



Relationship Between Perceived Stress and Resilience among Counselling Students Towards Online Learning During COVID-19 Pandemic

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ABSTRACT

This study investigates the relationship between perceived stress and resilience among counselling students during the COVID-19 pandemic when traditional education abruptly shifted to online learning. The pandemic induced uncertainties and psychological distress, making adaptation crucial. A correlational design was employed, involving 169 counselling students selected through random sampling. The Perceived Stress Scale (PSS-10) and Resilience Assessment Tool 43 (RAT 43) were used, both demonstrating validity and reliability. Results indicate moderate stress and high resilience among the students. Specific resilience domains (Belonging and Learning) were associated with perceived stress, and changes in stress levels significantly correlated with changes in these resilience domains, with the Belonging domain exhibiting the most notable enhancement in resilience levels. Understanding the dynamics between stress and resilience in the context of online learning during the pandemic is crucial for supporting the mental health of counselling students.

Keywords: resilience, perceived stress, counselling students, COVID-19 pandemic

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1 INTRODUCTION

A pandemic is an epidemic that spreads across countries or continents (Lockett, 2020). Branswell and Joseph (2020) noted that the World Health Organisation (WHO) classified the Coronavirus outbreak as a pandemic. Coronavirus disease (COVID-19) is an infectious illness that was first identified in December last year, emerging from a seafood and animal market in Wuhan, China (Pharmaceutical Technology, 2020). This virus is typically found in animals, and the exact mechanism of its transmission to humans remains unclear. It also spreads from person to person through close contact (Kandola, 2020).

According to Wood (2020), to control the spread of the disease, countries have adopted various strategies. For instance, the Prime Minister of Malaysia announced and implemented different levels of the Movement Control Order (MCO) in areas with COVID-19 cases. The MCO was first introduced in March 2020, followed by the Conditional Movement Control Order (CMCO) in May 2020 and the Recovery Movement Control Order (RMCO) in June 2020. Prohibited activities included restrictions on the entry of tourists, social gatherings, religious processions, and more. This situation has significantly impacted all levels of education, transforming traditional teaching into digital or technological learning ("Beware of Covid-19 impact," 2020)

Moreover, according to Solhi (2020), the Higher Education Ministry (MoHE) has announced that all classes at private and public higher learning institutions should be conducted online until further notice. Consequently, the closure of schools, colleges, and universities has disrupted education for students worldwide. Students face challenges in maintaining the essence of group learning, classroom events, and physical activity, spending most of their time at home (Borges & Sieversten, 2020). Online learning has significantly enhanced students' retention and comprehension of material. The rapid growth of the Internet and easily accessible channels have enabled educational institutions to reach out and deliver education to geographically dispersed students (Li & Lalani, 2020). However, some students face challenges in accessing online classes due to unstable internet connections, economic issues, and time management difficulties (Yeoh, 2020). This has negatively impacted students, leading to increased stress, anxiety, and restlessness during the COVID-19 pandemic. Consequently, fostering resilience among students is essential for coping with these stressors.

1.1 The Objective of the Study

The study investigated perceived stress and resilience among Counselling students towards online learning during the COVID-19 pandemic. The objectives of the study were:

1. To assess the relationship between perceived stress and resilience among Counselling students towards online learning during the COVID-19 pandemic
2. To assess the relationship between perceived stress and the resilience domains (Basics, Belonging, Learning, Coping, and Core Self) among counselling students towards online learning during the COVID-19 pandemic

3. To identify the most significant resilience domains contributing to perceived stress among counselling students towards online learning during the COVID-19 pandemic.

1.2 Theoretical Framework

The transactional theory of Stress and Coping, developed by Lazarus and Folkman (1984), serves as the foundation for this study. According to Lazarus and Folkman, individuals evaluate the stressful events they encounter, leading to emotional changes through a process known as cognitive appraisal. When stressful events are perceived as harmful or threatening, individuals generate coping strategies to address them. Lazarus and Folkman also divided cognitive appraisal into two phases: primary appraisal and secondary appraisal. Primary appraisal occurs when individuals recognise the adversities they face and assess whether these challenges negatively impact their well-being. Secondary appraisal involves evaluating the coping options available to respond to those adversities.

