ORIGINAL ARTICLE

Coping Strategies Among Indonesian College Students During The Covid-19 Pandemic

Triyana Harlia Putri[1], Djoko Priyono[1], Iit Fitrianingrum[2]

[1] Department of Mental Health and Community, Nursing Study Program, Medical Faculty, University of Tanjungpura, 78124, Pontianak City,West Kalimantan, Indonesia
[2] Medical Faculty, Tanjungpura University, Pontianak City, Indonesia University of Tanjungpura, 78124, Pontianak City,West Kalimantan, Indonesia

ABSTRACT

Introduction: Several steps have been taken to reduce opportunities for spreading diseases COVID-19. Coping strategies are the main tool individuals use to minimize situations that are considered dangerous. College students cannot use coping strategies that are typically done outside, due to the limitations of lockdown in their respective areas. The aim of this study was to identify differences in coping strategies used by students during the pandemic in West Kalimantan, Indonesia. **Method:** A cross-sectional survey approach was conducted among Indonesian college students. The data for the study were collected from students acquiring education at public/private Universities/Academies/Institutes spread throughout West Kalimantan Province in Indonesia. The sample size was 663 students, and the sampling strategies used a snowball technique. The Brief-COPE inventory was used to measure coping strategies. **Results:** The majority of the 663 students used adaptive coping (41.94 ±8.641). The mean score was highest for emotional support (6.44 ± 1.430) and active coping (6.10 ± 1.467), followed by religion (6.00 ± 1.394), with the lowest score for substance use (4.24 ± 1.368). We did not found significant differences between the sociodemographic subgroups except gender on subscales for religion, active cope, emotional support, and substance. **Conclusion:** Adaptive coping is more widely used by students in maintaining mental health than maladaptive coping. There were high scores on the subscales measuring the use of emotional support, active coping, and religion. Although many students use positive coping, students who use maladaptive coping need intervention from the campus, such as by providing online counseling services.
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Corresponding Author:
Triyana Harlia Putri, M.Kep
Email: triyana.harliaputri@ners.untan.ac.id

INTRODUCTION

Since 2019, humans have lived side by side with COVID-19. To overcome the acceleration of the spread of COVID-19, several steps have been taken. Stakeholders (the government, media, celebrities, police, doctors, researchers) from the community have urged the public to avoid family functions, public gatherings, class meetings at schools, including sports, and religious ceremonies (1). Social distancing has also been implemented to reduce opportunities for spreading diseases (2) isolating oneself, working from home (3).

Previous research has reported that lockdown has had psychological, environmental, and economic impacts (4). Findings from a systemic review indicated that children exhibited significantly more attachment, sleep disturbances, nightmares, poor appetite, inattention, and separation problems (5). A greater risk for mental and physical health problems has been reported for elderly residents (6). In another report, university students felt the sudden impact of learning done remotely when the campus was closed, resulting in a significant change in the community (7). In the COVID-19 crisis, many prevention and control measures directed towards students may cause them to experience different levels of stress and health problems, academic workload, school, and fear of transmission have negative effects on student health through perceived stress (8).

For almost the past two years, this infectious disease has been associated with the physical and mental health of individuals and communities, especially if it is associated with high daily mortality rates. Universities have taken serious action to prevent and protect students and employees from being infected with COVID-19 as

well as attempted to reduce mental health problems(9). To date, existing studies have only focused on factors associated with mental health problems (stress, anxiety, depression), with a limited focus on coping strategies(10). High degrees of anxiety and psychological distress during a pandemic require coping strategies and survival methods(11). Coping strategies are the main tool individuals use to minimize situations that are considered dangerous. On the other hand, college students cannot use coping strategies that are typically done outside, due to the limitations of lockdown in their respective areas.

