



**COPING STRATEGIES ON FLEXIBLE LEARNING OF BS PHARMACY STUDENTS IN
CENTRO ESCOLAR UNIVERSITY - MANILA AMID COVID-19 PANDEMIC**

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ABSTRACT

Flexible learning became an obligatory alternative to the traditional classroom set-up when educational institutions were obliged by the Commission on Higher Education to continue students' learning amid the COVID-19 pandemic. Centro Escolar University – Manila is among the universities in the Philippines that shifted to flexible learning including an online modality known as CEU Learning Engagement and Proficiency System (CEU LEAPS). It is a challenging phase among students unlike in a conventional way of learning. Nonetheless, students' coping strategies can help them get through difficulties in flexible learning. This study aimed to determine the coping strategies of CEU Manila BS Pharmacy students on flexible learning during a pandemic. This cross-sectional study employed a descriptive quantitative method. Participants were selected randomly by means of convenience method. An online survey was conducted to gather data. Modified standardized Ways of Coping Questionnaire by Folkman and Lazarus was used as the survey instrument. Thereafter, frequency distribution, mode, logistic regression, chi-square test, and Cochran–mantel–haenszel test were facilitated to analyze and interpret the data collected. Based on findings, males are found significantly associated in using active coping strategies particularly in seeking social support and positive reappraisal. Moreover, the null hypothesis of the study was rejected and concluded that active coping strategies are utilized more by the students in flexible learning amid pandemic.

KEYWORDS: Coping strategies, active coping, passive coping, COVID-19, flexible learning, CEU-Manila, pharmacy students.

INTRODUCTION

The outbreak of COVID-19 had a huge impact on different establishments specifically on the education sector. In the Philippines, President Rodrigo Roa Duterte announced that a vaccine must be accessible first before going back to face-to-face learning (CNN Philippines, 2020). Commission on Higher Education said that the utilization of flexible learning among schools, colleges, and universities in order to continue the education of Filipino students is an effective solution (Cervantes, 2020). Among those that complied is Centro Escolar University Manila applied the Centro Escolar University Manila Learning Engagement and Proficiency System (CEU LEAPS) which provides an online learning modality for the students. This includes synchronous and asynchronous classes where completion of requirements is self-paced. Teachers are to instruct lessons on students through virtual classes. (Centro Escolar University, 2020). As a further matter, this unconventional way of learning can be challenging among students. It may imply difficulties whether it be on retention of online lessons, internet connectivity, gadget accessibility and so on. Students may have different strategies in order to cope academically amid the pandemic. Coping strategies

are essential for students to handle external stressors specifically on the challenges of flexible learning. The modified Ways of Coping Questionnaire by Folkman and Lazarus categorized the coping strategies into active coping strategies and passive coping strategies. The active coping strategies include, confrontive coping, seeking social support, planful problem-solving, and positive reappraisal. The passive coping strategies consist of distancing, self-controlling, accepting responsibility, and escape-avoidance (Yazon, 2018). Therefore, this study aims to determine the coping strategies on flexible learning of BS Pharmacy students in Centro Escolar University – Manila amid a pandemic.

Methods

The study employed a cross-sectional descriptive quantitative method. The purpose of a descriptive method is to identify frequencies, characteristics, trends, and categories to describe a population in a systematic manner (McCombes, 2020).

Questionnaire Design

The standardized ways of coping questionnaire survey instruments used in the study was modified for relevance

in the present situation of the BS Pharmacy students in CEU-Manila. A report of Cronbach alpha 0.85 was interpreted as a high-reliability score for the questionnaire (Yazon, 2018). The 32-items are indicators of certain coping strategies that were randomly arranged in the questionnaire. It involves a 5-point likert-scale with choices of Always, Often, Sometimes, Rarely, and Never.

Respondents and Sample Size

The respondents of this study were the pharmacy students of Centro Escolar University-Manila with 927 total number (N) of the population enrolled in the first semester of Academic Year 2020-2021. Sample size was calculated with the use of Slovin's formula with 523 number of respondents (n) involved.

