

# The Relationship Between Perfectionism and Perceived Stress among Undergraduates: The Role of Mindsets

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## ABSTRACT

In today's life, almost every corners of the globe, there is a phenomenon of growing stress among the undergraduates, in this aspect Malaysia is no exception. The high level of perceived stress will have an adverse effect on every aspect of students' life. Previous studies have well-established the relationship between perfectionism and stress. Perfectionism is associated with mindset, meanwhile, mindset may also be capable of changing in from the state of response to stress, which indicates a potential mediating role of mindsets. Therefore, this study closely examined the relationship between the multidimensional perspective of perfectionism, perceived stress, and mindsets; mediation role of mindsets between perfectionism and perceived stress among the undergraduates from two public universities in Klang Valley, Malaysia. A total of 410 participants were involved in the current study. Data were analyzed through SPSS. Spearman correlation analysis indicates maladaptive perfectionism was significantly related to lower growth mindset and higher perceived stress, while adaptive perfectionism is related to higher growth mindset, and not significantly associated with perceived stress. Moreover, mediation analysis was done through PROCESS Macro in SPSS. It was inferred that the suppressing effect was found between adaptive perfectionism and perceived stress through growth mindset, which can be seen as mediation effect in a broad sense. Thus, it can be concluded that maladaptive perfectionists will suffer more stress and possess lower growth mindset, on the other hand, adaptive perfectionists have more growth mindset and lower perceived stress.

## 1. Introduction

One of the most difficult days in a person's life is when they are an undergraduate (Ranita Manap, Sohana Abdul Hamid & Ghani, 2015) because of the changes in various aspects of life, such as education style, lifestyle, and social environment, undergraduates must achieve a certain level of academic achievement in order to graduate on time. Current Malaysian undergraduates are not exception, the majority of them suffer from excessive stress, the current student generation is far more stressed and worried than previous generations (Ramli, Alavi, Mehrinezhad & Ahmadi, 2018). According to one study, the majority of Malaysian university students experience moderate stress (Ganesan, Talwar, Fauzan & Oon, 2018). Self-evidently,

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stress can harm students to varying degrees. For example, stress can even hinder one's ability to concentrate, solving problem ability, decisions making, and other necessary abilities for students' learning (Yazdani, Rezaei & Pahlavanzadeh, 2010), extreme levels of stress can decrease study effectiveness and hinder one's good academic performance (Alam & Halder, 2018; Khan, 2013) which may lead to anxiety and depression, suicidal ideation and hopelessness (Dixon, Rumford, Heppner & Lips, 1992), self-hurt behaviors (Liu, 2018), bad sleep quality (Yan, Rongmao, Su & Liu, 2018). Therefore, it is critical to detect and address high-level stress as soon as possible in order to reduce psychological morbidity and mitigate the negative consequences (Ranita Manap et al., 2015). Only by understanding the stress mechanism can we determine what measures should be taken to protect students from excessive stress. As a consequence, stress-related variables must be investigated.

## **2. Literature Review**

The Diathesis-Stress Model provides a useful explanation for how affective and psychological responses to potential stressors occur when a person is vulnerable to a stressor (Monroe & Simons, 1991). Perfectionism is well-known to be associated with stress. In recent few decades, many researchers have shown interest in analysing personality traits as diatheses. Hewitt and Flett (2002) reported that perfectionism can be characterised as working within a diathesis-stress type framework; nevertheless, perfectionism was seen as a single-dimensional and maladjusted variable within the framework. Researchers found two dimensions of perfectionism: maladaptive perfectionism and adaptive perfectionism. Maladaptive perfectionistic tendencies such as perfectionistic concerns and discrepancy have been repeatedly linked to different types of maladjustment (Chang, Watkins, & Banks, 2004; Hewitt & Flett, 2002; Rudolph). Individuals with a high level of adaptive perfectionistic strivings, on the other hand, concentrate on rewards and commence performance in order to receive praise, and emotions of mastery and control will greatly benefit the individual (Burns, Dittmann, Nguyen, & Mitchelson, 2000). Although there is ample evidence that maladaptive perfectionism is significantly connected with stress (e.g., Slaney et al. 2001), the empirical support for a relation between adaptive perfectionism like perfectionistic strivings and stress is somewhat mingled (Achtziger & Bayer, 2013). Some researchers identified a negative correlation between perfectionistic strivings and stress (Stoeber & Rennert, 2008; Tashman, Tenenbaum, & Eklund, 2010), whereas others could not found such correlation between these two variables (Rice & Amy, 2010). Hence, whether adaptive perfectionism is negatively associated with perceived stress is still debatable; however, the current study would continue to investigate the relationship between adaptive perfectionism and perceived stress; additionally, this would investigate the cognitive mechanism underlying the link between perfectionism and perceived stress. We can provide the appropriate intervention if we understand what conception drives perfectionists to become stressed.

