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**ACADEMIC STRESS AND COPING SELF-EFFICACY  
OF SENIOR HIGH SCHOOL STUDENTS ATTENDING  
DISTANCE LEARNING DURING  
SARS-COV-2 PANDEMIC**

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**ABSTRACT**

**Purpose** – Throughout the high school years, especially for senior high school (SHS) level, academic stress emerges as the prevalent psychological state among students, particularly due to the simultaneous occurrence of adolescence and the increased intensity of academic obligations and responsibilities that must be fulfilled during this stage. As they approach college, they face the added pressure of making important career-related choices, which further intensifies the challenges they encounter during this phase. With classes transitioning to online platforms as an alternative measure for schools during the SARS-CoV-2 outbreak in the Philippines, presented numerous challenges and difficulties, it is crucial to examine the academic stress and coping self-efficacy among SHS students during

this transition period. Additionally, this study aimed to investigate the predictors of academic stress and coping self-efficacy utilizing the sociodemographic profile of the participants.

**Methodology** – A descriptive research design was employed in the study. A total of 446 SHS students from Grade 11 to Grade 12 in one of the academic institutions in Quezon City were purposively selected to participate by answering two self-administered online measures on academic stress (Educational Stress Scale for Adolescents) and coping self-efficacy (Coping Self-Efficacy Scale). The collected data analyzed using SPSS v25.

**Findings** – Results revealed that self-expectation ( $M = 3.65$ ) and workload ( $M = 3.45$ ) are the primary sources of academic stress, and SHS students are more confident utilizing problem-solving ( $M = 6.17$ ) to cope with academic stress. Further, being female ( $P = 0.01$ ), level ( $P = 0.08$ ), and belonging to the HUMSS (Humanities and Social Sciences) strand ( $P = .08$ ) increase stress scores. A significant negative correlation of  $-0.26$  (95% CI:  $-0.35, -0.17$ ) between stress and coping self-efficacy was also found, which suggests that as academic stress increases, coping self-efficacy decreases. Further, being a female, SHS2, and in the HUMSS strand tends to increase academic stress, while being a female who is unemployed and/or a mother whose working at home scores relatively low with coping self-efficacy.

**Significance** – These findings have educational implications. It highlights the factors to be considered by offering guidance to counselors and educators in developing intervention programs, focusing on psychological well-being and skill enhancement that would help mitigate the adverse outcomes of this period of disruption.

**Keywords:** Distance learning, academic stress, coping self-efficacy, senior high school students.

## INTRODUCTION

COVID-19 is a disease caused by the novel coronavirus subsequently named SARS-CoV-2 on humans that was first reported in Wuhan, China, and was declared a pandemic in March 2020 (World Health Organization [WHO], 2020). According to the interim guidelines set

by the WHO, some preventive measures to control the transmission of the disease include physical distancing, movement restrictions, minimization of gatherings and home confinement, hand hygiene, and the closure of schools and workplaces (Inter-Agency Standing Committee [IASC], 2020).

The crisis brought by COVID-19 compelled school closures and disrupted the learning process thus, to mitigate the impact of this health emergency, many countries turned to remote learning to facilitate continuity of education (World Bank, 2020). In China, the Ministry of Education reformed the entire educational system to include online education (Huang et al., 2020), whereas, in Italy, the government allotted 85 million euros for remote learning activities, which was not just limited to providing children with digital devices and connectivity but also training teachers and acquiring digital platforms for schools (Mascheroni et al., 2021). In areas where there is limited access to technology and high-quality internet connectivity, Italian government has adopted traditional distance learning modalities like educational television and radio programming and even the distribution of print materials (United Nations, 2020). In Ethiopia, the Ministry of Education has taken strategies like radio and TV programmes to continue education (Belay, 2020), while in Uganda, the distribution of self-learning materials is being implemented (UNICEF, 2020), which is similar to the distribution of paper packets and workbooks for students with no access to the internet by rural districts in New York and Ohio (Nicola & Ash, 2020). This health crisis has reached the Philippines, affecting several sectors of society when the government imposed an Enhanced Community Quarantine (ECQ) in Metro Manila, where residents had to follow a strict stay-at-home order, banned public gatherings, suspended mass transportation, and closed non-essential business establishments (Egwolf & Austriaco, 2020). This declaration also affected learning institutions that remain suspended to operate from March 10, 2020, where most of the private schools implemented distance learning while the Department of Education (DepEd) came up with different learning modalities, including Distance Learning with Modular Distance Learning (MDL); Online Distance Learning (ODL), TV and Radio-Based Instruction (TV-RBI).

Distance learning or online learning has significantly transformed education into a new perspective where lessons are delivered by educators through digital channels. Digital technology undeniably

helped the continuity of the learning process but also posed some challenges, including losing face-to-face socialization and contact among students and teachers aside from the resources in higher education (Toquero & Talidong, 2020). Consequently, the pandemic and the shift from traditional face-to-face learning approaches to distance education also impacted the well-being of the students. A lot of studies suggest that the COVID-19 pandemic has had a significant impact on students' mental health. Signs of anxiety and heightened distress were reported during the lockdown, where home quarantine contributed to health anxiety and loneliness for college students (Grubic et al., 2020; Aslan et al., 2020; Son et al., 2020; Bourion-Bédès et al., 2020, Bautista et al., 2020). A greater psychological impact was also reported among college students compared to those who are employed (Tee et al., 2020). A recent study among undergraduates in 14 universities in Turkey revealed that students reported higher levels of stress during the pandemic compared to pre-pandemic time (Aslan et al., 2020). This further suggests that the pandemic situation also significantly affected students' well-being. In the survey conducted among college students, the majority of them reported increased stress, anxiety, and depressive thoughts due to the COVID-19 outbreak. This includes fear and worry about their health and of their loved ones, difficulty concentrating, disruptions of sleeping patterns, decreased social interactions due to physical distancing, and increased concerns about academic performance (Son et al., 2020).

In face-to-face learning curriculum or traditional learning environments, studies show that students experience academic stress and experience sleeping problems, low self-confidence, and moodiness (Austria-Cruz, 2019). Students in distance learning also experience some form of stress when adapting to a new learning environment, including adjusting to the technical features of the system, simultaneously carrying out responsibilities at home, and trying to meet academic demands (Kwaah & Essilfie, 2017). The academic stress experienced by students is also associated with the psychological impact of physical distancing measures implemented due to the COVID-19 pandemic (Grubic et al., 2020). This situation holds among college students in the Philippines (Rotas & Calupay, 2020; Barrot et al., 2021).

The pandemic significantly increased anxiety among students, however, they continue their role at school, which also augments their

academic stress. Academic stress pertains to whatever triggers tension, also known as stressors, which can be psychologically related and obstruct academic success (Adom et al., 2020). The stressors at school may include but are not limited to the expectations an individual sets for himself/herself, dealing with academic demands, and the pressure on how to connect with other people. Yasmin et al. (2020) specify all the reasons for academic stress, which comprise the increase in academic load with insufficient time, new roles to perform, difficult exams, challenging classes, below average academic performance, a target date to submit requirements, and communication with other people regarding tasks.

