

Predictors of Resilience among Indonesian Students in Malaysian Universities

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Abstract: The benefits of internationalization in higher education are indisputable. However, students studying abroad may face difficulties such as adjustment issues since they are away from home and go through a new stage in their lives. Seeing that an essential predictor of psychological adjustment is resilience, the current study aims to assess the role of a range of factors (optimism, social support, self-efficacy, psychological well-being, and demographic) in predicting the resilience of Indonesian students in Malaysia. Two hierarchical multiple regression analyses were used to test the influencing factors on resilience. Based on the literature, this study is quantitative in nature where a total of 229 Indonesian postgraduate students in Malaysian public universities were chosen as participants. Results showed that resilience is affected by optimism, social support, and self-efficacy. Essentially, this study provides practical insights into how international students can make adjustments to reduce the impact of stress faced in challenging situations.

Keywords: adjustment, higher education, international students, Malaysia, resilience

1. Introduction

In present times, international student recruitment has become the primary source of income for most universities (Ahrari et al., 2019). Additionally, to serve these growing needs, many private universities have started operating around the country.

The proportion of students who study abroad has risen significantly, with more than four million students planning to study overseas in 2014, which is predicted to double by 2024 (British Council, 2014). Students generally prefer studying abroad because they view it as an opportunity to gain more knowledge, explore different educational systems, and discover a novel culture. College students, especially, can travel the world while earning credits toward obtaining their degrees (Aktas et al., 2017). The opportunity to study abroad, which promises world-class educational facilities, international-standardized curriculum, global socializing, and networking scope, are the dreams of most international students, including Indonesians.

Many Indonesian students are pursuing their dreams of studying abroad. According to UNESCO (2019) published data on Global Flow of Tertiary-Level Students that was published on 5

January 2019, the top three destinations for the estimated 45,206 Indonesian students who are studying abroad are: Australia (10,676 students or 23.6%), United States (9,304 students or 20.6%), and Malaysia (5,823 students or 12.9%). Thus, Malaysia is one of the main three destinations for Indonesians to pursue their higher education either in public or private universities. According to a research report published in 2017 by AFS Intercultural Programs (2017), a study found that eight out of ten (81%) respondents who comprised young Indonesian students had considered studying abroad. Many young people from Indonesia are inclined to the possibility of studying overseas as a means of obtaining first-class education at respectable institutions. These students' long term goal is to enhance their educational profile with an international education, which they believe will ultimately provide better career opportunities (International Consultants for Education and Fairs, 2017).

International students often experience considerable challenges in adapting to a new cross-cultural setting. These challenges are often compounded by a loss of social and financial support, psychological health, and recreation issues (Sabouripour & Roslan, 2015). The students need to make various adjustments while living in new environments to ensure that their needs are compatible with the new situations they are faced with. Subhan et al. (2015) studied the Indonesian students of Universiti Kebangsaan Malaysia and noted various challenges that the target students faced in the areas of language, finance, weather, culture, and family. These students' problems often vary, and as such, they need to be alert to changes that they experience either physically or mentally. They need to equip themselves with better adjustment strategies in their new environment. Hence, the trait of resilience may be the tool that Indonesian students need to employ in dealing with such situations and developing adjustment strategies.

Resilience is defined as the ability or strength to survive in challenging situations (Zautra, 2009). Rutter (1990) adds that resilience is the capacity to recover or adapt effectively, amid challenging circumstances (as cited in Earvolino-Ramirez, 2007). Past research found factors are influencing the degree of resilience, such as optimism (Carver et al., 2010; Souri & Hasanirad, 2011); perceived social support (Achour & Nor, 2014; Li et al., 2014), self-efficacy (Hamill, 2003; Sagone & De Caroli, 2014; Schwarzer & Warner, 2013), and psychological well-being (Kotzé & Kleynhans, 2013). Additionally, attending university can be a challenging experience for most of the new undergraduate students. Students are faced with new demands or challenges in the transition from highschool to university (Novel, Ajisukmo, & Supriyantini, 2019). According to Bonnano (2004), individuals who are highly resilient face difficulties and are open to accepting unchanging situations. To adapt to new university environments, resilience is seen as being critical for students (Wang, 2009). Resilience is considered to be the best predictor of adjustment among international students. Moreover, Chan (2000) revealed that highly resilient students tend to suffer a significantly less negative impact than those who are not. Thus, resilience is an essential factor that decreases the effects of stress.

Despite the crucial role resilience plays in helping international students manage the challenges of studying in a foreign country, little research has been conducted in the area to evaluate resilience and its likely factors on Indonesian students in Malaysian universities. As indicated in previous research, the phenomenon of resilience and its plausible causes, which include optimism, social support, self-efficacy, and psychological well-being, need to be closely examined in order to obtain a better understanding of its workings (Gómez-Molinero et al., 2018; Hamdan-Mansour et al., 2014; Souri & Hasanirad, 2011; Subhan et al., 2015). This study's general purpose is to analyze the functions of contributory factors (i.e., optimism, social support, self-efficacy, psychological well-being, and demographic factors) to resilience among Indonesian students. The existing literature and prior quantitative studies conducted by researchers who had identified factors contributing to Iranian international students' resilience in Malaysia informed the selection of the factors mentioned above (Sabouripour et al., 2017).

