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Stressful Events and Student's Quality of College Life in Malaysia Higher Institutions: A Multiple Regressions Analysis

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ABSTRACT

The purpose of this study is to conduct a multiple regression analysis, the study is to examine whether there is a link between stressful life events as the dependent variables, demographic variables (gender, ethnicity, financial provider, own a transport, type of university and student's quality of life). In order to analyze the consistency in finding, the study utilized descriptive method (mean, deviation), independent sample t –test and multiple regression. Principal component analysis was conducted to variables; stressful life event and quality of life to find a small set of linear combination of covariates which are uncorrelated with each other and to ensure the linear combinations chosen have maximal variances. A convenient random sampling of 1000 students from public and private higher institutions was interviewed via a structured questionnaire. The multiple regression finding revealed that overall stress (academic and non-academic) has significant impact on student quality of college life .The finding shows that only gender shows significant link to both type of stress and female students are more stressful than male students. These are consistent with the finding in independent sample t-test. The other significant result indicates a link between academic stress and MARA as a financial provider. Meanwhile to own a transport has a significant link to non-academic stress. These results have a far reaching implication on quality of life of the students and calls for student coping strategies to be implemented by the Ministry of Higher Education Malaysia (MOHE).

Keywords: stressful, quality of life, college, academic

Introduction

Every parent's talks about their children from the moment they are born until the moment they graduate from college and getting married. The path a child life is marked by thousands of moment, events that vary in magnitude, duration, and the meaning they have for the child. Certain events such as hardship in life, divorce parents, the death of the family member can sometimes be major and involve a dramatic level of change and upheaval. All the events name in minor or major will give some impact to human development in the journey to achieve a good quality of life. Adolescence is such a significant period of development in human life that contributes stress and coping process. Part of the adolescence life is whether a person going to college or joining the work force. As a result, adolescence experiences a number of transitions, from primary to high school, from high school to college or work, from staying with parents or independently in the hostel or rented house. In addition to that, transition, some of them involve in criminal activities or drugs and lock up in juvenile detention or some of them decide to get married.

One of the critical paths in most adolescence life is college life. It generally plays an important role in overall happiness of students where they have the independence

and total or semi-freedom. Despite all the challenges students face, it does contribute to a good quality of life in the future. In today's college life environment, students face a great challenge coping with study and life events. During the period of getting the highest education, students will encounter multiple tasks that have to be done quickly and correctly. These have a significant social effect on the student's quality of college life (QCL). The quality of life has been commonly cited as people's well-being with the central objectives of happiness and life satisfaction. An example of non-academic stressful was a recently published survey conducted by the Muslim Volunteer Malaysia Association in six public universities with 25,632 students revealed shocking figures, in which more than 50% of respondents cannot afford to spend MYR5 equivalent to US\$1.14 a day on food. In addition, 44% only can afford to eat rice with egg, while 41% claimed they could only afford a packet of instant noodle (studyinternational.com). Meanwhile, college students commonly experience academic stress. Some of the common stressors within academic life would be academic demands, parent's expectation, the amount of assignment, conflicts with classmates, thesis, project paper, and so on. Not all students have the ability to cope with the amount of stressors, which result in an academic stress.

This paper attempts to understand one of the crucial steps understanding the events during the adolescence period of college life and tries to examine whether there is a link between academic and non-academic life events with demographic variables and quality of life. The research questions of this study are as follow:

- i. Are there any significant link in type of stress based on demographic variables?
- ii. Are there any significant link in type of stress and quality of life?

Using multiple regression analysis, this exploratory study would like to investigate whether academic or non-academic stress has an impact on quality of college life. Multiple regression technique is the best techniques as it will provide information about the model as a whole (all subscales) and the relative contribution of each of the variable that make up the model (individual subscales) (Pallant,2013). The paper finally concludes with a discussion on government policies and long-term measure for higher education, for the adolescence in achieving a good quality of life while in college.