In the Philippine setting, the study conducted by Rotas and Calupay (2020) revealed that college students are having difficulty with technical concerns, overloaded lesson activities, limited teacher support, communication with classmates, and conflicting roles at home. This was supported by the study conducted by Barrot et al. (2021) which revealed that most of the higher education students' challenges are linked to their learning environment at home, which also has a great impact on the quality of the learning experience and mental health. Their study also focused on how students coped with the situation; results showed that the participants employed resource management utilization, help-seeking, technical aptitude enhancement, time management, and learning environment control.

Senior secondary school education marks a significant milestone in a person's academic journey. At this stage, senior high school students are susceptible to various academic stressors, including a high workload, exam pressure, and future uncertainties. Shahmohammadi (2011) found out that the grade 11 and grade 12 students' primary concerns are academic in nature. Students expressed their fear of not getting a place in college, failing entrance examinations, being overwhelmed with lessons, not being able to comprehend lessons, having too much homework and having a busy class schedule. Furthermore, the study by Comendador et al. (2021) showed aside from the technical issues in distance learning, students experience frustration when they cannot understand some of the lessons and exhaustion, affecting their self-confidence and social relationships. To address these concerns, students utilize self-care and time management.

Self-efficacy is a concept that refers to an individual's judgment about their ability to achieve specific goals (Zulkosky, 2009). One specific

domain of self-efficacy is coping. Coping self-efficacy is defined as the perceived ability or confidence to withstand difficult situations. (Chesney, 2006). This is a feeling or belief that one can successfully deal with stressors like academic demands and family problems. The measure of coping self-efficacy has been used across ages and different situations, like in the study of Guo et al. (2019), where the results indicate that athletes with high coping self-efficacy can better cope with stressful events, regulate their actions accordingly and move their attention to process positive information. Schneider's (2020) study among high school students showed a positive and significant relationship between strengths use and well-being, strengths use and coping self-efficacy, coping self-efficacy and well-being. These findings stressed the significance of empowering students to utilize their strengths to develop their coping self-efficacy toward well-being.

Most of the studies conducted among students in the Philippines are centered on academic stress and identifying specific coping strategies utilized by students to manage stress, whereas there is a dearth of local literature pertaining to coping self-efficacy. While self-efficacy, in general, has been associated with general health and well-being, the researcher believes that coping with self-efficacy plays an important role among students in dealing with academic stress, in which having the sense of belief that they can cope with the academic demands is more beneficial than believing that they can achieve their goals. Nevertheless, no local study has examined the relationship between coping self-efficacy and academic stress as far as senior high school is concerned.

Although several studies have been conducted on academic stress in various settings, including the traditional and distance learning approaches before the pandemic, the research on academic stress among senior high schools in the implementation of distance learning approach during the COVID-19 pandemic has yet to be further investigated because of very limited sources. This study aims to shed light on the effect of the implementation of distance learning among senior high school (SHS) students since they are also in the adolescence stage where rapid emotional and social changes take place, which may also influence their capability handling challenging events (Evans et al., 2018). With the analysis and synthesis of the data gathered in this study utilizing the socio-demographic profile such as gender, level, age, present location of residence, living conditions,

parents' type of work, parents' work set-up, and number of siblings who are enrolled in online learning, the factors that predict academic stress and coping self-efficacy can be identified.

### **Purpose of the Study**

To achieve the objectives of the research, the following specific aims have been outlined:

1. To identify the stressors of senior high school students
2. To identify the coping self-efficacy of senior high school students
3. To determine if there is a significant relationship between stress and coping self-efficacy among senior high school students
4. To identify the associated socio-demographic profile variable that increases or decreases academic stress and self-efficacy among senior high school students

## **METHODOLOGY**

### **Study Design**

A cross-sectional online survey was carried out using a voluntary, self-administered questionnaire to obtain the data for this study, which was distributed from December 1<sup>st</sup> to 19<sup>th</sup> of January of 2021 where online learning was implemented for the academic year 2020-2021.

### **Participants**

The study included both male and female SHS students in one of the colleges in Quezon City. Quezon City is considered one of the highly urbanized cities, comprising 22.80 percent of the National Capital Region (NCR) population as of 2015 (Bersales, 2018), which ranks first with the largest population. As the Department of Health (DOH) reports daily COVID-19 cases, NCR is regarded to be the epicenter of the disease where Quezon City is one of the cities contributing to the total cases in the country (Egwolf & Austriaco, 2020). Most of the private sectors in education shifted from face-to-face curriculum to

distance learning while public schools adopted different modalities including modular learning and distance education. Thus, under the aforementioned circumstances, one of the private schools situated in this city with one of the greatest numbers of SHS students enrolled was purposely selected as the research locale for the study. SHS students were the main target of the study considering the age range of this population which is currently in the adolescence stage, where individuals experience rapid changes biologically, emotionally, and socially (Evans et al., 2018). Since adolescents undergo school transitions associated with the important cognitive, social, and emotional changes that take place during this period, it is imperative that monitoring and support must be given to them.

### **Data Collection Procedure**

An online survey was distributed using non-probability convenient sampling to students across different levels (SHS 1 and SHS 2) and strands under the Academic track (ABM - Accounting, Business & Management; GAS – General Academic Strand; HUMSS-Humanities & Social Sciences; STEM-Science, Mathematics & Engineering) and Technical-Vocational Track. Google Forms was used to create a link for the survey, which was coordinated through the class advisers. The participants received information about the research objectives and procedures, and their permission was obtained employing an informed consent form prior to data collection.

The online survey consisted of three sections: a) Socio-demographic characteristics; b) the sources of academic stress which were attained from the Educational Stress Scale for Adolescents (ESSA); and c) the Coping Self-Efficacy Scale (CSES) which was used to measure the coping self-efficacy of the SHS students.

### **Measures**

This information included questions regarding age, gender, SHS strand, parent's occupation, current residence during the pandemic, home situation, number of siblings who are also enrolled in online learning, and parents' work set-up. Most of the studies conducted showed that there is a significant difference in stress reactions as far as gender is concerned. This study aims to investigate factors such as current residence during the pandemic, parents' occupation and work set-up, and the number of siblings enrolled in distance learning that are

associated with students' academic stressors and coping self-efficacy. Given that these factors can contribute to experiencing stress among students as they may encounter more technical difficulties during online classes whether could be from sharing an internet connection with other members of the family or due to location. Further, age, level, and strand were gathered to determine if school transition and curriculum can predict scores on academic stress and coping self-efficacy.