2. Review of Literature

3.1 Predictors of Resilience in Indonesian Students

The study's critical significance is to discover the level of resilience and determine the types of relationships between resilience and factors of optimism, social support, self-efficacy, psychological

well-being, and demographic among Indonesian postgraduate students. Students would need to understand the consequences and impact of their resilience level on their learning performances. The results achieved by the current study are expected to provide a more detailed interpretation of the obstacles faced by Indonesian students.

3.2 Optimism

Optimism refers to the assumption that more favorable situations exist instead of negative things (Scheier & Carver, 1985). In line with this definition, optimism is similar to expecting something positive. On the other hand, pessimists believe that the worst will happen in life instead of anything positive. Therefore, according to Carver et al. (2010), optimism represents clear expectations of the future. Accordingly, it is believed that people with positive expectations prefer favorable results as much as possible and often remain goal-oriented. Existing literature has shown that optimism contributes to resilience and is described as the most crucial element in mitigating stress factors (Darmayana, 2018; Triyana, 2015). Additionally, Sourı and Hasanirad (2011) found that optimism represents humans' positive attitude towards hardships and regard optimism as a prominent feature of resilience.

In comparison, optimism and resilience seem to go connected at the hip with obstacles, and these two factors have always had a good relationship. As stated by Tusaie et al. (2007) and Panchal et al. (2016), optimism as an internal factor is always evident in resilience studies, and it has been indicative of a person's effectiveness or futility in adapting to difficult situations. A study involving 366 students from Malang found a strong relationship between optimism and resilience; the higher the optimism, the higher the resilience score, and vice versa (Hamidi, 2017). Students with high resilience can effectively manage college life pressures and challenges, while students with low resilience will experience stress when faced with challenges (Khusniatun, 2014). Therefore at this stage, the following hypothesis is suggested:

H₁. There is a significant association between optimism and resilience among Indonesian postgraduate students in selected universities in Malaysia.

3.3 Social Support

If stressors are aggravated, the environmental contexts can buffer the potential undesirable effects on individuals. This involves the contact and stability of noticeable protective factors and processing in the person's external context within the initial and influential domains, such as social support (Hostinar & Miller, 2019). Social support is described as "verbal and non-verbal interaction between beneficiaries and suppliers which decreases hesitation about the situation, the self, the other or the functions to enhance the perception of individual control in one's life experience" (Albrecht & Adelman, 1987). This means that it is linked to communication that helps one control the situation at hand. Additionally, Cohen et al. (2000) discuss social support by defining it as an interpersonal interaction that enhances coping, esteem, belonging, and competence through actual or perceived physical or psychosocial capital sharing. Cohen's definition is more relevant to an interactive process. In general, individuals will feel more secure with a circumstance if it makes them feel better about themselves by increasing their sense of self-esteem, creating a sense of belonging, or improving their potential for success, which are known sources of social support. In this regard, previous studies point to a significant relationship between perceived social support and resilience, suggesting that perceived social support often leads to one's ability to address adversities (Jannah & Rohmatun, 2018; Mufidah, 2017; Narayanan & Weng Onn, 2016). As suggested by previous studies, the presence of social support affects one's level of resilience. In that regard, the current study suggests the following hypothesis:

H₂. There is a significant association between social support and resilience among Indonesian postgraduate students in Malaysia's selected universities.

3.4 Self-Efficacy

Self-efficacy is a belief that impacts the choices that individuals make and the sequences of acts that follow (Bandura, 1986). People tend to choose activities and tasks that lead them to feel confident and competent, and often attempt to evade activities which make them feel otherwise. Self-efficacy beliefs help control the number of individual efforts that will be expended on intervention, dictate the length of time they could withstand the difficulties faced, and the extent of their resilience when facing challenging scenarios (Concannon et al., 2019). A stronger sense of self-efficacy comes from more significant effort, perseverance, and resilience. When a person has a powerful sense of competence, he/she will tend to approach difficult tasks as formidable challenges rather than as threats to be escaped (Kane & Levina, 2017). Based on social cognitive theory, this study developed the objective of inspecting the relationship between self-efficacy and resilience among Indonesian postgraduate students.

Several studies have been undertaken among students to understand the association between self-efficacy and resilience further. For instance, a study conducted by Speight (2009) among African-American students in Washington, DC, showed resilience as meaningfully and positively associated with self-efficacy and achievement. Another related research was conducted by Hudson (2007) using a sample of 117 university students from South Eastern University, which revealed that self-efficacy and parental attachment were two prominent predictors of academic performance and resilience. Conversely, a study conducted among college seniors in higher education explored the association between resilience, self-efficacy, and persistence and found no significant relationships between resilience, self-efficacy, and persistence (Garza et al., 2014). Thus, the subsequent hypothesis is as follows:

H₃. There is a significant association between self-efficacy and resilience among Indonesian postgraduate students in selected universities in Malaysia.

