

Financial Distress and Perceived Stress among University Students in Health Sciences
(*Stres Kewangan dan Tanggapan Stres dalam Kalangan Pelajar Universiti Jurusan Kesihatan*)

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ABSTRACT

College or university life is a period of significant life transition typically marked by an increase in financial responsibility. Lack of economic support and financial distress are rising concerns at many higher learning institutions today and can be a potential stress factor for many students. The aim of this study was to determine the financial status, levels of financial distress, perceived stress and life satisfaction among university students studying health-related fields. This was a cross-sectional study conducted among 100 undergraduate students from the Faculty of Pharmacy (n=35), Faculty of Health Sciences (n=36) and Faculty of Dentistry (n=29). The In-Charge Financial Distress/Financial Wellbeing scale, Perceived Stress Scale and Satisfaction with Life Scale questionnaires were used to determine perceived financial distress and stress, as well as life satisfaction respectively. In addition, socioeconomic and demographic data were also collected. Data analysis included comparing levels of financial distress, perceived stress, as well as life satisfaction among sociodemographic factors, as well as associations between financial distress with perceived stress and life satisfaction. The study respondents were consisted of 2nd (n=35), 3rd (n=32) and 4th (n=33) year students. A majority of the respondents were Malays (44%), followed by Chinese (38%), and Indians (12%). About 46% of the respondents were fully dependent on scholarships or PTPTN loans, 24% were funded by parents while the rest either received part study loans or funded by both scholarships/loans and parents. The average total monthly expenditure was reported to be RM 717 ± 296. The highest monthly expenditures were recorded among Chinese students (RM 816 ± 286) compared to the rest. The mean scores for financial distress, perceived stress and life satisfaction were 5.8 ± 1.9 (CI: 5.4 – 6.2), 21.2 ± 5.6 (CI: 20.1 – 22.3) and 22.2 ± 5.4 (CI: 21.1 – 23.2) respectively. Overall, the students in the study showed moderate levels of financial distress and perceived stress. Correlation analysis indicated that greater financial distress was associated with greater perceived stress. Factors impacting university students' financial distress should be investigated along with ways to overcome them in future studies.

Keywords: financial status, student stress, life satisfaction, undergraduate students

ABSTRAK

Kehidupan di institusi pengajian tinggi merupakan tempoh transisi kehidupan yang dicirikan dengan peningkatan tanggungjawab menguruskan kewangan. Kekurangan sokongan ekonomi dan stres kewangan merupakan isu yang membimbangkan di peringkat institusi pengajian tinggi dan berpotensi untuk menjadi salah satu faktor penyumbang terhadap tanggapan stres dalam kalangan pelajar universiti. Tujuan kajian ini adalah untuk menentukan status kewangan, tahap stres kewangan, tanggapan stres, dan kepuasan hidup dalam kalangan pelajar universiti yang mengikuti jurusan kesihatan. Kajian rentas ini dijalankan dalam kalangan 100 orang pelajar prasiswazah dari Fakulti Farmasi (n=35), Fakulti Sains Kesihatan (n=36) dan Fakulti Pergigian (n=29). Borang soal selidik The In-Charge Financial Distress/Financial Wellbeing Scale, Perceived Stress Scale dan Satisfaction with Life Scale telah digunakan untuk mengukur tahap stres kewangan, tanggapan stress dan kepuasan hidup. Di samping itu, data sosioekonomi dan demografi juga dikumpul. Analisis data melibatkan perbezaan tahap stres kewangan, tanggapan stress dan kepuasan hidup berdasarkan faktor sosiodemografi serta melihat hubungan di antara stres kewangan, anggapan stress and kepuasan hidup. Responden kajian terdiri daripada pelajar tahun pengajian pertama (n=35), kedua (n=32) dan ketiga (n=33). Majoriti daripada responden adalah berbangsa Melayu, (44%), diikuti dengan Cina (38%), dan India (12%). Seramai 46% daripada responden bergantung sepenuhnya dengan biasiswa atau pinjaman PTPTN, 24% ditanggung sepenuhnya oleh ibubapa manakala selebihnya menerima separa biasiswa/pinjaman, atau dibiayai bersama oleh ibubapa dan biasiswa/pinjaman.

