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FACTORS AFFECTING PSYCHOLOGICAL WELL BEING AMONG POSTGRADUATE STUDENTS UNDER INDONESIAN MINISTRY OF EDUCATION SCHOLARSHIP

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ABSTRACT

Issue concerning academic stress, coping and social cultural adaptation among university students has driven to the need of deep understanding about factors that affect their psychological well-being. A correlational research design was used in this study. The researcher used two softwares to analyze the study data, namely IBM SPSS Statistics 23 and SmartPLS 3 (Partial Least Squares). The numbers of respondents in this study were 424 people. The sample determination in this study was using a simple random sampling technique. This study identified the influence of academic stress factors, coping and social cultural adaptation on psychological well-being of Indonesian postgraduate students, as well as produced a conceptual model that correlates between independent variables and dependent variable in this study. Thus, it can be concluded that academic stress, coping and social cultural adaptation have a significant influence on the psychological well-being of Indonesian postgraduatestudents. Hopefully, the results of this study can significantly contribute to the management of higher education, educators and professional counselors to pay more attention to the issue of academic stress experienced by postgraduate university students.

Keywords: Academic Stress, Coping, Social Cultural Adaptation, Psychological Well-Being, Ministry of Education, Indonesia



INTRODUCTION

Currently, the world of higher education has undergone an academic revolution and many students have access to higher education (Badan Pusat Statistik, 2017). Statistical data on college growth (public and private universities) in Indonesia and the number of students enrolling in the universities are increased. During the 2014/2015 intake session, the number of public universities registered has increased by 18% and the number of students registering increased by 8% (Badan Pusat Statistik, 2017). As a result, many students studying at universities will face various pressures.

Significantly, students have been found more vulnerable to academic stress and is also more likely to suffer from stress whether they are undergraduate or postgraduate students (Feld, 2011; Friedlander, Reid, Shupak, & Cribbie, 2010). Some studies have shown that 90% of university students experience significant stress (Feld, 2011; Kadapatti & Vijayalaxmi, 2012; Thurber & Walton, 2012). Universities are unique environments that often require students to balance their various roles and responsibilities. Academic stress occur when students cannot balance between their academic activities, social, emotion and family. Some researchers found that college students experience high stress due to academic commitment (Sansgiry & Sail, 2006), social and family relationships (Desmita, 2009), finances (Andrews & Wilding, 2004), daily complexity, lack of time management (Harikiran, Srinagesh, & Nagesh, 2012), time demands, and new responsibilities (Aselton, 2012; Jdaitawi, 2015). If that does not work, the student will be stressed easily. Uncontrolled stress that exceeds a certain level will create various problems in individuals (Romas & Sharma, 2004) such as, prolonged stress and excessive depression.

Some studies have reported that there is a relationship between academic stress and university students (Friedlander et al., 2010; Thurber & Walton, 2012; Yusoff, Rahim, & Yaacob, 2010). Some of the reasons that causes students to experience stress are due to disturbed family dynamics, pressure from other students, inability to cope with studies, drug abuse and lack of competence. The students also face a lot of stress due to imbalance of academic, social performances and time management for extra-curricular activities from education. Suriani and Suraini (2005) stated that university students are often faced with the stress of undergoing academic life such as the burden of duties given by lecturers, depressed college situations, personal adjustment problems with friends and the environment, conflicts and competition in the academic achievement. The findings of Suriani and Suraini (2005) are also supported by other research reports as conducted by Yeh and Inose (2003), they found that adapting to new situations and environment is not easy for students, especially if the difference between foreign countries and their home countries is very large (regarding the social and culture). This problem may add stress to the students who study outside abroad and students who study outside their home area.

Another example of studies using Indonesian students as their respondents in academic stress research by Suwartika, Nurdin, and Ruhmadi (2014), found that as many as 55.8% of students experienced overwhelming academic stress and most of the respondents in their research who experienced academic stress were females. In another study that is conducted by Huriatul, Pragita, Dani, Fifia, and Darmawi (2016) found that female students (41.0%) had a higher number on academic stress compared to the men (28.8%). Greer and Brown (2011) explained that stress will have a negative impact if the individual unable to cope with the stress that they faced and it can influence the individual's thinking as well as behaviour.

