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Assessing Mental Well-being among University Students: Factors Associated and Coping Strategies

[1]Mohd Zulkifli Abdullah*, [2]Siti Noorsuriani Ma'on, [3]Naliza Solat, [4]Mohamad Shahril Mohamad Besir, [5]Nor Zaihan Mat Hasan @ Mat Hussin, [6]Geng Yao

[1, 2, 4, 5]Faculty of Business and Management, UiTM Puncak Alam, Selangor, Malaysia
[3]Faculty of Business and Management, UiTM Jengka, Pahang, Malaysia
[6]Ningzia Medical University, Ningxia, China

Email: mohdzulkifli_aq@yahoo.com

**Corresponding author*

Abstract

During Covid-19 outbreaks, university students were reported to be at heightened risk of having psychological distress and mental health difficulties. The outbreak of Covid-19 has had a great impact on the learning of university students. Students were unable to focus on their studies, felt anxious about their studies, lacked confidence in their studies, and made more mistakes than usual. Hence, this study has a two-fold objective: (1) identify the factors associated with mental well-being among university students; and (2) investigate the relationship between mental well-being and coping styles among university students. A cross-sectional correlational study was carried out among final year students in one of the public university in Malaysia. Data was collected within 3-months starting from October to December 2021 through an online survey via Google form that was randomly sent to the respective respondents. The obtained data were analysed using IBM SPSS version 26. Descriptive and inferential statistics were performed. A total of 314 data were valid in analysis. The data analysis indicated that academic workload, family support, and financial issues predicting depression among the university students. Furthermore, the association between religion and spiritual coping style is the only indicator of depression. The study findings may be useful in improving the mental well-being of university students. Efficient and effective coping strategies in dealing with stress, anxiety and even depression need more investigation in future studies.

Keywords: Academic workload, coping styles, financial issues, mental well-being

Introduction

The Covid-19 outbreak was first reported to the World Health Organization on December 31, 2019, and was officially declared a public health emergency of international concern on January 30, 2020 (Drissi et al., 2020). In Malaysia, on March 16, 2020, the Prime Minister officially announced the unprecedented Movement Control Order (MCO) in response to the pandemic. The outbreak of Covid-19 has had a great impact on the learning of university students. Students were unable to focus on their studies, felt anxious about their studies, lacked confidence in their studies, and made more mistakes than usual. Psychological stress makes online learning less effective and less helpful to students during quarantine, making them more worried about their academic performance and future study plans (Yassin et al., 2021). In a survey of the mental health level among the Malaysian public, young people, especially students, women, and people with poor financial conditions, are more likely to experience mental health symptoms (Wang et. al., 2021). Studies have shown that 33.3% of undergraduates in Malaysian higher education institutions are under stress, anxiety, and depression, which creates a high degree of uncertainty among the student body (Lee, 2020; Huang & Zhao, 2020).

While university students may be at lower risk for serious complications associated with Covid-19, they face significant disruption following university closures and social distancing measures. Increases in depression, anxiety, and irritability were frequently reported. It has been suggested that emerging adulthood (ages 18–24) may represent a developmental stage with unique challenges imposed by Covid-19 (Gruber et al., 2020). These challenges may include disrupted social roles as a result of missing important experiences, returning to living with parents, and financial difficulties. These factors may explain the greater risk of distress among this population compared to their non-student counterparts (Wang et al., 2020). According to the World Health Organization, mental health is a state of well-being in which a person experiences a mental change in his or her own ability, is able to cope with daily stressors, can work efficiently, and can serve his or her community.

Mental health is a crucial and necessary part of comprehensive health. The WHO outlined, "Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity." This concept implies that mental health is about more than the absence of mental diseases or impairments. Rapid social change, tough job circumstances, gender inequality, social stigma, and an unhealthy lifestyle are also related to poor mental health (WHO, 2018). Since more colleges and academic institutions are converting to remote learning, students may encounter mental health issues as a result of sudden shifts in their academic schedules and modes of teaching sessions (Das-Neves et al., 2021). For example, conditions might lead to tension and worry that will negatively affect the academic success and future career of the student. There were two objectives of this study: firstly, to identify the factors associated with mental well-being among university students; and secondly, to investigate the relationship between mental well-being and coping styles among university students.

Literature Review

Mental Well-being

In general, a person's mental health is determined by their feelings, thoughts, and actions. Mental well-being is defined by Stewart-Brown (2013) as a pleasant feeling, affect, emotions, and life satisfaction. Some studies have characterised mental health as the pursuit of joy, life satisfaction, the experience of positive affect, and the absence of negative affect (Diener, 2000). One of the United Nations' 17 Sustainable Development Goals prioritises mental health and well-being, while the World Health Organization's third SDG is to ensure healthy lifestyles and promote well-being for all people of all ages.

