



The mediating effects of resilience and coping strategies on perceived threat of Covid-19 and subjective well-being among Malaysian emerging adults

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Abstract

The outbreak of COVID-19 has been affecting the Malaysian psychological well-being, particularly among emerging adults. They have been found to have higher vulnerability during the transitional life change. Therefore, the present study aims to examine the mediating effects of resilience and coping strategies (i.e., task-oriented coping, emotion-oriented coping, avoidance-oriented coping) on perceived threat of COVID-19 and subjective well-being (SWB) among Malaysian emerging adults. A cross-sectional online survey study was conducted for recruiting 162 participants. They were emerging adults aged between 18 to 25 years old (M = 22.51). The finding revealed that only task-oriented coping mediates the association between perceived threat of COVID-19 and SWB. However, the other hypotheses were not supported. This significant finding has widened the literature perspective of COVID-19 in the local context. Task-oriented coping is crucial to be cultivated among emerging adults for reducing the impact of the stressful situation, contributing to better psychological health.

Keywords: COVID-19, resilience, coping strategies, perceived threat, subjective well-being

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Introduction

The World Health Organization (WHO) (2020) has declared coronavirus disease 2019 (COVID-19) as a global pandemic. The pandemic has been affecting individuals' daily routines and well-being worldwide since the end of 2019. Past studies found that the perception of COVID-19 as a threat may lead to psychological consequences that affect subjective well-being negatively (Paredes et al., 2020; Satici et al., 2020). The present study aims to examine the mediating effect of resilience and coping strategies on the perceived threat of COVID-19 and subjective well-being (SWB) among emerging adults during this pandemic.

Subjective well-being (SWB) evaluates one's whole life from the cognitive and affective perspective (Diener et al., 2009). Although the Malaysia Well-Being Index (MyWI, 2018) showed an increase in the index points compared to the previous year, the outbreak of COVID-19 may remain a challenge for further improvement. The changes in life due to the COVID-19 pandemic have resulted in psychological maladjustment among individuals, specifically emerging adults. For instance, the disturbance in lifestyle and economics during the pandemic has been positively associated with emerging adults' emotional distress (Shanahan et al., 2020).

Studies found major psychological maladjustments, such as depression and anxiety among emerging adults in the United States and Italy during the pandemic (Kujawa et al., 2020; Germani et al., 2020). These results indicate the low level of SWB among emerging adults during this pandemic, specifically, anxiety and depression have been reported negatively associated with the level of SWB (Burns et al., 2011). Hence, the

results suggest that the COVID-19 may show a significant adverse effect on the SWB among emerging adults in Malaysia as National Health and Morbidity Survey 2011 reported emerging adults had the highest prevalence rate of depressive disorder in both current (2.5%) and lifetime (3.1%), and being more vulnerable in managing the transitional changes during this period of life (Kok, 2015; R. A. Al-Naggar & Al-Naggar, 2012).

The examination of mediating effect is crucial as the findings provide more beneficial insights into theoretical and practical aspects. Theoretically, it helps to refine the conceptual framework with a wider understanding of the underlying process. Practically, it helps practitioners incorporate the significant element into the intervention program, which can substantially increase the success rate. In the present study, resilience was suggested to mediate the perceived threat of COVID-19 and SWB. Resilience refers to a successful adaptation from threats, trauma, or various sources of stress (Southwick et al., 2014). Resilience was reported having mixed findings with SWB (Arslan, 2019; Killgore et al., 2020), reflecting a greater scholarly attention is needed for further examination. Despite this, there are studies (e.g., Kimhi et al., 2020; Parades et al., 2020) conducted in a western context. However, the applicability of these findings in the Malaysian context is uncertain, particularly under the pandemic influence.

In the present study, another mediator (i.e., coping strategies) was suggested. Coping strategies include three dimensions: task-oriented coping, emotion-oriented coping as well as avoidance-oriented coping (Endler & Parker, 1999). Individuals who fall under the task-oriented style will be active in solving the problem in a stressful situation. In contrast, individuals who fall under the emotional-oriented coping style will habitually engage in maladaptive behaviour. Furthermore, those who avoid stressful situations will predominantly be in avoidant-oriented coping style (Cohan et al., 2006). The past studies (e.g., Doron and Martinent, 2016; Nicholls et al., 2016) reported that perceived threat is positively associated with coping strategies such as emotion-oriented coping strategy. However, only limited studies (e.g., Blaso-Belled et al., 2020; Zacher and Rudolph, 2020) from the western context examined the mediating effect of coping strategies on the perceived threat of COVID-19 and SWB. The generalizability of these findings into the local context is to be confirmed.