Students who experience academic stress will respond to their stress in different ways (Triantoro, 2006). Greer and Brown (2011) explained that stress will have a negative impact if the individual cannot overcome stress. However, some researchers said that when individuals were faced with stressful situations, they will try to overcome it both positively and negatively, which is called coping strategies (Greer & Brown, 2011; Hoggard, Byrd, & Sellers, 2012; Lazarus, 1966; Lazarus & Folkman, 1984; Rice & Van Arsdale, 2010; Somerfield & McCrae, 2000). In Lazarus and Folkman's theory (1984), two coping strategies will be chosen and used by individuals such as problem-focused coping or emotion-focused coping. A person who is successful in using the coping strategies when he experiences



stress then he will have good well-being, e.g. physical and psychological well-being (Dzokoto, Hicks, & Miller, 2007; Natovova, & Chylova, 2014; Sri Nurhayati Selian & Siti Rafiah Abdul Hamid, 2016).

Earlier research shows that self-reported stress is related with the presentation of anxious situations and lower well-being and stress is also the most important factor associated with students' psychological well-being because well-being can determine and predict academic achievement (Carter, Garber, Ciesla, & Cole, 2006; Dzokoto, Hicks, & Miller, 2007). A systematic review of some studies presented that in folks undertaking higher education, self-reported levels of stress are linked with poorer quality of life and well-being and some studies have shown that students wishing to have better results in relationships should have a high level of well-being (Borrello, 2005; Lyubomirsky, King, & Diener, 2005). This is because a person who has psychological well-being is able to control the stress well (e.g. being able to arrange the schedule well though the activities in the classroom are very crowded), have a high level of self-esteem (a healthy body when doing all class activities), have emotional intelligence and ability producing quality work (Diehl & Hay, 2011; Natovova & Chylova, 2014; Myhren, Ekeberg, & Stokland, 2013; Sagone & De Caroli, 2014). Therefore, the topic of academic stress, coping, social-cultural adaptation, and psychological well-being among Indonesian students is very interesting to explore and this study is analyzed using SPSS Software.

THEORETICAL FOUNDATION

There are three theoretical frameworks used in this study; 1) The transactional model of stress and coping/TMSC by Lazarus and Folkman (1984), 2) The social-cultural adaptation of Searle and Ward/SCAS (1990), and 3) Six dimensions positive psychology/PWB developed by Carol Ryff (1989). Nevertheless, there were four main variables in this study, three of them were independent variables (such as academic stress, coping, socio-cultural adaptation) and the last one was a dependent variable (psychological well-being).

Furthermore, academic stress (ASS) in this study involved three sub-constructs namely physical stress (SF), psychosocial stress (SPK) and psychological stress (SPS). The second variable was coping or COPE, COPE consisted of three sub-constructs, namely problem-focused coping (PFC), emotion-focused coping (EFC) and the last one was coping responses are less useful (LCR). The third variable was socio-cultural adaptation (SCAS), divided into five sub-constructs namely making friends (AKB), participating in social gatherings (APS), using transportation (AMP), communicating with host nationals (AKW) and shopping (ABB). The last variable was psychological well-being (PWB) consisting of six sub-constructs namely autonomy (KPA), environmental mastery (KPS), personal growth (KPP), positive relations with others (KPH), self-acceptance (KPK) and purpose in life (KPT). Figure 1 below was a priori model of the proposed research model in this study.

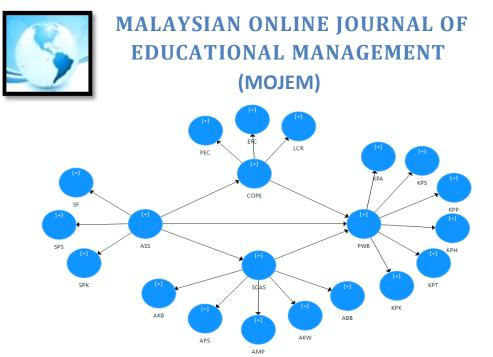


Figure 1. A priori model in the proposed research model

The two main research questions of this study are as follows:

- 1. Do academic stress, coping and social cultural adaptation have a significant effect on the psychological well-being among postgraduate students sponsored by Indonesian education?
- 2. Does academic stress have a significant effect on coping and social cultural adaptation of among postgraduate students sponsored by Indonesian education?