The 2016 National Health and Morbidity Survey (NSMS) undertaken by the Ministry of Health (MOH) indicated that one in three Malaysians suffer from mental health difficulties, with the highest frequency among those aged 16 to 19. In addition, Hassan et al. (2018) reported that roughly 30% of Malaysians aged 16 or older suffer from mental health issues. This is a worrisome issue because the majority of these children are in college.

Measuring Level of Mental Health

The Depression, Anxiety, and Stress Scale (DASS-21; Lovibond & Lovibond, 1995) is one of the most widely used instruments for assessing mental health, and the results are commonly reported as a percentage or mean. In general, college students reported high levels of psychological distress (Bayram & Bilgel, 2008). Moreover, the poor mental health of university students has been documented in numerous nations, with high rates of depression, anxiety, and stress (Brown, 2018). According to a recent study of health sciences students at a local university, the majority of cases of stress (74.6 percent) and depression (66.2%) were of a normal-to-mild severity, whereas 74.6 percent exhibited moderate-to-extreme anxiety (Fauzi et al., 2021). During the COVID-19 pandemic in the United Kingdom, Chen and Lucock (2022) discovered that more than fifty percent of university students experienced anxiety and depression

at levels above the clinical threshold. Numerous studies examining student depression, anxiety, and stress have been conducted on health science students (Fauzi et al., 2021; Alsehri, 2021). However, the respondents in this study were students from a variety of programmes, and this survey examined how they managed their mental health.

Factors Associated with Mental Well-Being

Researchers have investigated numerous factors that contribute to mental health, including vulnerable groups such as college students. They frequently encounter obstacles and difficulties in carrying out their academic responsibilities, which may lead to difficulties in managing their mental health. According to Archuleta, Dale, and Spann (2013), higher education levels are associated with increased academic stress, decreased academic support, social segregation during the transition period, and the possibility of incurring long-term debt. In addition to the amount of debt, a 2018 survey of over 3000 UK students conducted by Bushi (2018) revealed that 3 out of 5 students were concerned about repaying their loan, 84% were worried about having enough money to live on, and 50% believed that their mental health suffered due to financial difficulties.

In Malaysia, the leading causes of mental health issues among students were heavy workloads, financial difficulties, and family problems (Ministry of Health, 2016). According to a study conducted at UNISZA by Shahira et al. (2018), the most frequently reported event by respondents was an examination (62.1%), whereas 53.0% of respondents reported being stressed due to their coursework. Therefore, there is an urgent need to investigate the current factors associated with the mental wellbeing of university students.

Despite the fact that numerous other factors have been discovered, recent studies have found that Covid-19 pandemic does affect students' mental health and well-being (Alshehri, 2021; Chen & Lucock, 2022). Beginning March 18, 2020, a few Movement Control Orders (MCO) and lockdowns were implemented in Malaysia. Many people, including university students, are also affected by this. Changes in learning methods and processes (from face-to-face to open and distance learning) have little impact as well. During the pandemic, many universities were forced to move their learning and support services online. Universities have moved rapidly to transfer various courses and programmes from face-to-face to online teaching (Sahu, 2020). As stated by Rapanta et al. (2020), many students found it difficult to engage effectively; it increased anxiety and concerns about their academic performance. More than half of students (58%) say they consider their mental health to be in a worse state since the beginning of the pandemic, compared to 14% who say their mental health is better (Hewitt, 2020).

A recent study by Lischer et al. (2021) indicates that distance teaching was a challenge for lecturers, which in turn created stress for the students. The fact that 63% of students find it hard to stay in touch with others (Minds, 2020) adds to the problems caused by the decision to move students back to their homes. Findings from China in February 2020 showed that college students' anxiety regarding the pandemic was associated with their place of residence, source of parental income, whether they were living with their parents, and whether a relative or an acquaintance was infected with Covid-19 (Cao et al., 2020). Meanwhile, in Malaysia, the unprecedented MCO enforcement has affected these students' social lives due to strict distancing policies (Hussin et al., 2021). Many students need to isolate themselves from their friends and family and need to limit their activities for the first time. As a result of this condition, students who rely largely on social support have less physical communication, which has a detrimental impact on their learning motivation. In a study conducted by Al-Kumaim et al. (2021), it was found that 27.6% of students from public and private universities in Malaysia were not fully self-motivated and had sought help and advice from others to manage and control their stress during the Covid-19 period. In addition, Tan (2021) discovered that the students lost motivation and learning performance when using online learning methods during the MCO period. A survey of undergraduate students by the Higher Education Policy Institute in the UK found that 58%

reported a worsening in their mental health because of the pandemic (Hewitt, 2020). Another study revealed that 80% of college students perceived that Covid-19 had negatively impacted their mental health. (Mind, 2020).