The main objective of this study is to examine the mediating role of resilience and coping strategies on the relationship between perceived threats of COVID-19 and SWB among emerging adults in Malaysia. The Stimulus-Organism-Response (S-O-R) theory was applied to examine the research objective in this study. The S-O-R theory has been widely used in other study contexts, such as focusing on purchasing power (Kim et al., 2018; Latoo et al., 2020) and information processing (Song et al., 2020). However, there is still inadequate study that applied S-O-R Theory in the mental health context. Therefore, this research study can provide a broader insight into the usefulness of S-O-R Theory in the developed conceptual framework.

Method

The present study was a cross-sectional study to examine the predictive effects of the perceived threat of COVID-19, resilience, coping strategies (i.e., task-oriented, emotional-oriented, and avoidant-oriented) on SWB. Non-probability sampling approach, specifically with the purposive sampling method, was adopted. The sample in the purposive sampling method was chosen according to the criteria required to match the study (Elfil & Negida, 2017). The inclusion criteria for this present study were: (1) emerging adults who aged between 18 to 25 years old and (2) being a Malaysia citizen.

G*Power developed by Faul et al. (2009) was used for estimating the minimum sample size. The result of the software showed that 138 respondents were required. However, Fairbairn and Kessler (2015) suggested adding 10 to 15% more of the minimum sample size to avoid biased findings. Hence, an additional of 15%, the sample size was included in the minimum sample size, resulting in 159 respondents. In the actual data collection, 162 individuals aged between 18 to 25 years old were recruited (M=22.51 years; SD=1.50 years). More than half of them were females (N = 111; 68.5%) in this study.

Four instruments were used in this present study. Perceived threat of COVID-19 scale developed by Liu et al. (2020) was used to examine the level of perception of individuals towards COVID-19 as a threat based on perceived vulnerability and seriousness of the individual. It was a multidimensional four-item scale ($\alpha=.83$). The example items include "I believed that COVID-19 is severe." (1 = Strongly disagree; 7 = Strongly agree)

Furthermore, the 10-item Connor-Davidson Scale (CD-RISC-10) developed by Campbell-Sills and Stein (2007) was used to measure the level of an individual's resilience. The scale's sample items are "Can stay focused under pressure" and "Not easily discouraged by failure", and they were administered by five-point Likert scale (0 = Not at all true; 4 = True nearly all the time). This scale obtained a good reliability score with Cronbach's alpha ($\alpha=.86$).

The 21-item short form of the Coping Inventory for Stressful Situations (CISSSF) developed by Endler and Parker (1999) was used to measure an individual's behavioural and cognitive responses toward difficult

situations. The scale was administered by five-point Likert scale from 1 (almost never) to 5 (almost always). The scale consists of three 7-item subscales which indicate task-oriented coping (e.g., "Think about how I solve similar problems"), emotion-oriented coping (e.g., "Become very upset"), and avoidance-oriented coping (e.g., "Treat myself to a favorite food or snack"). The overall scale obtained adequate reliability with ($\alpha=.69$) along with adequate reliability for avoidant-oriented coping ($\alpha=.69$), and task-oriented coping ($\alpha=.69$) and emotion-oriented coping ($\alpha=.79$).

Lastly, the 5-item World Health Organization Well-Being Index (WHO-5) developed by the World Health Organization (WHO, 1998) was used to measure the level of an individual's SWB over the last two weeks. The sample items include "I have felt cheerful and in good spirits" and "I have felt calm and relaxed". They were administered by six-point Likert scale (0 = None of the time; 5= All of the time). This scale was reported with good reliability ($\alpha=.87$).