METHOD

The research has identified academic stress, coping, socio-cultural adaptation, and psychological well-being among Indonesian students. Below is a brief description of research design, population and sampling, research instruments and procedure.

Research Design, Population and Sampling

A correlational research design was used in this study. The researcher used two software to analyze the study data, namely IBM SPSS Statistics 23 and SmartPLS 3 (Partial Least Squares). The population in this study was Indonesian students whose studies are sponsored by Indonesia Endowment Fund for Education (they are studying masters and doctoral degrees, aged between 23 and 47 years). The numbers of respondents in this study were 436 people. However, after some data was deleted, the overall data was reduced to 424 as 12 outliers were identified. The sample determination in this study was by using a simple random sampling technique.

Research Instruments

To conduct this study, the researchers used questionnaire instruments that were relevant to the objectives and research questions and those instruments have been developed by previous researchers. Johnson and Christensen (2008) stated that the questionnaire is a research measure in the form of a self-report which is completed by the respondents of the study as part of the research.



The Academic Stress Scale (ASS)

The Academic Stress Scale (ASS) developed by James Kohn and Gregory Frazer in 1986 was used to collect data in this study. The ASS consists of 35 items on a 5-point Likert scale and it was designed to measure the source of student academic stress. Previous studies (Burnett & Fanshawe, 1997; Kohn & Frazer, 1986) found good internal reliability for the whole scale (α = 0.92) and for each sub-scale and factor (α = 0.73 - 0.84).

• The Coping Orientations to Problems Experienced Inventory (COPE)

The Coping Orientations to Problems Experienced Inventory (COPE; Carver, Scheier, & Weintraub, 1989) has 60 question items that measure the value of coping. Respondents were asked to choose an answer based on their experience in coping on a 4-point Likert scale. Litman (2006) reported that the alpha coefficient of COPE in the results of his study as .73 and .75 for the second alpha coefficient. Then, Mitchell (2016) reported Cronbach's alpha for the COPE scale in his study of .859. Thus, the reliability value of the COPE instrument has met the validity and reliability aspects.

Sociocultural Adaptation Scale (SCAS)

The Socio-Cultural Adaptation Scale (SCAS) was developed by Searle and Ward in 1990. The SCAS was designed to measure the cognitive and behavioral dimensions of individual social and cultural adaptation. The scale consists of 41 items and this scale has a range from 1 (no difficulty) to 5 (extreme difficulty). Lower scores indicate less difficulty and stronger socio-cultural adaptation. Previous studies reported SCAS had a Cronbach's alpha value of .91 (Klemens & Bikos, 2009) and .88 for result of Wilson, Ward, and Fischer's research (2013).

Ryff's Psychological Well-Being Scale (RPWB)

The measure of psychological well-being in this study used the Ryff's scale. Ryff's Psychological Well-Being Scale (RPWB) is a survey instrument developed by Carol Ryff in 1989 and it has 42 question items. This scale uses 6 response options on a Likert scale, namely: (1) Strongly disagree, (2) Disagree, (3) Quite disagree, (4) Quite agree, (5) Agree, and (6) Strongly agree. This Ryff scale measure had been tested by several Western researchers, such as studies with a Cronbach's alpha of .80 (Abbott, Croudace, Huppert, Kuh, Ploubidis, & Wadsworth, 2006; Springer & Hauser, 2006; Van Dierendonck, 2004). However, in Asian studies (for example in Malaysia) these 42 items had the result for the Cronbach's alpha values of .75 (Nor Ezdianie Omar, 2009), .70 (Wan Norhayati Wan Othman, 2014) and .82 (Farah Hidayah Hashim & Wan Norhayati Wan Othman, 2015).