Purata jumlah perbelanjaan sebulan pelajar adalah sekitar RM 717 ± 296. Jumlah perbelanjaan tertinggi dicatat oleh pelajar bangsa Cina (RM 816 ± 286) berbanding bangsa lain. Purata skor untuk tanggapan stres, stres kewangan dan kepuasan hidup adalah 5.8 ± 1.9 (CI: 5.4 – 6.2), 21.2 ± 5.6 (CI: 20.1 – 22.3) and 22.2 ± 5.4 (CI: 21.1 – 23.2) masing-masing. Secara keseluruhan, pelajar menunjukkan stres kewangan dan tanggapan stres yang sederhana. Analisis korelasi menunjukkan stres kewangan yang tinggi dikaitkan dengan tanggapan stres yang tinggi. Faktor yang menyumbang kepada stres kewangan dalam kalangan pelajar universiti dan cara menanganinya adalah disarankan untuk kajian masa hadapan.

Kata Kunci: status kewangan, stres pelajar, kepuasan hidup, pelajar prasiswazah

INTRODUCTION

Life transition into early adulthood typically requires individuals to move away from home or their family to establish new skills, career or attend higher learning institutions (Lenz 2001). This period is also typically marked by an increase in financial responsibility (Archuleta et al. 2013). Many young adults begin to handle their finances for the first time as they enroll into college or universities, and often find themselves having to juggle financial responsibilities in addition to academic responsibilities. For those with limited financial resources, the PTPTN, which stands for Perbadanan Tabung Pendidikan Tinggi Nasional or the National Higher Education Fund Corporation, offers study loans to Malaysian students to pursue a tertiary education. However, student loans such as the PTPTN are often not enough to offset students' financial needs as the loans may only cover part of the tuition fee, leaving behind the remaining expenses to be borne by the students (Rahman 2016). Past studies have highlighted several main areas of spending among undergraduate students which include accommodation, food and beverages, academic-related expenses, personal goods as well as entertainment (Jalil et al. 2020; Rubayah et al. 2015).

Unmet financial needs can lead to financial stress among university students. Financial stress and is defined as 'perceived economic stress and lack of economic support' which may then lead to financial distress (Adams et al. 2016). Financial distress is considered as one of the significant stressors affecting students in universities and has been associated with cognitive performance, mental and emotional well-being of students (Cadaret & Bennett 2019; Jones et al. 2018). Previous studies have reported the negative impacts of financial distress which included depression (Assari 2018; Andrews & Wilding 2004), anxiety (Jones et al. 2018; Andrews & Wilding 2004), poor academic

performance (Harding 2011; Ebebuwa-Okoh 2010), health deterioration (Northern et al. 2010) and difficulty in attaining graduation (Joo et al. 2008). In Malaysia, one of the most common factor for depression among undergraduate students was psychological stress with family income acting as a mediator (Shamsuddin et al. 2013). Others have reported that students who stemmed from bottom low-income background (Andrews & Wilding 2004) as well as rural areas (Bayram & Bilgel 2008) reported higher level of perceived stress in comparison with their higher income and urban counterparts.

Perceived stress is defined as the extent to which an individual perceives that their demands exceed their ability to cope, and is a major factor in academic disruption and poor academic performance (Babar et al. 2018; Zajacova et al. 2005). Sources of stress in university students mainly include academic pressure, personal relationships, and financial situations (Karyotaki et al. 2020, Yahya et al. 2017). Perceived stress not only affects academic performance, mental health, and self-esteem, but also life satisfaction (Robotham & Julian 2006). Life satisfaction, or self-perceived well-being, is interpreted as the general contentment with life, the feelings of happiness and welfare. It is an expression of the level of satisfying the needs which are important to an individual (Shin & Johnson 1978). Elevated stress levels and life dissatisfaction have both revealed associations with compromised physical and psychological health in young adults (Deckro et al. 2002) as well as with poor academic achievement of university students (El-Ansari & Stock 2010). It has been indicated that socio-economic status, lifestyle-related behaviour, social support, religious beliefs, and self-esteem level are associated with students' life satisfaction and their levels of perceived stress (Kong et al. 2012; Chow 2005).