When considering the mechanism of stress, we can look to the Transactional Theory of Stress and Coping (Lazarus & Folkman, 1984). Stress focuses on environmental interaction that a person considers important for his or her welfare but also that the requirements tax or exceed available coping resources (Lazarus, 1991). According to this concept, two components are essential mediators in the person-environment transaction process: cognitive assessment and coping. Appraisal, i.e., individuals' assessment of the relevance of what is occurring to their well-being, and coping, i.e., individuals' attempts in perception and behaviour to address particular requirements (Lazarus, 1991). Thus, the Transactional Theory of Stress and Coping establish the relationship between cognitive factors and perceived stress. First, it highlights the central role of the individuals' cognitive responses in exacerbating or attenuating the stress

response. Second, believing that one's coping resources are adequate enough to efficiently reduce or eliminate the stressor by changing one's cognitive appraisal of it or by conducting direct behaviour patterns (Lazarus & Folkman, 1984).

According to the Self-Implicit Theories of Intelligence (Dweck, 2000), mindset is a cognitive factor that influences one's perception of the malleability of their ability or intelligence. Dweck (2020) proposed that students may have one of two implicit assumptions about the essence of their abilities or intelligence, entity theory reflects their abilities as a fixed trait, if not invariant or even genetically determined, individuals with this conviction are entity theorists. Individuals who believe their abilities are malleable and modifiable, according to incremental theory, are incremental theorists (Dweck, 1999). Dweck later expanded the concept of Self-Implicit Theories of Intelligence as "mindsets" in her later work (Dweck, 2006). For those who have a fixed mindset, failure has been changed from an action (I failed) to an identity (I am a failure), they have ruminated over their troubles and setbacks, primarily tormenting themselves with the concept that the setbacks aimed at making them feel themselves that they were incapable or worthless, and hence they are always in threat of being evaluated by a failure (Dweck, 2006). Regardless of how intelligent or skilled they are, this worldview appears to deprive people of coping resources (Dweck, 2006). Dweck (2006) also claimed that students with a fixed mindset are more likely to be depressed. According to some research, fixed mindsets predict future psychological problems (Schroder, Callahan, Gornik & Moser, 2019). In contrast, we can infer that a growth mindset broadens coping resources and reduces stress by believing that abilities can be cultivated and coping resources are sufficient. Dweck (2006) also asserted that the growth mindset will aid in the treatment of depression. Cultivating a growth mindset is a good way to improve mental health, including anxiety reduction (Yeager et al., 2016). Recently, a study conclude that a growth mindset is positively related to happiness and self-esteem and negatively related to stress (Kyoung Hwang & Lee, 2018). Although few studies have directly demonstrated the relationship between mindsets and stress, the literature mentioned above suggests that mindsets may influence an individual's perception of stress by influencing the appraisal process and coping resources, because fixed mindset and growth mindset have different attitudes toward the obstacle, and failure (Dweck, 2006). Growth mindsets could be a possible cognitive factor that appraises the situation more positively and perceives more coping resources; however, the current study hypothesised that growth mindset is negatively correlated with perceived stress.