Literature Review

Stress

Many researchers view change in most adolescence as an inherent component of stress and it is characterized due to changes in biological functioning, cognitive development, social roles, and social environments (Hamburg, 1974). Secondly, the concept of stress has emphasized the importance of "transitions" or period of change and adaptation (Felner, Farber & Primavera, 1983). Based on the study by Compas (1987), he identified various sources of stress as outlined in Figure 1.

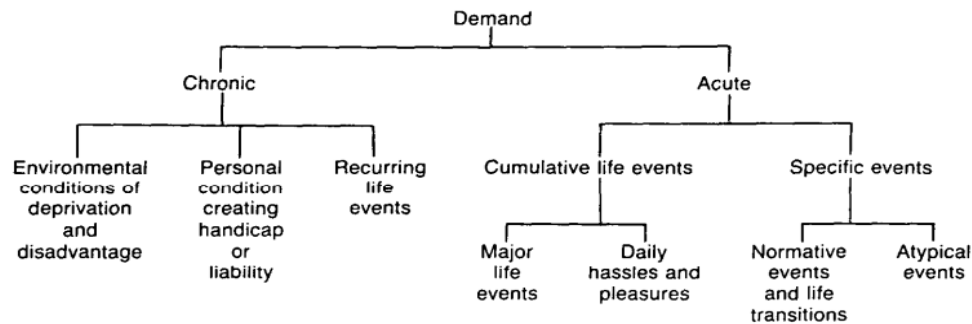


FIGURE 1. Sources of Stress During Childhood and Adolescence

Rutter (1981) explained that chronic demand might also be the result of personal characteristics of the individual and/or chronic psychosocial adversity, which includes family and economic environment. Alternatively Compass (1987) defined acute demands involve changes in existing conditions or a disruption of the status quo. Newcomb, Huba, and Bentler (1981) asserted that a cumulative life event is best assessed through a tally of recent life changes. Basically, this study focuses on stimuli which exert a demand on the students, which based on Johnson's (1982) described of stressful life events as "life experiences or events that may result in changes of lives and that necessitate varying the degree of coping and adaptation." These demands may come from external sources in the form of a variety of environmental stimuli or internal factors related to the quality of college life.

Gender and type of events revealed a moderate association between stressful events and psychological and/or behavioural problems in the cross-sectional studies among children and adolescents. Studies by Lawrence and Russ (1985) and Lewis, Siegel and Lewis (1984) found that with regard to gender, girls tend to rate events as more stressful than boys. Girls also report more major negative events (Burke and Weir (1978), and daily hassles (Compass, Davis and Forsythe (1985). According to Allen (1999), Pascarella and Terenzini (1980,1983) and Raley (2007) stated in their study many of the reasons students leave college was due to finances, poor academic performance, lack of family or social/emotional encouragement, difficult personal adjustment and integration into the college social and academic community, and/or fit with the university, and feeling of isolation and helplessness. Based on Tan and Yates (2011) personal expectations for high academic achievements and supports from parents and teachers to accommodate students' expectations have the influenced on students' academic stress. Rahardjo (2014) study at Gunadarma University in Jakarta indicates that male students tend to have higher self-esteem, higher psychological well-being, and even higher academic stress than female students do. In contrast, girls in public school in India appeared to be more stressful than boys (Indira Dhull and Sumita Kumari, 2015).

Quality of Life

There is more than one dozen definition exist on the concept of quality of life (QOL). The WHOQOL-BREF defines QOL as "An individual's perception of his/her position in the context of culture and value system in which they live in and in relation to their goals, expectations, standards, and concerns. The concept is quite complex and broad, and it related to

- i. the person's physical health
- ii. psychological state
- iii. the level of independence
- iv. social relationships
- v. personal beliefs
- vi. relationships to salient features of the environment

Raphael et al. (2001) studied QOL from the community perspective with three domains – being (one who is), belonging (connection with the environment), and becoming (achievement). Meanwhile, the Quality of College Life (QCL) defined as the overall feelings of satisfaction a student experiences with life at the college (Sirgy, Grzeskowiak and Rahtz, 2007). Ng (2005) and Chow (2005) look at the relationship between QOL of college students and other factors such as personality, health, and the environment. Vaez et. al (2004) found a positive relationship between perceived QOL and self-rated health of college students.