Sampling Technique

A proportionate stratified random sampling technique was used to separate the population into the First Year, Second Year, and Third year understudies.

Data Collection

Convenience method was utilized to determine the respondents. The questionnaire was distributed through Google forms and the link was sent through CEU-Gmail for convenience. Respondents were given voluntary willingness to join or not, no coercion was taken place and all the necessary conditions that they encountered were included. All data given by the respondents to the researchers were protected and confidential. Collected data were processed based from the tally derived from Google Form.

Statistical Treatment of Data

Frequency distribution, percentage, mode, were used in determining the coping strategies. Logistic regression was used to determine the significant association of age and gender among active and passive coping strategies while Chi-square test and cochrans-mantel-haenszel test was used to test the significant difference between active and passive coping strategies according to the respondents' year level.

Ethics Approval

The study protocol was granted the approval of the Institutional Ethics Review Committee (IERC) of Centro Escolar University under the Office of Research and Evaluation. The researchers were permitted to proceed to data collection.

RESULTS AND DISCUSSION

The demographic information of the study respondents

Most of the respondents fall under the age of 20 years old with the highest frequency of 184 (35.2%), followed by a group of respondents that fall under the age of 19 and 21 years old, with a frequency of 152 (29.1%) and 117 (22.4%), respectively. This indicates that the usual age of enrollees of School of Pharmacy at Centro Escolar University during the period of the study

is 21 years old and below while a minority of age group would be 22 years old and older.

Distribution of the Respondents in terms of Gender

Majority of the respondents of the study are female with 82.8% and frequency of 433. The rest of the respondents are male with 17.2% and a frequency of 90.

Distribution of the Respondents in terms of Year Level

Most number of the respondents fall under the category of 2nd year level students with a 34.6 percentage and a frequency of 181 whereas the least number of respondents falls under the category of 3rd year level students with a 31.0 percentage and a frequency of 162.

Mode assessment on Coping Strategies Among Respondents

Mode is used to determine the data that occurs most frequent in a group of data. It measures the central tendency of a non-continuous or nominal data (Bhandari, 2020). To get the mode, data are set categorically based on coping strategies. The 5-point-likert frequency scale utilized in the survey questionnaire which comprises never, rarely, sometimes, often, and always are the determinants of mode. The most frequent response is the mode.

Table 1: Mode assessment of Active Coping Strategies.

Active Coping Strategies	Responses (n, %)			
	Never	Rarely	Sometimes	Often
Confronting Coping				
I would let my frustration out and recognize things to make changes at least	7 (1.34%)	43 (8.22)	167 (31.93)	208 (39.77)
I try to push myself in continuing my tasks	1 (0.19%)	7 (1.34%)	54 (10.33%)	210 (40.15%)
I would challenge myself to solve the problem in a more creative way	3 (0.57%)	33 (6.31%)	123 (23.52%)	227 (43.40%)
I would express my emotions and behave in a way to let people know how I feel	13 (2.49%)	85 (16.25%)	179 (34.23%)	186 (35.56%)
Seeking Social Support				
I would talk to someone whom I know could help me resolve my problem	17 (3.25%)	58 (11.09%)	134 (25.62%)	166 (31.64%)
I ask advice from a relative or friend I respect	31 (5.93%)	83 (15.87%)	111 (22.75%)	148 (28.30%)
I accept sympathy and understanding from someone	6 (1.15%)	20 (3.82%)	108 (20.65%)	210 (40.15%)
I would talk to someone about my problem	9 (1.72%)	93 (17.78%)	187 (35.76%)	147 (28.11%)
Planful Problem Solving				
I do not allow myself to be distracted by anyone with what I am doing	4 (0.76%)	57 (10.90%)	190 (36.33%)	188 (35.95%)
I change my approach to the problem so it would turn out all right	4 (0.76%)	14 (2.68%)	111 (40.34%)	230 (43.98%)
I know what has to be done, so I will double my efforts to make things work	1 (0.19%)	7 (1.34%)	80 (15.30%)	218 (41.68%)
I come up with a couple of different solutions to the problem	2 (0.38%)	22 (4.21%)	127 (24.28%)	249 (47.61%)
Positive Reappraisal				
I am inspired to do something creative about the problem	5 (0.96%)	65 (12.43%)	190 (36.33%)	171 (32.70%)
I change something about myself	11 (2.10%)	37 (7.07%)	159 (30.40%)	219 (41.87%)
I rediscover what is important in life	4 (0.76%)	18 (3.44%)	90 (17.21%)	211 (40.34%)
I pray	15 (2.87%)	27 (5.16%)	75 (14.34%)	135 (25.81%)