Meanwhile, researchers discovered connections between perfectionism and mindsets. Entity beliefs were found to be positively related to maladaptive perfectionism (Shih, 2011). Among Chinese students, unhealthy perfectionists impacted significantly higher on fixed mindset than healthy perfectionists and non-perfectionists (Chan, 2012). Furthermore, a positive relationship between fixed mindset and evaluative concerns (maladaptive perfectionism) was discovered (Mofield & Parker Peters, 2018). On the contrary, a study of Taiwanese adolescents found that adaptive perfectionism was significantly linked to incremental beliefs (Shih, 2011). Similarly, healthy perfectionists scored significantly higher on Growth Mindset than non-perfectionists according to Chan (2012). According to Mofield and Parker Peters (2018), encouraging a growth mindset can promote healthy strivings for high standards of quality.

Previous research found pairwise correlations between perfectionism, mindsets, and perceived stress, but none of these studies combined these three variables. As a result, the current study sought to determine not only the direct relationship between perfectionism, mindsets, and perceived stress, but also the extent to which mindsets may mediate the relationship between perfectionism and perceived stress. According to the literature review, mindset can be viewed as a protective factor that helps students overcome challenges (Blackwell, Trzesniewski, & Dweck, 2007), and it may also be capable of changing in response to stress (Babaturk, 2019).

In addition, previous research has shed light on the relationship between perfectionism and stress, as well as the interaction of a third variable that may share some constructs with mindsets. For example, the study discovered that fear of negative evaluation accounts for mediating the direct relationship between maladaptive perfectionism and perceived stress (Shafique et al., 2017). One of the characteristics of fixed mindset is the fear of negative evaluation. Dweck once explained in her book that fixed mindset people avoid criticism and failure (Dweck, 2006). As a result, the relationship between perfectionism and perceived stress may be mediated by mindset.

In the current study, the following hypothesis were developed based on research gaps:

1. Adaptive perfectionism significantly predicts perceived stress among Malaysian undergraduate students in Klang Valley.
2. There is a significant relationship between growth mindset (incremental beliefs) and perceived stress among Malaysian undergraduate students in Klang Valley.
3. Growth mindset (Incremental beliefs) significantly mediates the maladaptive perfectionism and perceived stress among Malaysian undergraduate students in Klang Valley.
4. Growth mindset (Incremental beliefs) significantly mediates the adaptive perfectionism and perceived stress among Malaysian undergraduate students in Klang Valley.

### **3. Method**

#### *3.1 Participants and Procedure*

The current study included 410 participants (107 males and 303 females,  $M = 20.32$ ,  $SD = 1.42$ ) ranging in age from 18 to 25. The researcher chose two public universities in Klang Valley and used convenience sampling from each university. The author took the permission from the appropriate authorities, and all participants, including the pilot test participants were discovered online as a result of the COVID-19 outbreak. Participants took part in the study by filling out online questionnaires via campus google email. The online form included a studied description, a detailed consent form, and a survey consisting of the Demographic Survey, Revised Almost Perfect Scale, Revised Implicit Theories of Intelligence Scale, and Perceived Stress Scale. The participants gave their full consent to participate in the study.

### **4. Measure**

#### *4.1 Perceived Stress Scale*

The Perceived Stress Scale (PSS) is widely used to assess stress among undergraduates in Malaysia and around the world (Khodarahimi, Hashim & Mohd-Zaharim, 2016; Shafique, Gul & Raseed, 2017; Wynn, 2017). The scale with 10 items assesses individuals' perceptions of their stress levels. Participants were asked to rate themselves on a five-point Likert scale ranging from 0 (never) to 4 (very often). The composite scores range from 0 to 40, with higher composite values indicating a greater level of perceived stress. Items 4, 5, 7, and 8 are coded backward.