### **Educational Stress Scale for Adolescents**

The Educational Stress Scale for Adolescents (ESSA) developed by Sun et al. (2011), is a 16-item self-report measure of students' feelings and attitudes towards their academic life using a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5). The ESSA contains five domains including (1) Pressure from the study (four items), (2) Workload (three items), (3) Grade-related worry (three items), (4) self-expectation (three items), and (5) Study despondency (three items). The pressure from the study domain includes items described, perceived pressure from parents, competition, learning conditions, and apprehension about the future. The workload domain pertains to academic requirements which includes assignments and tests. The grade-related worry domain includes items that describe feelings of disappointment when academic grades are poor. The self-expectation domain pertains to perceived stress when one's established standards are not met. The despondency domain includes items that are related to disappointment toward one's academic grades, lack of self-confidence, and inability to concentrate during classes. The Cronbach's alpha coefficient for this scale was 0.81 with a two-week test-retest reliability of 0.78, with the authors confirming the validity and reliability of the English version of the scale. The measure has been found to have excellent reliability in the samples of the current study ( $\alpha=.91$ ) (George & Mallery, 2013).

### **Coping Self - Efficacy Scale**

Coping Self- Efficacy Scale (CSES) is a 26-item measure developed by Chesney et al. (2006) to assess the perceived ability and confidence to cope with difficulties. Participants are asked to rate themselves using an 11-point Likert scale ranging from 0 (cannot do at all), 5 (moderately certain can do), to 10 (certain can do) as to how confident they feel in employing different coping strategies when faced with challenging situations. The three-factor structures of this scale are

stopping unpleasant emotions and thoughts, using problem-focused coping and getting support from family and friends. Scores can range from 0 to 260. Stopping unpleasant emotions and thoughts focuses on regulating emotional reactions to certain stressors. Using problem-focused contains items pertaining to the action plan on how to deal with existing difficulties. Moreover, getting support from family and friends includes strategies that involve seeking assistance in handling situations from important people. The test-retest correlation coefficients were strong, ranging from .40 to .80 up to 12-month data (Chesney et al., 2006). The scale also exhibited good construct validity. Other studies yielded high internal consistencies using different samples ( $\alpha=.91$ ) with 18 years old and enrolled in higher education (Schneider, 2020); ( $\alpha=.91$ ) with a mean age of 20.21 (Midkiff, 2018); ( $\alpha=.96$ ) with a mean age of 12.0 (Sibinga, 2016). The Cronbach's alpha of the current study among a fraction of the target population or samples demonstrated excellent internal consistency for the scale ( $\alpha = .97$ ).

### **Statistical and Data Analysis**

Data analysis was performed using Statistical Package for the Social Sciences (SPSS) version 25.0 software (IBM Corp., Armonk, NY). The socio-demographic profile of participants was expressed and analyzed using frequencies and percentages. Descriptive statistics were computed as mean (M) and standard deviation (SD) for numerical variables such as scores on the scales. One-way ANOVA, followed by *Scheffe* post hoc test, for differences by scale factors was used to identify the academic stressors and coping self-efficacy of students. To calculate the correlation values between ESSA and CSES scores, Spearman's rank correlation ( $r_s$ ) (two-tailed) and Fisher's R-Z transformation to obtain a confidence interval (CI) were used. Categorical variables were transformed into dummy variables (e.g., 1 or 0) and were inputted in the multiple regression analysis using a stepwise backward selection method to identify significant predictors ( $P < 0.1$ ) of high or low scores in ESSA and CSES among the students.

## **RESULTS**

### **Sociodemographic Profile**

A total of 446 students responded to the survey. There were 264 (59.2%) males who participated in the study and that of females is 185 (41.5%). The participants' age ranged from 15 to 21 years, and the

mean age was 17.2. The majority of the participants' current residence during the pandemic were from the National Capital Region (NCR) comprising 325 (72.9%) while there were 117 (26.2%) who currently reside in the province and there were 4 (0.9%) participants who are located abroad. Living condition showed 345 (77.4%) of participants reside with their family, 85 (19.1%) are residing with family and relatives and 14 (3.1%) were living with relatives.

Parent's occupations revealed that both father and mother are mostly private employees comprising 169 (37.9%) and 148 (33.2%) respectively. Furthermore, the current work set-up of both father and mother mostly falls in the office set-up comprising 177 (39.7%) and 170 (38.1%). This means that most of them must go to the office to accomplish work tasks. Lastly, in terms of the number of siblings who enrolled in distance learning, most of them have 1 sibling who was also enrolled in distance learning which encompasses 193 (43.3%) of the participants. The summary demographic distribution of the participants is presented in Table 1.

**Table 1**

*Socio-demographic Profile of SHS Students*

Socio-demographic profile		n = 446 (%)
Gender	Male	264 (59.2)
	Female	185 (41.5)
Level	SHS 1	257 (57.6)
	SHS 2	189 (42.4)
Age	15-17	301 (67.5)
	18-20	145 (32.5)
Present residence	NCR	325 (72.9)
	Province	117 (26.2)
	Abroad	4 (0.9)
Living conditions	with family	345 (77.4)
	with relatives	14 (3.1)
	with family & relatives	85 (19.1)
	Others	2 (0.5)
Father's occupation	Private Employee	169 (37.9)
	Government Employee	54 (12.1)
	Self-employed	139 (31.2)
	Unemployed	23 (5.2)
	N/A	61 (13.7)

(continued)

Socio-demographic profile		n = 446 (%)
Father's work set-up	Office set-up	177 (39.6)
	Work from home	118 (26.5)
	N/A	151 (33.7)
Mother's occupation	Private employee	148 (33.2)
	Government employee	55 (12.3)
	Self-employed	135 (30.3)
	Unemployed	64 (14.4)
	N/A	44 (9.9)
Mother's work set-up	Office set-up	170 (38.1)
	Work from home	146 (32.7)
	N/A	130 (29.2)
Siblings enrolled in online learning	0 (only child)	107 (24.0)
	1	193 (43.3)
	2	87 (19.5)
	3	44 (9.9)
	4	9 (2.0)
	≥5	6 (1.4)