Coping Strategies

Coping strategies are unique methods that people use to cope with stress. Folkman & Lazarus (1985) define "coping" as cognitive, emotional, and/or behavioural efforts to address (master, reduce, or tolerate) a troubled person-environment relationship (Folkman & Lazarus, 1985). "Coping strategies" are the specific efforts, both behavioural and psychological, that individuals employ to master, tolerate, reduce, or minimise stressful events (Watson, Logan & Tomar, 2008).

According to prior research, coping styles are the buffering variables in the relationship between environmental stressors and mental health (Pierce et al., 2020), and the relationship between stress, coping mechanisms, and mental health is complex (Holmes et al. 2020). Lazarus and Folkman's (1985) transactional model of stress and coping suggests that people have either negative or positive reactions to present environmental stressors such as the horrific Covid-19 events. As a result, university students may avoid contact with the current pandemic in an effort to limit negative internal experiences (Ytre-Arne & Moe, 2021). We hypothesise that avoidance strategies such as watching television, listening to the radio, and participating in indoor sports (Shamblaw et al. 2021) are likely to help individuals overcome uncontrollable and anxious internal experiences such as depression, anxiety, and stress (Yarrington et al. 2021).

Surprisingly, the literature on adaptive coping styles, such as rational and acceptance, discusses not only their definition but also their functionality (Ogueji et al. 2021). If acceptance of the global pandemic entails acknowledging the reality of the situation, then university students may be preoccupied with ruminating about it, resulting in psychological strain such as depression, anxiety, and stress (Li et al., 2021). However, being rational could also mean resolving the pandemic and moving on with life, which would improve the adaptability and mental health of university students (Li et al., 2021).

Cheng (2001) and Siltanen et al. (2019) believe that the benefits of approach coping strategies are maximised if the individual employs problem-focused coping strategies (e.g., planning and seeking instrumental support) or emotion-centered coping strategies (e.g., positive reappraisal and seeking emotional support) based on the perceived controllability of the stressor they are facing. Cheng and Cheung (2005), on the other hand, found that people who are less flexible in their coping strategies have a smaller repertoire of strategies that are less effective at adapting to the specific demands of the situation. Al-Dubai et al. (2011) discovered in their study that students employed active coping strategies (active coping, religious coping, positive reframing, planning, and acceptance) more frequently than avoidant strategies (denial, self-blame, and alcohol or substance use). In addition, Pariat et al. (2014) discuss how prayer, meditation, and sleep are highly effective coping mechanisms for students with academic stress.

Irshad et al. developed the coping scale for college students in 2015 and revealed the five factor analysis solutions, which included solution-focused coping, emotion coping, avoidance coping, seeking coping, and spiritual coping. The development of coping skills will help university students deal with stressful events and enhance their mental health. According to Jahanara (2017), health value is the notion that the more people value their health, the more likely they are to avoid behaviours that may negatively impact their health.

Face-to-face vs Open and Distance (Online) Learning vs Hybrid

In response to transforming student lifestyles and rapidly advancing technologies, universities are increasingly providing flexible learning environments. Rather than relying solely on conventional teaching methods, professors can now utilise a variety of online platforms to

deliver their content and class materials as well as conduct assessments. The Malaysian Education Blueprint 2015–2025 (Higher Education) emphasised that higher education institutions must transition from a mass production delivery model to one that leverages technology-enabled innovations to democratise access to education and provide more personalised learning experiences for all students. Consequently, many universities have begun to shift from a teacher-centered model of instruction to one that is more student-centered.

It is essential to determine how students feel about face-to-face classes versus open and distance (online) learning. Regarding student preferences, numerous studies have found that online learning has a positive impact (Chang, 2016; Al-Rahmi et al., 2018). Hewit (2020) reports that more than half of full-time undergraduate students (59 percent) are very or somewhat satisfied with the online learning that has replaced face-to-face instruction, up from 42 percent in June 2020 and 49 percent in March 2020. In contrast, the majority of respondents in a study conducted by Chung et al. (2020) during the COVID-19 pandemic did not want to continue their lessons using online learning methods. Lischer et al. discovered that the majority of students desire a return to traditional classroom settings (2021). Stack (2015) discovered that traditional learning enables students to receive immediate feedback from their instructors, which boosts their learning motivation. Students are accepting of online learning, according to Mustapha and Devarajoo (2021), but they still prefer face-to-face lessons to compensate for the lack of interaction in online learning. This supported Eldeeb's (2014) research finding that students prefer mixed-mode and online-supplemented courses to fully online courses.

Despite the existence of research on mental health, there is a dearth of research among Malaysian university students. In order to gain a deeper understanding of the underlying factors and available coping mechanisms for resolving the issue, this study examined a variety of factors related to mental health issues among these individuals.