The scale has a sound validity and reliable Cronbach Alpha range of 0.78-0.91, together with test-retest reliability coefficients ranges of 0.55-0.85 (Cohen, Kamarck, & Mermelstein, 1983; Cohen & Williamson, 1988). The scale has been frequently utilised in studies on stress and health status among undergraduates (Pau & Croucher, 2003; Pollard & Bates, 2004). In a Malaysian study, the convergent validity (average variance extracted (AVE)) was 0.69, the construct reliability (CR) was 0.81, and Cronbach's alpha was 0.76 (Abdollahi et al., 2016).

#### 4.2 Revised Almost Perfect Scale

Revised Almost Perfect Scale (APS-R) adopted in this study was edited based on the interviews of perfectionists within the university students (Slaney, Rice, Mobley, Trippi, & Ashby, 2001). It contains the core characters of perfectionism and predicts perfectionism with both adaptive aspects and maladaptive aspects. APS-R contains 19 items and three sub-scales in the current study, including 7-item High Standard (HS) and 12-item Discrepancy (Ds). Items 1, 3, 5, 8, 10, 14, 18 are classified as HS, while items 2, 4, 6, 7, 9, 11, 12, 13, 15, 16, 17, 19 are classified as Ds. The 1 represents option “strongly disagree” and 7 represents the option “strongly agree”. The higher the score on the sub-scale, the greater the tendency in that domain. Based on past research, the Order sub-scale was not employed in this study because it does not consider to be a core aspect of perfectionism (Rice & Ashby, 2007; Stoeber & Otto, 2006).

APS-R has strong validity when compared to other perfectionism scales (Slaney et al., 2001). Convergent Validity (AVE) and Construct Reliability (CR) were shown to be good among Malaysian undergraduates (Abdollahi, Hosseinian & Asmundson, 2018).

#### 4.3 Revised Implicit Theories of Intelligence Scale

The Revised Implicit Theories of Intelligence Scale (R-ITI) (De Castella & Byrne, 2015) was used to assess the mindsets in the present study, it was divided into two sub-scales: Entity Self-Beliefs (EB) Sub-scale and Incremental Self-Beliefs (IB) Sub-scale. Each sub-scale has four items. The eight items each feature a first-person claim regarding the extent to which perceived intellect is fixed or flexible, and attempts were made to ensure that items remained closely matched with the originals in relation to the most recent version (De Castella & Byrne, 2015). Participants were asked to rate themselves that how strongly they agree (1) or disagree (6) with declarations about the malleability of intelligence and abilities using a six-point Likert scale. In the current study, all the scores of EB were reversed and add up with the sum score of the IB sub-scale, the total score was the final IB score. The scale had internal consistency, good construct validity and with definite discriminate validity, just like the original scale (De Castella & Byrne, 2015).

### 5. Results

The Statistical Package for Social Sciences (SPSS) version 25 was used by the researchers to analyse the results. Table 1 includes descriptive statistics such as means, standard deviations, skewness, kurtosis, correlations and reliabilities.

Table 1.

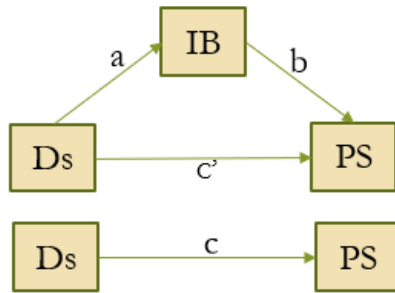
*Descriptive statistics between measures (N = 410)*

	PS	HS	Ds	IB
Perceived Stress (PS)	$\alpha=0.842$			
High Standards (HS)	.053	$\alpha=0.775$		
Discrepancy (Ds)	.488**	.250**	$\alpha=0.923$	
Incremental Belief (IB)	-.211**	.287**	-.290**	$\alpha=0.897$
Mean	19.2	37.9	51.3	37
SD	6.3	6.5	15.0	7.61
Skewness	-.091	-.305	.029	-.474
Kurtosis	.507	-.554	-.532	-.429

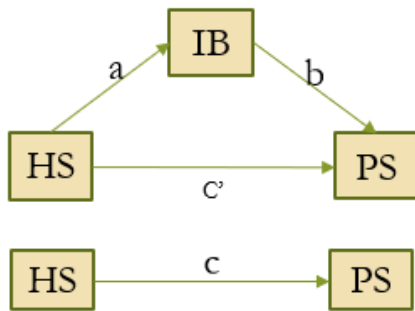
Note. \*\* $p < .01$ . \* $p < .05$ .