3.5 Psychological Well-being

The Positive Psychological Functioning theory studies the human ability to function and mature effectively, referred to as emotional well-being. Ryff (1989) focused on individuals' life experiences and the interoperations that affect their well-being. The psychological well-being of an individual refers to the welfare and strength of personal life. This theory allows researchers to determine displaced people's well-being to calculate these individuals' risk of suicide. Leong and Bond (2008) stated that one of the challenges for experts in psychological and physical wellness is to incorporate the psychological facts about the complex, multidimensional nature of psychological well-being into prevention plans. According to Sorad (2011), a positive link between psychological well-being and resilience was found based on a study undertaken using 414 medical students. This study also correlates with the study results by Carver et al. (2010) and Miller et al. (1996). As reported by Fredrickson (2001), the primary assumption is that resilience is effective in enhancing individuals' psychological well-being. In another study by Sagoresults and De Caroli (2014) for determining the correlation between psychological well-being and resilience that was conducted using 224 participants, revealed that there exists a positive association between the two. A further study by Nygren et al. (2005) found a significant relationship between life's purpose (one of the dimensions of psychological well-being) and resilience. This drove Zombory (2014) to investigate the relationship between psychological well-being, resilience, and personal growth. The study found that psychological well-being and resilience were positively related to developmental orientation, which consequently correlates with the subsequent hypothesis:

H₄. There is a significant relationship between psychological well-being and resilience among Indonesian postgraduate students in Malaysia's selected universities.

3.6 Gender, Marital Status and Resilience

Fergusson et al. (2003) studied the resilience of individuals who had experienced adversity in childhood. Findings revealed that men demonstrated better resilience to internalizing responses, while women showed better resilience to externalizing responses. Similarly, Bonanno et al. (2007) conducted a study among 600 middle-school students and found that the level of resilience between boys and girls varied. DuMont et al. (2007), through his study, showed that females tended to exhibit greater resilience, while Tusaie et al. (2007) found that males exhibited more resilience. Another study by Wright and Masten (2005) showed that females were less exposed to risky behaviors than males and had greater resilience than males.

A study conducted by Madrigal (2008) on the relationship between marital status and resilience discovered a positive relationship between these two variables. According to Wells (2013), the levels of resilience in married respondents are significantly higher than unmarried respondents. By contrast, Linda and Caltabiano (2009) revealed no significant correlations between marital status and resilience. Based on these findings, the study proposes the following hypothesis: to investigate significant differences in resilience levels across the selected demographic variables of age, gender, and marital status among Indonesian postgraduate students.

H₅. There is a significant difference in the level of resilience between selected demographic variables among Indonesian postgraduate students in Malaysia's selected universities.

4. Methodology

4.1 Procedures and Participants

A cross-sectional and descriptive study was used to examine the causal relationship (Fraenkel et al., 1993) that links optimism, social support, self-efficacy, psychological well-being, and resilience. A stratified random sampling method was used to obtain findings from five universities in Malaysia. The researchers discovered that the number of Indonesian postgraduate students who had enrolled in five Malaysian research universities amounted to 753. The ethical issues concerning human subjects in research (JKEUPM-2019-382) were considered by Universiti Putra Malaysia in this survey. It was made clear that participation was strictly voluntary and anonymous, and they could withdraw from the study at any time. The signed consents had been obtained before the questionnaires were completed by the Indonesian postgraduate students.

This study's sample size was determined based on the sample size formula used by Cochran (1977), which is to achieve a sample size that accurately represents the population with a 95 % level of confidence. The calculation for sample per university obtained using the stratified random sampling method uses the formula:

$$\text{Sample} = \frac{\text{size of the total sample}}{\text{population size}} \times \text{layer size (Glen, 2013)}.$$

A total of 139 males (60.7%) and 90 females (39.3%) participated in the study. Emails were sent to the administrators of the selected universities' postgraduate schools, informing them of the purpose and procedures of the research exercise and requesting consent and cooperation. The data was collected using Google Form, shared by the chief of the Indonesian Students' Association of the respective universities between October and December 2019, in a process that took approximately one month.

4.2 Variables and Measures

4.2.1 Sociodemographic information

The Indonesian postgraduate students were asked to provide background, and demographic information about their gender, age, university geographical location, educational details, and marital status.

4.2.2 Resilience (RS)

Connor-Davidson Resilience Scale 25, which was developed by Connor and Davidson (2003) was used to assess the "bounce-back" and adaptability level of an individual. The scale is a 25-item self-report scale on a 5-point Likert scale. All items on the scale were positively scored, with possible total scores ranging from 25 to 175. The higher scores indicated higher levels of resilience. Examples of items are: "Past successes give me confidence in dealing with new challenges and difficulties," "I can handle unpleasant or painful feelings like sadness, fear, and anger," and "I take pride in my achievements." The CD-RISC -25 had sufficient reliability in an Indonesian population with a retest reliability of .93 (Jowkar, 2007).

4.2.3 Optimism (OPT)

Life Orientation Test-Revised (LOT-R) by Scheier et al. (1994), which contains ten items on a 5-point Likert scale, was utilized to assess an individual's optimism. This scale measures the tendency to perceive and judge things in their most positive perspectives. The sample items include: "In uncertain times, I usually expect the best," "I am always optimistic about my future," and "I rarely count on good things happening to me." The self-rating LOT-R has a Cronbach α value of .79 (Smith et al., 1989).

4.2.4 Social Support (SS)

Social support was accessed using the Multidimensional Scale of Perceived Social Support (MSPSS) to determine the degree of perceived social support, with possible total scores ranging from 12 to 8 (Zimet et al., 1988). A cumulative score of perceived social support is calculated by summing up the 12 items of the MSPSS, which were divided into three dimensions of family, friends, and significant others. The sample item consists of: "There is a special person who is around when I am in need." Sufficient reliability for the MSPSS of Cronbach α value of .88 (Dawson & Pooley, 2013).