Methodology

Population and Sample

A cross-sectional correlation research design was employed to examine the formulated research objectives. Data was collected within 3-months starting from October to December 2021 through an online survey via Google form that was randomly sent to the respective respondents. The sampling frame was based on a list of final-year students in various faculties at the UiTM Puncak Alam Campus, Selangor, Malaysia. The characteristics or criteria of the respondents were full-time students in UiTM Puncak Alam, involved in ODL for the current semester, and students in semester 3 onwards. A total of 314 responses were received and recorded after 3 months.

Instrument Design

The survey question was adapted from the established questionnaire. Survey items were modified to align with the research questions of the present study. Mental well-being that is represented by depression, anxiety, and stress was measured using by DASS-21 (DASS-21; Lovibond & Lovibond, 1995). Items examining the independent variables including academic workload (Smith, 2021), online learning methods (Saha et al., 2021), social interaction (Baber, 2021), social support from family and friends (Laksmita et al., 2020), financial issues (Wahab & Othman, 2021), and changes in the learning process (Muthuprasad et al., 2021) were taken from previous studies. The coping styles including rational, avoidant, detached, and emotional were adapted from Folkman and Lazarus (1985), while religious and spiritual coping styles were adapted from Pargament, Feuille, and Burdzy (2011).

The questionnaire utilised a 5-point Likert scale with the following values: 1 (strongly disagree) to 5 (strongly agree) measuring predictors of mental well-being and coping styles besides a 5-point Likert scale with the following values: 1 (never) to 5 (always) measuring the mental well-being (depression, anxiety, and stress).

Data Analysis

The statistical program of IBM SPSS version 26 was used for data analysis of collected data. Percentages, mean, and standard deviations were the descriptive statistics used. After ensuring that the data was multicollinear and normal, multiple linear regressions (entry technique) were used to determine which variables could explain the influencing factors towards mental health well-being. The acceptable significance level was established at p 0.05. Prior to that, the validity constructs were tested using factor analysis.

Results and discussion

Profile of Respondents

A total of 314 students were valid for data analysis. Majority was female (89.5%, n=281). Regarding to educational background, the majority of respondents were social sciences students. More than half of respondents were students from the Faculty of Business and Management (65.9%), followed by students from the Faculty of Accountancy (8.9%, n=28), while 6.1% (n=19) were students from the Faculty of Hotel Management & Tourism. Students from Science and Technology such as Faculty of Health Sciences, Faculty of Pharmacy, and Faculty of Art & Design were represented by 19.1% or 60 respondents who took part in this study.

Exploring the sampling distribution based on the current location of the respondents, majority of respondents (71.7%, n=225) lived in family houses while 24.5% (n=77) stayed at the university hostel (most of them involved in hybrid learning or mixed methods learning). Only 3.8% of the respondents lived with friends and others. Next, regarding the living arrangements of the students, most of the respondents stayed with family and relatives (80.3%, n=252), while 17.5% (n=55) of them stayed with friends. Only 2.2% (n=7) stayed alone during the pandemic.

In the context of the types of personality traits among respondents, it was found 37.3% (n= 117) of respondents claimed themselves as Agreeableness types (trust, morality, altruism, cooperation, modesty, sympathy), while 18.8% (n=59) were Extraversion types (friendliness, gregariousness, assertiveness, activity level, excitement seeking, cheerfulness). Besides, 15.9% (n=50) of them were openness types (imagination, artistic interest, emotionality, adventurousness, intellect, liberalism), while 16.6% (n=52) were conscientiousness types (self-efficacy, orderliness, dutifulness, achievement striving, self-discipline, cautiousness). Another 11.4% chose neurotic types such as anxiety, anger, depression, self-consciousness, immoderation, and vulnerability for their personality traits. It is important to study personality types that will reflect how they handle stressful, hectic, uncertain, and struggling situations.

Regarding perceptions of teaching and learning approaches (face-to-face vs ODL), almost half of respondent (49%) preferred the face-to-face approach for the quality of the learning process, 34.1% preferred the hybrid approach, and 16.9% preferred the ODL approach. Nearly 60% (n=188) respondents voted for a face-to-face approach, 25.8% (n=81) chose a hybrid approach, and only 14.2% (n=45) preferred the ODL approach. Overall, 39.2% (n=123) students preferred hybrid approaches for their teaching and learning in university, followed by face-to-face approaches (36.3%, n=114) and ODL approaches (24.5%, n=77). It can be concluded that a face-to-face approach is important and effective for teaching and learning in universities.

Factor Analysis

A principal component factor analysis with varimax rotation was used to examine the dimensionality of the independent variables; academic workload, online learning methods, changes in the learning process, social interaction, family support, friend support, and financial issues as shown in Table 1. The results of factor analysis indicated the existence of seven factors as originally conceptualized. However, some items must be removed due to high cross-loadings or items loaded under different components. The KMO value of.843 indicates the correlation matrix is suitable for factor analysis to be conducted. The MSA values are in the range of.733

and.922, indicating sampling adequacy for each item. The total percentage of variance explained for this model is 55.768 per cent. Examining each component, the first component explains 17.912 per cent of the total variance. This component has seven items reflecting financial issues; thus, the name is retained. The second component contains six items concerning the changes in the learning process, while the third component comprises seven items about academic workload, therefore the names are used. The fourth component has six items representing social interaction, while the fifth and sixth components consist of four items regarding family support and friend support. The last component consists of three items; thus, the names are retained as online learning methods for subsequent analysis.