Kurtosis and skewness between -1 and 1 are thought to be ideal in psychological research for normal distribution, according to George and Mallery (2010). As a result, the data were con-

sidered normally distributed. All of the focal statistics had high reliability, with Alpha reliability coefficients ranging from 0.775 to 0.923. As can be seen from the results, as expected, Ds was positively correlated with PS ( $r=.488$ ,  $p<.01$ ), the HS had no significant relationship with PS ( $r=.053$ ,  $p=.221$ ), thus, this study came out with two hypothesis, the first one “Adaptive perfectionism significantly predicts perceived stress” was rejected. Because IB was negatively correlated with PS ( $r=-2.11$ ,  $P<.01$ ), the second hypothesis “There is a significant relationship between growth mindset (incremental beliefs) and perceived stress” was approved. Two perfectionism sub-scales were positively correlated with each other ( $r=.250$ ,  $P<.01$ ). Meanwhile, IB were positively related to HS ( $r=.287$   $P<.01$ ) and negatively related to Ds ( $r=-.290$ ,  $P<.01$ ).



*Figure 1. The proposed mediation model between Ds, IB and PS*



*Figure 2. The proposed mediation model between HS, IB and PS*

In order to validate the last two hypothesis, different methodologies like multiple regression, Bootstrapping technique and macro put forth by Preacher and Hayes (2004) were adopted to evaluate each component of the proposed mediation models: independent variable Ds, or HS; mediator, IB; dependent variables, PS. After controlling for potential covariates such as age and gender, the overall effect of Ds on PS was substantial (c path;  $B = .2095$ ,  $P<0.001$ ) in Figure1, Ds on IB was significant (a path;  $B=-.16$ ,  $P<0.001$ ) and IB on PS were insignificant (b path;  $B=-.0455$ ,  $P=0.2171$ ). According to Wen and Ye (2014), a bootstrap analysis should be further used to check the proposed mediation. The mediation analysis failed to verify the mediating role of IB in the link between Ds and PS (a \* b path;  $B = 0.01$ , 95% CI = from  $-.0044$  to  $.0196$ ), CI included absolute zero, therefore, hypothesis three “Growth mindset (IB) significantly mediates the maladaptive perfectionism (Ds) and perceived stress” was rejected. In Figure 2, the total effect of HS on PS was insignificant (c path;  $B = .0587$ ,  $P=.2154$ ), the effect of HS on IB is significant (a path,  $B=.2990$ ,  $P<.001$ ), the effect of IB on PS was significant (b path;  $B=-.1944$ ,  $P<0.001$ ). Since both the “a path” and the “b path” were significant, mediation analyses were performed with the bootstrapping approach and bias-corrected CI. The mediation analysis confirmed the mediating effect of IB in the relationship between HS and PS (a \* b path;  $B = -.0581$ , 95% CI = from  $-.0944$  to  $-.0283$ ), hypothesis four “Growth mindset (IB) significantly mediates the adaptive perfectionism and perceived stress” was approved. How-

ever, the value of the indirect effect was negative while the value of the direct effect was positive, indicating that the effects are suppressing (MacKinnon, 2008; Wen & Ye, 2014). The suppression of effects is seen as a mediation effect in a broad sense (Wen & Ye, 2014).

Table 2.