Students may use different coping strategies during the COVID-19 outbreak. Coping strategies are a major factor in mental health(12). Previous studies have reported on coping strategies used during a pandemic, all of which are significantly associated with better mental health outcomes such as humor, emotional support active coping, acceptance, and religion(13). However, there are differences in the research findings on the use of coping strategies in students. One study showed that students use more positive stress coping strategies than negative ones(14). A different study showed that students used maladaptive coping strategies more often than adaptive ones to deal with the anxiety caused by the pandemic and the effects of restricted movement(15)

Meanwhile, in Indonesia, the results of a 5-month psychological evaluation of the COVID-19 pandemic demonstrated that approximately 64.8% of the total 4010 respondents experienced psychological problems such as anxiety, depression, and psychological trauma, additionally, the results of 182 self-examinations showed that 89% of the individuals experienced symptoms of post-psychological stress related to COVID-19 (16). Another study with 250 Indonesian students living in Jakarta reported that the individuals had coping strategies and increased social support was significantly correlated with lower psychological distress(17). This study aims to assess the differences in coping strategies used by students in West Kalimantan, Indonesia during the pandemic.

MATERIALS AND METHODS

Study design, Setting and Sample

A cross-sectional survey approach was conducted among Indonesian college students. The data for the study were collected in June 2020 from students who were acquiring education at public or private universities/academies/institutes spread throughout West Kalimantan Province, Indonesia. The study population included all students who attended the 43 universities/academies/institutes. Inclusion criteria were aged 17-26 years old, listed as a student with a campus located in West Kalimantan, willing to be a participant with informed online consent, and did not experience decreased consciousness, mental disorders, or cognitive dysfunction.

Ethical Approval

The Institutional Ethics Committee of University X of Medical Sciences reviewed and approved the study (No.2962/UN22.9/TA/2020). Respondents were assured that their responses would remain confidential until the end of this study. All procedures requiring human respondents were completed in compliance with the institutional national research committee's ethics rules.

Study Instruments and Measure

The online survey contained a sociodemographic questionnaire that included age, gender, ethnicity, religion, and field of study. The Brief-COPE inventory was used to measure coping strategies, including 28-item self-report evaluation of strategies used by an individual to cope with problems and stress, both adaptive and maladaptive. The instrument has a total of 28 items that evaluate 14 coping strategies. Subscales are divided into adaptive or maladaptive subscales(18). Maladaptive coping is composed of twelve items, including self-distraction, denial, venting, substance use, behavioral disengagement, and self-blame. Adaptive coping is composed of sixteen items which include active coping, planning, positive reframing, acceptance, humor, religion, emotional support, and instrumental support. The two subscales are interpreted such that the higher scores indicate the magnitude of the use of adaptive/maladaptive coping. All items are answered on a four-point Likert-type scale ranging from "not at all" to "very much." Brief-COPE has good validity for an instrument and has excellent internal consistency (Cronbach's α = 0.866).

Data collection

We identified the number of students spread across universities in West Kalimantan as up to 47,997 at public and 42,184 at private universities. Based on the sampling table, for an error rate of 1%, our sample size was 663 students. A snowball sampling technique was used to recruit respondents. An online structured instrument was created using Google Forms, with the online consent form. Researchers, research assistants, and research data collectors contacted potential respondents and informed them of the inclusion and exclusion criteria. The instrument's link was distributed via social media such as email, Instagram, Telegram, WhatsApp, and other to contact. Assistants distributed the link to all students in Kalimantan using snowball techniques. Hence, the link was passed to a person who is separate from the first point of contact. Respondents sent responses to the questionnaire form, and then the researcher checked whether the respondent had filled in all the questions. Respondents consented to taking a survey before filling in the agreement. Prospective respondents met the inclusion criteria, and after fulfilling questionnaire and the new they proceeded to informed consent. The link was then given automatically and provided information about the research and informed consent. Respondents filled in demographic details, and then the questions

appeared in a defined sequence, which the respondents were required to answer. Respondents with access to the internet were able to assess this study and adjust according to the inclusion criteria, then agree with the informed consent provided.