A principal component factor analysis with varimax rotation was also performed for the mental well-being variables, as illustrated in Table 2. The results indicate the existence of three factors, explaining 63.255 percent of the total variance. The KMO value of.958 shows the suitability of the correlation matrix for factor analysis to be conducted. The MSA values that range from.943 to.979 denote the sampling adequacy for each item. The three components each contain seven items that represent stress, depression, and anxiety. These three variables are used in the subsequent analyses.

For the coping styles variables, a principal component factor analysis with varimax rotation was also accomplished as illustrated in Table 3. The results indicate the existence of four factors explaining 63.583 percent of the total variance. The KMO value of .941 shows the suitability of the correlation matrix for factor analysis to be conducted. The MSA values that range from .829 to .937 indicate the sampling adequacy for each item. The first and second components each contain five items that represent emotional, rational, and coping styles. The third component has four items that reflect religion and spiritual coping style. The last component consists of three items concerning avoidant coping style. These four variables are used in the subsequent analyses.

Table 1: Results of Factor Analysis for the Independent Variables (n=314)

	Component						
	1	**2**	**3**	**4**	**5**	**6**	**7**
The time allocated to online classes and academic work is not enough during online learning.			.668				
The course content is excessive during online learning.			.711				
I believe that the amount of work assignments is too much since online learning.			.790				
I am unable to catch up if I get behind on my work during online learning.			.602				
I have not had enough time to relax after doing academic work since online learning.			.703				
The test/examination questions are increasingly difficult since online learning.			.506				
The test/examination times are very stressful to me since online learning.			.540				
Compatible devices for online learning sessions are enough.							.724
Technology used is efficient for online learning.							.769
Training and technical support from institutions is well-given.							.586
Online classes help me comprehend the course materials compared with face to face learning.		.572					
Online environment makes it easier for me to communicate with my lecturers and friends than a face to face environment.		.657					
I am comfortable communicating with classmate and lecturers during online classes.		.756					
I am willing to actively communicate with my lecturers during online classes.		.738					
An online environment makes it easier for me to communicate with my lecturer.		.805					
I feel online classes has help in increasing my productivity as a student.		.708					
There is a lack of interaction/communication among students in the online classroom.				.696			
Online learning seems impersonal and isolated as compared to traditional classroom.				.757			
I am afraid of feeling isolated in the online classroom.				.643			
There is a lack of social context cues in the online classroom.				.795			
There is a lack of student collaboration in the online classroom.				.731			
I will prefer to learn in person than online classroom as there is no social interaction.				.678			
My family really tries to help me.					.843		
I get the emotional help and support I need from my family.					.864		
I can talk about my problems with my family.					.843		
My family is willing to help me make decisions.					.871		
My friends really try to help me.						.762	
I can count on my friends when things go wrong.						.819	
I have friends with whom I can share my joys and sorrows.						.870	
I can talk about my problems with my friends.						.755	
My parent's jobs are affected by COVID-19 pandemic.	.824						
My parents' source of income was affected during MCO.	.841						
My family is facing a shortage of raw materials due to financial problems.	.882						
My parents' current economic status is insufficient to support all of the dependents.	.841						
I am facing difficulty accessing the internet due to financial problems.	.737						
I am facing financial problems in paying tuition and college fees.	.838						
I am facing financial problems in buying teaching materials such as physical books and ebooks.	.791						
% variance explained (55.768%)	17.912	9.632	8.843	5.918	5.303	4.887	3.273
MSA							.733-.922
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.							.843
Bartlett's Test of Sphericity — Approx. Chi-Square							10081.967
df							1378
Sig.							.000

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization

Table 2: Results of Factor Analysis of Mental Well-Being (n=314)

		Component		
		1	2	3
I found it hard to wind down.		.503		
I tended to over-react to situations.		.582		
I felt that I was using a lot of nervous energy.		.683		
I found myself getting agitated.		.666		
I found it difficult to relax.		.598		
I was intolerant of anything that kept me from getting on with what I was doing.		.659		
I felt that I was rather touchy.		.643		
I was aware of dryness of my mouth.			.613	
I experienced breathing difficulty (e.g., excessively rapid breathing, breathlessness in the absence of physical exertion).			.689	
I experienced trembling (e.g., in the hands).			.800	
I was worried about situations in which I might panic and make a fool of myself.			.569	
I felt I was close to panic.			.673	
I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat).			.653	
I felt scared without any good reason.			.557	
I couldn't seem to experience any positive feeling at all.				.679
I found it difficult to work up the initiative to do things.				.643
I felt that I had nothing to look forward to.				.787
I felt downhearted and blue.				.688
I was unable to become enthusiastic about anything.				.724
I felt I wasn't worth much as a person.				.797
I felt that life was meaningless.				.746
% variance explained (63.255%)		52.193	6.465	4.596
MSA				.943-.979
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.				.958
Bartlett's Test of Sphericity	Approx. Chi-Square			4344.259
	df			210
	Sig.			.000