4.2.5 Self-Efficacy (SE)

An Individual's self-efficacy was measured using the 11-item self-report General Self-Efficacy Scale (GSE) developed by Schwarzer and Jerusalem (1995). This scale was used to assess a general sense of individual perceived self-efficacy, with the final total score ranging from 11 to 55. The sample item reads, "If someone opposes me, I can find the means and ways to get what I want." The GSE had sufficient reliability in an Indonesian population with a Cronbach α value of .77 (Schwarzer & Jerusalem, 1995).

4.2.6 Psychological Well-being (PWB)

The Psychological Well-Being Scale, or PWBS, is utilized to measure an individual's psychological well-being. The 5-point Likert scale was developed by Ryff and Keyes (Ryff & Keyes, 1995), and the scale comprised initially 42 items but was shortened to an 18-item-version for this study. The scale measures six aspects of psychological well-being, which are autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. The sample items include: "I like most parts of my personality." Sufficient reliability for the PWBS of Cronbach α value of .91 (Souri & Hasanirad, 2011).

4.3 Data Analysis

Data analysis was performed in SPSS 25.0 (IBM Corp., Armonk, NY, USA). The descriptive statistics analyzed the minimum, maximum, the dissemination of frequencies, percentage, mean, and standard deviation. The Independent t-test was the statistical test used to observe whether there was a significant ($p \leq .05$) level of resilience between gender and marital status among Indonesian postgraduate students (H5). If there is any difference, eta squared (η^2) is calculated to determine the degree of difference between the gender of students and between married and unmarried students on the basis of the degree of resilience of the students. Two hierarchical multiple regression analyses were performed to answer hypotheses one to four, namely whether the variables or dimensions of the variables (optimism, social support, self-efficacy, and psychological well-being) can predict resilience.

5. Results

5.1 Descriptive Findings

Table 1 displays the frequency and percentage of the respondents' demographic characteristics. The range of ages was 18-25 (17%, $n=39$), followed by 26-30 (46.3%, $n=106$), and above 31 (36.7%, $n=84$). Concerning the universities the respondents represent, there are 15 respondents (6.6%) from Universiti Putra Malaysia (UPM), 70 respondents (30.6%) from Universiti Kebangsaan Malaysia (UKM), 26 respondents (11.4%) from Universiti Malaya (UM), 33 respondents (14.4%) from Universiti Teknologi Malaysia (UTM), and 85 respondents (37.1%) from Universiti Sains Malaysia (USM). Out of the total 229 respondents, most are pursuing a Master's degree (72.9%, $n=167$), and the rest are pursuing a Ph.D. degree (27.1%, $n=62$). The final segment of the demographic characteristics is marital status. The results show that 52.4% ($n=120$) are married, and 47.6% ($n=109$) are single.

Table 1. Respondents' Demographic Characteristics

Demographic Characteristics		Frequency	Percentage (%)
Gender	Male	139	60.7
	Female	90	39.3
	Total	229	100
Age	≤ 25 years old	39	17.0
	26-30	106	46.3
	≥ 31 years old	84	36.7
	Total	229	100
University	Universiti Putra Malaysia (UPM)	15	6.6
	Universiti Kebangsaan Malaysia (UKM)	70	30.6
	Universiti Malaya (UM)	26	11.4
	Universiti Teknologi Malaysia (UTM)	33	14.4
	Universiti Sains Malaysia (USM)	85	37.1
	Total	229	100
Degree	Master	167	72.9
	PhD	62	27.1
	Total	229	100
Marital Status	Single	107	46.7
	Married	120	52.4
	Unmarried	2	.9
	Total	229	100

5.2 Hypothesis Testing

Two hierarchical multiple regression analysis techniques were performed to investigate the relevant contributions of the predictor factors to resilience's dependent variable. Variables were entered as follows: (1) optimism and social support, (2) self-efficacy, and (3) psychological well-being. The variable order of entry was chosen and as such, after controlling for the variance explained by the previous variables each predictor contributed to the explanatory variance of the dependent variable.

Table 2. Results of Hierarchical Regression for Resilience.

Variable	R	R ²	ΔR ²	SE	β	t
Step 1	.521	.271*				
Optimism		*		.073	.454**	5.773
Social support				.095	.178**	3.066
Step 2	.617	.380*	.109			
Optimism		*		.073	.310**	5.307
Social support				.088	.164**	3.056
Self-efficacy				.064	.362**	6.288
Step 3	.623	.388*	.007			
Optimism		*		.075	.288**	4.824
Social support				.090	.183**	3.350
Self-efficacy				.065	.352**	6.105
Psychological well-being				.076	.092	1.656

* $p < .05$. ** $p < .01$.