Following cognitive appraisal, coping strategies are formulated to manage stressful events. These strategies are categorised into problem-focused and emotion-focused coping mechanisms. According to McLeod (2015), emotion-focused coping aims to alleviate the negative emotions caused by a stressor—such as anger, sadness, or depression—particularly when individuals cannot change the stressor. In contrast, problem-focused coping targets the root cause of the stressor, such as issues with time management. Thus, this theory encompasses three critical phases: primary appraisal, secondary appraisal, and coping.

After cognitive appraisal, coping strategies are developed to address the stressor. Coping resources include both personal and environmental attributes. Emotion-focused coping may initially be employed, but then it may shift to problem-focused coping once emotional distress is managed. This coping mechanism influences both short-term and long-term outcomes. Long-term outcomes may lead to improved physical and mental health and greater life satisfaction, while short-term outcomes might include feeling relaxed and in a better mood, albeit without resolving the underlying issue (Biggs et al., 2017). If an individual successfully manages the stressor, reappraisal occurs as an adaptive process. This process assesses the resources needed to deal with stressful events, thereby reducing stress levels in future encounters..

2 METHODS

The sample for this study consisted of undergraduate and postgraduate counselling students (including master's and doctoral students) from the Faculty of Cognitive Science and Human Development at Universiti Malaysia Sarawak. A total of 304 counselling students were included, comprising 238 undergraduate and 66 postgraduate students. Data was collected from these students in 2021. According to Krejcie and Morgan's (1970) decision model table, a sample size of 169 is sufficient for a population ranging from 300 to 320. Thus, 169 counselling students were recruited using simple random sampling techniques to participate in this research.

Due to physical limitations and strict standard operating procedures (SOP) in Malaysia, which were also adhered to by the university, data collection was conducted via a Google Form link distributed to respondents through individual and group chats on WhatsApp. A brief consent explanation was provided to all respondents before they were asked to complete the questionnaire. Those who agreed to the terms and conditions were instructed to complete a set of questionnaires and were permitted to ask questions during the administration of the survey. The collected data was analysed using descriptive and inferential statistics, with IBM SPSS 23 as the analytical tool.

For data collection, the Malay version of the Perceived Stress Scale (PSS-10) (Al-Dabai, 2015) and the Resilience Assessment Tool 43 (RAT-43), introduced by Madihie et al. (2018) were employed. The PSS-10 consists of 10 questions, including four positively stated items (items 4, 5, 7, and 8), while the remaining items are negatively stated. Respondents rated their experiences on a five-point Likert scale ranging from 0 (Never) to 4 (Very Often). Total scores are calculated by reversing the scores of positive items and summing all scores, with total scores ranging from 0 to 40. Higher scores indicate higher stress levels. Stress levels are categorised as low (0-13), moderate (14-26), and high (27-40) (Alharbi & Alshehry, 2019; Drachev et al., 2020; Swaminathan et al., 2015).

The Malay version of the Resilience Assessment Tool 43 (RAT-43) features a seven-point Likert scale ranging from 1 (Very Unlike Me) to 7 (Very Like Me). This tool contains 43 questions across five domains: Basics (Items 1-9), Belonging (Items 10-21), Learning (Items 22-28), Coping (Items 29-37), and Core Self (Items 38-43). The total resilience score is obtained by summing the values from each domain. Score ranges are as follows: 43-71 indicates low resilience, 72-100 indicates low to moderate resilience, 101-150 indicates moderate resilience, 151-200 indicates moderate to high resilience, 201-250 indicates high resilience, and 251-301 indicates very high resilience. The RAT-43 has demonstrated a high-reliability index with test-retest values ranging from 0.8 to 0.9.

3 RESULTS

The findings from the statistical analysis are presented below.

3.1 Descriptive Statistics of Respondent Background

Table 1. Frequencies and per cent distributions of gender, age, ethnicity, and level of study of the respondents.

