

Students' societal mattering as a protective factor against depression and suicidal thoughts

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ABSTRACT

Suicide ideation or suicidal thought has been reported to be one of the major mental wellbeing issues among university students following the increase of the depressive symptoms. The implication of social distancing in the form of lockdown did not help to reduce the aforementioned cases. While we know that reducing depressive symptoms among university students might be almost impossible to be done without any drastic change to the educational system, we would like to investigate whether the sense of mattering to the university might moderate the development of suicide ideation when the students have developed depressive symptoms. We recruited 435 university students and had they voluntarily responded to the Beck's depression inventory, satisfaction with life scale, societal mattering scale, and the suicidal ideation attributes scale. The data was analyzed by bias-free bootstrap analysis with 5,000 samplings and 95% confidence interval in PROCESS Macro model 59 and model 1, and the results reported that high university mattering levels might moderate the link between depression symptoms and suicide ideation through life satisfaction. In other words, in the situation where the students were locked-down, the chance of develop depression and the idea to end their own life tend to be higher. However, the more they believe that they matter to their university as a society, the less they will develop depression symptoms and the suicide ideation.

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1. INTRODUCTION

Depression is a common mental health illness among the general population, characterized by persistent low mood, loss of interest and excitement, changes in appetite and weight, sleep difficulties, fatigue, and low energy, as well as poor concentration [1]. In some serious cases, major depression can even lead to self-harm and suicidal behavior; based on early evidence from published studies, the outbreak of the COVID-19 pandemic is associated with an increase in mental health issues, including depression [2], [3]. Past studies reported that more than two-thirds of university students were experiencing higher levels of anxiety, loneliness, stress, and fear of COVID-19 which could lead them to develop mild to severe depression [4], [5]. Konstantopoulou and Raikou [6] reported that 80.2% of their participants have symptoms of at least mild depression, and only 19.8% may be considered to have few or no symptoms of depression. This indicated that university students are significantly affected by the circumstantial changes brought by the

COVID-19 situation, such as lockdown, social constraints, and study-from-home enforcement as a part of the social distancing protocols.

As aforementioned, depression could lead to suicidality, whereby individuals with more severe depressive symptoms have greater risks of suicidal ideation and suicide attempts [7], [8]. When individuals feel depressed, they might experience extreme sadness and despair, which often leads them to lose interest and desire to do the things and activities they used to like to do [9]. They might also have low or no interest to interact with others which could eventually shut them away from the outside world [10]. Hence, individuals who are depressed often feel less happy and less satisfied with their life [11].

When individuals developed a negative outlook of life, they would easily get irritated as the pressure and negative emotions they experience turn into a psychological strain that is so unbearable that the individuals have to find a way to reduce and release their emotions [12], [13]. In some cases, a full-blown psychological strain could result in mental disorders, and suicidal behavior [14], [15]. This is supported by the strain theory of suicide, whereby the authors suggested that the degree of suicidality is positively associated with one's psychological strains, and negatively with one's life satisfaction [16]. Several past studies also reported significant negative relationship between life satisfaction and suicidal ideation [17], [18].

Other than the elevated prevalence of depression [19] and suicidal ideation [20] among university students, the enforcement of lockdown and online study from home has also reduced the students' sense of societal mattering to the university (university mattering) that could protect them from being anxious and depressed [21], [22]. It was reported that the perception of not mattering to others could result in a feeling of isolation and social anxiety [23], consequently leading to lower psychological wellbeing Invalid source specified and lower unconditionally social acceptance Invalid source specified. Thus, higher societal mattering was found to correlate with higher life satisfaction [24], lower depression levels [25], as well as lower suicidal ideation [26].

Given the empirical evidence from past studies, we proposed that the relationship between university students' depression levels and suicidal ideation could be explained by their life satisfaction, and this relationship might be moderated by their degree of university mattering. Students with higher university mattering were predicted to have lower depression levels, leading them to have higher life satisfaction, and thus develop lower suicidal ideation and vice versa. Figure 1 illustrates our hypothetical model.

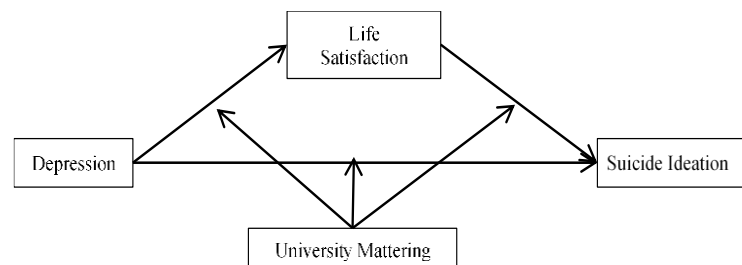


Figure 1. Hypothetical model of moderated mediation

2. RESEARCH METHOD

2.1. Participants

According to Krejcie and Morgan [27], a population larger than 100,000 should be represented by at least 384 samples. Therefore, we recruited 435 participants (127 men, 308 women) aged 18 and to represent the university students in Malaysia (n=221) and Indonesia (n=214). All participants were studying from home, and most of them were bachelor's degree students (n=382). They were recruited through cluster random sampling method on social media platforms such as Facebook, Instagram, Whatsapp, LinkedIn, and WeChat, in which the participants had clicked the link that allowed them access to the survey items. All participants provided their consent by clicking 'yes' in the informed consent form, which has stated that they will be giving their responses to our scales with the option to cancel their participation at any time during the process if they were to experience any discomfort.