A total of 38% of the variance in resilience was accounted for by all the predictor variables ($F(1, 224) = 2.741, p > .05$). Optimism and social support accounted for 27% of the variance of resilience ($F(2, 226) = 42.04, p < .001$). Self-efficacy contributed an additional 11% to the variance in resilience ($\Delta F(1, 225) = 39.545, p < .001$). Three of the four hypotheses put forward in this study are found to be supported, namely, H1, H2, and H3. The results demonstrate that the relationships between each variable of optimism, social support, and self-efficacy and resilience among Indonesian postgraduate students in Malaysian universities are significant. However, results show no relationship between psychological well-being and resilience. Furthermore, an independent t-test analysis was performed to compare the means of students' resilience scores to examine the differences in resilience across demographic factors and test hypothesis 5 (See Table 3). According to the results presented in Table 3, there was no significant difference between the mean level of resilience scores between male students ($M = 2.9353, SD = .27475$) and the mean level of resilience level among female students ($M = 2.9444, SD = .23034$); $t(227) = .094, p = .960$. The results also demonstrate that there was no significant difference between the mean level of resilience scores between single students ($M = 4.3090, SD = .41970$) and the mean level of resilience level among married students ($M = 4.3333, SD = .37899$); $t(227) = .061, p = .805$. Similarly, the overall findings show no significant relationship ($r = .108, p = .102$) between age group and resilience among Indonesian postgraduate students in selected universities in Malaysia.

Table 3. Differences in Level of Resilience across Demographic Factors

	N	Mean	SD	df	t	p	
Age	229	30.31	5.269	227	.108	.102	
Gender	Female	139	2.93	0.42	227	.094	.960
	Male	90	2.94	0.23			
Marital Status	Single	109	4.30	0.41	227	-.461	.805
	Married	120	4.33	0.37			

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

6. Discussion

This research aims to investigate the possible predictors of resilience among Indonesian postgraduate students in selected Malaysian universities. The study hypothesized that optimism, social support, self-efficacy, psychological well-being, and demographic factors could predict resilience. The output of stepwise multiple regression analysis showed that self-efficacy, social support, and optimism are significant predictors for Indonesian postgraduate students' resilience in selected Malaysian universities. A second stepwise regression analysis showed that self-efficacy emerged as the predictor for resilience, which may indicate that social support and optimism may be sufficient for the achievement of resilience. In line with past research, it can be seen here that self-efficacy is a trait present among adolescents facing adversity. It suggests that self-efficacy is examined as a predictor of resilience (Hamill-Skoch et al., 2012). A study conducted by Keye and Pidgeon (2013) among 141 university students revealed that academic self-efficacy was a significant predictor to achieving results and this was supported by Lightsey (2006) who proposed that a person's self-efficacy is essential to his or her potential for resilience. Having self-efficacy has a powerful effect on Indonesian international students' ability to deal primarily with adversity and stressful conditions. Self-efficacy can be enhanced by the implication of an educational program that directly impacts the level of resilience of students.

According to the results of the current study, optimism and resilience complement one another under challenging situations. These findings are supported by a study conducted by Gómez-Molinero et al. (2018), which highlighted that optimism appears as a predictor towards resilience among 132 university students. The current study demonstrates that students with strong convictions of their future would overcome obstacles more resiliently. Additionally, optimistic students are also seen as having the potential to adapt better to new pressures, such as educational challenges that they may face during the transitional phase. Optimism has been identified as one factor related to resilience (Lee et al., 2012; Martínez-Martí & Ruch, 2017). The current finding is consistent with existing studies that are coherent with our view that the trait of optimism is a variable for resilience (Tusaie-Mumford, 2001). The optimism variable represents the positive attitude of Indonesian postgraduate students when faced with difficult situations, which suggests that optimism is one of the essential aspects of growth in resilience. The findings of this study suggest that optimism acts as a predictor that improves resilience levels and reduces psychological distress induced by changes in life.

Additionally, the significant positive relationship between perceived social support and resilience is in line with several past studies. It also shows that among the three sources, support from significant others was strongly related to resilience, whereas support from friends and family were not significantly related. One study which supported such a finding was conducted by Rahimi and Bigdeli (2014), and it found that among the 200 learners involved in the study, the social support of significant others was the strongest predictor of resilience. It indicated that the interaction between students and significant others in interaction with the students affected their perception, encouragement, and behaviors. This notion was supported by Andersen, et al. (2002), who stated that the significant others who connect with students create opportunities to build interactions that include a degree of affection, reciprocal trust, and respect, that serve as a basis for improving their resilience.

In contrast, Narayanan and Onn (2016) found that peers and close relatives were meaningfully predictive of resilience, and this idea was also supported by another study (Li et al., 2014). That might be because the nature of relationship's will differ even for students who have "significant others." Some may benefit from the association, while others may suffer a great deal of stress (Uchino, 2004).

This study confirms the assumption established in the Kumpfer Resilience Model (1999), which describes psychological factors such as optimism, social support, and self-efficacy as essential aspects that could influence and enhance an individual's resilience. Developing programs such as counseling services help students to foster academic performance and monitor students' development and provide the guidance necessary for students living with a low level of resilience. Additionally, international students need to apply self-care and learn to seek assistance when facing difficulties. On a practical level, the involvement of local students in international students' lives could prove to be beneficial in

increasing the effects of social support on levels of resilience. Trips or gatherings can be arranged by inviting international students to interact with local students. With a greater understanding of culture, students could adapt quickly to new situations. As indicated in the current study, significant others have significant roles to play as social support assistants.

7. Limitations

This study provides the basis for further research to examine and study resilience processes among Indonesian students. Since this study has its share of limitations, the gap that it leaves could be seen as opportunities for theoretical and methodological considerations for future research. Although this study's findings have addressed the relevant areas of resilience, there is still room for new recommendations to be made in the area.