Procedure

Before collecting the data, the approval of the ethical committee was gathered such obtain written permission from the university, and then the researchers must seek permission from the scholarship institution to conduct the study by recruiting its students as respondents. Furthermore, informed consent must be read in advance by the study respondents before starting the study to ensure they know and understand that they are given the appropriate protection rights in this study.

RESULTS

In the study, researchers have used SPSS and SmartPLS 3.0 software to analyze the data because it was suitable for answering the research questions. Based on the theory of Hair, Ringle, and Sarstedt (2013), they said that if the purpose of research is exploratory so researchers should use PLS-SEM. When analyzing the data, researchers have followed analytical procedures as suggested by Hair, Hult, Ringle, and Sarstedt (2017). In this study, the



researchers analyzed the measurement model and then proceed to analyze the structural model, this step to ensure that the measures used in the study were reliable and valid to answer the research questions.

• Multicollinearity Analysis

The findings of the collinearity study showed the results of multicollinearity analysis using VIF and tolerance analysis. According to theories of Hair et al. (2017) about multicollinearity, they stated that multicollinearity problems exist when the VIF value exceeds 5.0 and the tolerance value is less than 0.2. The results obtained in this study indicated that the finding was free of multicollinearity problem because the VIF value was less than 5. Therefore, the collinearity analysis results in this study did not have a problem.

• Internal Reliability and Convergent Validity

The measurement model refers to the relationship between measures and their constructs (Jarvis, MacKenzie, & Podsakoff, 2003). Further, the validity of measurement model can be done in two ways: convergent validity and discriminant validity. Convergent validity is assessed through factor loading, composite reliability (CR) and average variance extracted (AVE), while discriminant validity is evaluated, by comparing the square root of AVE with the correlation between the variables (Hair, Hult, Ringle, & Sarstedt, 2017). Hair et al. (2017) recommended that a composite reliability (CR) of 0.70 or above and an average variance extracted (AVE) of more than 0.50 are considered acceptable.

The results of Confirmatory Factor Analysis (CFA) obtained in this study can be seen that there were several sub-constructs that showed CR values were above 0.70 and AVE were above 0.50 and some of them were less than 0.70 for CR and 0.50 for AVE. Sub-constructs that had a CR value above 0.70 and AVE above 0.50 can be concluded that the convergent validity for the measurement model on the sub-construct has been fulfilled.

Table 1
CFA result for measurement model

Second Order	First Order Construct	Internal Reliability	Convergent Validity		
Construct		(Cronbach Alpha)	CR	AVE	
Academic stress	Psychosocial stress (SPK)	0.908	0.925	0.580	
(ASS)	Psychological stress (SPS)	0.958	0.962	0.614	
Coping (COPE) PFC	Active coping (PFC1)	0.718	0.826	0.543	
	Planning (PFC2)	0.769	0.853	0.593	
	Suppression of competing for	0.738	0.836	0.561	
	activities (PFC3)				
	Restraint (PFC4)	0.752	0.842	0.572	
	Use of instrumental social	0.803	0.871	0.628	
	support (PFC5)				
Socio-cultural	Making friends (AKB)	0.939	0.948	0.648	
adaptation (SCAS)	Participating in social gatherings	0.953	0.959	0.556	
	(APS)				
	Communicating with host	0.899	0.919	0.588	
	nationals (AKW)				
Psychological	Autonomy (KPA)	0.883	0.912	0.633	
well-being (PWB)	Self-acceptance (KPK)	0.860	0.896	0.589	
	Purpose in life (KPT)	0.895	0.920	0.656	