There have been a substantial number of local and international studies reporting perceived stress

among university students, mostly citing academic workload as the main source of stress, but studies investigating the financial status and distress among local university students are very scarce. Acting as a potential contributing factor to the stress and life satisfaction faced by undergraduate students, financial distress should not be taken lightly since the students are going through a transition period from financial dependence to independence. Furthermore, whether financial distress is related to perceived stress and life satisfaction among university students needs to be elucidated. Based on the abovementioned background, the objectives of our study were to: (1) assess financial status, perceived stress, financial distress, and life satisfaction among university students; (2) compare the outcome measures based on the socio-demographic characteristics; and (3) assess whether financial distress is associated with perceived stress and life satisfaction. Through this approach, our study may provide a better understanding on how financial distress may affect stress and life satisfactions as perceived by the students in order to build a better foundation in the effort of preserving the wellbeing of students in universities.

METHODS

Study Location and Subject Recruitment

This was a cross-sectional study conducted in Universiti Kebangsaan Malaysia, Kampus Kuala Lumpur. Respondents were recruited through convenient sampling involving undergraduate students from three faculties, namely Faculty of Health Sciences (FSK), Faculty of Pharmacy (FFAR) and Faculty of Dentistry (FGG). Inclusion criteria were full-time students, who were in 2nd, 3rd and 4th year of studies and Malaysian citizens. Working adults on study leave and students studying in the 1st year were excluded from this study. First year students were not included in this study because they had just enrolled into university and application for scholarships and loans would still be ongoing and thus, their source of financial support would have not been finalized at the time of data collection. In addition, the stress of adjusting to the new environment of studying in a university may pose a potential bias to their perceived stress levels which may in turn affect the results obtained in this study.

Ethical approval (ref. no. JEP-2017-137 / NN-2017-189) was attained from the PPUKM Ethics Committee Board prior to the execution of this study. Permissions from the Dean of FFAR, FSK and FGG were also obtained to carry out the study on their

respective students. Once approvals were obtained, participants were recruited based on the inclusion and exclusion criteria. Representatives from each academic year of each faculty were met to either arrange a meeting or to distribute questionnaires to their respective students. Students were informed that participation was voluntary and anonymous and that study participation agreement involved completing a set of questionnaires. Those who agreed to participate in this study were given the information sheet to ensure complete understanding on the study and were asked to sign the consent form to acknowledge their voluntary participation before being handed the questionnaires to complete. No participation incentives were provided. Data collection took place in the early second semester of an academic year.

Study Outcome Measures

The questionnaires used in this study consisted of four parts: (1) financial status and demographic data, (2) In-Charge Financial Distress/Financial Wellbeing (IFDFW) scale, (3) Perceived Stress Scale 10-items (PSS-10) and (3) Satisfaction with Life Scale (SWLS). The financial status and demographic data obtained in this study included but were not limited to: gender, races, year of studies, faculty, number of siblings, parents' educational level, types of scholarships and monthly expenditure. Types of scholarships generally refers to participants' main source of financial support in university which may include government or private scholarships, personal loans and family-funded. Monthly expenditure was defined as the amount an undergraduate student spent in a month on food, accommodation, leisure, transport, academic-related aspect and other related expenses. Respondents were required to answer the questions based on their experience throughout the first semester of the academic year.

Financial Distress

Financial distress was assessed using the In-Charge Financial Distress/Financial Wellbeing (IFDFW) scale, a self-reported measure which aims to assess perceived financial distress or wellbeing (Prawitz et al. 2006). The IFDFW scale included questions in the form of statements which need to be appraised based on the respondents' current financial situation and their feeling to that state of economic affairs. The instrument consisted of 7 questions and each question is evaluated based on a scale ranging from 0 (negative response) to 10 (positive response). The scoring method for

this scale is the sum of scores for all the questions and divided by the number of questions answered to obtain an overall mean score. The minimum score for this scale is 0 while the maximum score is 10. Higher mean score indicates lower financial distress and better financial wellbeing. This scale was reported to have a Cronbach's alpha value of 0.96 (Garman et al. 2005).