Data analysis

The analysis reports descriptive statistics as frequencies and percentages. Mean and standard deviation (SD) were calculated and used to present categorical data. We analyzed the relationships between college students' sociodemographic characteristics and their adaptive/maladaptive coping strategies. In reporting the differences between two groups, we performed a t-test, while ANOVA was used for groups of three or more. All statistical analysis was conducted with SPSS 18 for Windows.

RESULTS

The majority of the 663 students used adaptive coping. Specifically, respondents aged < 20 years (44.8%) used more adaptive coping than those aged >20 (25.3%). Additionally, men used more adaptive coping than women (37.7%). Individuals from Malay ethnicities (22.9%), Islamic religious backgrounds (44%), and the health field of study (24.3%) also use adaptive coping strategies the most (Table I). We present the mean and standard deviation for the subscales of Brief-COPE. The mean score was highest for emotional support (6.44 ± 1.430) and active coping (6.10 ± 1.467), followed by religion (6.00 ± 1.394), with the lowest score for substance use (4.24 ± 1.368) (Table II). Table III shows the sociodemographic variables by coping strategy subscales of the respondents from a total of 663 students. We did not found significant differences between the sociodemographic subgroups except gender on subscales for religion, active cope, emotional support, and substance (p>0.05).

Table I: Socio demographic variables of survey respondents by coping strategies (n=663)

Socio demographic	Subgroups	Coping Strategies	
		Adaptive	**Maladaptive**
		F(%)	F(%)
Age	<20	297 (44.8)	181 (27.3)
	>20	121 (18.3)	64 (9.7)
Gender	Male	168 (25.3)	77 (11.6)
	Female	250 (37.7)	168 (25.3)
Ethnicity	Malay	152 (22.9)	108 (16.3)
	Dayak	65 (9.8)	38 (5.7)
	Chinese	29 (4.4)	13 (2)
	Javanese	78 (11.8)	39 (5.9)
	Madurese	7 (1.1)	6 (9)
	Bugis	24 (3.6)	9 (1.4)
	Batak	17 (2.6)	10 (1.5)
	Sundanese	6 (0.9)	4 (0.6)
	Minangkabau	7 (1.1)	3 (5)
	Banjar	3 (5)	4 (6)
	Others	30 (4.5)	11 (1.7)
Religion	Islam	292 (44)	175 (26.4)
	Catholic	70(10.6)	41 (6.2)
	Christian	47 (7.1)	24 (3.6)
	Budha	8 (1.2)	5 (8)
	Konghucu	1 (2)	0 (0)
Field of study	Health	161 (24.3)	107 (16.1)
	Technical	56 (8.4)	32 (4.8)
	Teacher Training	66 (10)	32 (4.8)
	Economic	15 (2.3)	8 (1.2)
	Law	35 (5.3)	20 (3)
	Management	31 (4.7)	16 (2.4)
	Agriculture	28 (4.2)	16 (2.4)
	Math and Science	3 (5)	2 (3)
	Social and Political Science	13 (2)	8 (1.2)
	Computer Science	4 (0.6)	1 (0.2)
	Others	6 (0.9)	3 (0.5)

% percentage concerning the total number of coping strategies

Table II: Descriptive statistic coping strategies by subscles n=(663)

Subscales	Mean	±SD
Self Distraction	4.97	±1.333
Active Coping	6.10	±1.467
Denial	5.57	±1.478
Substance	4.24	±1.368
Emotional Support	6.44	±1.430
Instrumental Support	5.42	±1.494
Behavioral Disengagement	4.77	±1.449
Venting	4.48	±1.405
Positif Reframing	4.58	±1.530
Planning	4.58	±1.455
Humor	5.22	±1.390
Acceptance	5.44	±1.674
Religion	6.00	±1.394
Self Blaming	4.46	±1.487
Adaptive	41.94	±8.641
Maladaptive	31.79	±6.537