Demography Items	Frequency	Per cent (%)
Gender:		
Male	37	21.89
Female	132	78.11

Age:		
19 – 21	32	18.93
22 – 24	88	52.07
25 – 27	1	0.59
28 – 30	15	8.88
31 and above	33	19.53
Ethnicity:		
Malay	108	63.91
Chinese	16	9.47
Iban	27	15.98
Bidayuh	6	3.55
Lunbawang	2	1.18
Dusun	4	2.40
Sino-Native	1	0.59
Melanau	1	0.59
Bajau	1	0.59
Kayan	1	0.59
Kenyah	1	0.59
Orang Asli	1	0.59
Level of Study:		
Undergraduate	121	71.60
Masters	29	17.16
Doctor of Philosophy (PhD)	19	11.24

Table 1 presents the frequencies and percentage distributions of gender, age, ethnicity, and level of study among the respondents in this study. Of the participants, 137 identified as female and 37 as male. The respondents' ages ranged from 19 to 31 years, with the majority being between 22 and 24 years old. The study identified respondents from 12 different ethnicities: Malay, Chinese, Iban, Bidayuh, Lunbawang, Dusun, Sino-Native, Melanau, Bajau, Kayan, Kenyah, and Orang Asli. In terms of academic level, 121 respondents were undergraduate counselling students, 29 were pursuing their master's in Counselling, and 19 were enrolled in the Doctor of Philosophy (PhD) programme in Counselling.

3.2 The Level of Perceived Stress and the Level of Resilience Among Counselling Students Towards Online Learning During the COVID-19 Pandemic

Table 2. Mean of perceived stress among counselling students towards online learning during the COVID-19 pandemic.

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
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Total score of Malay Version of PSS-10 respondents	169	3	40	3722	22.02	6.036
Valid N (listwise)	169					

Table 2 presents the mean perceived stress score among counselling students in relation to online learning during the COVID-19 pandemic. The average perceived stress score in this study was 22.02, indicating that the counselling students experienced moderate levels of stress regarding their online learning experiences during this period..

Table 3. Mean of resilience among counselling students towards online learning during the COVID-19 pandemic.

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
Total score Malay Version of RAT-43 respondents.	169	134	302	43129	255.20	26.202
Valid N (listwise)	169					

Based on Table 3, the mean resilience score among counselling students in relation to online learning during the COVID-19 pandemic is 255.20. This indicates that the counselling students exhibited a very high level of resilience towards their online learning experiences during this period.

3.3 The Relationship Between Perceived Stress and Resilience Among Counselling Students Towards Online Learning During the COVID-19 Pandemic

Table 4. The results of the relationship between perceived stress and resilience.

		Total score of Malay Version of PSS-10 respondents	Total score Malay Version of RAT-43 respondents
Total score of Malay Version of PSS-10 respondents	Pearson Correlation	1	-.120
	Sig. (2-tailed)		.119
	N	169	169
Total score Malay Version of RAT-43 respondents	Pearson Correlation	-.120	1
	Sig. (2-tailed)	.119	
	N	169	169

Based on Table 4, the Pearson's r-value is negative ($r = -0.120$, $p > 0.05$), indicating a negligible correlation between perceived stress and resilience. The p-value (0.119) exceeds the significance level ($\alpha = 0.05$), suggesting inconclusive evidence regarding the significance of the association between perceived stress and resilience. Consequently, the null hypothesis is accepted, indicating that there is no significant relationship between perceived stress and resilience among counselling

students concerning online learning during the COVID-19 pandemic. This implies that changes in perceived stress do not significantly correlate with changes in resilience among counselling students in this context.

3.4 The Relationship Between Perceived Stress and the Resilience Domains (Basics, Belonging, Learning, Coping, And Core Self) Among Counselling Students Towards Online Learning During the COVID-19 Pandemic

Table 5. The results of relationship between perceived stress and resilience domain (Basics).