Perceived Stress

Perceived stress was measured using the Perceived Stress Scale 10 items (PSS-10), a self-reported instrument developed to measure the degree to which a respondent appraises situations in his or her life during the previous four weeks as stressful (Cohen et al. 1983). The original PSS scale consisted of 14 items which were then shortened to 10 items through factor analysis and PSS-10 is reported to have better psychometric properties than PSS-14 (Lee 2012). It consists of positive and negative statements in which respondents are required to answer based on their current condition. Each question is scored on a 5-point Likert scale (0 = Never, 1 = Almost Never, 2 = Sometimes, 3 = Fairly Often, 4 = Very Often). Scoring for this scale involves summing up all the scores for the 10 items. Scoring for positive questions (questions 4, 5, 7 & 8) were reversed. The scale yields a score ranging from 0 to 40, with higher scores indicating higher levels of stress. PSS-10 had a Cronbach's alpha value and test-retest reliability of more than 0.70 in 12 studies (Lee 2012).

Satisfaction with Life

Life satisfaction was assessed using Satisfaction with Life Scale (SWLS) (Pavot & Diener 1993). This scale does not require respondents to specify which life domains to be evaluated but allows the respondents to evaluate life satisfaction in whichever context they see themselves in. In the study context, respondents were required to evaluate their life satisfaction based on their experience in the first semester of academic year. Respondents indicate how much they agree or disagree with each of the 5 items using a 7-point scale that ranges from 7 (strongly agree) to 1 (strongly disagree). A respondent can record a maximum score of 35 or a minimum score of 5. Greater life satisfaction is reflected by higher total score and vice-versa. SWLS had Cronbach's alpha value of 0.87 and test-retest reliability of 0.82 (Diener et al. 1985). SWLS was also reported to have strong negative correlation ($r = -0.72$, $p = 0.001$) with Beck Depression Inventory (BDI) (Blais et al. 1989).

Data Analysis

The sample size obtained was based on G*Power calculation for between-group comparisons with power of 0.80 ($\alpha = 0.05$). All the data obtained for this study were analyzed using IBM SPSS software version 22.0. The sociodemographic data such as gender, races, year of studies, faculty, types of scholarships and monthly expenditure were expressed in the form of frequencies and percentages. Perception on adequacy of scholarships/loans amount was analyzed using Chi-Square test. Independent T-test and one-way ANOVA were carried out to analyze differences in the scores of financial distress, perceived stress and life satisfaction across gender, ethnicity, faculties and year of studies. The association between the study variables such as financial distress, perceived stress and life satisfaction were analysed using Pearson product-moment correlation. The statistical significance level was set at 0.05.

RESULTS

Demographic Data

The sociodemographic data of the study sample is presented in Table 1. A total of 100 UKM Kampus Kuala Lumpur undergraduate students participated in this study of which 36% ($n=36$) were FSK students, 35% ($n=35$) FFAR students and 29% ($n=29$) were FGG students. The distribution of respondents according to year of study were almost equal among 2nd year ($n=32$), 3rd year ($n=35$) and 4th year ($n=33$) students. Majority (44%) of the respondents were Malays, followed by Chinese (38%), Indians (12%) and others (6%). Female students (72%) dominated over male students (28%) in the study sample.

Financial Status

Scholarships. Table 1 showed that a majority of the respondents ($n=31$) were fully funded by the Jabatan Perkhidmatan Awam (JPA) scholarships in which the amount ranged between RM 5000 - RM 6000 per semester, followed by 24 respondents who were financially supported by own parents. The respondents who were fully ($n=15$) and partly ($n=9$) supported by PTPTN loan received the amount ranging between RM 1800 - RM 3500 per semester, a lower amount than JPA scholarships.

Monthly Expenditures. Monthly expenditures were presented in Table 2. The study sample reported

an average of total monthly expenditure at RM 717 ± 296. When compared among ethnicities, total monthly expenditures were significantly higher among Chinese (RM 817 ± 286) compared to Indian students (RM 486 ± 367). The Malay students had a slightly lower monthly expenditure compared to the Chinese students, however this difference was not significant. No significant differences in monthly expenditures were observed between female and male students, as well as among faculties and year of studies.