In terms of the study population, the decision to involve only Indonesian students studying in Malaysia may be seen as a limitation. Admittedly, the results generated by this research are not generalizable to all international students in Malaysia. Additionally, to include representative findings, using bigger sample size and including more student nationalities could serve a more encompassing purpose since the students' experience may differ from one nationality or university to another. Thus, more similar studies are advised to include a wider range of universities and nationalities in their scope. This study only focused on aspects of optimism, social support, self-efficacy, psychological well-being as psychological factors contributing to students' resilience. It is proposed that future studies investigate the contribution of other psychological factors as suggested by the resilience model of Kumpfer (1999) and include in its scope of the study, factors such as motivation, personality traits, self-esteem, thinking broader social intelligence, and external factors such as social support, environmental factors, socioeconomic status, and personalities. Over and above, this study used only a quantitative approach to collect its research data, which resulted in the data and research information obtained being limited to the structured research instrument. Thus, future studies could use qualitative and quantitative approaches to explore in-depth aspects of resilience and factors contributing to resilience.

8. Conclusion

In conclusion, this study found that resilience among students is an essential element contributing to their success in facing challenging situations. Therefore, particular attention should be paid to cultivating and developing psychological capabilities to increase students' resilience. It is hoped that findings and information generated by this study will be put to fair use by all stakeholders in their efforts to improve and maintain the level of resilience of international students in coping with their daily challenges.

9. References

- Achour, M., & Nor, M. R. M. (2014). The effects of social support and resilience on life satisfaction of secondary school students. *Journal of Academic and Applied Studies*, 4(1), 12–20.
- AFS or American Field Service. (2017). *Indonesian teens are highly motivated to study abroad*. Retrieved 5 January 2019. <https://afs.org/2017/12/01/indonesian-teens-highly-motivated-to-study-abroad/>
- Ahrari, S., Krauss, S. E., Suandi, T., Abdullah, H., Sahimi, A. H. A., Olutokunbo, A. S., & Dahalan, D. (2019). A stranger in a strange land: Experiences of adjustment among international postgraduate students in Malaysia. *Issues in Educational Research*, 29(3), 611–632.
- Aktas, F., Pitts, K., Richards, J. C., & Silova, I. (2017). Institutionalizing global citizenship: A critical analysis of higher education programs and curricula. *Journal of Studies in International Education*, 21(1), 65–80.
- Albrecht, T. L., & Adelman, M. B. (1987). *Communicating social support*. Sage Publications, Inc.
- Andersen, S. M., Chen, S., & Miranda, R. (2002). Significant others and the self. *Self and Identity*, 1(2), 159–168.

- Bandura, A. (1986). The explanatory and predictive scope of self-efficacy theory. *Journal of Social and Clinical Psychology, 4*(3), 359–373.
- Bonanno, G. A., Galea, S., Bucciarelli, A., & Vlahov, D. (2007). What predicts psychological resilience after disaster? The role of demographics, resources, and life stress. *Journal of Consulting and Clinical Psychology, 75*(5), 671–682.
- Bonnano, G. A. (2004). Have we underestimated the human capacity to thrive after extremely adverse events? *American Psychologist, 59*(1), 20–28.
- Carver, C. S., Scheier, M. F., & Segerstrom, S. C. (2010). Optimism. *Clinical Psychology Review, 30*(7), 879–889.
- Chan, D. W. (2000). Dimensionality of hardiness and its role in the stress-distress relationship among Chinese adolescents in Hong Kong. *Journal of Youth and Adolescence, 29*(2), 147–161.
- Cochran, W. G. (1977). The estimation of sample size. *Sampling Techniques, 3*, 72–90.
- Cohen, S., Underwood, L. G., & Gottlieb, B. H. (2000). Social relationships and health. In S. Cohen, L. G. Underwood, & B. H. Gottlieb (Eds.), *Social support measurement and intervention: A guide for health and social scientists*. Oxford University Press.
- Concannon, J. P., Serota, S. B., Fitzpatrick, M. R., & Brown, P. L. (2019). How interests, self-efficacy, and self-regulation impacted six undergraduate pre-engineering students' persistence. *European Journal of Engineering Education, 44*(4), 484–503.
- Connor, K. M., & Davidson, J. R. (2003). Development of a new resilience scale: The Connor-Davidson resilience scale (CD-RISC). *Depression and Anxiety, 18*(2), 76–82.
- Darmayana, A. (2018). *Relationship between optimism and resilience among parents who have children with mental retardation*. State Islamic University of Sultan Syarif Kasim Riau.
- Dawson, M., & Pooley, J. A. (2013). Resilience: The role of optimism, perceived parental autonomy support and perceived social support in first year university students. *Journal of Education and Training Studies, 1*(2), 38–49.
- DuMont, K. A., Widom, C. S., & Czaja, S. J. (2007). Predictors of resilience in abused and neglected children grown-up: The role of individual and neighborhood characteristics. *Child Abuse & Neglect, 31*(3), 255–274.
- Earvolino-Ramirez, M. (2007). Resilience: A concept analysis. *Nursing Forum, 42*(2), 73–82.
- Fergusson, D. M., Horwood, L. J., & Swain-Campbell, N. R. (2003). Cannabis dependence and psychotic symptoms in young people. *Psychological Medicine, 33*(1), 15–21.
- Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (1993). *How to design and evaluate research in education* (10th ed., Vol. 7). McGraw-Hill New York.
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist, 56*(3), 218–226.
- Garza, K. K., Bain, S. F., & Kupczynski, L. (2014). Resiliency, self-efficacy, and persistence of college seniors in higher education. *Research in Higher Education Journal, 47*(12), 777–780.
- Glen, S. (2013). *Stratified random sample: Definitions, examples*. <https://www.statisticshowto.datasciencecentral.com/stratified-random-sample/>
- Gómez-Molinero, R., Zayas, A., Ruíz-González, P., & Guil, R. (2018). Optimism and resilience among university students. *Revista INFAD de Psicología. International Journal of Developmental and Educational Psychology, 1*(1), 147–154.
- Hamdan-Mansour, A. M., Azzeghaiby, S. N., Alzoughaibi, I. N., Al Badawi, T. H., Nassar, O. S., & Shaheen, A. M. (2014). Correlates of resilience among university students. *Am J Nurs Res, 2*(4), 74–79.
- Hamidi, R. (2017). *Relationship of optimism and resilience to students who completed thesis [Ph.D. Thesis]*. University of Muhammadiyah Malang.
- Hamill, S. K. (2003). Resilience and self-efficacy: The importance of efficacy beliefs and coping mechanisms in resilient adolescents. *Colgate University Journal of the Sciences, 35*(1), 115–146.
- Hamill-Skoch, S., Hicks, P., & Prieto-Hicks, X. (2012). The use of cognitive behavioral therapy in the treatment of resistant depression in adolescents. *Adolescent Health, Medicine and Therapeutics, 3*, 95.