*Bootstrap Tests for Statistical Significance of Indirect Effects (N=410)*

X	M	Y	X on M (a)	M on Y (b)	Total effect (c)	Indirect Effect (a*b)	Direct Effect (c')	lower	Upper
Ds	IB	PS	-.1574***	-.0455	.2095***	.0072	.2023***	-.0044	.0196
HS	IB	PS	.2990***	-.1944***	.0587	-.0581	.1168*	-.0944	-.0283

Note. \*\*\* $p < .001$ . \* $p < .05$

## 6. Discussion

The mean of perceived stress revealed that most of the university students are under moderate stress, with an average score of 19.2. The average value for perceived stress in this sample was somewhat higher than in a study conducted by Ganasegeran et al. (2012) among Malaysian medical students ( $M = 18.9$ ). The results of the study shows that high standards have no significant relationship with perceived stress, which confirms the findings of Rice and Amy's (2010) research. However, the obtained result contradicts the finding that high standards have a negative weak relationship with perceived stress (Achtziger & Bayer, 2013). As a consequence, adaptive and maladaptive perfectionism have different correlations with stress. As per prediction, the Ds was strongly and positively connected with PS, which is consistent with many previous investigations (e.g., Rice and Van Arsdale 2010). Moreover, maladaptive perfectionism (Ds) was considerably and positively connected with growth mindset (IB), while adaptive perfectionism (HS) was considerably and adversely connected with growth mindset (IB), this finding was consistent with earlier research (Mofield & Parker Peters, 2018; Chan, 2012). It could be stated as perfectionistic concerns and discrepancies are characterised by repeatedly (and unavoidable) thoughts on mistakes and thoughts of perfection (Flett & Hewitt, 2002; Rudolph et al., 2007). Students with high levels of discrepancy may also struggle with controlling their stream of thought (Achtziger, 2013). The results support the hypothesis that self-theories (entity/fixed vs. incremental/growth) are related to motivation toward different types of perfectionism, which can support practitioners guide students towards healthy achievement strivings. The negative relationship between IB and PS is consistent with Dweck's hypothesis that Entity-belief deprives people of coping resources (Dweck, 2006). Students with higher levels of fixed mindsets that predict future psychological problems (Schroder et al., 2019), mindsets can predict students' psychological well-being (Dweck, 2006).

If the total effect is very significant, even a well-measured mediator and a comparatively sound intervention process could give rise to claims of only partial mediation (Rucker, Preacher, Tormala, & Petty, 2011). In the current study, the total effect of Ds and PS was decreased when IB were involved, however, the indirect effect of IB was very weak and proved to be insignificant through Bootstrap analysis, if the total effect is very substantial these effects may be too strong to cover the mediation effect. The relationship between IB and PS becomes insignificant when controlling Ds. Again, this phenomenon indicates the relationship between Ds and PS, which is so powerful that mediating roles seem unconsidered compared to the direct effect between these two variables.

Finding has shown that HS is associated with IB and lower PS. The result confirms that there are distinct advantages associated with adaptive perfectionism (Stoeber & Otto, 2006), a positive relation between growth mentality and positive striving for perfectionism (Mofield & Par-

ker Peters, 2018b, Chan, 2012). The finding continues on the pattern of the relationship between personality and cognitive appraisal, as Cantor and Kihlstrom (1987) argue that individual uniqueness (individuality) is based on the typical way in which individuals solve representative everyday life problems.

There is an indirect effect of IB between HS and PS. IB can significantly predict PS when controlling HS, HS can predict PS when controlling the IB. Moreover, the results also indicate that CI do not include absolute zero for the standardised indirect effect between HS and PS through IB. The relationship between HS, IB, and PS can fit in the Transaction Theory of Stress and Coping. Lazarus and Folkman (1984) proposed the concepts of cognitive appraisal (i.e., primary appraisal and secondary appraisal) to explain individual differences in coping with stressful life events and their relation to the well-being and functioning of individuals, an adaptive perfectionist tend to adopt a growth mindset, the growth mindset could involve in the primary and secondary appraisal, which interprets event in a positive way, consequently, reduce stress.