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

Table 3: Results of Factor Analysis of Coping Styles (n=314)

	Component			
	1	2	3	4
I work out a plan to deal with what has happened.		.714		
I try to find out more information to help make a decision about things.		.735		
I think about how someone I respect would handle the situation and try to do the same.		.731		
I try to find a logical way of explaining the problem.		.678		
I feel independent of the circumstances.		.515		
I become miserable or depressed.	.806			
I feel that no one understands.	.874			
I become lonely or isolated.	.903			
I feel helpless – there's nothing you can do about it.	.869			
I daydream about times in the past when things were better.	.685			
I feel that time will sort things out.				.755
I trust in fate that things have a way of working out for the best.				.708
I try to think about or do something else.				.607
I look for a stronger connection with God.			.858	
I seek God's love and care.			.908	
I try to put my plans into action together with God.			.911	

I try to see how God might be trying to strengthen me in this situation.				.836	
% variance explained (63.583%)		28.333	20.038	9.500	5.711
MSA					.829-.937
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.					.868
Bartlett's Test of Sphericity	Approx. Chi-Square				3488.468
	df				190
	Sig.				.000

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

The findings of this study consists of two sections; section 1 focused on the factors associated with mental well-being, while section 2 focused on the relationship between mental well-being and coping styles.

Objective 1: The factors associated with mental well-being

Reliability, Correlation & Regression Result

Table 4 shows the reliability analysis results, which show that all items are reliable for measuring the intended variables: academic workload (=.829), online learning methods (=.732), changes in learning process (=.863), social interaction (=.834), family support (=.909), friend support (=.772), financial issues (=.922), stress (=.884), anxiety (=.872), and depression (=.9). The result shows that all independent variables are significantly associated with stress. However, the strength of relationships between variables is moderate to low. The highest correlation is between academic workload and stress (r=.324; p<.01) and the lowest correlation is between online learning methods and stress (r=-.128; p<.05).

Besides, based on the results in Table 4, which also revealed four factors associated with anxiety, such as academic workload, family support, friend support, and financial issues. However, the relationships are slightly low. The highest relationship is between family support and anxiety (r=-.287; p<.01) while the lowest relationship is between financial issues and anxiety (r=.180; p<.01). All independent variables are significantly associated with depression. The highest relationship is between family support and depression (r=-.427; p<.01) and the lowest relationship is between online learning methods and depression (r=-.180; p<.01). The result in table 4 also shows that all dependent variables (stress, anxiety, and depression) are correlated with each other with a slightly stronger relationship than before.

Table 4: Results of Correlation & Reliability Analysis (n=314)

No	Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10
1	Academic Workload	3.63	.675	(.829)									
2	Online Learning Methods	3.54	.686	-.187**	(.732)								
3	Changes in Learning Process	3.10	.769	-.254**	.381**	(.863)							
4	Social Interaction	3.72	.684	.334**	-.180**	-.399**	(.834)						
5	Family Support	3.55	.924	-.116*	.278**	.245**	-.171**	(.909)					
6	Friends Support	3.84	.698	-.019	.331**	.228**	-.052	.562**	(.772)				
7	Financial Issues	2.62	.899	.023	-.158**	.038	.084	-.115*	-.113*	(.922)			
8	Stress	2.85	.817	.324**	-.128*	-.169**	.177**	-.303**	-.169**	.162**	(.884)		
9	Anxiety	2.71	.877	.230**	-.067	-.080	.101	-.287**	-.192**	.180**	.827**	(.872)	
10	Depression	2.71	.896	275**	-.180**	-.208**	.187**	-.427**	-.300**	.229**	.836**	.732**	(.9)

Notes: **. Correlation is significant at the 0.01 level (2-tailed), *. Correlation is significant at the 0.05 level (2-tailed); N=314; Cronbach's alphas in the parentheses along the diagonal.

A multiple regression analysis was performed to determine factors that contribute to students' mental well-being that are represented by stress, anxiety, and depression. The regression model for the first model (stress as the dependent variable) is acceptable, with an R^2 of.195, indicating that the independent variables explain 19.5 percent of the variance. The F value of 10.583 is significant, denoting that the data fits the model very well. The Durbin-Watson coefficient of 1.967 shows the absence of an autocorrelation problem in the regression model. Looking at the contribution of independent variables in explaining stress, there are three factors that are significant at 0.01 (academic workload, family support, and financial issues).