The researchers of the present study applied for ethical approval before the commencement of data collection. The ethical approval was successfully issued by the Scientific and Ethical Review Committee of Universiti Tunku Rahman. An online survey was then applied due to the strict practice of social distancing and movement control order (MCO) in Malaysia. An online survey with informed consent sheet was distributed via various social media platforms. All the collected data were analysed by using SPSS version 21. Data cleaning was performed to ensure that the responses were collected without missing values, straight-lining, and data entry errors. Demographic information has also been collected and analysed as descriptive statistics. Next, the mean and standard deviation were computed for each of the components. PROCESS macro Model 4 by Hayes (2018) was adopted to assess the mediating effect of resilience, task-oriented coping, emotion-oriented coping, avoidance-oriented coping among the relationship between perceived threat of COVID-19 and SWB. It was tested with 5000 bootstrap samples with 95% confidence intervals to indicate the significance of the indirect effects from the study. According to Hayes (2013), there is a significant indirect effect if zero is not within the confidence interval (CI). Before the analyses for mediating effect, the assumption for normality test was carried out to examine the degree of normality of the distribution from the data set obtained. Furthermore, Alwin and Hauser (1975) had proposed two simple mediation models that measured the effects in path analysis:

(1) the ratio of the indirect effect to total effect:

$$P_M = \frac{ab}{ab + c'} = \frac{ab}{c} = 1 - \frac{c'}{c}$$

(2) the direct effect in relation with the total effect:

$$1 - P_M = 1 - \frac{ab}{ab + c'} = 1 - \frac{ab}{c} = \frac{c'}{c}$$

In other words, the formulas above explains that path *a* is the slope linking X to M, path *b* is the conditional slope linking M to Y, *c* is the total effect of X on Y and *c'* is the conditional slope linking X to Y through M (Alwin & Hauser, 1975)

Results

As shown in Figure 1.0, the results revealed that there was a significant effect in both path *a* and *b* which are perceived threat of COVID-19 on task-oriented coping ($B= .158$, $SE= .068$, $t= 2.317$, $p< .022$, 95% CI [.023, .293]) and task-oriented coping on SWB ($B= -.364$, $SE= .131$, $t= -2.787$, $p< .006$, 95% CI [-.622, -.106]). However, non-significant direct effect of perceived threat of COVID-19 on SWB was found (path *c'*) ($B= .193$, $SE= .115$, $t= 1.684$, $p= .094$, 95% CI [-.033, .420]). Furthermore, the analysis showed that the indirect effect of the perceived threat of COVID-19 and SWB was significant ($B= -.058$, $SE= .036$, 95% CI [-.142, -.003]). The total effect on perceived threat of COVID-19 and SWB was non-significant ($B= .135$, $SE= .115$, $-t= 1.177$, $p= .241$, 95% CI [-.092, .363]). Task-oriented coping played a full mediating role in this present research. Hence, the hypothesis of task-oriented coping mediates the association of the perceived threat of COVID-19 and SWB among emerging adults was supported as results indicated that task-oriented coping has a significant indirect effect on the perceived threat of COVID-19 and SWB which the zero was not include based on the confidence level of 95%. After applying the calculation, it was found that the ratio of indirect effect and direct effect on total effect were -.430 and 1.430 respectively. H2 is supported in the present study.

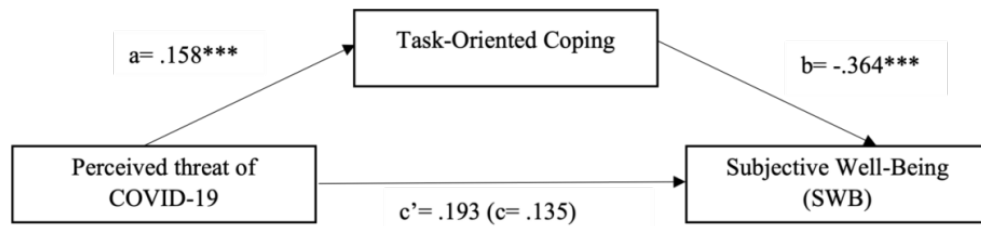


Figure 1. Mediation Effect of Task-Oriented Coping on Perceived threat of COVID-19 and Subjective Well-Being

However, the mediating effects of resilience, emotional-oriented coping, and avoidant-oriented coping are not found to be significant, specifically both path a and b, as well as the indirect effect of X on Y. Hence, resilience, emotional-oriented coping, and avoidant-oriented coping do not mediate the association of the perceived threat of COVID-19 and SWB among emerging adults in Malaysia, H1, H3, and H4 were not supported (refer to Table 1.0)