Note: SHS-Senior High School; NCR-National Capital Region; N/A-Not Applicable

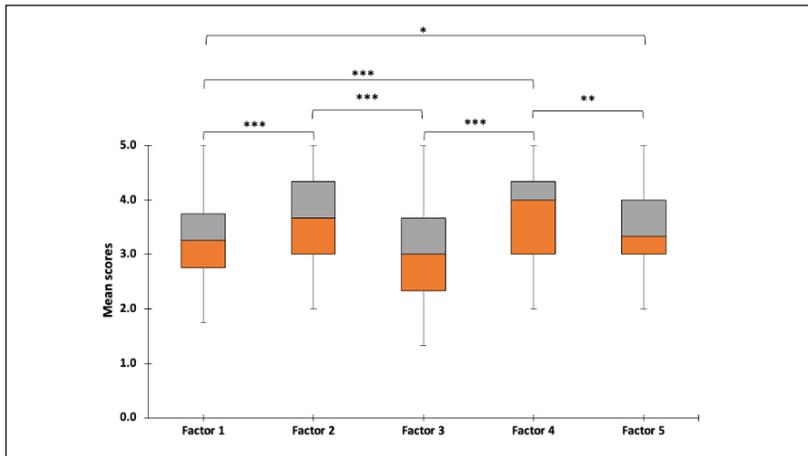
## ESSA and CSES Scores

### *Academic Stress*

Figure 1 shows that the students have the highest mean scores on Factor 4: Self-expectation (M=3.66, SD=1.0). This is followed by Factor 2: Workload (M=3.48, SD=0.96); Factor 5: Study despondency (M=3.40, SD= 0.85); Factor 1: Pressure from study (M=3.20, SD= 0.80); Factor 3: Worry about grades (M=3.06, SD=0.84). A one-way analysis of variance and a post-hoc analysis using the *Scheffe* method was carried out to determine if the difference among these factors is statistically significant at 0.05 level of significance. The results showed that Factors 2 and 4 obtained the significantly highest mean scores compared to the other factors ( $p < .001$ ). This only reveals that most of the academic stressors among participants were workload and self-expectation.

**Figure 1**

*One-way ANOVA with Scheffe posthoc Method Results of the Mean Score Differences among the ESSA Factors*



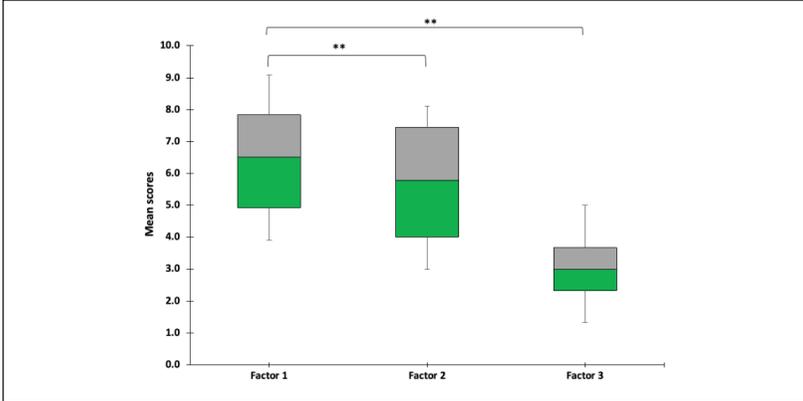
Note: Factor 1: Pressure from study; Factor 2: Workload; Factor 3: Worry about grades; Factor 4: Self-expectation; Factor 5: Study despondency); \* $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\* $p < 0.001$

### **Coping Self-efficacy**

Results revealed most of the participants got the highest coping self-efficacy scores in Factor 1, the use of problem-focused coping (mean or  $M = 6.17$ ,  $SD = 2.25$ ) as shown in Figure 2. This is followed by getting support from friends and family (Factor 2) ( $M = 5.58$ ,  $SD = 2.47$ ) and stopping unpleasant emotions and thoughts (Factor 3) ( $M = 5.55$ ,  $SD = 2.38$ ). One-way ANOVA was tested at a 0.05 level of significance to determine if there is any significant difference in the mean scores of CSES among students in the three factors. To ascertain the direction of the difference, a post hoc analysis using *Scheffe* method was done. The results of the post-hoc analysis indicated statistically different mean scores between Factor 1, Factor 2, and 3 ( $p < .001$ ). No significant difference was found between Factor 2 and Factor 3 ( $P = 0.98$ ). This only shows that most of the students are confident in utilizing strategies in Factor 1 in terms of managing academic stress.

**Figure 2**

*One-way ANOVA with Scheffe Posthoc Method Results of the Mean Score Differences among the CSES Factors*



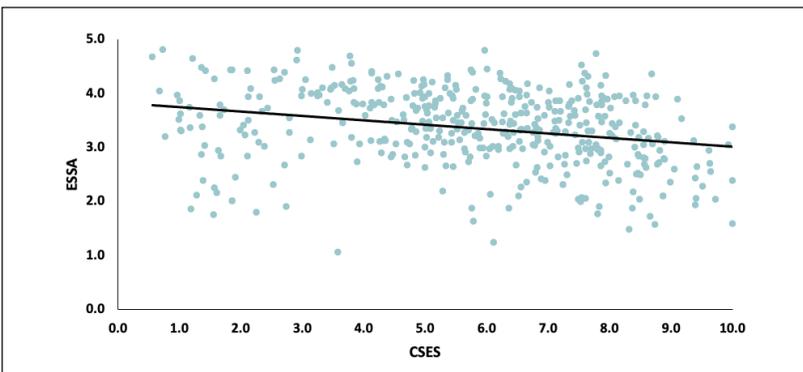
Note: Factor 1: Use problem-focused coping; Factor 2: Stop unpleasant emotions and thoughts; Factor 3: Get support from friends and family); \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

### ESSA and CSES Correlation

Spearman rank correlation revealed that, although not statistically strong, there was a significant negative correlation ( $p < .001$ ) between academic stressors and coping self-efficacy scores of the participants -0.26 (95% CI: -0.35, -0.17) as shown in Figure 3.

**Figure 3**

*Spearman Rank Correlation Results between ESSA and CSES Scores*



## Predictors of Stress and Coping Self-Efficacy

**Table 2**

*Multiple Regression Results for the Predictors of Academic Stress and Coping Self-Efficacy*

Variables	Predictors	B	t	p-value	95% CI
Academic Stress (ESSA)	Female	.117	2.48	.01	0.03, 0.30
	SHS2	.083	1.77	.08	-0.01, 0.24
	HUMSS	.123	2.60	.01	0.06, 0.40
Coping Self-efficacy (CSES)	Female	-0.15	-3.21	.001	-1.09, -0.26
	Mother Unemployed	-0.11	-2.33	.02	-1.30, -0.11
	Mother WFH	-0.08	-1.75	.08	-0.84, 0.05

*Note:*  $\beta$  – standardized beta coefficients; 95% confidence intervals (CI) were transformed using Fisher’s R-to-Z; SHS 2 – Senior High School 2; HUMSS – Humanities and Social Sciences; WFH – Work from Home

To develop a model for predicting ESSA and CSES scores among students during the implementation of distance learning, a multiple linear regression analysis was conducted. The dependent variables introduced into the regression model were the following: gender, level, age, SHS strand, place of residence, family set-up, parents’ occupation (father/mother), parents’ work set-up (father/mother), and number of siblings who are enrolled in distance learning.

Multiple linear regression analysis found significant regression equations in ESSA and CSES among the students as shown in Table 2. It shows that stress scores increased significantly more in students who are females whereas they decreased significantly more in males. Being an SHS 2 also tended to increase ESSA scores more than those who are in SHS 1. Further, those enrolled in the HUMSS strand are more likely to get high ESSA scores than those who are enrolled in other strands. Additionally, females score relatively low in coping self-efficacy compared to males whose mother is unemployed and/or mother is currently working from home than those whose mother is employed and usually goes to the office to work.