		Total score of Malay Version of PSS-10 respondents	Total score of resilience domain (Basic) respondents
Total score of Malay Version of PSS-10 respondents	Pearson Correlation	1	-.078
	Sig. (2-tailed)		.312
	N	169	169
Total score of resilience domain (Basic) respondents	Pearson Correlation	-0.78	1
	Sig. (2-tailed)	.312	
	N	169	169

Table 5 illustrates the relationship between perceived stress and the resilience domain (Basics). The Pearson's r-value is negative ($r = -0.078$, $p > 0.05$), indicating a very weak correlation between perceived stress and the basic domain of resilience. Additionally, the p-value (0.312) exceeds the significance level ($\alpha = 0.05$), providing inconclusive evidence regarding the significance of the association. Consequently, the null hypothesis is accepted, indicating that there is no significant relationship between perceived stress and the Basics domain of resilience among counselling students concerning online learning during the COVID-19 pandemic. This suggests that fluctuations in perceived stress do not significantly correlate with changes in the Basics domain of resilience among counselling students in this context.

Table 6. The results of the relationship between perceived stress and resilience domain (Belonging).

		Total score of Malay Version of PSS-10 respondents	Total score of resilience domain (Belonging) respondents
Total score of Malay Version of PSS-10 respondents	Pearson Correlation	1	-.240**
	Sig. (2-tailed)		.002
	N	169	169
Total score of resilience domain (Belonging) respondents	Pearson Correlation	-.240**	1
	Sig. (2-tailed)	.002	
	N	169	169

**Correlation is significant at the 0.01 level (2-tailed).

Based on Table 6, the Pearson's r-value is negative ($r = -0.240$, $p < 0.05$). There is a very weak correlation between perceived stress and resilience. Besides that, the p-value (0.002) is smaller than the significant level ($\alpha=0.05$). Thus, there is conclusive evidence about the significance of the association between perceived stress and resilience. The null hypothesis in this study is rejected. A significant relationship exists between perceived stress and resilience domain (Belonging) among Counselling students toward online learning during the COVID-19 pandemic. This means that the increases or decreases in perceived stress are significantly related to increases or decreases in the resilience domain (Belonging) of students who are counselling for online learning during the COVID-19 pandemic.

Table 7. The results of relationship between perceived stress and resilience domain (Learning).

		Total score of Malay Version of PSS-10 respondents	Total score of resilience domain (Learning) respondents
Total score of Malay Version of PSS-10 respondents	Pearson Correlation	1	-.206**
	Sig. (2-tailed)		.007
	N	169	169
Total score of resilience domain (Learning) respondents	Pearson Correlation	-.206**	1
	Sig. (2-tailed)	.007	
	N	169	169

**Correlation is significant at the 0.01 level (2-tailed).

Based on Table 7, the Pearson's r-value is negative ($r = -0.206$, $p < 0.05$), indicating a very weak correlation between perceived stress and the resilience domain (Learning). The p-value (0.007) is below the significance level ($\alpha = 0.05$), providing conclusive evidence of the significance of the association. Consequently, the null hypothesis is rejected, indicating a significant relationship between perceived stress and the Learning domain of resilience among counselling students regarding online learning during the COVID-19 pandemic. This suggests that fluctuations in perceived stress are significantly related to changes in the Learning domain of resilience among these students.

Table 8. The results of the relationship between perceived stress and resilience domain (Coping).

		Total score of Malay Version of PSS-10 respondents	Total score of resilience domain (Coping) respondents
Total score of Malay Version of PSS-10 respondents	Pearson Correlation	1	-.007
	Sig. (2-tailed)		.925
	N	169	169
Total score of resilience domain (Coping) respondents	Pearson Correlation	-.007	1
	Sig. (2-tailed)	.925	
	N	169	169

Based on Table 8, the Pearson's r -value is negative ($r = -0.007$, $p > 0.05$), indicating a very weak correlation between perceived stress and the resilience domain (Coping). The p -value (0.925) is greater than the significance level ($\alpha = 0.05$), providing inconclusive evidence regarding the significance of the association between perceived stress and the Coping domain of resilience. Consequently, the null hypothesis is accepted, indicating no significant relationship between perceived stress and the Coping domain among counselling students in relation to online learning during the COVID-19 pandemic. This suggests that fluctuations in perceived stress do not significantly relate to changes in the Coping domain of resilience among these students.