DISCUSSION

The results of this study show that the majority of students use adaptive coping more than maladaptive coping. Most of the students did not come from the epicenter of the pandemic (Wuhan), so they did not consider it as high a risk as other pandemic area(19). Some students with adaptive coping strategies expressed more negative emotions, but they evaluated these experiences positively in terms of learning and usefulness(20). Adaptive coping is the key to maintaining mental health during the COVID-19 pandemic, as the way students handle stress and respond to problems during the pandemic plays an important role. Coping strategies such as framing, acceptance, and humor are positive methods for mental health coping. Conversely, mental health will deteriorate with the use of coping strategies such as self-blame, venting, letting go of behavior, and related self-disorders(21). Maladaptive coping strategies are even more likely to cause eating disorders(22). Another study reported that college students generally tended to actively use problem-focused treatments, while those with high neuroticism tended to use treatments that focused on maladaptive emotions (23).

In this study, the youngest respondents were reported to have the highest coping skills. This suggests that age

Table III: Sociodemographic variables by subscles coping strategies of respondents (n=663)

Socio demographic	Self Distaction	Religion	Behavioral Dis-engagement	Denial	Emotional	Instrumental	Active Coping	Venting	Positif Reframing	Planning	Humor	Acceptance	Substance	Self Blaming
Age														
<20	4.90((±1.272)	6.15((±1.384)	4.69((±1.400)	5.61(±1.421)	6.56((±1.328)	5.45((±1.414)	6.35((±1.365)	5.62((±1.302)	4.49((±1.436)	4.53((±1.348)	5.21((±1.327)	5.46((±1.356)	4.28((±1.615)	4.39((±1.377)
>20	5.14((±1.468)	5.63((±1.607)	4.97((±1.557)	5.47(±1.615)	6.13(±1.627)	5.42((±1.686)	5.94((±1.672)	5.49(1.642)	4.83((±1.729)	4.72((±1.696)	5.23((±1.545)	5.35((±1.489)	4.87((±1.752)	4.62((±1.734)
T Value (P-Value)	-1.669 (0.096)	-0.573(0.567)	-0.957 (0.339)	-0.513 (0.608)	-0.981 (0.327)	-0.474 (0.636)	-0.483 (0.629)	-0.149 (0.881)	0.914 (0.361)	1.199 (0.231)	0.501 (0.617)	-1.272 (0.204)	-0.190 (0.849)	1.436 (0.152)