Perception on Adequacy of Scholarships/Sponsorship Amount. Table 3 showed that a majority (74%) of respondents who received JPA scholarships reported that the amount they received were enough to support their daily expenses. On the contrary, 67% of respondents who received PTPTN loans reported

that the amount they received were not adequate. A chi-square test of contingencies was carried out to evaluate if there was an association between types of scholarships and perception on whether amount of scholarships/sponsorships was enough or otherwise. Statistical results showed that students who received JPA scholarships and financially funded by parents were statistically more likely to perceive that the amount of their scholarships/sponsorships was enough [$X^2(4, N=100) = 18.641, p < 0.001$].

Additional Income. Only seven out of the 100 respondents in this study were involved in part-time jobs during the period of data collection. The average monthly income contributed by part-time jobs was RM 337 ± 99. Information on the types of jobs engaged were not obtained in this study.

TABLE 1. Sociodemographic Data of Respondents ($n = 100$)

Variables		n (%)
Faculty	FSK	36 (36%)
	FFAR	35 (35%)
	FGG	29 (29%)
Year of Study	2 nd year	35 (35%)
	3 rd year	32 (32%)
	4 th year	33 (33%)
Gender	Male	28 (28%)
	Female	72 (72%)
Race	Malay	44 (44%)
	Chinese	38 (38%)
	Indian	12 (12%)
	Others	6 (6%)
Types of Funding	JPA	31 (31%)
	PTPTN (Full)	15 (15%)
	PTPTN (Half)	9 (9%)
	Private scholarship	3 (3%)
	Parents	23 (23%)
	Parents + Scholarships/Loan	19 (19%)

JPA: Jabatan Perkhidmatan Awam

PTPTN: Perbadanan Tabung Pendidikan Tinggi Nasional

TABLE 2. Respondents' Monthly Expenditures ($n = 100$)

Variable		n	Mean \pm S.D	p value	p value (post-hoc)
Overall study population			RM 717.74 \pm 296.27	-	-
Gender	Male	28	RM 748.89 \pm 278.04	0.515	-
	Female	72	RM 705.63 \pm 304.07		
Race	Malay	44	RM 693.86 \pm 263.91	0.006	0.003*
	Chinese	38	RM 816.95 \pm 286.92		
	Indian	12	RM 486.25 \pm 366.82		
	Others	6	RM 727.50 \pm 158.80		
Year of Study	2 nd year	35	RM 670.86 \pm 290.82	0.045	0.071
	3 rd year	32	RM 661.44 \pm 236.35		
	4 th year	33	RM 822.06 \pm 332.83		
Faculty	FSK	36	RM 698.47 \pm 256.31	0.591	-
	FFAR	35	RM 759.29 \pm 309.82		
	FGG	29	RM 691.52 \pm 329.12		

*significant difference in total monthly expenditure between Chinese and Indian students

TABLE 3. Students' Perception of Adequacies Regarding Funding

Types of Funding	Perception, n (%)			
	Enough	Not Enough	Total, n (%)	
JPA	24 (77.4%)	7 (22.6)	31 (100%)	
PTPTN	8 (33.3%)	16 (66.7%)	24 (100%)	
Private	2 (66.7%)	1 (33.3%)	3 (100%)	
Parents	19 (82.6%)	4 (17.4%)	23 (100%)	
Parents + Scholarships/Loans	8 (42.1%)	11 (57.9%)	19 (100%)	
	Total	61%	39%	100%

$df = 4$, $X^2 = 18.641$, $p < 0.001$

Outcome Measures

Financial Distress. Table 4 showed the mean scores for financial distress according to respondents' characteristics. The average scores for financial distress for all the respondents was 5.8 ± 1.9 , approximately the

midpoint on the score continuum. According to the cut-off standards (Prawitz et al. 2006), the scores indicated average financial distress. No significant differences were observed in the scores of financial distress when compared between gender and among ethnicities, year of studies and faculties.