2.2. Materials

Items asking for participants' basic demographic information such as nationality, gender, mode of study, and level of study were included. The level of depression was assessed using the Beck's depression inventory [28] and the value for Cronbach's Alpha was $\alpha=.94$. Life satisfaction was assessed using the

Satisfaction with Life Scale [29] and the value for Cronbach's Alpha was $\alpha=.84$. University mattering was assessed using the Societal Mattering Scale [30] and the value for Cronbach's Alpha was $\alpha=.92$. Lastly, suicidal ideation was assessed using the Suicidal Ideation Attributes Scale [31] and the value for Cronbach's Alpha was $\alpha=.76$.

3. RESULTS AND DISCUSSION

3.1. Analysis 1

We analyzed the data with bias-free bootstrap analysis with 5,000 samplings and 95% confidence interval in PROCESS Macro model 59 for moderated mediation. As shown in Table 1, the interaction of university mattering and depression did not significantly predict life satisfaction when moderated by university mattering (path a). Using the same analysis method, we found that the interaction of university mattering and life satisfaction did not significantly predict suicidal ideation when moderated by university mattering (path b). On the other hand, the interaction of university mattering depression significantly predicted suicidal ideation (path c').

Table 1. Association between depression, life satisfaction, and suicidal ideation, when moderated by university mattering

Path	Predictors	Outcome	coeff	se	t	p	LLCI	ULCI
Path a	Depression x University mattering	Life satisfaction	.00	.00	.53	.60	-.00	.01
Path b	Life satisfaction x University mattering	Suicidal ideation	.01	.01	1.13	.26	-.01	.03
Path c'	Depression x University mattering	Suicidal ideation	-.01	.01	-2.43	.02*	-.02*	-.00*

Note. *=significant, p-value less than .05, and the range between LLCI and ULCI does not cross zero

Furthermore, as presented in Table 2 and Table 3, depression also significantly predicted suicidal ideation through life satisfaction among students with a moderate level of university mattering (path c'). This indicated that among students who felt that they were moderately appreciated by their university, the lower their depression, the higher their life satisfaction, and therefore they would develop lower suicide ideation. Therefore, the moderated mediation hypothesis occurred, nevertheless, our hypothesis was not entirely supported as our moderator did not significantly moderate path a and path b.

Table 2. Conditional direct effect of depression on suicidal ideation

University mattering levels	Effect	se	t	p	LLCI	ULCI
-8.35 (Low)	.72	.05	13.63	.00*	.62*	.83*
.00 (Moderate)	.63	.04	14.83	.00*	.54*	.71*
8.35 (High)	.53	.06	8.46	.00*	.41*	.65*

Note. *=significant, p-value less than .05, and the range between LLCI and ULCI does not cross zero

Table 3. Conditional indirect effect of depression on suicidal ideation

University mattering levels	Effect	BootSE	BootLLCI	BootULCI
-8.35 (Low)	-.03	.03	-.09	.03
.00 (Moderate)	-.05	.03	-.10*	-.00*
8.35 (High)	-.07	.04	-.16	.01

Note. *=significant, the range between BootLLCI and BootULCI does not cross zero

3.2. Analysis 2

Our results also suggested a trend between the variables. Table 4 indicated that depression significantly predicted life satisfaction when controlling for university mattering; university mattering significantly predicted life satisfaction when controlling for depression; life satisfaction significantly predicted suicidal ideation when controlling for depression and university mattering; as well as depression that significantly predicted suicidal ideation when controlling for life satisfaction and university mattering. Therefore, we conducted a supplementary analysis to test the association between these variables. Figure 2 illustrates the model based on our second analysis.

We tested the moderated mediation with bias-free bootstrap analysis with 5,000 samplings and 95% confidence interval in PROCESS Macro model 14. As shown in Table 5 and Table 6, the mediation of life satisfaction only occurred among students with high university mattering. In other words, when students' depression is reduced, their life satisfaction tends to be increased (because path a was negative), and

therefore, their tendency to develop suicide ideation would be decreased as well (because the indirect effect was negative). On the other hand, students with low and moderate levels of university mattering did not experience the same phenomenon; their life satisfaction did not significantly mediate the relationship between depression and suicidal ideation.