Gender														
Male	4.85((±1.404)	5.96((±1.565)	4.69((±1.547)	5.53(±1.475)	6.37((±1.470)	5.40((±1.532)	6.20((±1.546)	5.57((±1.446)	4.65((±1.525)	4.67((±1.463)	5.25((±1.441)	5.34((±1.492)	4.43((±1.734)	4.57((±1.555)
Female	5.04((±1.287)	6.03((±1.407)	4.81((±1.389)	5.60(±1.481)	6.49((±1.406)	5.46((±1.472)	6.26((±1.421)	5.59((±1.383)	4.54((±1.533)	4.53((±1.450)	5.20((±1.361)	5.49((±1.333)	4.45((±1.640	4.39((±1.444)
T Value (P-Value)	-1.948 (0.052)	3.835 (0.000)*	-2.130 (0.034)	1.054 (0.293)	3.244 (0.001)*	0.186 (0.852)	2.980 (0.003)*	0.930 (0.353)	-2.426 (0.076)	-1.378 (0.169)	-0.164 (0.870)	0.882 (0.378)	-3.973 (0.000)*	-1.605 (0.110)
Ethnicity														
Malay	4.87(±1.309)	5.95(±1.422)	4.72(±1.440)	5.44(±1.465)	6.42(±1.443)	5.34(±1.482)	6.19(±1.452)	5.59(±1.413)	4.57(±1.460)	4.58(±1.421)	5.15(±1.409)	5.44(±1.353)	4.43(±1.615)	4.45(±1.452)
Dayak	5.11(±1.305)	6.09(±1.337)	4.88(±1.263)	5.70(±1.454)	6.54(±1.349)	5.65(±1.446)	6.28(±1.346)	5.66(±1.362)	4.67(±1.549)	4.53(±1.305)	5.30(±1.259)	5.34(±1.318)	4.55(±1.631)	4.28(±1.317)
Chinese	5.00(±1.325)	5.88(±1.485)	4.98(±1.456)	5.62(±1.481)	6.48(±1.311)	5.81(±1.418)	6.31(±1.473)	5.64(±1.303)	4.83(±1.545)	4.79(±1.722)	5.50(±1.612)	5.48(±1.550)	5.05(±1.561)	4.81(±1.784)
Javanese	4.86(±1.188)	6.12(±1.492)	4.75(±1.548)	5.68(±1.524)	6.51(±1.529)	5.40(±1.560)	6.31(±1.627)	5.56(±1.380)	4.47(±1.535)	4.53(±1.454)	5.21(±1.297)	5.30(±1.446)	4.20(±1.708)	4.47(±1.483)
Madurese	5.54(±1.330)	6.23(±1.691)	4.69(±751)	5.31(±1.653)	6.15(±1.573)	5.69(±1.377)	6.08(±1.605)	5.46(±1.808)	4.38(±1.710)	4.23(±1.589)	4.92(±1.441)	5.62(±1.325)	4.54(±1.613)	4.38(±1.446)
Bugis	5.21(±1.431)	5.88(±1.691)	4.94(±1.694)	5.73(±1.526)	6.27(±1.485)	5.33(±1.797)	5.91(±1.608)	5.21(±1.635)	4.67(±1.708)	4.45(±1.563)	5.12(±1.596)	5.48(±1.564)	4.42(±1.621)	4.55(±1.660)
Batak	4.74(±1.289)	5.70(±1.683)	4.00(±1.074)	5.19(±1.360)	6.07(±1.591)	5.11(±801)	5.81(±1.495)	5.15(±1.099)	3.93(±1.072)	4.30(±1.068)	5.00(±1.144)	5.44(±1.368)	4.07(±1.517)	3.89(±934)
Sundanese	4.50(±1.269)	5.70(±1.767)	4.40(±1.265)	5.30(±1.636)	6.20(±1.476)	4.60(±1.265)	6.10(±1.370)	5.00(±1.563)	4.00(±1.054)	4.30(±1.059)	5.00(±1.504)	4.80(±1.687)	3.40(±843)	3.80(±1.033)