TABLE 4. Financial Distress Scale Scores ($n = 100$)

Variable		n	Mean \pm S.D Total Score	p value	CI 95%
Overall study population			5.8 \pm 1.9		5.4 – 6.2
Gender	Male	28	5.2 \pm 2.0	0.075 ^a	4.4 – 5.9
	Female	72	6.0 \pm 1.8		5.6 – 6.5
Race	Malay	44	5.7 \pm 1.8	0.420 ^b	5.1 – 6.2
	Chinese	38	6.1 \pm 1.9		5.5 – 6.8
	Indian	12	5.5 \pm 1.9		4.3 – 6.7
	Others	6	5.0 \pm 2.6		2.1 – 7.7
Year of Study	2 nd year	35	5.4 \pm 1.8	0.174 ^b	4.8 – 6.0
	3 rd year	32	6.3 \pm 2.0		5.5 – 7.0
	4 th year	33	5.8 \pm 1.9		5.1 – 6.4
Faculty	FSK	36	5.8 \pm 1.7	0.911 ^b	5.2 – 6.4
	FFAR	35	5.7 \pm 2.3		4.9 – 6.5
	FGG	29	5.9 \pm 1.7		5.3 – 6.5

^aMann-Whitney U-test^bANOVA test

Perceived Stress. Table 5 showed the mean scores for perceived stress according to respondents' characteristics. The average scores for perceived stress

for the study sample was 21.2 ± 5.6 . According to the scoring cut-off, scores ranging from 14-26 would be considered as 'moderately-stressed'. When comparing

TABLE 5. Perceived Stress Scores (PSS-10) ($n = 100$)

Variable		n	Mean \pm S.D Total Score	p value	CI 95%
Overall study population			21.2 \pm 5.6		20.1 – 22.3
Gender	Male	28	20.8 \pm 4.9	0.640 ^a	18.9 – 22.7
	Female	72	21.4 \pm 5.9		20.0 – 22.8
Race	Malay	44	21.7 \pm 5.7	0.162 ^b	19.9 – 23.4
	Chinese	38	19.7 \pm 4.1		18.3 – 21.0
	Indian	12	24.4 \pm 8.2		19.1 – 29.7
	Others	6	21.3 \pm 5.3		15.8 – 26.9
Year of Study	2 nd year	35	20.6 \pm 4.6	0.129 ^b	19.0 – 22.2
	3 rd year	32	20.3 \pm 5.4		18.3 – 22.2
	4 th year	33	22.8 \pm 6.5		20.5 – 25.1
Faculty	FSK	36	21.2 \pm 4.2	0.561 ^b	19.8 – 22.6
	FFAR	35	20.5 \pm 5.6		18.6 – 22.5
	FGG	29	22.1 \pm 7.1		19.4 – 24.8

^aIndependent T-test^bANOVA test

scores between gender and among ethnicities, year of studies and faculties, no significant differences were found.

Life Satisfaction. Table 6 showed the mean scores for satisfaction with life according to sociodemographic characteristics. Life satisfaction

among the sampled UKM students was reported to have a mean of 22.2 ± 5.4 which indicated as 'slightly satisfied' based on the cut-off standards (Diener et al. 1985). When comparing scores between gender and among ethnicities, year of studies and faculties, no significant differences were observed.

TABLE 6. Satisfaction with Life Scale Scores ($n = 100$)

Variable		<i>n</i>	Mean \pm S.D Total Score	<i>p</i> value	CI 95%
Overall study population			22.2 \pm 5.4		21.1 – 23.2
Gender	Male	28	21.8 \pm 5.6	0.660 ^a	19.6 – 24.0
	Female	72	22.3 \pm 5.4		21.1 – 23.6
Race	Malay	44	22.3 \pm 5.0	0.982 ^b	20.7 – 23.8
	Chinese	38	22.3 \pm 6.0		20.3 – 24.2
	Indian	12	21.6 \pm 5.3		18.2 – 25.0
	Others	6	22.0 \pm 5.9		15.8 – 28.2
Year of Study	2 nd year	35	22.8 \pm 5.3	0.630 ^b	21.0 – 24.7
	3 rd year	32	21.6 \pm 4.9		19.8 – 23.3
	4 th year	33	22.1 \pm 6.1		19.9 – 24.2
Faculty	FSK	36	20.7 \pm 5.4	0.128 ^b	18.9 – 22.6
	FFAR	35	23.1 \pm 6.0		21.1 – 25.2
	FGG	29	22.8 \pm 4.4		21.1 – 24.5

^aIndependent T-test

^bANOVA test

Association between Financial Distress with Perceived Stress and Life Satisfaction. Financial distress is inversely associated with perceived stress ($r = -0.377$, $p < 0.001$). The negative correlation can be interpreted as higher IFDFW scale scores (low financial distress) is associated with lower PSS-10 scores (low perceived stress). Financial distress however, is not significantly associated with life satisfaction.