## DISCUSSION

The current research aimed to investigate the impact of distance learning implemented as a substitute for the traditional in-person

curriculum during the COVID-19 pandemic, on academic stress and coping self-efficacy among SHS students. Some of the studies attempt to determine the academic stress of students either in the traditional learning environment or under the distance learning approach. Furthermore, the majority of studies related to student academic stress focus on the identification of particular coping mechanisms. Thus, this study has the potential to make a valuable contribution to the existing body of research on academic stress among students during the pandemic as well as the coping self-efficacy to be examined as a specific domain of self-efficacy that can influence students in managing challenging academic demands.

Consequently, the study's results revealed that self-expectation and workload emerged as the predominant factors contributing to academic stress among secondary high school students during the implementation of distance learning. Students have higher confidence in utilizing problem-solving coping as an approach to manage the academic stress they encounter during these times. The study also reveals female gender, level, and HUMSS strand increase stress scores and significantly decrease for female students whose mother is unemployed or whose mother is in work from home setup. Other studies may consider exploring more on the dynamics of these variables concerning stress and coping self-efficacy among students. The negative relationship between stress and coping self-efficacy indicates that as the students score higher in academic stress, they tend to score lower in coping self-efficacy.

The findings highlight that the most common domain-specific source of stress (determined by mean scores in 5 dimensions of ESSA) can be found in two dimensions: Factor 4: Self-expectation and Factor 2: Workload. Similar results were reported in previous related surveys conducted among freshmen college students (Calaguas, 2013; Nguyen, 2015). For Asians, academic achievement is viewed as important but becomes a source of stress when associated with expectations from self and others (Calaguas, 2013) even significant people particularly parents may influence one's self-expectation (Nguyen, 2015), which may lead to unrealistic goals and result to anxiety upon failing to meet these standards (Ajmal & Ahmad, 2019). In this study, the students express their apprehension and experience stressful emotions when they fail to meet their standards or set goals which gives them a sense of inadequacy. Students' inability to complete academic tasks give a

sense of achievement and failure to meet this goal may also be a form of stress.

The workload is another source of academic stress among SHS students identified in this study. Workload pertains to requirements such as assignments and tests. This is comparable to findings of what university students had reported under the traditional face-to-face learning approach (Amposah et al., 2020; Okoro, 2018) where academic/coursework demands (school requirements, studying amount of information in a very short time for examination) was the highest perceived stressors. Comparably, undergraduate college students under the distance learning condition in Ghana, also reported that academic workload, high frequency of examination, financial problems, and family/marriage problems were the major causes of their stress (Kwaah & Essilfie, 2017). With this, findings may also support other studies relating to student academic stress and distance learning implemented during the COVID-19 pandemic which further shows that students are more anxious about distance learning approach because they are not able to discuss their concerns with teachers, lack of interaction with classmates and academic workload which somehow affect their academic performance (Ajmal & Ahmad, 2019)

Despondency is another academic stress experienced by SHS students in this study. This pertains to dissatisfaction with oneself and a lack of self-confidence in academic activities. Students are unable to concentrate during classes. This finding is essential for educators to take into consideration, students who are having a challenging time participating in distance learning as a mode of instruction since they also have to spend time looking at the screen to listen to discussions during synchronous classes.

Freshmen nursing students reported academic factors as the highest cause of stress and most of them use problem-solving and problem-focused engagement to cope which includes creating an action plan, address in the subject matter, and trying to solve the problem (Aini, 2017). Further, Grade VIII junior high school students had a significant decrease in academic stress when they used a problem-coping strategy which involves defining problems and considering alternative solutions to solving problems (Mujahidah et al., 2019). The result of the abovementioned studies supports the findings of this study where SHS students coping self-efficacy scores reveal that

they are more confident to use problem-focused coping as a means to manage academic stress.

Moreover, the findings are in congruence with the previous survey conducted that shows a significant negative correlation between academic stress and coping self-efficacy. Coping self-efficacy predicted well-being in higher education students (Schneider, 2020) and individuals with higher levels of coping self-efficacy were found to have significantly better mental health conditions (Bonner, 2015). On the other hand, low self-efficacy was strongly related to high levels of depression and anxiety (Tahmassian & Moghadam, 2011). However, these associations are cross-sectional; therefore, we cannot determine cause and effect. Thus, developing coping self-efficacy among students is beneficial in dealing with academic stressors. It can be an important variable for academic application.

In the model of regression analysis, stress scores increased significantly more in students who are females whereas they decreased significantly more in males. Being a SHS 2 also tended to increase ESSA scores more than those who are in SHS 1. Further, those enrolled in the HUMSS strand are more likely to get high ESSA scores than those who are enrolled in other strands. Additionally, females score relatively low in coping self-efficacy compared to males whose mother is unemployed and/or mother is currently working from home than those whose mother is employed and usually goes to the office to work. No literature evidence would confirm the association of low coping self-efficacy among students as far as parents' employment status and parents' work status are concerned. Therefore, this significant finding may contribute to studies concerning this variable for future reference. However, it is important to note the results of the study which show an inverse correlation between ESSA and CSES scores, indicating that higher stress is linked to low coping self-efficacy. As mentioned in the previous findings, female and those with low coping self-efficacy are at risk of stress and anxiety (Morales-Rodriguez & Pérez-Mármol, 2019) therefore, we can identify that female whose mother is unemployed tends to have difficulty coping with challenges than those female students whose mother is employed. Unemployment has been seen to be a complex situation where family members may suffer the effects when parents lose their jobs (Frasquilho et al., 2016). With only one parent being employed, this reduces family income and increases the feeling of uncertainty among female students which may result in a

perceived risk of continuing tertiary education. Moreover, in terms of students whose mothers are working from home are also found to have more difficulty managing stress than female students whose mothers are going to work, which provides more time to spend with children. However, given some time, conflict due to differences may also arise between adolescents and parents. This setup is a tough routine among parents' especially mothers since they are taking simultaneously roles of child-rearing, home, and work responsibilities (Bhamani et al., 2020). These two situations may be a source of parental distress affecting wellbeing among children (Amrock & Weitzman, 2014).

In this study, gender turned out to be a predictor of high-stress scores together with level and being in the HUMSS strand. Additionally, age, present residence, living condition, parents' occupation, parents' work set-up, and number of siblings studying, turned out to be insignificant predictors to stress in distance learning during the pandemic. Consistent with previous findings, female students scored significantly higher than males (Anbumalar et al., 2017; Alateeq et al., 2020; Ramon-Arbués et al., 2020; Aslan et al., 2020; Hanna et al., 2018; Misigo, 2015; Wuthrich et al., 2020) and it is important to give attention to this since it can be a risk factor to anxiety symptoms (Liu, 2017). One explanation for this is that female students are more likely to be more concerned about meeting academic expectations and demands (Gefen & Fish, 2012).