Methodology

Convenient samplings of 1000 students were interviewed via structured questionnaires. The first part of the questionnaire consisted of demographic questions. The second part consisted of 11 items included statements on stress such as managing workload for the courses, paying fees, expectations to perform well in academic, competitive atmosphere and academic relations with peers, concerns about life after graduating, the cost of living, health and family obligations. Respondents were to indicate the level of agreement with the items (statements) using a seven-point scale ranging from 1 to 7 where a higher value indicated a higher level of stress on academic, non-academic. The last part included the overall evaluation of the quality of life as a student using the seven-point scale from 1 to 7 were poor to excellence. The four items on quality of life are on academic, student life, personal development and professional development. The students were from six (6) public universities (IPTA) ranges from University Teknologi MARA (Campus Shah Alam, Perak, and Sabah), Universiti Utara Malaysia, Universiti Kebangsaan Malaysia (UKM), Universiti Malaysia Sarawak (Unimas) and Universiti Malaysia Sabah. Six (6) other private universities (IPTS) are SEGI College, Universiti Tun Abdul Razak (UNIRAZAK), Kolej PolyTech MARA (KPTM), INTI International College (INTI College), Universiti Selangor (UniSel) and Management and Science University (MSU).

Initially, the factorability of the 11 stressful items was examined. Stressful life events were measured using 11 items using 7-point Likert scale, while the quality of life is measured using 4 items using 7 point Likert scale. Several criteria for the factorability of a correlation were used. Firstly, it was observed that 10 of the 11 items correlated at least 0.3 with at least one other item, suggesting reasonable factorability. Secondly, the Kaiser-Meyer measure of sampling adequacy was 0.889, above the commonly recommended value of 0.6, and Bartlett's test of sphericity was significant ($\chi^2 (55) = 5242.58, p = 0.00$) (Field, 2013). The diagonals of the anti-image correlations matrix were also over 0.5. Finally, the communalities were all above 0.3. Given these overall indicators, factor analysis was deemed suitable for all the items. Table 1 shows that the two dimensions or factors extracted fulfilled the requirements for PCA. Two variables are extracted by principal component analysis (PCA) with the primary purpose was to identify and compute composite scores for the factors underlying the short version of stressful items. The initial Eigen values indicated that the two factors explained 47% and 61% of the variances respectively. There are two

dependent variables in this study namely, academic stress and non-academic stress as shown in Figure 2.

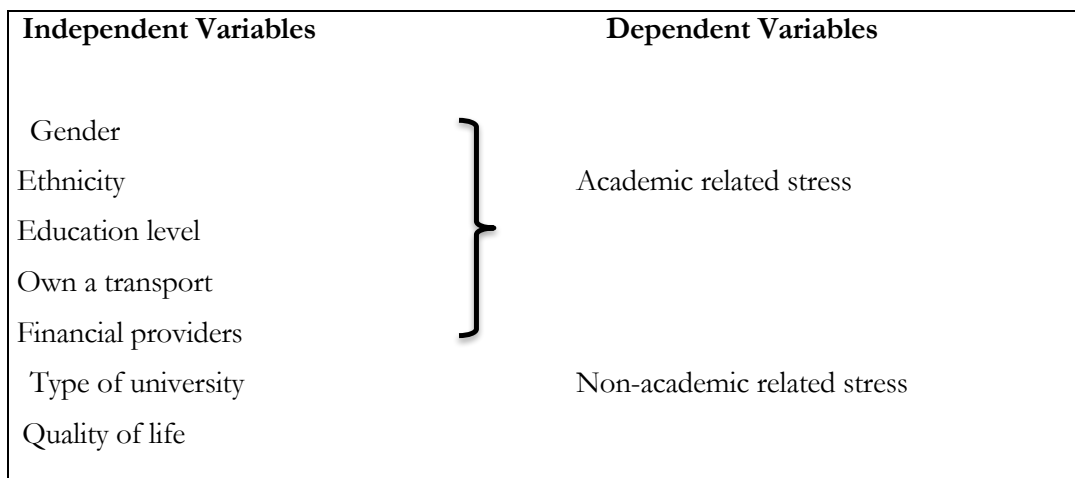


Figure 2: Research Framework

Internal consistency for each of the scales was examined using Cronbach's alpha (Table 2). The alpha's were high; 0.853 academic stress related (5 items), 0.826 non-academic stresses (5 items) and 0.907 for quality of life (4 items).