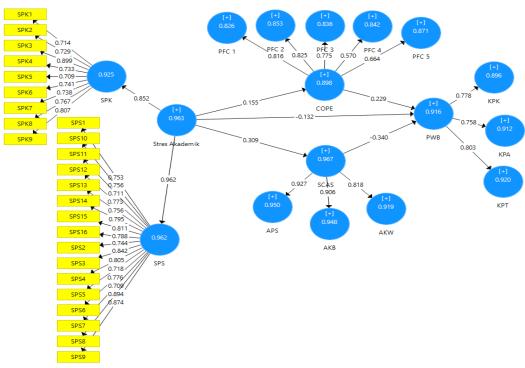


Figure 2. Convergence validity of academic stress

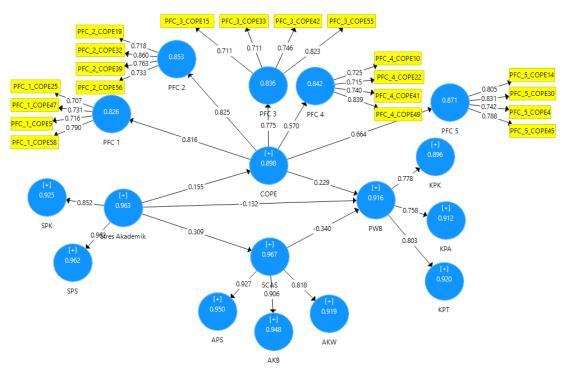


Figure 3. Convergence validity of coping PFC



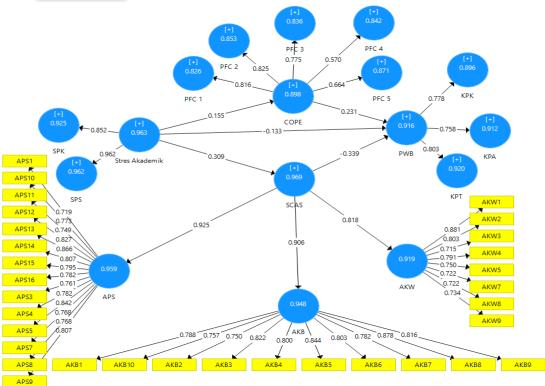


Figure 4. Convergence validity of socio-cultural adaptation (SCAS)

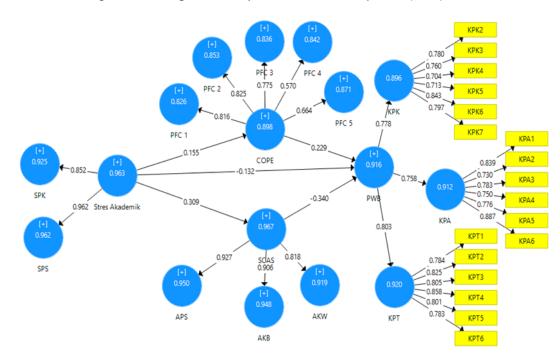


Figure 5. Convergence validity of psychological well-being (PWB)



Discriminant validity

After testing the convergent validity, researchers also need to consider of discriminant validity in order to make sure the items that used to measure a certain construct are different with other construct in the model. The Fornell-Larcker criterion (Hair et al., 2013) is one of to assess the discriminant validity. According to Fornell and Larcker (1981) discriminant validity can be established by calculating the square root of the AVE. The square root of each construct's AVE should be greater than its highest correlation with any other construct (Hair et al., 2013). However, Hair et al. (2017) stated discriminant validity also can be established by assessing the cross loading and heterotrait-monotrait ratio of correlations (HTMT) value. Anyhow, for this paper, researchers were only used square root of the AVE to assess the discriminant validity.