Year level is also associated with stress. SHS 2 is the graduating period in high school that scored significantly higher in ESSA than those who are freshmen in SHS. This is also evident in others related studies where students who are in the final year of schooling are vulnerable to at risk to academic stress (Laguador et al., 2013; Elias et al., 2011; Liu, 2017; Çetinkaya, 2019). This may be accounted for the academic demands the students have to submit research papers and other requirements needed for their completion (Laguador et al., 2013) and expectations about the future where students need to carefully plan their lives after graduation including career decisions on whether to pursue university course or apply for jobs (Infantolino, 2017). Students at SHS 2 level faced higher academic demands than those who are in SHS 1 since they have to complete academic research and pass the oral defense along with the responsibility of preparing for application to different colleges and universities. This is also the period they need to make major decisions like continuing the

career path aligned to their chosen strand or shifting to another option. Being enrolled in the HUMSS strand also predicts high stress than those who are in other strands as revealed in this study. Those who are enrolled in this strand are more likely to be considered by those who aspire journalism, communication arts, liberal arts, education, and other social science-related courses in college (De Vera & De Vera, 2018), and most of the learning areas under this curriculum focus on enhancing communication skills (Cortes, 2016). Thus, students enrolled in this program entail to be being provided with activities that promote social connection. However, this has not been possible because of the physical distancing as part of the COVID-19 health protocols being implemented which increases students' stress and anxiety because of feelings of isolation (Elmer, 2020) and inability to develop this skill. This result supports other studies which found that those who are enrolled in Arts and social sciences are more susceptible to stress and anxiety symptoms (Bourion-Bedes et al., 2020; Odriozola-Gonzales et al., 2020).

The study has some limitations and strengths. As a limitation, an online survey method was used, which could have contributed to some bias in the study results. Since the study was based on a self-reported questionnaire, social desirability may exist in the data collected and the students' responses may be affected by how they interpret items in the survey. Additionally, students may have exaggerated or underreported stress or coping self-efficacy because of fear of being evaluated. The study was limited to one private school; thus, the results cannot be generalized SHS student population. To facilitate the generalization of the results, using additional data in a wider study is needed involving students from another geographical context. Future research may also try to examine the implication of other learning modalities approaches among students in government schools. Despite its limitations, the study offers valuable information that helped gain into students' well-being under the learning conditions during this pandemic.

## **CONCLUSION**

This study demonstrated the feasibility of identifying academic stressors, coping with self-efficacy, and investigating their relationship during the implementation of distance learning amid the COVID-19 pandemic. The results suggest that most female SHS students and

those with low self-efficacy experience academic stress particularly on self-expectation and workload. This may be attributed that distance learning is an outcome-based approach where students must learn independently and submit requirements at a given time. As a result, this creates expectations among self and others where students need to meet academic tasks while teachers measure learning outcomes based on submitted output. As proven in the study, female gender, HUMSS strand, and being enrolled in SHS 2 increase academic stress while female students with unemployed mothers and mothers who are in work-from-home set-up decreases coping self-efficacy. With these findings, school administration should organize intervention programs aimed at alleviating the effects of stress brought by the shift of mode of learning and may consider more specialized programs for female students with these socio-demographic profiles. SHS students should be provided with activities that would help them develop coping self-efficacy since studies have shown that it is associated its well-being. By integrating the development of coping self-efficacy among psychoeducation programs in schools, students may be able to manage and reduce the negative impact of academic stress.

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### REFERENCES

- Adom, D., & Chukwuere, J., & Osei, M. (2020). Review: Academic stress among faculty and students in higher institutions. *Journal of Humanities and Social Sciences*, 28. 1055-1064. <https://www.researchgate.net/publication/342410787>
- Aini, N. (2017). Identifying the sources of academic stress and coping strategies in new nursing students. *Advances in Health Sciences Research* 2, 73-81. <https://doi.org/10.2991/hsic-17.2017.11>
- Ajmal, M., & Ahmad, S. (2019). Exploration of anxiety factors among students of distance learning: A case study of Allama Iqbal Open University. *Bulletin of Education and Research August 2019*, 41(2), 67-78. <https://files.eric.ed.gov/fulltext/EJ1229454.pdf>

- AlAteeq, D. A., Aljhani, S., & AlEesa, D. (2020). Perceived stress among students in virtual classrooms during the COVID-19 outbreak in KSA, *Journal of Taibah University Medical Sciences, 15*(5), 398-403, <https://doi.org/10.1016/j.jtumed.2020.07.004>
- Amponsah, K. D., Adasi, G., Mohammed, S., Ampadu, E., & Okrah, A. (2020). Stressors and coping strategies: The case of teacher education students at University of Ghana. *Cogent Education, 7*(1). <https://doi.org/10.1080/2331186X.2020.1727666>
- Amrock, S. M., & Weitzman, M. (2014). Parental psychological distress and children's mental health: Results of a national survey. *Academic Pediatrics, 14*(4), 375-381. <https://doi.org/10.1016/j.acap.2014.02.005>
- Anbumalar, C., Dorathy, A. P., Jaswanti V. P., Priya, D., & Reniangelin, D. (2017). Gender differences in perceived stress levels and coping strategies among College students. *International Journal of Indian Psychology, 4*(4). <https://doi.org/10.25215/0404.103>
- Aslan, I., Ochnik, D., & Çınar, O. (2020). Exploring perceived stress among students in Turkey during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health, 17*(23). <https://doi.org/10.3390/ijerph17238961>
- Austria-Cruz, M. A. (2019). Academic Stress and coping Strategies of Filipino College Students in private and public universities in Central Luzon. *International Journal of Advanced Engineering, Management and Science, 5*(11), 603-607. <https://dx.doi.org/10.22161/ijaems.511.6>
- Barrot, J. S., Llenares, I. I., & del Rosario, L. S. (2021). Students' online learning challenges during the pandemic and how they cope with them: The case of the Philippines. *Education and Information Technology, 26*, 7321-7338. <https://doi.org/10.1007/s10639-021-10589-x>
- Bhamani, S., Makhdoom, A. Z., Bharuchi, V., Ali, N., Kaleem, S., & Ahmed, D. (2020). Home learning in times of COVID: Experiences of parents. *Journal of Education and Educational Development, 7*(9), 9-26. <https://doi.org/10.22555/joed.v7i1.3260>
- Bautista, A. M., & Manuel, E. S. (2020). Mental health of students in the Philippines during pandemic: An assessment. *Journal of Humanities and Education Development, 2*(5), 316-323. <https://doi.org/10.22161/jhed.2.5.2>

