-focused coping and students under similar programs of SABH, which is information to take note of. Avoidant coping was the second most used by college students with low mental health indexes. It was linked with the

gender of the college students and is mostly observed in female students. The problem-focused mechanism was linked with college students' hours spent using social media. Students who spend more than 8 hours on social media are most likely associated with a problem-focused coping mechanism.

#### V. RECOMMENDATIONS

Due to the instances brought by the pandemic, there is a limited opportunity to extend the means of data gathering further. The researchers suggest that a physical copy can be printed instead of google forms to make it more accessible to students who do not have internet access. Moreover, close monitoring should be done while answering to ensure that the respondents understand the questionnaires as intended. This can reduce instances of collecting inaccurate data.

The study result may also be forwarded to the University of Saint Louis Guidance Center to guide college students with low mental health index to cope with stressful situations they experience correctly. Additionally, they may use the study result as baseline data to navigate any further plans for programs and activities like seminars on how to develop healthier coping mechanisms. The Nursing Department of the University of Saint Louis may conduct a Service-Learning Program (SLP) and Health Education that also focuses on mental health well-being as the study result will be the basis for their future programs.

The study results can also be used as a basis for the self-promotion of the college students' coping mechanism through help from trusted experts, peers, and colleagues.

Additionally, the researchers recommend conducting studies about coping mechanisms for general college students and not focusing only on college students with low mental health indexes. Further studies can also be done with students of SABH or similar programs as respondents since little to no research focused on this demographic.

Lastly, the study's data for the MHI and coping mechanisms was during the height of the COVID 19 pandemic. So, reassessing the student's coping mechanism and MHI are highly recommended now that there is progress in accepting and adjusting to the new normal.