Minangkabau	4.20(±1.476)	5.50(±1.434)	3.80(±1.033)	5.30(±1.059)	6.70(±823)	5.00(±667)	6.20(±1.033)	5.00(±816)	3.70(±1.160)	4.40(±699)	4.60(±966)	5.30(±823)	3.30(±1.160)	3.70(±675)
Banjar	5.00(±1.633)	5.57(±1.902)	5.14(±1.574)	5.57(±1.397)	6.00(±1.915)	5.14(±1.574)	6.29(±1.799)	5.86(±1.215)	5.14(±1.864)	5.14(±1.676)	5.57(±1.512)	5.71(±1.496)	4.71(±2.430)	5.00(±1.414)
Others	5.59(±1.628)	6.39(±1.447)	5.27(±1.703)	6.10(±1.480)	6.68(±1.234)	5.85(±1.740)	6.78(±1.215)	6.20(±1.453)	5.20(±1.833)	5.05(±1.936)	5.61(±1.656)	5.95(±1.431)	5.07(±2.078)	5.12(±1.913)
F Value (P-Value)	2.127 (0.061)	0.839 (0.591)	2.074 (0.085)	1.212 (0.279)	0.611 (0.805)	1.522 (0.127)	1. 052 (0.398)	1.709 (0.075)	2.000 (0.071)	0.873 (0.558)	1.000 (0.442)	0.996 (0.445)	2.491 (0.096)	2.195 (0.067)
Religion														
slam	4.94(±1.309)	6.03(±1.467)	4.72(±1.487)	5.56(±1.483)	6.47(±1.448)	5.41(±1.509)	6.26(±1.483)	5.59(±1.446)	4.55(±1.491)	4.56(±1.430)	5.15(±1.373)	5.41(±1.380)	4.37(±1.660)	4.45(±1.463)
Catholic	4.92(±1.266)	6.02(±1.446)	4.72(±1.121)	5.59(±1.461)	6.46(±1.320)	5.55(±1.367)	6.28(±1.315)	5.58(±1.269)	4.44(±1.438)	4.37(1.355)	5.23(±1.234)	5.49(±1.264)	4.47(±1.594)	4.22(±1.351)
Christian	5.21(±1.594)	5.77(±1.504)	5.15(±1.627)	5.63(±1.466)	6.30(±1.516)	5.44(±1.583)	6.06(±1.557)	5.49(±1.351)	5.01(±1.801)	5.01(±1.626)	5.65(±1.604)	5.62(±1.571)	4.87(±1.851)	4.73(±1.723)
Budha	4.92(±1.256)	6.31(±1.494)	4.62(±1.387)	5.62(±1.710)	6.15(±1.281)	5.69(±1.653)	6.00(±1.732)	5.77(±1.481)	4.77(±1.833)	4.69(±1.888)	5.15(±1.772)	4.69(±1.843)	4.77(±1.691)	5.15(±1.819)
Konghucu	4.00(±1.216)	6.02(±1.431)	4.72(±1.111	5.59(±1.35)	6.49(±1.350)	5.45(±1.209)	6.28(±1.315)	5.44(±1.269)	4.44(±1.438)	4.37(1.355)	4.23(±1.234)	5.49(±1.276)	4.47(±1.511)	4.22(±1.225)
F Value (P-Value)	0.668 (0.614)	0.723 (0.577)	1.648 (0.160)	0.066 (0.992)	0.630 (0.641)	0.313 (0.870)	0.591 (0.670)	0.155 (0.961)	2.036 (0.088)	2.253 (0.062)	1.987 (0.095)	1.332 (0.257)	1.570 (0.180)	2.087 (0.081)
Major														
Health	4.87(±1.208)	6.03(±1.353)	4.76((±1.323)	5.67(±1.340)	6.57((±1.259)	5.54((±1.388)	6.35((±1.323)	5.67((±1.311)	4.62((±1.460)	4.41(±1.300)	5.21(±1.305)	5.53(±1.285)	4.32(±1.543)	4.34(±1.341)