Table 2
The results of Fornell-Larcker criterion

	AKB	AKW	APS	COPE	KPA	KPK	KPT	PFC 1	PFC 2	PFC 3	PFC 4	PFC 5	PWB	SCAS	SPK	SPS	SA
AKB	0.805																
AKW	0.676	0.767															
APS	0.736	0.632	0.790														
COPE	-0.056	-0.081	-0.071	0.737													
KPA	-0.321	-0.402	-0.266	0.083	0.796												
KPK	-0.296	-0.381	-0.278	0.201	0.390	0.768											
KPT	-0.199	-0.256	-0.201	0.262	0.393	0.453	0.810										
PFC 1	-0.096	-0.109	-0.108	0.816	0.136	0.191	0.229	0.737									
PFC 2	-0.091	-0.120	-0.110	0.825	0.160	0.218	0.361	0.636	0.770								
PFC 3	-0.028	-0.049	-0.006	0.775	-0.012	0.099	0.183	0.542	0.556	0.749							
PFC 4	0.089	0.064	0.066	0.570	-0.006	0.080	0.047	0.316	0.350	0.340	0.756						
PFC 5	-0.038	-0.041	-0.065	0.664	-0.011	0.127	0.080	0.433	0.387	0.371	0.265	0.792					
PWB	-0.346	-0.441	-0.316	0.236	0.758	0.778	0.803	0.240	0.320	0.119	0.052	0.084	0.780				
SCAS	0.906	0.818	0.925	-0.079	-0.353	-0.346	-0.240	-0.120	-0.122	-0.028	0.082	-0.058	-0.399	0.885			
SPK	0.266	0.238	0.212	0.124	-0.259	-0.148	-0.144	0.052	0.036	0.113	0.182	0.112	-0.234	0.266	0.762		
SPS	0.323	0.246	0.228	0.153	-0.200	-0.155	-0.028	0.073	0.071	0.112	0.106	0.218	-0.160	0.295	0.675	0.783	
SA	0.329	0.264	0.241	0.155	-0.239	-0.166	-0.074	0.071	0.064	0.122	0.143	0.196	-0.202	0.309	0.852	0.962	0.909

• Hypothesis Testing

Table 3
Summary of hypothesis tests

Hypothesis	Standardized Coefficients (β)	Path	T-value	P-value	Significant Levels
SA -> PWB	-0.133		2.851	0.004	< 0.05
COPE -> PWB	0.231		4.482	0.000	< 0.001
SCAS -> PWB	-0.339		6.672	0.000	< 0.001
SA -> COPE	0.155		3.047	0.002	< 0.05
SA -> SCAS	0.309		6.991	0.000	< 0.001



Table 4
Analysis Results of R-square dan F-square

Endogenous Variables	Exogenous Variables	R ² Included	R ² Excluded	f²		
	Academic Stress	_	0.202	0.019		
Psychological Well-Being	Cope	0.216	0.167	0.064		
(PWB)	Socio-Cultural Adaptation	-	0.114	0.132		

The results showed that, (1) Academic stress had a negative effect on psychological well-being [β =-0.133, t=2.851, p<0.05]; (2) Coping had a positive effect on psychological well-being [β =0.231, t=4.482, p<0.001]; (3) Socio-Cultural adaptation had a negative effect on psychological well-being [β =-0.339, t=6.672, p<0.001]; (4) Academic stress had a positive effect on coping [β =0.155, t=3.047, p<0.05]; and finally (5) Academic stress had a positive effect on socio-cultural adaptation [β =0.309, t=6.991, p<0.001]. Therefore, the results answered research question number 1 and indicated that academic stress, coping and social cultural adaptation have a significant effect on the psychological well-being. Then, for research question number 2 and represented that academic stress has a significant effect on coping and social cultural adaptation.

DISCUSSION

The findings from the hypotheses testing for the first research question implied that there is a significant effect of academic stress, coping and social cultural adaptation on the psychological well-being among postgraduate students sponsored by Indonesian education. This finding corresponded with the evidence presented by Kormi-Nouri, Macdonald, Farahani, Trost, and Shokri (2015) said that academic stress came from internal and external problems, such as interactions with faculty and university staff, managing various non-academic factors (work, family obligations, and leisure time). Other previous study also described stress among students which involved academic, social, financial, daily complexity, and family relationships (Brougham, Zail, Mendoza, & Miller, 2009). Thus, stress is an individual's interpretation of the relationship between people and the environment, yet individuals value the situation beyond their personal resources and abilities and can jeopardize their well-being (Aihie & Ohanaka, 2019; Michaela, Pascoe, Hetrick, & Parker, 2019).