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REFERENCES

- Aebi, M., Giger, J., Plattner, B., Metzke, C. W., & Steinhausen, H. C. (2013). Problem coping skills, psychosocial adversities and mental health problems in children and adolescents as predictors of criminal outcomes in young adulthood. *European Child & Adolescent Psychiatry*, 23(5), 283–293. <https://doi.org/10.1007/s00787-013-0458-y>
- Algorani, E. B., & Gupta, V. (2021). Coping mechanisms. StatPearls. Published. Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK559031/>
- American Psychological Association. (2020b). Avoidance coping. Retrieved from <https://dictionary.apa.org/avoidance-coping>
- Bashir, H., & Bhat, S. A. (2017). Effects of social media on mental health: A review. *International Journal of Indian Psychology*, 4(3), 125-131. DOI: 10.25215/0403.134
- Baqutayan, S. M. S. (2015). Stress and coping mechanisms: A historical overview. *Mediterranean Journal of Social Sciences*, 6(2 S1), 479-479. DOI:10.5901/mjss.2015.v6n2s1p479
- Bhugra, D., Till, A., & Sartorius, N. (2013). What is mental health? *International Journal of Social Psychiatry*, 59(1), 3-4. DOI: 10.1177/0020764012463315
- Cabras, C., & Mondo, M. (2017). Coping strategies, optimism, and life satisfaction among first-year university students in Italy: Gender and age differences. *Higher Education*, 75(4), 643–654. <https://doi.org/10.1007/s10734-017-0161-x>
- Carver, C. S. (1997). You want to measure coping but your protocol' too long: Consider the brief cope. *International Journal of Behavioral Medicine*, 4(1), 92–100. [https://doi.org/10.1207/s15327558ijbm0401\\_6](https://doi.org/10.1207/s15327558ijbm0401_6)
- Charles N F, Strono S I, Burns I C, Bulleriahn M R & Serafine K M (2021). Increased mood disorder svmptoms, perceived stress, and alcohol use among college students during the COVID-19 nandemic. *Psychiatry research*, 296, 113706. <https://doi.org/10.1016/j.psychres.2021.113706>
- Chirikov I, Soria K M, Horoos R & Jones-White D (2020) Undergraduate and Graduate Students' Mental Health During the COVID-19 Pandemic IIC Berkeley: Center for Studies in Higher Education. Retrieved from <https://escholarship.org/uc/item/80k5d5hw>
- Eden, A. L., Johnson, B. K., Reinecke, L., & Grady, S. M. (2020). Media for Coping During COVID-19 Social Distancing: Stress, Anxiety, and Psychological Well Being. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.577639>
- Eisenbarth, C. A. (2019). Coping with stress: Gender differences among college students. *College Student Journal*, 53(2), 151-162. Retrieved from <https://www.ingentaconnect.com/content/prin/csj/2019/00000053/0000002/art00002>
- El-Monshed A H, El-Adl A A, Ali A S & Louffy A (2022) University students under lockdown: the psychosocial effects and coping strategies during COVID-19 nandemic: A cross sectional study in Egypt. *Journal of American college health*, 70(3), 679-690. <https://doi.org/10.1080/07448481.2021.1891086>
- Faisal, R.A., Ahmed, O., Jobe, M. C., Ahmed, O., & Tanima, S. (2021). Mental health status, anxiety, and depression levels of Bangladeshi university students during the COVID-19 pandemic. *Int J Ment Health Addiction*. Published. <https://doi.org/10.1007/s11469-020-00458-y>
- George, D. R., Dellasega, C., Whitehead, M. M., & Bordon, A. (2013). Facebook-based stress management resources for first-year medical students: A multi-method evaluation. *Computers in Human Behavior*, 29(3), 559–562. <https://doi.org/10.1016/j.chb.2012.12.008>
- Graves, B. S., Hall, M. E., Dias-Karch, C., Haischer, M. H., & Apter, C. (2021). Gender differences in perceived stress and coping among college students. *PLOS ONE*, 16(8), e0255634. <https://doi.org/10.1371/journal.pone.0255634>
- Gurvich, C., Thomas, N., Thomas, E. H., Hudaib, A. R., Sood, L., Fapiatos, K., Sutton, K., Isaacs, A., Arunogiri, S., Sharp, G., & Kulkarni, J. (2020). Coping styles and mental health in response to societal changes during the COVID-19 pandemic. *International Journal of Social Psychiatry*, 67(5), 540–549. <https://doi.org/10.1177/0020764020961790>
- Guszkowska, M., & Dąbrowska-Zimakowska, A. (2022). Coping with Stress During the Second Wave of the COVID-19 Pandemic by Polish University Students: Strategies, Structure, and Relation to Psychological Well-Being. *Psychology Research and Behavior Management*, Volume 15, 339–352. <https://doi.org/10.2147/prbm.s345648>
- Labrague, L., McEnroe-Petitte, D., al Amri, M., Fronda, D., & Obeidat, A. (2017). An integrative review on coping skills in nursing students: Implications for policymaking. *International Nursing Review*, 65(2), 279–291. <https://doi.org/10.1111/inr.12393>
- Liu, L. (2020). Impacts of Social Media Addiction on Mindfulness, Coping Strategies and the Consequence on Emotional Exhaustion. *International Journal of Science*, 7 (4). <http://www.ijscience.org/download/IJS-7-4-103-113.pdf>
- Madhyastha, S., Latha, K., & Kamath, A. (2014). Stress, coping and gender differences in third year medical students. *Journal of Health Management*, 16(2), 315–326. <https://doi.org/10.1177/0972063414526124>
- Mani, A., Khabir, L., Ahmadzadeh, L., Soltani, S., & Asadollahi, S. (2020). Comparison of avoidance coping strategies among female college students with binge eating and healthy controls. *Hormozgan Medical Journal*, 24(3). <https://doi.org/10.5812/hmj.102641>
- Mayordomo-Rodríguez, T., Meléndez-Moral, J. C., Viguer-Segui, P., & Sales-Galán, A. (2014). Coping strategies as predictors of Well-Being in youth adult. *Social Indicators Research*, 122(2), 479–489. <https://doi.org/10.1007/s11205-014-0689-4>
- Nurunnabi, M., Hossain, S. F. A. H., Chinna, K., Sundarasan, S., Khoshaim, H. B., Kamaludin, K., Baloch, G. M., Sukayt, A., & Shan, X. (2020). Coping strategies for anxiety during the COVID-19 pandemic in China: A cross-sectional study. *F1000Research*, 9. <https://doi.org/10.12688/f1000research.25557.1>
- Puhl, R. M., & Luedicke, J. (2012). Weight-Based victimization among adolescents in the school setting: Emotional reactions and coping behaviors. *Journal of Youth and Adolescence*, 41(1), 27–40. <https://doi.org/10.1007/s10964-011-9713-z>
- Rogowska, A. M., Kuśniercz, C., & Bokszczanin, A. (2020). Examining anxiety, life satisfaction, general health, stress and coping styles during COVID-19 pandemic in Polish sample of university students. *Psychology Research and Behavior Management*, 797-811. <https://doi.org/10.2147/prbm.s266511>
- Ryan, K. (2013). How problem focused and emotion focused coping affects college students' perceived stress and life satisfaction. Retrieved from <https://esource.dbs.ie/handle/10788/1622>
- Seidman, G. (2013). Self-presentation and belonging on facebook: How personality influences social media use and motivations. *Personality and Individual Differences*, 54(3), 402–407. <https://doi.org/10.1016/j.paid.2012.10.009>
- Tee, M. I., Tee, C. A., Anlacan, J. P., Alijam, K. I. G., Reyes, P. W. C., Kurichitham V & Ho R C. (2020) Psychological impact of COVID-19 pandemic in the Philippines. *Journal of affective disorders*, 277, 379-391. <https://doi.org/10.1016/j.jad.2020.08.043>
- Tsaur, S. H., Ku, P. S., & Luoh, H. F. (2015). Problem-focused or emotion-focused: Which coping strategy has a better effect on perceived career barriers and choice goals? *Asia Pacific Journal of Tourism Research*, 21(4), 425–442. <https://doi.org/10.1080/10941665.2015.1051488>
- Wang, Q., Chen, W., & Liang, Y. (2011). The effects of social media on college students. *MBA Student Scholarship*, 5(13), 1548-1379.
- World Health Organization. (2018, March 30). Mental health: Strengthening our response. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response>
- Wu, L., Farquhar, J., Ma, J., & Vidyarthi, A. (2018). Understanding Singaporean medical students' stress and coping. *Singapore Medical Journal*, 59(4), 172–176. <https://doi.org/10.11622/smedj.2018044>