For the second model (anxiety as a dependent variable), the regression model is acceptable with an R^2 of .15 which indicates 15 per cent of the variance is explained by the independent variables. The F value of 7.734 is significant, demonstrating that the data fits the model well. Durbin Watson of 2.037 states the absence of an autocorrelation problem in the regression model. Looking at the contribution of independent variables in explaining anxiety, there are three factors that are significant at the 0.0 level, namely academic workload, family support, and financial issues.

With an R2 of.276 indicating that the independent variables explain 27.6 percent of the variance, the regression model for the third model (depression as a dependent variable) is acceptable. The F value of 16.672 is significant, denoting that the data fits the model very well. Durbin Watson 2.114 shows the absence of an autocorrelation problem in the regression model. Looking at the contribution of independent variables in explaining depression, there are three factors that are significant at the 0.01 level (academic workload, family support, and financial issues).

Table 5: Summary Results of Regression Analysis (n=314)

	Standardized Beta Values		
Variables	**Stress**	**Anxiety**	**Depression**
Academic Workload	.282**	.218**	.216**
Online Learning Methods	.038	.08	.038
Changes in Learning Process	-.047	.007	-.067
Social Interaction	.017	-.011	.02
Family Support	-.244**	-.231**	-.32**
Friends Support	-.013	-.069	-.091
Financial Issues	.132**	.154**	.183**
R	.441	.388	.525
R^2	.195	.15	.276
Adjusted R^2	.176	.131	.26
F values	10.583	7.734	16.672
Sig. F values	.000	.000	.000
Durbin Watson	1.967	2.037	2.114

** Sig. at the 0.01 level

Objective 2: Relationship between mental well-being and coping styles

Reliability and Correlation Result

Table 6 illustrates the results of reliability analysis that point out that all items are reliable to measure the proposed variables; stress (α=.884), anxiety (α=.872), depression (α=.9), rational (α=.783), avoidant (α=.719), emotional (α=.899) and religion & spiritual (α=.94). Analysis of correlations shows that rational coping is strongly linked to depression ($r = -.187$; $p<.01$). However, the strength of the relationship is low. All variables related to mental well-being are significantly associated with avoidant and emotional coping styles. The highest relationship is between depression and emotional ($r=.748$; $p<.01$) and the lowest relationship is between anxiety and avoidant ($r=.195$; $p<.01$). Besides, the only indication of depression is the relationship with religion & spiritual coping style. ($r=-.176$; $p<.01$). However, the strength of the relationship is low.

Table 6: Results of Correlation & Reliability Analysis (n=314)

No	Variables	Mean	SD	1	2	3	4	5	6	7
1	Stress	2.85	.817	(.884)						
2	Anxiety	2.71	.877	.827**	(.872)					
3	Depression	2.71	.896	.836**	.732**	(.9)				
4	Rational	3.66	.558	-.087	-.064	-.187**	(.783)			
5	Avoidant	3.39	.676	.252**	.195**	.227**	.292**	(.719)		
6	Emotional	3.13	.919	.693**	.627**	.748**	-.189**	.318**	(.899)	
7	Religion & Spiritual	4.28	.670	-.107	-.062	-.176**	.471**	-.099	.443**	(.94)

Notes: **. Correlation is significant at the 0.01 level (2-tailed); *N=314; Cronbach's alphas in the parentheses along the diagonal.

Discussion

Objective 1: Factors associated with mental well-being

The results of this study revealed that three independent variables, i.e., academic workload, family support, and financial issues, significantly affected stress, anxiety, and depression among respondents. Academic workload can be defined as an excessive number of tasks assigned in comparison to a person's talents, resources, and time available to complete a task (Mudassar & Saquib, 2016). During the Covid-19 outbreak, the teaching and learning approach was changed from face-to-face to an ODL approach. In addition, the course assessments and evaluations are also revised by the academicians in line with the ODL approach. For example, most lecturers have transformed the student's assessment from the written test to the assignments such as case study analysis and report. The students also agreed that they faced academic workload issues during ODL sessions, such as the time allocated to online classes and academic work not being enough, the course content being more excessive than before, the number of work assignments is too much, there is no enough time to relax after doing academic work, and the test/examination times are very stressful as compared to the traditional approach. Changes to student assessment and evaluation increase the academic burden for students, putting them in stressful situations that affect their stress, anxiety, and depression levels. The excessive workload in academics among university students is a result of the teaching and learning approach being transformed to ODL. The findings of this study are supported by recent studies by Koudela-Hamila et al. (2022) and Larcombe, Baik, and Finch (2022). Academic stress and burden are linked to a wide range of bad things, such as bad effects on mental health, performance, and well-being.