- Belay, D. G. (2020). COVID-19, distance learning and educational inequality in rural Ethiopia. *Pedagogical Research*, 5(4). <https://doi.org/10.29333/pr/9133>
- Bersales, L. S. (2018, June). *Philippine Figures in 2018*. Philippine Statistics Authority. <https://psa.gov.ph/sites/default/files/PIF%202018.pdf>
- Bonner, C. (2015). *Moderating Effects of Coping Self-Efficacy and Coping Diversity in the Stress Health Relationship in African American College Students* (Unpublished doctoral dissertation, Old Dominion University). [https://digitalcommons.odu.edu/psychology\\_etds/254/](https://digitalcommons.odu.edu/psychology_etds/254/)
- Bourion-Bédès, S., Tarquinio, C., Batt, M., Tarquinio, P., Lebreuilly, R., Sorsana, C., Legrand, K., Rousseau, H., & Baumann, C. (2021). Stress and associated factors among French University students under the COVID-19 lockdown: The results of the PIMS-CoV 19 study. *Journal of Affective Disorders*, 283, 108–114. <https://doi.org/10.1016/j.jad.2021.01.041>
- Calaguas, G. M. (2013). Parents/teachers and self-expectations as sources of academic stress. *International Journal of Research Studies in Psychology*, 2(1), 43-52. <https://doi.org/10.5861/ijrsp.2012.136>.
- Çetinkaya, T. (2019). The analysis of academic motivation and career stress relationships of the students in department of Physical Education and Sport. *International Education Studies*, 12(4), 24-35. <https://doi.org/10.5539/ies.v12n4p24>.
- Chesney, M. A., Neilands, T. B., Chambers, D. B., Taylor, J. M., & Folkman, S. (2006). A validity and reliability study of the coping self-efficacy scale. *British Journal of Health Psychology*, 11(3), 421–437. <https://doi.org/10.1348/135910705X53155>
- Comendador, J., Encarnacion, S., Molleno, M., Espaldon, J., & Francisco, C. (2021). Coping Mechanisms of the Senior High School Students during COVID-19 Pandemic. *International Journal of Academic Multidisciplinary Research (IJAMR)*, 5(4), 198-205. <http://ijeais.org/wp-content/uploads/2021/4/IJAMR210439.pdf>
- Cortes, A. P. (2016). *Communication Strategies of Senior High School Students Towards the Improvement of their English Oral Communication* (Unpublished Master's thesis, University of the Philippines Cebu). academia.au. [https://www.academia.edu/35005080/Research\\_Paper\\_of\\_Arnel\\_P\\_Cortes\\_MED\\_ESL](https://www.academia.edu/35005080/Research_Paper_of_Arnel_P_Cortes_MED_ESL)

- De Vera, J. S., & De Vera, P. V. (2018). Oral communication skills in English among Grade 11 Humanities and Social Sciences (HUMSS) students. *Asian ESP Journal*, 14(5), 30-52. <https://eric.ed.gov/?id=ED604403>
- Egwolf, B., & Austriaco, N. (2020). Mobility-guided modeling of the COVID-19 pandemic in metro Manila. *Philippine Journal of Science*, 149(3), 857-868. <https://doi.org/10.1101/2020.05.26.20111617>
- Elias, H., Ping, W. S., & Abdullah, M. C. (2011). Stress and academic achievement among students in Universiti Putra Malaysia. *Procedia - Social and Behavioral Sciences*, 29, 646–655. <https://doi.org/10.1016/j.sbspro.2011.11.288>.
- Elmer, T., Mephram, K., & Stadtfeld, C. (2020). Students under lockdown: Comparisons of students' social networks and mental health before and during the COVID-19 crisis in Switzerland. *PloS one*, 15(7). <https://doi.org/10.1371/journal.pone.0236337>
- Evans, D., Borriello, G. A., & Field, A. P. (2018). A review of the academic and psychological impact of the transition to secondary education. *Frontiers in Psychology*, 9. <https://doi.org/10.3389/fpsyg.2018.01482>
- Frasquilho, D., de Matos, M. G., Santos, T., Gaspar, T., & de Almeida, J. C. (2016). Unemployment as a source of mental distress to individuals and their family: Unemployed parents' perceptions during the economic recession. *International Journal of Social Psychiatry*, 62(5), 477-486. <https://doi.org/10.1177/0020764016650469>.
- Gefen, D. R., & Fish, M. C. (2012). Gender differences in stress and coping in first-year College students. *Journal of College Orientation, Transition, and Retention*, 19(2), 18-31. <https://doi.org/10.24926/jcotr.v19i2.2797>
- George, D., & Mallery, P. (2013). *SPSS for Windows step by step: A simple guide for reference 11.0* (4th ed.). Allyn & Bacon.
- Grubic, N., Badovinac, S., & Johri, A. M. (2020). Student mental health amid the COVID-19 pandemic: A call for further research and immediate solutions. *International Journal of Social Psychiatry*, 66(5), 517-518. <https://doi.org/10.1177/0020764020925108>
- Guo, T., Ni, Y., Li, Q., & Hong, H. (2019). The Power of faith: The influence of athletes' coping self-efficacy on the cognitive processing of psychological stress. *Frontiers in Psychology*, 10, 1565. <https://doi.org/10.3389/fpsyg.2019.01565>

- Hanna L., Wilson M., Hall M., & Hanna, A. (2018). A questionnaire study to investigate stress among future pharmacists by gender and year group. *Pharmacy*, 6(3). <https://doi.org/10.3390/pharmacy6030075>.
- Huang, R., Tlili, A., Chang, T., Zhang, X., Nascimbeni, F., & Burgos, D. (2020). Disrupted classes, undisrupted learning during COVID-19 outbreak in China: Application of open educational practices and resources. *Smart Learning Environments*, 7(1), 19. <https://doi.org/10.1186/s40561-020-00125-8>
- Inter-Agency Standing Committee. (2020, July 14). *Interim Guidance: Public Health and Social Measures for COVID-19 Preparedness and Response in Low Capacity and Humanitarian Settings*. United Nations Office for Coordination of Human Affairs. <https://interagencystandingcommittee.org/health/interim-guidance-public-health-and-social-measures-covid-19-preparedness-and-response-operations-low>
- Infantolino, M. (2017). *High School Seniors' Perceived Stress of the College and Career Decision-Making Process*. (Unpublished Master's thesis, Counselor Education Capstone). Core.ac.uk. <https://core.ac.uk/download/pdf/233575972.pdf>
- Kwaah C. Y., & Essilfie, G. (2017). Stress and coping strategies among distance education students at the University of Cape Coast, Ghana. *Turkish Online Journal of Distance Education*, 18(3), 120-120. <https://doi.org/10.17718/tojde.328942>.
- Laguador, J., Ramirez, Y. P., & Pagcalinawagan, A. (2013). Vulnerability of the graduating students to different symptoms of stress and its influence to level of satisfaction. *International Journal of Behavioral Science and Movement Science*, 2, 50-55. <https://www.researchgate.net/publication/311411582>
- Liu, F. (2017). *Academic stress and mental health among adolescents in Shenzhen, China*. (Unpublished Bachelors thesis, Queensland University of Technology). QUT ePrints. [https://eprints.qut.edu.au/107980/1/Fan\\_Liu\\_Thesis.pdf](https://eprints.qut.edu.au/107980/1/Fan_Liu_Thesis.pdf)
- Mascheroni, G., Saeed, M., Valenza, M., Cino, D., Dreesen, T., Zaffaroni, L. G., & Kardefelt-Winther, D. (2021). *Learning at a distance: Children's remote learning experiences in Italy during the COVID-19 pandemic*. (Innocenti Research Report). UNICEF Office of Research. <https://www.unicef-irc.org/publications/pdf/learning-at-a-distance-childrens-remote-learning-experiences-in-italy-during-the-covid-19-pandemic.pdf>