- Hostinar, C. E., & Miller, G. E. (2019). Protective factors for youth confronting economic hardship: Current challenges and future avenues in resilience research. *American Psychologist*, 74(6), 641–652.
- Hudson, W. E. (2007). *Relationship between academic self-efficacy and resilience to grades of students admitted under special criteria* [Ph.D. Thesis]. Florida State University.
- International Consultants for Education and Fairs. (2017). *Study finds that young Indonesians are highly motivated to study abroad*. <http://monitor.icef.com/2017/12/study-finds-young-indonesians-highly-motivated-study-abroad/>
- Jannah, S., & Rohmatun, R. (2018). Relationship between social support and resilience among Tambak Lorok rob flood survivors. *Proyeksi*, 13(1), 1–12.
- Jowkar, B. (2007). The mediating role of resilience in the relationship between general and emotional intelligence and life satisfaction. *Journal of Contemporary Psychology*, 2, 3–12.
- Kane, A. A., & Levina, N. (2017). ‘Am I still one of them?’: Bicultural immigrant managers navigating social identity threats when spanning global boundaries. *Journal of Management Studies*, 54(4), 540–577.
- Keye, M. D., & Pidgeon, A. M. (2013). Investigation of the relationship between resilience, mindfulness, and academic self-efficacy. *Open Journal of Social Sciences*, 1(6), 1–4.
- Khusniatun. (2014). *Relationship between resilience and academic procrastination among psychology students at faculty of social sciences and humanities in Sunan Kalijaga State Islamic University in Yogyakarta* [Undergraduate Thesis]. Sunan Kalijaga State Islamic University.
- Kotzé, M., & Kleynhans, R. (2013). Psychological well-being and resilience as predictors of first-year students’ academic performance. *Journal of Psychology in Africa*, 23(1), 51–59.
- Kumpfer, K. L. (1999). Outcome measures of interventions in the study of children of substance-abusing parents. *Pediatrics*, 103(Supplement 2), 1128–1128.
- Lee, Y. S. C., Suchday, S., & Wylie-Rosett, J. (2012). Perceived social support, coping styles, and Chinese immigrants’ cardiovascular responses to stress. *International Journal of Behavioral Medicine*, 19(2), 174–185.
- Leung, K., & Bond, M. H. (2008). *Psychological aspects of social axioms: Understanding global belief systems*. Springer Science & Business Media.
- Li, H., Ji, Y., & Chen, T. (2014). The roles of different sources of social support on emotional well-being among Chinese elderly. *PloS One*, 9(3), 1–9.
- Lightsey Jr, O. R. (2006). Resilience, meaning, and well-being. *The Counseling Psychologist*, 34(1), 96–107.
- Linda, R., & Caltabiano, M. (2009). Development of a new resilience scale: The Resilience in Midlife scale (RIM scale). *Asian Social Science*, 5(11), 39–51.
- Madrigal, C. R. (2008). *Acculturation, ethnic identity, resilience, self-esteem, and general well-being: A psychosocial study of Colombians in the United States* [Ph.D. Thesis]. The University of Texas.
- Martínez-Martí, M. L., & Ruch, W. (2017). Character strengths predict resilience over and above positive affect, self-efficacy, optimism, social support, self-esteem, and life satisfaction. *The Journal of Positive Psychology*, 12(2), 110–119.
- Miller, D. L., Manne, S. L., Taylor, K., Keates, J., & Dougherty, J. (1996). Psychological distress and well-being in advanced cancer: The effects of optimism and coping. *Journal of Clinical Psychology in Medical Settings*, 3(2), 115–130.
- Mufidah, A. C. (2017). *Relationship between social support and resilience with locus of control as mediator in students with Bidikmisi* [Postgraduate Thesis].
- Narayanan, S. S., & Weng Onn, A. C. (2016). The influence of perceived social support and self-efficacy on resilience among first year Malaysian students. *Kajian Malaysia: Journal of Malaysian Studies*, 34(2), 1–23.
- Novel, F., Ajisuksmo, C. R., & Supriyantini, S. (2019). The Influence of Processing and Regulation of Learning on Academic Achievement Amongst First Year Undergraduate Psychology Students in University of North Sumatra. *Asian Journal of University Education*, 15(2), 36. doi:10.24191/ajue.v15i2.7555