The findings from the second research question indicated that academic stress has a significant effect on coping and social cultural adaptation. The earlier studies showed an effective relationship between academic stress and coping among various academic disciplines and population of university. Difficulty in coping of stress and controlling aspects of stress caused by college life can lead to tense, health problems and academic failure (Pizzolato, 2004; Selye, 1991; Smith, 2019; Taylor & Stanton, 2007). Therefore, students need to be assisted with different strategies to improve their ability to withstand all stress or pressure in their academic experiences. The strategy required is the strategy to deal with the stress that they experienced and it is commonly referred coping (Brougham et al., 2009). Coping with stress is an important factor, it influences whether and how individuals seek medical care and social support and follow professional advice (Wolf & Boama, 2018). Some previous studies have found that new university students who have just started their education in a new place but they must face the challenges, some of them have language problems such as inadequate linguistic skills, homesickness and loneliness (Cecen, 2008; Thomas, 2018; Thurber & Walton, 2012).

IMPLICATIONS

The result of this study indicates that the academic stress, coping and socio-cultural adaptation have a significant effect on the psychological well-being of Indonesian students. So, the results of this study also have implications for other related parties (such as management of higher education, university student affairs professionals and top



management of university) to focus more deeply on the major component of the educational process such the role of the lecturers in educating students, giving a task, and building healthy relationships with students. Therefore, the current findings will help professional counselors, educators, policymakers to improve the education management system in order to reduce cases of academic stress on university students. Thus, this can help to realize the psychological well-being of students at the university. As we know that educating a person is the process of training and the transformation of the individual.

CONCLUSIONS

To summarize, after the preliminary study has been carried out, the results were as follows: the constructs of academic stress were divided into two namely psychosocial stress (SPK) and psychological stress (SPS). Moreover, the findings of this study indicated that the students in this study encountered academic stress related to final grade, excessive homework, term papers, examinations, studying for examinations, waiting for graded tests, pop quizzes, forgotten assignments, incomplete assignments, unclear assignments, announced quizzes, missing class, unclear course objectives, attending wrong class, late dismissals of class, and arriving late for class. Those academic stresses are categorized into the psychological stress by Kohn and Frazer (1986). Whereas the categories of psychosocial stress are class speaking, fast-paced lectures, unprepared to respond to questions, incorrect answers in class, learning new skills, nonnative language lectures, boring classes, note-taking in class, and evaluating classmates' work (Kohn & Frazer, 1986).

Next, the second construct was coping. Coping or COPE was found one sub-construct, which was problem-focused coping (PFC) which included active coping (PFC1), planning (PFC2), suppression of competing for activities (PFC3), restraint (PFC4) and use of instrumental social support (PFC5). Furthermore, the coping that is used by respondents in this study is problem-focused coping (PFC). PFC is controlled and reduced stress by solving the problem with changing the environment. This coping is considered to be a positively oriented approach or a positive reinforcement style and in line with lower levels of stress (Jones & Johnston, 1997; Gibbons, 2010; Shikai, Shono, Kitamura, & Masahiro, 2009).

Further on, the third construct was a socio-cultural adaptation that consisted of three sub-constructs. Those were making friends (AKB), participating in social gatherings (APS), and communicating with host nationals (AKW). Then, there are three skills of Indonesian students in adapting to the social and cultural context of this study, such as being good at making new friends, active in social gatherings and skilled in communicating with the host country. Being good at making new friends is like being good at dealing with someone uncomfortable or aggressive. Being active in social gatherings is like going to social events or gatherings, and the last one is good at communicating with the host country. Being able to communicate with the host country is as good as communicating with people from different ethnic groups.

last construct was psychological well-being (PWB) which was divided into three sub-constructs namely autonomy (KPA), self-acceptance (KPK) and purpose in life (KPT). There are three dimensions influenced the psychological well-being of the respondents; the first one is the sense of self-determination, independence, and freedom from norms or commonly referred to as autonomy. Further, the second dimension is a positive attitude toward oneself and a past life or it referred to as self-acceptance and lastly, the third one is a living goal and belief that one's life is meaningful or known by the purpose in life.

Thus, the findings of this study provided some suggestions for future researchers, one of them is to conduct the same research but with different study designs such as a qualitative research design. It is hoped that with the qualitative method, researchers can further explore deeper the academic problems faced by students and how students can control their academic stress and how they adapt to their new environment. Hopefully, the results of this quantitative study can significantly contribute to the management of higher education, educators and



professional counselors to pay more attention to the issue of academic stress experienced by postgraduate university students.

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