Technical	4.89(±1.385)	5.94(±1.465)	4.77((±1.603)	5.74(±1.512)	6.49((±1.531)	5.35((±1.486)	6.17((±1.533)	5.49((±1.478)	4.66((±1.492)	4.82(±1.411)	5.34(±1.485)	5.23(±1.514)	4.33(±1.786)	4.61(±1.519)
Teacher Training	5.12(±1.416)	5.93(±1.555)	4.97((±1.659)	5.47((±1.712)	6.32((±1.359)	5.50((±1.664)	6.17((±1.533)	5.57((±1.457)	4.73((±1.720)	4.92(±1.679)	5.41(±1.449)	5.56(±1.393)	4.69(±1.874)	4.68(±1.721)
Economic	5.13(±1.766)	6.04(±1.796)	5.09((±1.535)	5.70((±1.795)	6.35((±1.641)	5.52((±1.974)	6.13((±1.792)	5.57((±1.727)	5.00((±1.907)	4.83(±1.969)	5.39(±1.616)	5.22(±1.622)	5.04(±1.745)	4.48(±1.780)
Law	5.09(±1.456)	5.55(±1.741)	4.55((±1.331)	5.04((±1.644)	5.89((±1.707)	5.04((±1.575)	5.73((±1.769)	5.33((±1.540)	4.27((±1.484)	4.31(±1.489)	4.85(±1.508)	5.07(±1.489)	4.38(±1.639)	4.38(±1.533)
Management	4.79(±1.197)	6.17(±1.449)	4.55((±1.457)	5.40((±1.296)	6.36((±1.674)	5.47((±1.333)	6.28((±1.542)	5.57((±1.441)	4.53((±1.427)	4.79(±1.250)	5.04(±1.285)	5.32(±1.431)	4.43(±1.584)	4.49(±1.545)
Agriculture	5.30(±1.357)	6.23(±1.445)	4.75((±1.296)	5.66((±1.293)	6.75((±1.349)	5.55((±1.247)	6.43((±1.301)	5.57((±1.301)	4.30((±1.407)	4.61(±1.205)	5.27(±1.318)	5.41(±1.386)	4.61(±1.674)	4.48(±1.151)
Math and Science	4.60(±1.517)	6.80(±837)	4.00((±1.581)	6.00((±1.225)	5.80((±2.280)	5.60((±1.140)	6.20((±2.168)	6.00((±707)	3.40((±894)	3.40(±894)	4.80(±1.924)	5.20(±1.304)	4.60(±2.191)	3.80(±1.304)
Social and Political Science	4.71(±1.586)	6.00(±1.732)	4.62((±1.802)	5.24((±1.729)	6.05((±1.717)	4.76((±1.868)	6.00((±1.549)	5.24((±1.609)	4.43((±1.859)	4.38(±2.085)	4.95(±1.627)	5.29(±1.648)	4.38(±1.936)	4.52(±1.940)
Computer Science	5.80(±1.643)	7.00((±707)	6.00((±1.581)	6.20((±1.483)	7.00((±707)	6.40((±1.817)	7.20((±837)	7.00((±1.225)	5.60((±1.817)	5.60(±2.302)	5.60(±1.517)	6.40(±1.517)	5.60(±1.949)	5.60(±2.302)
Others	5.44(±882)	6.22(±833)	4.56((±1.014)	5.89((±1.269)	7.00((±707)	5.22((±1.481)	6.33((±1.000)	5.44((±1.130)	4.00((±707)	3.89(±782)	5.11(±601)	6.33(±707)	4.22(±1.394)	3.67(±707)
F Value (P-Value)	1.160 (0.315)	1.154 (0.319)	1.080 (0.375)	1.375 (0.188)	1.859 (0.048)	1.270 (0.244)	1.244 (0.260)	1.018 (0.426)	1.371 (0.190)	2.331 (0.011)	0.910 (0.523)	1.535 (0.123)	1.023 (0.422)	1.164 (0.312)