However, it should be noted the total effect between PS and HS is insignificant. When the total effect is insignificant, the direct and mediated effects of the independent variable on the dependent variable have opposite signs indicating that it suppresses the effects (Wen & Ye, 2014; Kenny, 2003; MacKinnon, 2008; Shrout & Bolger, 2002). Previous researchers have already explained the case as inconsistent mediation or suppression of effects (Wen & Ye, 2014; Kenny, 2003; MacKinnon, 2008; MacKinnon et al., 2000, 2002; Shrout & Bolger, 2002). They all confirmed that even the independent variable to the dependent variable relationship could be non-significant, yet mediation exists. Inconsistent mediation or suppression effect is a common phenomenon in the mediation model (Wen & Ye, 2014).

Suppressing effect is different from normal mediational hypotheses, it is generally assumed that the intended mediator reduces the magnitude of the relationship between independent and dependent variables (MacKinnon et al., 2000). In the mediation context, the relationship is reduced because the mediator explains part or all of the relationship as it is in the causal path between the independent and the dependent variables. However, it is attainable that the statistical removal of a mediational effect could increase the relationship between the independent and dependent variables. Such a change would indicate suppression (MacKinnon et al., 2000). A situation in which the magnitude of the relationship between an independent variable and a dependent variable becomes larger when a third variable is included would indicate suppression (Tzelgov & Henik, 1991).

When inconsistent mediation or suppression effect occurs, the mechanism between dependent and independent variables has changed from “How dependent variables influence independent variables through mediation” to “How dependent variables do not influence independent variables through mediation” (Wen & Ye, 2014). As the direct effect of HS on PS is negative, the effect of HS on IB is positive, the effect of IB on PS is negative. Thus, the direct effect of HS on PS would have the opposite sign with the indirect effect of HS on PS mediated by IB. It can be plausibly argued that these two effects may cancel each other out, resulting in a total effect of adaptive perfectionism on stress to zero. Thus, the effect between adaptive perfectionism and perceived stress is suppressed by the growth mindset.

The suppressor may be due to cultural background or parenting style. For example, the educational background of students taught them to be people with a growth mindset and to favour a growth mindset rather than a growth mindset. For example, both Chinese and Finnish students preferred a growth mindset and viewed the nature of intelligence as more malleable than talent (Zhang, 2020). This result was based on earlier findings on American (Makel et al., 2015) students. It could therefore be the distance between favouring a growth mindset and possessing



a growth mindset that would lead to inconsistent mediation. However, without further exploration in different educational backgrounds, we cannot underestimate the value of the growth mindset.

The current study has also some limitations which should be elaborated. Firstly, as this study was only conducted among undergraduate students at two public universities, so it may not be generalisable to a larger undergraduate population in Malaysia. As a result, generalising these findings to the larger masses of student should be done with caution. Secondly, because self-report measurement has some definite limitations, researchers may examine different data collection methods in the future, including interviews. Future researchers would benefit from an in-depth interview to acquire important information drawn from students' experiences and descriptions. Therefore, more qualitative or mixed research could be conducted.

Regardless of the limitations, the critical implications must be addressed. First, most undergraduates are still in a pervasive stressful mood, all sectors of society must pay attention to the issue. Second, the relationship between perfectionism and mindset as well as the relationship between perfectionism and stress indicates that the distinction between adaptive and maladaptive perfectionism may be associated with the perceived malleability of our ability and stress level. Understanding the variations between forms of perfectionism may aid in identifying the signs and symptoms of maladaptive and adaptive perfectionism, for individuals with higher perceived stress, the discrepancy may be an underlying factor to be concerned about. Furthermore, encouraging students to develop adaptive perfectionistic traits through healthy motivation. At last, when an adaptive perfectionist has a growth mindset, their attitudes and values may support students to remove perceived stress. Growth mindset interventions may be used to improve psychological well-being and prevent students from experiencing high perceived stress.

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