Table 1

Reliability statistics for the two stressful factors (N = 1000)

Factor	No of Items	Cronbach's α
Academic stress related	.6	0.853
Non- academic stress related	5	0.826
Quality of life	4	0.907

Table 2

Demographic Profile of Respondents

	Percentage	Number of respondents
Gender		
Male	40.0	400
Female	60.0	600
Ethnic Group		
Malays	53.2	532
Non-Malays	46.8	468
Program		
Diploma	15.2	152
Degree	79.2	792
Post graduate	56.0	56
Main financial provider		
Parents	32.3	323
PTPTN	39.2	392

MARA	14.6	146
JPA	4.5	45
State Government	3.0	30
Other	6.4	64
Own Transport		
Yes	97.8	978
No	2.2	22
Type of university		
Public	50.0	500
Private	50.0	500
TOTAL	100.0	1000

Table 3
Stressful items scores between male and female students

Item	Male	Female
	Mean (SD)	Mean (SD)
Managing the workload for my courses	4.10 (1.36)	4.45 (1.39)
Expectation to perform as good as peers	4.28 (1.32)	4.54 (1.35)
Concerns about life after graduating	4.59 (1.46)	5.12(1.37)
Cost of living	4.78 (1.51)	5.26(1.35)
Paying for university fees	4.47 (1.56)	4.87(1.48)
Inability to communicate well with other	3.84 (1.44)	4.09(1.55)
Your health	3.93(1.54)	4.11(1.61)
Competitive atmosphere on campus	4.26(1.42)	4.61(1.42)
Involvement in extra-curricular activities	3.83(1.52)	4.07(1.49)
Family obligations	4.34(1.56)	4.38(1.61)
Academic relationship with peers	4.04(1.60)	4.15(1.59)
Total	1000	1000

*Min-0, max -7

Table 4
Determinants of Academic Stress (Model 1 & 2) Non-Academics Stress (Models 3 & 4) using QCL and selected variables

	Model 1	Model 2	Model 3	Model 4
	Academic	Non-Academic		
Quality of college life (QCL)	0.369	0.341	0.233	0.299
	(0.000)***	(0.000)***	(0.000)***	(0.000)***
Gender (0 -Male; 1- Female)		0.325		0.168
		(0.000)***		(0.008)*
Malay		-0.001		0.108
		(0.991)		(0.222)
Chinese		0.114		0.131
		(0.223)		(0.188)
Education Level – (0- Diploma, 1-Degree)		-0.071		-0.101

Transport (0 – With, 1 – Without)		(0.361)		(0.220)
		0.209		0.570
Financial providers		(0.301)		(0.008)*
Parents		0.001		0.007
		(0.991)		(0.080)
PTPTN		-0.124		-0.087
		(0.134)		(0.327)
MARA		-0.322		-0.071
		(0.007)*		(0.573)
Type of university (1 Public; 0 Private)		-0.086		0.089
		(0.915)		(0.377)
Constant	-1.804	-1.708	-1.140	-1.937
	(0.45)***	(0.255)***	(0.000)***	(0.000)***
Observations	1000	1000	1000	1000
R-squared	0.10	0.185	0.056	0.077

1) Standard errors in parentheses.

2) + significant at 10%; * significant at 5%; ** significant at 1%***

Table 5

Relationship between stress and gender

	Gender	No of students	Mean Score	Std. Deviation	T(sig)
Academic Stress	Male	393	5.09	1.34	-
	Female	598	5.41	1.29	3.785(0.00)
Non-Academic Stress	Male	396	5.00	1.30	-
	Female	596	5.33	1.20	4.172(0.00)

Finding and Discussions

Table 2 summarises the background of the respondents. Most of the respondents are female (60%), undergraduate students (94.4%) and Malays (53.2%). More female going through tertiary education in Malaysia is a norm rather than an exception. In terms of main financial provider, about one-third of the students (32.2%) had their parents to finance their education and the highest financial provider is National Higher Education Fund Cooperation (PTPTN) about 39.2%. PTPN and MARA are government agencies created to provide loans (and to a small extent scholarships) to all tertiary education candidates; the latter is exclusively for Bumiputra or the indigenous people of the country. There are an equal percentage of students from the private and public university.