t-test and ANOVA was used for groups of three or more
Source: own elaboration.

differences affect the use of coping strategies in certain situations. Indeed, coping skills can be influenced by resilience and self-efficacy during a pandemic, and young people have higher levels of these skills than adults. Previous studies have reported that resilience factors are significantly related to self-efficacy, as adolescents recognise themselves as having high levels of empathy and are more resilient in problem-solving tasks(24). However, another study found new evidence of positive adult coping strategies, such as exercise, social support, modifying daily habits and improving mental and physical health by increasing social strategies, and engaging in meaningful daily activities in times of stress and trauma during the pandemic(25). A recent study also reported that, during the pandemic, young people did not use adaptive strategies, thus resulting in them having poorer mental health than those in middle-aged and elderly groups(26)

Ethnic Malays were the ethnic group that uses the most adaptive coping strategies. It should be noted that people still have a negative stigma regarding certain ethnicities that are associated with the cause of the pandemic. However, strong ethnic identity moderates the relationship between COVID-19 discrimination and depression(27). Additionally, another previous study reported the moderating role of race and ethnicity on the association between coping strategies and PTSD symptom groups(28). In society, students' coping strategies in inter-ethnic interactions are influenced by knowledge, age, and ethnopsychological factors(29).

Differences in the use of coping strategies in this study were seen in the higher mean scores for emotional support, active coping, and religion. Emotional support was the most frequently used coping strategy in this study. Students adopt different coping mechanisms and also seek help from those closest to them(30). This means that the student environment plays an important role in the use of coping strategies. During lockdown, parents can take this role. Active coping was the second most frequently used strategy. Active coping styles play a mediating role between sleep quality and learning fatigue and its dimensions(31). The third most frequently used coping strategy was religion. Another study found religion/spirituality and acceptance to be the coping strategies most used by students(32). Reflecting on the results, this study highlights religion as a factor affecting the use of adaptive coping. Indeed, other findings have shown that there is a significant relationship between negative religious coping and anxiety related to COVID-19(33).Positive religious handling during infectious disease outbreaks can help some individuals reduce their risk of depression(34). However, other studies have argued that students develop common personal coping strategies such as taking careful self-protection measures and staying away from public places to reduce the spread of the virus(35). Other personal strategies reported include receiving support from family and friends, recreational activities, independence, humor, and religion(36). As an additional strategy, students use behaviors that are intended to change conditions and to confront others (environmental change)(37). Further, many studies have shown that students use new coping strategies such as being tolerant of situations, using social media, exercising, taking advantage of attention or self-distraction, beliefs and spirituality, and being altruistic(38). However, another study found different results that the use of social media contributes to college students (39) but to adolescents social media as a constructive coping strategy during the quarantine period of COVID-19(40)

Differences in the use of coping strategies are not the same for all students. Stressors faced affects the choice of coping strategies. We also found that there were significant differences between gender categories for religion, active cope, emotional support, and substance. The significant differences were observed for self-distraction, planning, humor, acceptance, and religious coping by Gender Men(32). Active coping was correlated with religious well-being and existential well-being and the religious wellbeing was significantly higher than active coping passive coping though significantly higher in Men(41). Men are more likely to adopt passive emotional behaviors and overcome problems, meaning that when attempting to resolve academic stress, they engage in unhealthy behavior(42). The negative effect of COVID-19 on stress and mental health is strongly associated with increased self-medication through the use of cannabis, alcohol, and nicotine vaping in men(43). Though the scores for substance use as a coping strategy were small in our study, some students still reported using substances to cope. Another study, shows drugs use is the second most rarely used coping strategy, and respondents with chronic conditions and self-reported disabilities are most likely not using substances to treat COVID-19(44). Women are more resistant to using drugs as a coping strategy than their male counterparts(45). Another study reports that students use substances to cope with moderate to extreme stress during the COVID-19 pandemic(43)

It should be noted that this study has certain limitations. Firstly, this study used a questionnaire made as a google form, which was distributed online through social media. This method was employed because data could not be collected directly in the field in line with the pandemic prevention programme in the community. Due to these conditions, we strived to fulfil the required number of samples by distributing questionnaires, contacting prospective respondents through messages on Whatsapp and Facebook Messenger, and asking respondents to redistribute questionnaires through their own social media. We prevented duplicated responses by setting limits on the online questionnaire platforms to accept only one response. The two other limitations of this study relate to the quality of the data, as the

quality depended on the motivation of the respondents when answering the questionnaire, which comprised a large number of items. To increase the motivation of respondents when filling out the questionnaires and encourage them to answer honestly according to their feelings, was to give appreciation in the form of credit balances/ovo/gopay/funds to some lucky respondents. This expression of gratitude in the form of gifts was also intended to encourage prospective respondents to participate in this research. Thirdly, the results of this study cannot be generalised to the entire student population in West Kalimantan, because women and the Malay ethnic group were the most common respondents in this study, meaning the sample was not representative of the entire population. Finally, since this study focused on coping in college students, no other predictors during the COVID-19 outbreak were reported.

CONCLUSION

We found more adaptive than maladaptive coping use in college students. Despite showing low scores, some students still use coping strategies. Another important finding was that there were significant differences between age categories in terms of active coping, substance use, positive reframing, planning, and self-blame. However, in multiple comparisons, no significant differences were found for active coping, substance use, and positive score framing. Although many students use adaptive coping, students with maladaptive coping strategies must be targeted with interventions by their campuses, such as by opening online counselling services and webinars, as adaptive coping is the key to maintaining student mental health during the COVID-19 pandemic. Our results contribute to the literature on student coping strategies and their differential use during the COVID-19 pandemic. Future research directions could involve investigating the factors that may be important predictors and influencers of the use of coping.

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