Table 1: Table of Result Summary

Hypothesis	Results			Decision
	B	SE	95% CI	
H1: Resilience mediates the association of perceive threat of COVID-19 and subjective well-being among emerging adults in Malaysia.	-.073	.044	[-.176, .000]	Not Supported
H2: Task-oriented coping mediates the association of perceive threat of COVID-19 and subjective well-being among emerging adults in Malaysia.	-.058	.036	[-.142, -.003]	Supported
H3: Emotional-oriented coping mediates the association of perceive threat of COVID-19 and subjective well-being among emerging adults in Malaysia.	.071	.035	[.012, .147]	Not Supported
H4: Avoidant-oriented coping mediates the association of perceive threat of COVID-19 and subjective well-being among emerging adults in Malaysia.	-.016	.019	[-.058, .019]	Not Supported

In the present study, task-oriented coping is a significant mediator on the association between the perceived threat of COVID-19 and SWB among Malaysian emerging adults. The result is consistent with the past study (GustemsCarnicer & Calderón, 2012; Loukazadeh & Bafrroi, 2013), indicating that task-oriented coping showed a potential mediating effect. However, it was found that resilience, emotional-oriented coping, and avoidant-oriented coping are not the significant mediator on the association of the perceived threat of COVID-19 and subjective well-being. The present results exhibit the inconsistency with the past studies (Bryden et al., 2015; Kimhi et al., 2020; Kuo et al., 2017; Mayordomo-Rodriguez et al., 2014; Sagui-Henson, 2017; Yildirim & Arslan, 2020).

One of the possible reasons task-oriented coping plays a mediating effect is that it focuses on tackling the real issue and developing solutions. For example, when individuals perceive that COVID-19 is a risk to them, they are more eager to tailor ways to handle the situation, such as wearing a mask, keeping a social distance, taking care of personal hygiene. Besides, a study conducted by Smith et al. (2015) stated that when task-oriented coping is adopted to deal with a stressful situation, it will link to a more positive and adaptive outcome. For instance, reduced psychopathology problems, depression, anxiety (Myers et al., 2013; Smith et al., 2015), explaining its significant role on the perceived threat of COVID-19 and SWB. The present study helps broaden the perspective literature related to COVID-19 in Malaysia, which could be helpful in future studies, specifically the use of the S-O-R theory in the Malaysia setting. Additionally, the significant task-

oriented coping skill may provide better insights for policymakers and mental health professionals in assisting our emerging adults to develop stronger coping skill while dealing with issues arise from COVID-19 pandemic (i.e., financial crisis, loss of freedom). Therefore, the examination of the mediating effect unveils a clearer picture for understanding the underlying process of the key variables.

The present research has its own set of limitations that need to be addressed. The limitations include focusing only on emerging adults between 18 to 25 years old, which has led to low generalizability to other age groups. On top of that, the latest age range suggested by Arnett et al. (2014) was between 18 to 29 years old; however, the present study was still adapted to the previous age range. Apart from that, the imbalance ratio of races in this study may not contribute to other fields that focus on racial differences during the pandemic as most of the recruited respondents were Chinese. Furthermore, social desirability bias, the tendency to over-report more favourable attributes and underreport not desirable behaviours, could potentially happen when using self-reported questionnaire (Latkin et al., 2017). The small sample size, the participants recruited in the study was 162, which was also a limitation of the present study as it might reduce the power of the study and the actual effect when carried out statistical analysis.

Future study is recommended to explore other age groups as this pandemic affects any age group. The random sampling method, specifically stratified random sampling, is suggested for obtaining more comparable data as it divides the population into subgroups following the demographic factor (Elfil & Negida, 2017). Hence, the researcher may apply this sampling method to separate the target population into different strata (e.g., racial groups) and choose the participants from the strata accordingly. Lastly, the future study is also recommended to increase the number of participants to reduce biased findings and generate higher statistical power.

Conclusion

In conclusion, the present study has achieved the objectives to examine the mediating role of resilience and coping strategies (task-oriented coping, emotion-oriented coping, avoidance-oriented coping) on the association between the perceived threat of COVID-19 and SWB among emerging adults in Malaysia. The results showed that resilience, emotional-oriented coping, and avoidant-oriented coping do not have a significant mediating effect, but task-oriented coping mediates the association of the perceived threat of COVID-19 and SWB among emerging adults. COVID-19 has brought substantial impacts to the globe, and it is crucial to cultivate a more adaptive coping style in dealing with the issues that come along with the pandemic.

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