Active Coping Strategies

Table 1 shows that in Confrontive Coping, 47.99% of the respondents always try to push themselves to continue their tasks. In Seeking Social Support, 40.15% of the respondents often accept sympathy and understanding from someone. Moreover, in Planful Problem-Solving, 47.61% of the respondents often come up with different solutions to the problem. Lastly, in Positive Reappraisal, 51.82% of the respondents always pray to manifest positivity in their schoolwork.

Passive Coping Strategies

Table 2 shows that in Distancing, 39.77% of the respondents always try to look on the bright side of things. In Self-Controlling, 41.68% respondents often try to keep their feelings from interfering with other things. Moreover, in Escape-Avoidance, 43.21% of the respondents always wish that the situation would go away or somehow be over with. Lastly, in Accepting Responsibility, 47.04% of the respondents often do something to make up for their mistakes.

Table 2 Mode assessment of Passive Coping Strategies.

Passive Coping Strategies	Responses (n, %)				
	Never	Rarely	Sometimes	Often	Always
Distancing					
I will not let it get me and refuse to think about it.	7 (1.34%)	46 (8.80%)	190 (36.33%)	202 (38.62%)	78 (14.91%)
I try to look on the bright side of things.	8 (1.53%)	28 (5.35%)	102 (19.50%)	177 (33.84%)	208 (39.77%)
I try to forget the whole thing.	27 (5.16%)	92 (17.59%)	184 (35.18%)	153 (29.25%)	67 (12.81%)
I make light of the situation and I refuse to get too serious about it.	10 (1.91%)	41 (7.84%)	195 (37.28%)	204 (39.01%)	73 (13.96%)
Self-Controlling					
I try to keep my feelings to myself.	9 (1.72%)	27 (5.16%)	111 (21.22%)	207 (39.58%)	169 (32.31%)
I think about how the person I admire/role model would handle it.	32 (6.12%)	61 (11.66%)	143 (27.34%)	152 (29.06%)	135 (25.81%)
I keep others from knowing how bad things were.	12 (2.29%)	50 (9.56%)	198 (37.86%)	171 (32.70%)	92 (17.59%)
I try to keep my feelings from interfering with other things.	5 (0.96%)	29 (5.54%)	144 (27.53%)	218 (41.68%)	127 (24.28%)
Escape - Avoidance					
I wish that the situation would go away or somehow be over with.	4 (0.76%)	12 (2.29%)	87 (16.53%)	194 (37.04%)	226 (43.21%)
I hope a miracle would happen.	21 (4.02%)	56 (10.71%)	98 (18.74%)	124 (23.71%)	224 (42.83%)
I sleep more than usual.	32 (6.12%)	88 (16.83%)	165 (31.55%)	116 (22.18%)	122 (23.33%)
I try to make myself feel better by eating, drinking, smoking, using drugs, or medication	96 (18.36%)	92 (17.59%)	120 (22.94%)	118 (22.56%)	97 (18.55%)
Accepting Responsibility					
I criticize or lecture myself.	5 (0.96%)	28 (5.35%)	107 (20.46%)	191 (36.52%)	192 (36.71%)
I do something to make up with my mistakes.	2 (0.38%)	12 (2.29%)	105 (20.08%)	246 (47.04%)	158 (30.21%)
I try to realize that I brought the problem onto myself.	7 (1.34%)	27 (5.16%)	124 (23.71%)	214 (40.92%)	151 (28.87%)
I make a promise to myself that things would be different next time.	2 (0.38%)	20 (3.82%)	84 (16.06%)	208 (39.77%)	209 (39.96%)

Significant association between age and gender among active and passive coping strategies.