The mean score of stressful items between female and male are presented in Table 3. Both groups appeared to recognize the impact of stressful events on their college life, though female seemed to place more emphasis on how they manage it. This phenomenon correlates very well with past studies (Burke and Weir, 1978; Compass et al., 1985; Indira Bhull and Sumita Kumari, 2015; Lewis et al., 1984) except the findings of Rahadjo (2014).

Using multiple regression analysis, Table 4 shows the four models that have been derived. Model 1 and 2 show the determinants of academic related stress, while Model 3 and 4 show the determinants of non-academic related stress. Model 1 and 3 show the simple regression analysis results of the significant impact of QCL and related stress. Model 2 and 4 shows the inclusion of selected demographic variables on academic related stress and non-academic stress respectively. As far as both aspects of life in college and gender is concerned, the quality of life for female appeared to be significantly more affected than male students. This further confirmed the conclusion made in the earlier paragraph as to how female handle matters related to their life as compared to male. Meanwhile, QCL and financial providers, only MARA appeared to create significant stress on academic matters rather than non-academic. Most probably it is due to late payment of tuition fees which affects the student's affordability to continue and graduate on time. The last stressful item that appeared to have a significant impact on college life is transportation but more on non-academic rather than academic. This might be that transportation is provided by the university to move students from one place to another within the campus but not outside the campus. Thus, no academic stress in terms of mobility from one class/building to another. However, additional cost incurred such as petrol, parking and maintenance of the car contributed to the non-academic stress.

Table 5 shows the results of independent t-test to look at the differences between gender and continuous academic and non-academic stress mean score. Differences were found in the both type of stress between males and females with significant at $p=0.005$; further confirms the different nature in how male manages stress as compared to female. These findings can also reflect the different way male perceive stressful events. They might downplay the importance of these events, thus experienced lesser negative impact on their college life.

Conclusion and policy recommendations

Though this study has certain limitation, it does provide significant insights to relevant parties. The study further confirmed that stressful events correlates positively with QCL. The more stressful an event is perceived or experienced by students,, the more impact it has on QCL. The findings also provide evidence that both male and female students acknowledges and do experienced certain level of stressfulness resulting from the 11 stressful events investigated in this study. MARA, as one of the financial providers, has been singled out to create stressful event on academic matters. Availability of transportation, seemed to be a non-academic related concerned. In terms of gender, female students appeared to experienced higher stress level than male; more pronounced in academic related matters. Results of this study provide several important insights for understanding the impact of stress on college students' quality of life and functioning. As the population of college-bound students grows and competition increases, to help students, at the strategic level the ministry should keep in mind common stress patterns and at-risk demographics. Focus should be given on reducing academic stress. The ministry should provide policies that minimize such stress as well as to monitor the disbursement of funding especially by MARA. Benchmarking is to be made against countries of similar level of development and foresights.

University too must be concerned of stressful events. It is the duty of the faculty members, especially, to look into the patterns and handle in amicably. More attention should be given to female students. Mentoring system among senior and junior

students should be resumed. Studies should be initiated in determining the nature of such mentoring approach as well as the desirable characteristics of the mentors. Further, in designing curriculum, due concern must be given to students learning time. Care must be taken to not to burden students beyond their capabilities but at the same time fulfilling the ministry requirements. Result from the Entrance/exit survey conducted at the end of every semester in all public university, in particular, must be taken seriously and to take corrective actions, where applicable. Stakeholders in education field must conduct further research so they can accurately prevent future and more complex behaviour problems. College should be an exciting time in students' lives. Researching and implementing effective intervention and counselling programs will help improve the quality of life for all on campus.

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