Table 9. The results of relationship between perceived stress and resilience domain (Core Self).

		Total score of Malay Version of PSS-10 respondents	Total score of resilience domain (Core Self) respondents
Total score of Malay Version of PSS-10 respondents	Pearson Correlation	1	-.057
	Sig. (2-tailed)		.461
	N	169	169
Total score of resilience domain (Core Self) respondents	Pearson Correlation	-.057	1
	Sig. (2-tailed)	.461	
	N	169	169

Based on Table 9, the Pearson's r -value is negative ($r = -0.057$, $p > 0.05$), indicating a very weak correlation between perceived stress and the resilience domain (Core Self). Additionally, the p -value (0.461) exceeds the significance level ($\alpha = 0.05$), providing inconclusive evidence regarding the significance of the association between perceived stress and the Core Self resilience domain. Consequently, the null hypothesis in this study is accepted, suggesting that there is no significant relationship between perceived stress and the Core Self resilience domain among counselling students in relation to online learning during the COVID-19 pandemic. This implies that fluctuations in perceived stress do not significantly correlate with changes in the Core self-resilience of students.

However, while there is a weak correlation overall, the resilience domains of Belonging and Learning are significantly associated with perceived stress. This is evidenced by the p -values for these domains, both of which are below the significance threshold ($\alpha = 0.05$). Specifically, the p -value for the association between perceived stress and the Belonging domain is 0.002, while for the Learning domain, it is 0.007. This indicates that decreases in perceived stress are significantly related to increases in the resilience domains of Belonging and Learning and vice versa.

4 DISCUSSION

This study demonstrated that online learning during the COVID-19 pandemic has heightened stress levels among students. Findings indicate that counselling students experienced moderate perceived stress related to online learning during this period. This aligns with previous research, such as that of Sheroun et al. (2020), which reported increased tension among students engaged in

online learning during the pandemic. Similarly, Moawad (2020) noted significant academic stress among students in this context. Thus, it is evident that online learning has contributed to increased stress levels.

Furthermore, the results support findings by Steven et al. (2014), who explored resilience as a complex construct that varies among individuals and is influenced by specific stressors faced. In this study, counselling students exhibited a very high level of resilience in response to online learning during the pandemic. In contrast, medical students have also shown high resilience when confronted with stress (Chow et al., 2018; Wu et al., 2020). Additionally, Nor Shafrin Ahmad et al. (2018) found that university students from the School of Electrical Engineering and Industrial Technology displayed lower resilience levels compared to those from the School of Civil Engineering and Medical Science, indicating that resilience varies significantly across fields of study.

However, the results of this study diverge from previous research noted in the literature review. Martin et al. (2020) found a moderate negative association between perceived stress and resilience among undergraduate students at a private university, suggesting a relationship between the two. In contrast, this study reveals a weak negative correlation, providing inconclusive evidence regarding their association. Consequently, the findings indicate that fluctuations in perceived stress do not significantly correlate with changes in resilience among counselling students during online learning amid the pandemic.

Despite Chen and Bonanno (2020) reporting various factors contributing to an individual's resilience against stressors, this study identified "belonging" and "learning" as the resilience domains associated with perceived stress. The increases or decreases in these two resilience domains correlate with corresponding changes in perceived stress. Notably, "belonging" emerged as the most significant resilience domain that enhances the resilience level of counselling students towards online learning during the COVID-19 pandemic, with an r-value of -0.240, compared to -0.206 for "learning."

This study revealed that a sense of belonging is essential during the COVID-19 pandemic. The findings support those of Nitschke et al. (2020), which indicate that social connectivity fosters individual resilience and reduces perceived stress during this challenging time. With the implementation of the Movement Control Order (MCO), students were unable to meet friends or attend face-to-face classes, leading to self-isolation and quarantine amid uncertainty and fear about the duration of these restrictions. During this period, students needed someone to listen to their concerns and provide support and encouragement, highlighting the critical role of social connectivity and support during the pandemic.