Table 3: Association of Respondents' Age and Gender to the Active Coping Strategies.

Demographics	Confrontive Coping	Seeking Social Support	Planful Problem-Solving	Positive Reappraisal
	p value	p value	p value	p value
Age				
<20	(ref)	(ref)	(ref)	(ref)
20-25	0.8640	0.8030	0.4990	0.7810
>25	0.3470	0.8480	0.4740	0.5670
Gender				
Female	(ref)	(ref)	(ref)	(ref)
Male	0.2100	0.0349	0.3400	0.0309

Table 3 shows that in p-value, all agegroups have values greater than 0.05 which means that it is not significant.

Moreover, in the gender demographic of the male group, p-values less than 0.05 reflect in Seeking Social Support

(0.0349) and Positive Reappraisal(0.0309) subcategories which mean that male significantly factor in using active

coping strategies such as seeking social support and positive reappraisal.

Table 4: Association of Respondents' Age and Gender to the Passive Coping Strategies.

Demographics	Distancing	Self-Controlling	Escape – Avoidance	Accepting Responsibility
	p value	p value	p value	p value
Age				
<20	(ref)	(ref)	(ref)	(ref)
20-25	0.2400	0.9600	0.6130	0.1930
>25	0.1440	0.4390	0.8970	0.9000
Gender				
Female	(ref)	(ref)	(ref)	(ref)
Male	0.7150	0.1520	0.1040	0.9480

Table 4 shows that the p value of the age and gender demographics are greater than 0.05, hence, there is no significant association found between demographics and passive coping strategies.

Significant difference between active and passive coping strategies according to the year level of respondents.

Table 5 Test for independence among year levels based on specific active coping strategies.

Active Coping Strategies	x ²	p value
Confronting Coping	21.789	0.7002
Seeking Social Support	44.911	0.0645
Planful Problem Solving	25.713	0.4790
Positive Reappraisal	25.915	0.5777

Table 5 shows that the four subcategory of the active coping strategies have no significant difference among year levels having a p value of more than 0.05. This implies that based on specific categories of active coping strategies, there is insufficient evidence to prove that a specific category is inclined by the other.

Table 6: Test for independence among year levels based on specific passive coping strategies.

Passive Coping Strategies	x ²	P value
Distancing	33.049	0.3204
Self Controlling	17.429	0.8955
Escape – Avoidance	25.64	0.6934
Accepting Responsibility	34.782	0.0717

Table 6 shows that the four subcategory of the passive coping strategies have no significant difference among year levels having a p value of more than 0.05. This implies that the respondents' passive coping varies insignificantly on certain categories in accordance with the year level.

Table 7: Cochran–Mantel–Haenszel Test for independence between active and passive coping strategies among year levels.

	M ²	p value
Active vs Passive Coping strategies among Year Levels	6834.9	< 2.2e-16

Table 7 shows that the p value of year levels are less than alpha 0.05. The variables are dependent and a statistically significant difference between active and passive coping strategies is found among year levels. Cochran-Mantel-Haenszel test is utilized in order to further extend the investigation by looking into the individual tests of year levels when a significant result is found (Mangiafico, 2016).

Table 8: Fisher exact Post-hoc Tests among year levels.

Year Levels	p value
First Year	5e-04
Second Year	5e-04
Third Year	5e-04

Table 8 presents the individual test of each year levels having a p-value of less than alpha 0.05. Since the Cochran-Mantel-Haenszel test has shown a significant result, Fisher exact groupwise test is utilized to investigate the association of the stratified year levels. Therefore, a sufficient evidence against the null hypothesis is found, hence it is concluded that the null hypothesis of this study is rejected. Furthermore, the result is treated by a one-tailed chi-square test and shows that active coping strategies are utilized more by the BS Pharmacy students of CEU-Manila on flexible learning amid pandemic.

CONCLUSION

Based on findings, there is a significant difference among year levels' active and passive coping strategies, thus, the null hypothesis is rejected. The BS Pharmacy students in CEU Manila applied the active coping strategies especially during flexible learning amidst COVID-19 pandemic.

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