- Nygren, B., Aléx, L., Jonsén, E., Gustafson, Y., Norberg, A., & Lundman, B. (2005). Resilience, sense of coherence, purpose in life, and self-transcendence in relation to perceived physical and mental health among the oldest old. *Aging & Mental Health*, 9(4), 354–362.
- Panchal, S., Mukherjee, S., & Kumar, U. (2016). Optimism in relation to well-being, resilience, and perceived stress. *International Journal of Education and Psychological Research*, 5(1), 1–6.
- Rahimi, A., & Bigdeli, R. A. (2014). The broaden-and-build theory of positive emotions in second language learning. *Procedia-Social and Behavioral Sciences*, 159, 795–801.
- Rutter, M. (1990). Commentary: Some focus and process considerations regarding effects of parental depression on children. *Developmental Psychology*, 26(1), 60–67.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57(6), 1069–1081.
- Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69(4), 719–727.
- Sabouripour, F., Hassan, C. N., & Roslan, S. (2017). Predictors of resilience among Iranian graduate students in University Putra Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 7, 996–1011.
- Sabouripour, F., & Roslan, S. (2015). Resilience, optimism and social support among international students. *Asian Social Science*, 11(15), 159–170.
- Sagone, E., & De Caroli, M. E. (2014). Relationships between psychological well-being and resilience in middle and late adolescents. *Procedia-Social and Behavioral Sciences*, 141, 881–887.
- Scheier, M. F., & Carver, C. S. (1985). Optimism, coping, and health: Assessment and implications of generalized outcome expectancies. *Health Psychology*, 4(3), 219–247.
- Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A reevaluation of the Life Orientation Test. *Journal of Personality and Social Psychology*, 67(6), 1063–1078.
- Schwarzer, R., & Jerusalem, M. (1995). Generalized self-efficacy scale. *Measures in Health Psychology: A User's Portfolio. Causal and Control Beliefs*, 1(1), 35–37.
- Schwarzer, R., & Warner, L. M. (2013). Perceived self-efficacy and its relationship to resilience. In S. Prince-Embury & D. H. Saklofske (Eds.), *Resilience in children, adolescents, and adults* (pp. 139–150). Springer.
- Smith, T. W., Pope, M. K., Rhodewalt, F., & Poulton, J. L. (1989). Optimism, neuroticism, coping, and symptom reports: An alternative interpretation of the Life Orientation Test. *Journal of Personality and Social Psychology*, 56(4), 640–648.
- Souri, H., & Hasanirad, T. (2011). Relationship between resilience, optimism and psychological well-being in students of medicine. *Procedia-Social and Behavioral Sciences*, 30, 1541–1544.
- Speight, N. P. (2009). *The relationship between self-efficacy, resilience and academic achievement among African-American urban adolescent students*. Howard University.
- Subhan, M., Amat, S., Bakar, A. Y. A., Abdidin, M. H. Z., Faisal, R. A., Tohirin, T., & Kamin, A. H. (2015). Level of resilience among international students in public higher education institutions in Malaysia. *Scientific Journal of PPI-UKM*, 2(4), 181–188.
- Triyana, A. (2015). *Relationship between resilience and stress in preparing thesis among psychology program students in Sebelas Maret University* [Surakarta]. Sebelas Maret University.
- Tusaie, K., Puskar, K., & Sereika, S. M. (2007). A predictive and moderating model of psychosocial resilience in adolescents. *Journal of Nursing Scholarship*, 39(1), 54–60.
- Tusaie-Mumford, K. (2001). *Psychosocial resilience in rural adolescents: Optimism, perceived social support, and gender differences* [Ph.D. Thesis]. The University of Pittsburgh.
- Uchino, B. N. (2004). *Social support and physical health: Understanding the health consequences of relationships*. Yale University Press.
- UNESCO. (2019). *Global Flow of Tertiary-Level Students*. UNESCO. <http://uis.unesco.org/en/uis-student-flow>
- Wang, J. (2009). A study of resiliency characteristics in the adjustment of international graduate students at American universities. *Journal of Studies in International Education*, 13(1), 22–45.

- Wells, E. C. (2013). Metabolism and Resiliency: Key Concepts for Catalyzing Transformational Change. In P. F. Barlett & G. W. (Eds.), *Sustainability in Higher Education: Stories and Strategies for Transformation* (p. 129). MIT Press.
- Wright, M. O., & Masten, A. S. (2005). Resilience processes in development. In *Handbook of resilience in children* (pp. 17–37). Springer.
- Zautra, A. J. (2009). Resilience: One part recovery, two parts sustainability. *Journal of Personality*, 77(6), 1934–1943.
- Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of Personality Assessment*, 52(1), 30–41.
- Zombory, T. (2014). *Psychological flexibility and resilience as predictors of personal growth* [Ph.D. Thesis]. Palm Beach Atlantic University.