Additionally, the study found a weak negative correlation between perceived stress and resilience ($r = -0.120$, $p > 0.05$). However, there is inconclusive evidence regarding the significance of the association between perceived stress and resilience. Thus, no significant relationship exists between perceived stress and resilience among counselling students in the context of online learning during the COVID-19 pandemic. This suggests that fluctuations in perceived stress do not significantly impact the resilience of counselling students during this time.

Moreover, the study explored the relationship between perceived stress and the resilience domains of Basics, Belonging, Learning, Coping, and Core Self. The p-values for Basics (0.312), Coping (0.925), and Core Self (0.461) exceeded the significance level ($\alpha = 0.05$), indicating that changes in perceived stress do not significantly impact these domains among counselling students during online learning in the COVID-19 pandemic. Conversely, the p-values for Belonging (0.002) and Learning (0.007) were below the significance level, suggesting a significant association between these domains and perceived stress. Among these, "Belonging" emerged as the most influential resilience domain, with an r-value of -0.240, compared to -0.206 for "Learning." This highlights that a sense of belonging is crucial in enhancing resilience and alleviating stress for counselling students during social distancing and remote learning.

The findings of this study also support the stress and coping theory by Lazarus and Folkman (1984). Counselling students individually appraised the stressor of online learning during the COVID-19 pandemic through primary appraisal (assessing whether the stressor is threatening) and secondary appraisal (considering coping options and their ability to respond). As a result, the perceived stress levels of counselling students were identified, leading to the coping phase. This study indicates that while these students have a very high level of resilience, their perceived stress remains moderate. Their effective coping mechanisms suggest they primarily employ problem-focused coping strategies, indicating they possess the resources to manage stressors. Notably, the resilience domain of "Belonging" significantly enhanced their resilience in navigating online learning challenges during the pandemic. Elements such as supportive social networks, positive influences, close relationships, and spiritual convictions contributed to their ability to cope effectively with stressors.

The findings of this study align with similar research, indicating that social support significantly impacts students' academic resilience during online learning (Permatasari et al., 2021). Social support helps students manage academic stress and boredom associated with online learning. The presence of family and friends enhances academic resilience, enabling students to engage with and successfully complete their coursework (Rustham et al., 2022).

This research has some limitations that should be acknowledged. One notable limitation is selection bias, as the data were exclusively collected from counselling students. Additionally, the generalisability of the findings is limited since the sample was drawn from a specific faculty within a single university, which may not represent the broader student population. Furthermore, the questionnaire consisted of three sections with numerous questions, potentially leading to longer response times. This extended duration could affect respondents' emotions and focus while completing the survey, thereby influencing the findings.

The present findings highlight the association between perceived stress and resilience, helping students, parents, educational management, and the public understand its implications. This research provides an overview of how an individual's resilience affects perceived stress related to online learning during the COVID-19 pandemic. Furthermore, it raises awareness of the importance of resilience and mental health in coping with stressful events. Parental support is crucial for enhancing students' resilience in online learning, while peer support is equally significant. In the field of counselling, it is essential for counsellors to be attuned to the mental

health of students in this socially isolated environment, as the new norms of study have been challenging.

Interventions such as online resilience workshops and the establishment of social support groups among students can be effectively implemented to assist them. Additionally, this research provides a valuable reference for future studies exploring similar variables. Based on the findings of this study, several recommendations for future research are proposed. First, a larger sample size is needed to enhance the generalisability of the results. Future studies could aim to increase the sample size to determine whether similar findings can be replicated. Second, further research could explore the relationship between perceived stress and resilience within different populations, as various groups encounter distinct stressors in their lives. Understanding these differences would benefit society by revealing how diverse populations experience perceived stress and resilience during the COVID-19 pandemic. Finally, employing alternative research designs, such as qualitative or longitudinal studies, could provide insights into whether the relationship between perceived stress and resilience remains stable over time.

In conclusion, this study demonstrates that counselling students experienced moderate stress (mean 22.02) and a very high level of resilience (mean 255.20) in response to online learning during the COVID-19 pandemic. The findings indicate that while online learning has heightened the stress levels of counselling students, they maintain a robust level of resilience to cope with the challenges presented by remote learning during this period.

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