Besides, family support also become one of the important factors that contributes to mental well-being among university students. The results discovered that family support such as provide the emotional help and support that student's need, sharing the problems with family members and the willingness of family in making decisions related academic matters during the Covid-19 outbreaks are significantly affect to student's stress, anxiety and depression. If the students gained the support from family, then their mental well-being are better. In contrast, the level of mental well-being will decrease if the students are not received support from their family. The role of family support towards university students is very important since most of respondents live with their family during Covid-19 outbreaks. An empirical study conducted by Li and Xu (2022) revealed that family support is a protective factor for attitudes toward social distancing and in preserving positive mental health during the Covid-19 pandemic among university students. The results also showed that after the effects of demographic variables were controlled, perceived support from family members made unique contributions to their attitudes about social distancing and positive mental health both directly and indirectly.

The next factor affecting a student's mental well-being is financial issues. During the Covid-19 outbreaks, many people encountered financial problems due to MCO and lockdown. In Malaysia, the government has announced a plan to shut down all economic sectors to control the spread of the virus in the community. Consequently, self-employed people, especially those

involved in their own businesses and manufacturing workers, lost their incomes. Most of them are self-sponsored students, and most of them are affected because they depend on the monetary support from their parents. The financial issues, such as parents' jobs being affected by the Covid-19 pandemic, parents' source of income being affected during MCO and lockdown, family facing a shortage of raw materials due to financial problems, parents' current economic status is insufficient to support all of the dependents, facing difficulty accessing the internet due to financial problems, and facing financial problems in paying the tuition fees and buying teaching materials such as physical books and ebooks, significantly affect students' stress, anxiety, and depression. The findings from a recent study by Kokkinos, Tsouloupas and Voulgaridou (2022) demonstrated that there were significant direct effects of perceived Covid-19 impact on participants' financial status on satisfaction with life and indirect effects of perceived Covid-19 impact on participants' financial status and academic performance, respectively, on satisfaction with life through general mental health.

Objective 2: Relationship between mental well-being and coping styles

In assessing the result of the relationship between mental well-being and coping styles, avoidant and emotional coping styles show a significant association with three dimensions of mental well-being such as stress, anxiety, and depression. The strength of the relationship between emotional coping style and mental well-being is slightly moderate. However, the relationship between avoidant coping style and mental well-being is low. The findings indicate that when students are confronted with stress, anxiety, and depression, they tend to use their emotions to cope with it, such as becoming miserable or depressed, feeling that no one understands, becoming lonely or isolated, and feeling helpless like there's nothing they can do about it. The second coping style that is significantly associated with mental well-being is avoidant. Respondents applied the avoidant coping strategy such as feeling that time will sort things out; trusting in fate that things have a way of working out for the best; and trying to think about or do something else when faced with stressful situations, anxiety, and depression. Efficient use of emotions as a coping strategy allows efficient problem solving that subsequently results in functioning mental well-being, while negative emotions such as anger, frustration, hate, and denial during Covid-19 are potentially devastating reactions to stress and thus may lead to impaired mental health (Nabi et. al. 2022). Another study conducted by Hussong et al. (2021) found that expressing emotions among young people, such as university students, might also lead to lower depression, anxiety, and stress levels in painful situations.

Surprisingly, both rational and religious & spiritual coping styles significantly contribute to depression only. Rational coping refers to a technique for dealing with stress that involves facing the stressor and working to overcome it (Ramachandran, 2012). The result revealed that the students are more likely to use positive coping styles such as rational techniques when they encounter depression. The rational coping techniques include working out a plan to deal with what has happened; trying to find out more information to help make a decision about things; thinking about how someone else would handle the situation and trying to do the same; trying to find a logical way of explaining the problem; and feeling independent of the circumstances.

Besides, university students also tend to adopt religion and spiritual coping styles when faced with depression during the Covid-19 pandemic. It is essential to note in this study that the majority of the respondents were Muslims. Unfortunately, religion and spiritual practise have been significantly associated with depression only. The examples of religion and spiritual techniques such as looking for a stronger connection with God, seeking God's love and care, trying to put my plans into action together with God, and trying to see how God might be trying to strengthen me in this situation.

Conclusion

Globally, mental health has been significantly vital in recent years; yet, it has been affected by the COVID-19 pandemic's negative consequences. Mental health wellbeing imbalances can lead to serious health problem if not properly addressed. Thus, having a clear understanding of the key contributing factors to mental health wellbeing and associated coping strategies styles is critical. Knowledge gained from the findings of this study could be helpful in enhancing the mental well-being of university students. Academic workload, family support, and financial issues were the significant factors associated with mental health wellbeing. Nevertheless, avoidant, and emotional coping styles were found to be significantly associated to mental health wellbeing. Hence, the efficient and effective coping strategies in dealing with stress, anxiety and even depression are essential and worth to be investigated further in future research.

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