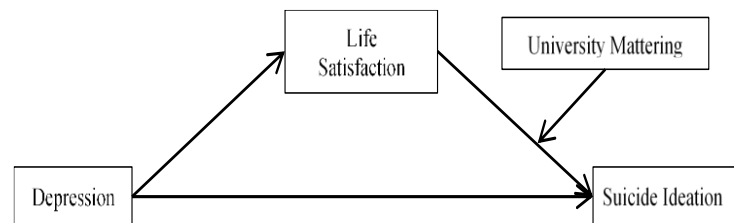


Figure 2. Our second Hypothetical model of moderated mediation based on Table 4

Table 4. Association between depression, life satisfaction, suicidal ideation, and university mattering

Predictor	Outcome	coeff	se	t	p	LLCI	ULCI
Depression	Life satisfaction	-.28	.02	-12.12	.00*	-.32*	-.23*
University mattering	Life satisfaction	.14	.03	4.17	.00*	.07*	.20*
Life satisfaction	Suicidal ideation	.18	.08	2.29	.02*	.03*	.33*
Depression	Suicidal ideation	.63	.04	14.83	.00*	.54*	.71*

Note. *=significant, p-value less than .05, and the range between LLCI and ULCI does not cross zero

Table 5. Direct effect of depression on suicidal ideation

Effect	e	t	p	LLCI	ULCI
.64	.04	15.35	.00*	.56*	.73*

Note. *=significant, p-value less than .05, and the range between LLCI and ULCI does not cross zero

Table 6. Conditional indirect effect of depression on suicidal ideation

University mattering levels	Effect	BootSE	BootLLCI	BootULCI
-8.35 (Low)	.01	.03	-.05	.07
.00 (Moderate)	-.05	.03	-.11	.00
8.35 (High)	-.12	.04	-.21*	-.04*

Note. *=significant, the range between BootLLCI and BootULCI does not cross zero

3.4. Discussion

Consistent with our hypothesis, the results showed that life satisfaction partially mediated the relationship between depression and suicidal ideation among students with moderate levels of university mattering (Analysis 1) as well as high levels of university mattering (Analysis 2). Our findings are in line with previous studies, which reported that individuals with a higher perception that they mattered had lower suicidal ideation compared to those with lower reported mattering, after controlling for psychological distress [32].

Our findings suggested that university mattering acts as a leverage for reducing suicidality among emotionally distressed students. We emphasized the importance of the university and its role in helping students to cope with certain sudden circumstantial changes, which in this case, the impact of COVID-19 pandemic such as lockdown and study from home. Additionally, our study also added to the body of knowledge that university mattering will only reduce suicidal ideation when it is possessed at moderate and high levels. Thus, improving students' sense of university mattering might work more significantly in reducing suicidality, instead of merely lowering students' level of depression.

Studies before the pandemic also suggested that lower suicidality was associated with higher positive mental health [33], higher perceived social support [34], lower anxiety levels [35], lower fear of missing out [36], and lower sense of helplessness [8]. Therefore, the inclusion of such variables is suggested for future studies to overcome our limitations.

It is imperative to understand that depression symptoms we mention in this current study were self-reported; thus, one might argue that students who are mentally healthy were not clinically depressed, and therefore, did not develop any ideation to be suicidal. Nevertheless, data from self-reporting participants on depression or any other emotional states could play more role than the professional diagnostic; while they are

not diagnosed as clinically depressed, they might believe that they are severely depressed (mostly because they had no knowledge on how real clinical depression look like). This belief, either impostor or genuine, tend to lead individuals to behave following it; including suicidal behavior. Therefore, it is important to understand that developing the belief that the students matters to the universities help students to overcome their perceived depression, perceived anxiety, which might be followed by suicide ideation.

A further limitation of our study that comes naturally with its cross-sectional nature is the validity of our findings over time. We collected the data only at one point in time, particularly during the full movement control order (FMCO) period in Malaysia; therefore, the consistency of our results was interpreted from the same pool of participants during the different stages of movement control order (MCO) is still uncertain. Thus, longitudinal studies or comparative studies are called for to fill in this gap. Qualitative studies are also strongly recommended to provide a deeper insight into the phenomenon.

In short, it is apparent that most university students experienced higher anxiety levels and greater depression symptoms soon after the pandemic outbreak started, most were caused by the perceived loneliness and helplessness due to the lockdown and social constraints [37], [38]. Other than family and friends, our study strongly suggested that universities or even lecturers play a significant role in producing a sense of societal mattering among students to help them better cope with stress and burnout.

4. CONCLUSION

Our findings indicated that among the students who believe that they matter to their respective universities, the development of any depressive symptom would not immediately lead them to develop suicide ideation. Their sense of university mattering would likely regulate the contribution of their depression through life satisfaction, to eventually reduce the likelihood of the development of suicide ideation or suicidal thoughts. Therefore, it is suggested for all higher education stakeholders to consider systematic methods to make students believe that they matter to the university, which the university cares about their wellbeing.

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