DISCUSSION

The findings from this study provided some insights regarding financial distress, psychological stress and life satisfaction among university students in the Malaysian context. In this study, more than half of the sample funded their university expenses through government scholarships/loans, which was expected due to the fact that students who enrolled into public universities

were mainly from low- to middle-income families (Bernama, 2018). Personal funding by parents was seen as the second most common type of funding after government scholarships/loans. The move by Public Service Department (JPA) to convert their Program Ijazah Dalam Negara (PIDN) scholarship to convertible loan may explain the high number of students currently being financially funded by their own parents. Students who were personally funded were also most likely students who were not entitled to scholarships/loans due to a higher socioeconomic family background. A slightly worrying finding was that students who received PTPTN loans claimed that the amount that they received were not sufficient to fund their daily expenses, most likely due the higher cost of living in Kuala Lumpur (Teh Athira Yusof 2017). This was not surprising as the total loan amount handed out by the PTPTN has a ceiling limit of RM 3500 per semester, while the amount of JPA scholarships ranged between

RM 5000 – RM 6000 per semester. A study conducted among students in Universiti Kuala Lumpur supported our finding that approximately 30% of students who received study loans perceived their loan amount as inadequate to cover living expenses (Yahya et al. 2017).

On average, UKM Kampus Kuala Lumpur undergraduate students spent approximately RM 700 monthly. This finding is in agreement with the recent finding by Abd Jalil et al. (2020) that students of Universiti Pendidikan Sultan Idris, Perak reported an average monthly expenditure of RM774.04. An earlier student survey among local undergraduate students in Kuala Lumpur reported an average expenditure of between RM 600 – 900 per month (Mustafa 2017). The expenditure highlighted in the report included food, transport, leisure, academic-related expenses and accommodation fees. Monthly expenditure may be less if students were living outside of Kuala Lumpur, as reported by Abd Rahman et al. (2019) that showed on average, students of UiTM Raub spent RM 421.75 per month. There were no differences in monthly expenditure between male and female students in this study although more male students took up part-time jobs than female students. An earlier study by Falahati et al. (2011) however, found that there were gender differences in financial management among 2,340 college students in Malaysia, in which female students had better financial management than male students. A similar study among undergraduate students in Thailand also reported that female students had more positive attitudes towards saving while male students were more positive towards spending (Sereetrakul et al. 2013). It is likely that our study finding was such because our sample consisted of students studying in the same institution, while other studies involved subjects from several institutions and locations. When comparing among ethnicities, Chinese students had a greater monthly expenditure than Indian students, but not different compared to Malay students. In the context of our student population, there are more Chinese students living outside campus compared to Malay and Indian students, which may account for their greater monthly expenditures. Monthly expenditures tended to be higher in Year 4 students compared to other year of studies. Provision of in-campus accommodation is based on a merit system and merit points are accumulated through participation in co-curricular and college activities. As students climbed through their year of studies, they often have lesser time to commit in co-curricular activities which results in many of them having to opt to live outside campus and thus, spending more on the accommodation aspect.

With regards to financial distress, students

within the study sample had moderate levels of financial distress. There were no differences across gender, ethnicities and year of studies. Daud et al. (2018) reported that the source of financial issues among student of higher learning in Malaysia were insufficient funding resources, delayed receipt of funding and poor planning that led to an imbalance between income and spending. An earlier study by Sabri et al. (2008) revealed that Malaysian university students were using their education fund for purposes other than for their academic expenses and lending money to friends. The same study also reported that childhood consumer experience, spending behaviour, and financial literacy were the significant predictors of financial distress in university students. According to Norazlan et al. (2020), students who came from underprivileged families and could not secure an education loan or scholarship could struggle to pay for their necessities such as accommodation, food and academic materials. Thus this can take a toll on their health through means of food insecurity and financial distress, hence eventually leading to poor academic performance. We however, did not probe further into the factors relating to the financial distress in our sample, but this poses an important area to look into in future studies. However, from our available data, it was revealed that students who were receiving PTPTN loans had higher financial distress compared to students receiving JPA scholarships and those who were personally funded by parents. This could be partly explained by the loan amount being perceived as insufficient to support their daily expenses as reported earlier.