- Misigo, B. L. (2015). Gender difference in the perceived level of stress and coping strategies among university students in Kenya: A case of public universities. *International Academic Journal of Social Sciences and Education, 1*(4), 44-52. <https://files.eric.ed.gov/fulltext/EJ1248297.pdf>
- Morales-Rodríguez, F. M., & Pérez-Mármol, J. M. (2019). The role of anxiety, coping strategies, and emotional intelligence on general perceived self-efficacy in University students. *Frontiers in Psychology, 10*. <https://doi.org/10.3389/fpsyg.2019.01689>
- Mujahidah, N. E., Astuti, B., & Nhung, L. A. (2019). Decreasing academic stress through problem-focused coping strategy for junior high school students. *Psychology, Evaluation, and Technology in Educational Research, 2*(1), 1-9. <http://doi.org/10.33292/petier.v2i1.25>.
- Nguyen, H. T. (2015). *Academic Expectations Stress in Asian American Undergraduate Students – A Revalidation Study*. (Unpublished Doctoral dissertation, Texas A & M University). Oaktrust. <https://oaktrust.library.tamu.edu/handle/1969.1/156242>
- Nicola, T., Gable, A., & Ash, J. (2020). *The response of rural districts to the Covid-19 pandemic*. National Center for Education Policy Research. <https://cepr.harvard.edu/publications/response-rural-districts-covid-19-pandemic>
- Okoro, E. (2018). *Assessment of stress related issues & coping mechanisms among college students*. (Unpublished Master's thesis). <https://cornerstone.lib.mnsu.edu/etds/825>
- Odrozola-González, P., Planchuelo-Gómez, Á., Iruetia, M., & de Luis-García, R. (2020). Psychological effects of the COVID-19 outbreak and lockdown among students and workers of a Spanish university. *Psychiatry Research, 290*. <https://doi.org/10.1016/j.psychres.2020.113108>
- Ramón-Arбуés, E., Gea-Caballero, V., Granada-López, J. M., Juárez-Vela, R., Pellicer-García, B., & Antón-Solanas, I. (2020). The prevalence of depression, anxiety and stress and their associated factors in college students. *International Journal of Environmental Research and Public Health, 17*(19). <https://doi.org/10.3390/ijerph17197001>
- Rotas, E., & Cahapay, M. (2021). From stress to success: Exploring how Filipino students cope with remote learning amid COVID-19 pandemic. *Journal of Pedagogical Sociology and Psychology, 3*(1), 27-35. <https://doi.org/10.33902/JPSP.2021366608>

- Schneider, L. (2020). *The mediating role of coping self-efficacy on the relationship between strengths use and well-being among higher education students*. (Bachelor's thesis). <http://essay.utwente.nl/81734/>
- Shahmohammadi, Nayereh. (2011). Students' coping with Stress at high school level particularly at 11th & 12th grade. *Procedia - Social and Behavioral Sciences*, 30, 395–401. <https://doi.org/10.1016/j.sbspro.2011.10.078>
- Sibinga E. M., Webb L., Ghazarian S. R., & Ellen J. M. (2016). School-based mindfulness instruction: An RCT. *Pediatrics*, 137(1). <https://doi.org/10.1542/peds.2015-2532>.
- Son, C., Hegde, S., Smith, A., Wang, X., & Sasangohar, F. (2020). Effects of COVID-19 on college students' mental health in the United States: Interview Survey Study. *Journal of Medical Internet Research*, 22(9). <https://doi.org/10.2196/21279>
- Sun, J., Dunne, M. P., Hou, X., & Xu, A. (2011). Educational stress scale for adolescents: Development, validity, and reliability with Chinese students. *Journal of Psychoeducational Assessment*, 29(6), 534-546. <https://doi.org/10.1177/0734282910394976>.
- Tahmassian, K., & Moghadam, N. J. (2011). Relationship between self-efficacy and symptoms of anxiety, depression, worry and social avoidance in a normal sample of students. *Iranian Journal of Psychiatry and Behavioral Sciences*, 5(2), 91-98. <https://pubmed.ncbi.nlm.nih.gov/24644452/>
- Tee M. L., Tee C. A., Anlacan J. P., Aligam K. G., Reyes P. C., Kuruchittham, 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>.
- Toquero, C. D., & Talidong, K. B. (2020). Socio-educational implications of technology use during COVID-19: A case study in General Santos City, Philippines. *Human Behavior and Emerging Technologies*, 3. <https://doi.org/10.1002/hbe2.214>.
- UNICEF. (2020). *Uganda Country Office: COVID-19 Situation Report No.3*. <https://www.unicef.org/media/75946/file/Uganda-COVID19-SitRep-15-June-2020.pdf>
- United Nations. (2020). *Policy Brief: Education during COVID-19 and beyond*. [https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/08/sg\\_policy\\_brief\\_covid-19\\_and\\_education\\_august\\_2020.pdf](https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/08/sg_policy_brief_covid-19_and_education_august_2020.pdf)

- World Bank. (2020). *Guidance Note: Remote Learning & COVID-19*. <http://documents1.worldbank.org/curated/en/450881585235950757/Guidance-Note-on-Education-Systems-Response-to-COVID19.pdf>
- World Health Organization. (2020). *Coronavirus Disease 2019 (COVID-19) Situation Report*. (Report No.94). <https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200423-sitrep-94-covid-19.pdf>
- Wuthrich, V. M., Jagiello, T., & Azzi, V. (2020). Academic stress in the final years of school: A systematic literature review. *Child Psychiatry and Human Development, 51*(6), 986-1015. <https://doi.org/10.1007/s10578-020-00981-y>
- Yasmin, H., Khalil, S., & Mazhar, R. (2020). COVID 19: Stress management among students and its impact on their effective learning. *International Technology and Education Journal, 4*(2), 65-74. <https://files.eric.ed.gov/fulltext/EJ1286695.pdf>
- Zulkosky, K. (2009). Self-efficacy: A concept analysis. *Nursing Forum, 44*, 93-102. <https://doi.org/10.1111/j.1744-6198.2009.00132.x>