Financial distress can be a significant contributor to perceived stress among university students, especially those living in cities of higher cost of living such as Kuala Lumpur. Perceived stress levels within our study sample were found to be moderate (average score 21.2). Our finding is somewhat similar with the study by reported by Jia & Loo (2018) that reported an overall PSS mean score of 27.4 among undergraduate students in Universiti Putra Malaysia, with the female and the first year undergraduate students scoring higher stress scores. There were no differences between male and female students in the present study, although previous studies have reported female having higher perceived stress than male students studying in Malaysian universities (Jia & Joo 2018; Babar et al. 2015; Shamsuddin et al. 2013). Furthermore, the present findings also showed that stress levels across year of studies and ethnicities were also similar. This could be due to the fact that that our study sample were all students in health-related fields, thus differences would be more apparent if the sample involved students from

other fields of study e.g. engineering, business studies or others non-health related courses. Shamsuddin et al. (2013) previously reported that Malays had the highest stress scores compared to other races among Malaysian university students, while our finding seems to be in agreement with a study by Mohd Sidik et al. (2003) who found no differences in stress levels across ethnicities among Malaysian medical students. The inconsistencies in previous findings lead us to postulate that ethnicity may not appear as a salient factor affecting stress levels among university students.

On average, students in the present study was found to be 'slightly satisfied with life', regardless of gender, ethnicities, and years of study. Studies where life satisfaction among university students assessed using the Satisfaction with Life Scale showed relatively similar mean scores with our finding, such as in China (Shi et al. 2015), New Zealand (Samaranayake & Fernando 2011), Canada (Chow 2005), and Saudi Arabia (Aboalshamat et al. 2015). These findings including ours indicated that the students are generally satisfied with their lives, despite having some degree of financial distress and perceived stress. Because financial well-being is an important life aspect for many university students, we also wanted to examine the role that financial distress play in perceived stress and life satisfaction. It was interesting to note that greater financial distress is associated with greater perceived stress, but no association was observed between financial distress and life satisfaction. This finding is supported by previous studies which reported undergraduate students perceive financial issues as one of the many stressors in their university life (Archuleta et al. 2013; Ebeuwa-Okoh 2010). Very few studies have looked at the relationship between financial stress and life satisfaction among students. A recent study by Bernardo & Resurreccion (2018) in Filipino university students showed that financial stress was negatively associated with life satisfaction, though the association was moderated by external-family locus of hope. The association described that students who experienced less financial stress coped by seeking financial assistance or support from family members; seeking assistance is more likely if students hold the belief that their families are disposed to and have the means to support their goal pursuits. In contrast, students who do not hold such hope-related beliefs cannot cope with financial stress by seeking assistance from family members. We therefore concluded financial distress is not a standalone correlate of life satisfaction in university students; it is highly likely that the relationship between financial distress and life satisfaction are mediated by other factors related to quality of life such as academic

performance, self-esteem, social support, relationship with significant other, perceived health, and spiritual development (Salmani et al. 2019; de Waure et al. 2015; Zhang et al. 2014; Chow 2005).

The present study had several limitations. The sample size was relatively small and drawn via convenience sampling from a single university, therefore the results cannot be generalized and should be interpreted as indicative findings and not definitive findings. Future studies should draw samples from student populations nationwide and with different background of studies. Because of the cross-sectional nature of this study, causal relationships between financial distress and perceived stress and life satisfaction cannot be determined from this investigation. Financial literacy and debt were not assessed in this study. These factors have been shown to be associated with financial distress/well-being therefore it is warranted that future studies to include these variables.

CONCLUSION

Our findings showed that financial distress and perceived stress were considered to be moderate in our sample of undergraduate students taking health science courses. Financial distress was also found to be correlated with perceived stress, but not with life satisfaction. The findings obtained from this study could be used to develop action-oriented financial education programs that would not only provide students the knowledge and skills to better manage their finances and improve their financial well-being but also help alleviate their stress levels and increase life satisfaction.

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