

PERPUSTAKAAN KAMPUS KESIHATAN  
UNIVERSITI SAINS MALAYSIA



LAPORAN AKHIR

PROJEK

PENYELIDIKAN

GERAN INSENTIF

PSYCHOLOGICAL DISTRESS AMONG UNDERGRADUATES IN  
THE NORTHERN UNIVERSITY  
OF MALAYSIA,  
SINTOK, KEDAH

BY :

DR. WAN MOHD. RUSHIDI WAN MAHMUD

DR. WAN ZARINA WAN MAHMUD

## **PENDERITAAN PSIKOLOGI DALAM KALANGAN PELAJAR DI UNIVERSITI UTARA MALAYSIA**

Wan Mohd. Rushidi Wan Mahmud\*, Wan Zarina Wan Mahmud \*\*

\*Jabatan Psikiatri , Universiti Sains Malaysia, Kubang Kerian , Kelantan. \*\*Pusat Kesihatan  
Pelajar , Universiti Utara Malaysia, Sintok, Kedah

### **ABSTRAK**

**OBJEKTIF:** Objektif utama kajian adalah untuk menentukan kadar prevalens penderitaan psikologi dalam kalangan pelajar ijazah pertama dan faktor risiko yang berkaitan di Universiti Utara Malaysia

**METODOLOGI:** Satu kajian hirisan lintang telah dijalankan melibatkan 468 pelajar yang dipilih secara rawak ketika datang untuk pemeriksaan perubatan ke Pusat Kesihatan Pelajar di Universiti Utara Malaysia. Soal Selidik Kesihatan Awam 12 versi Bahasa Malaysia telah digunakan untuk menentukan kewujudan penderitaan psikologi. Skor 3 atau lebih dikira positif dalam kajian ini. Pelajar juga diberikan Skala Stres Pelajar dan satu set soal-selidik untuk maklumat demografi dan psikososial.

**KEPUTUSAN :** 450 soal-selidik yang lengkap telah diperolehi. 117 pelajar mendapat skor 3 dan ke atas memberikan kadar prevalens penderitaan psikologi dalam kalangan pelajar ijazah pertama di Universiti Utara Malaysia sebanyak 26%. Pelajar wanita lebih ramai mengalaminya dibanding pelajar lelaki ( $P= 35.8\%$ ;  $L=12.7\%$ ). 80.7 % pelajar mengakui mengalami tekanan terutamanya masalah berkaitan hal-hal akademik, mendapatkan pekerjaan di masa hadapan, kewangan, kesihatan, dan perhubungan. Terdapat hubungan yang signifikan antara penderitaan psikologi dan bilangan peristiwa penting yang berlaku dalam kehidupan ( $p < 0.01$ ), skor yang tinggi dalam Skala Stres Pelajar ( $p < 0.01$ ), mengalami sebarang bentuk tekanan ( $p < 0.01$ ) dan mempunyai hubungan yang tidak baik dengan pensyarah ( $p < 0.01$ ).

**RUMUSAN:** Kadar prevalens penderitaan psikologi dalam kalangan pelajar ijazah pertama di Universiti Utara Malaysia adalah melebihi dua kali ganda dibandingkan dengan kadar prevalens penderitaan psikologi penduduk seluruh Malaysia yang diperolehi pada Kajian Kesihatan dan Morbiditi Malaysia 1996. Adalah dicadangkan agar program khusus mengenai pengendalian stres dibuat terutama kepada pelajar-pelajar baru bagi membantu mereka menghadapi kehidupan di universiti. Pengesanan dan rawatan awal perlu diberikan kepada mereka yang terlibat.

**PSYCHOLOGICAL DISTRESS AMONG UNDERGRADUATES IN THE NORTHERN  
UNIVERSITY OF MALAYSIA : AN EXPLORATORY STUDY**

Wan Mohd. Rushidi Wan Mahmud\*, Wan Zarina Wan Mahmud \*\*

\*Department of Psychiatry, Universiti Sains Malaysia, Kubang Kerian , Kelantan. \*\*Student  
Health Center, Universiti Utara Malaysia, Sintok, Kedah

**ABSTRACT**

**OBJECTIVES:** The main aim of the study is to determine the prevalence of psychological distress and its associated risk factors among undergraduates in the Northern University of Malaysia.

**METHODS:** A cross sectional survey was carried out among 468 randomly selected employees who were attending the Health Center for their routine medical check-ups. Psychological distress was assessed using the Malay version of the twelve items GHQ (GHQ – 12). A score of 3 and above on the GHQ – 12 was considered to be a ‘case’ in this study. Participants were also given the Student Stress Scale and a set of questionnaires on basic demographic details and various putative risk factors

**RESULTS:** Of the 468 students, 450 returned completed questionnaires. 117 out of 450 participants scored 3 and above on the GHQ – 12, giving a prevalence rate of psychological distress among the undergraduates of the Northern University of Malaysia to be 26%. Females are affected more than males (F= 35.8%; M=12.7%). 80.7 % of the students admitted being under some form of stress at the time of the study. Among the most frequent sources of stress are academic-related, worried about future employment, financial, health related stressors and relationship problems. Psychological distress was found to be linked to higher number of life events experienced over the last one year ( $p < 0.01$ ) and high scores on the Student Stress Scale ( $p < 0.01$ ), presence of any stressor ( $p < 0.01$ ), and poor relationship with tutors/lecturers ( $p < 0.01$ ).

**CONCLUSIONS:** The rate of psychological distress among undergraduates of the Northern University of Malaysia is about 2.5 times higher than the national average. Health education, stress management and effective coping skills programs can be important strategies to enable the students to cope better with the demands of higher education. Regular screening should be encouraged as it will help detect possible “psychological casualties” among the students and hopefully offering immediate treatment in order to prevent potential waste of valuable human resources

# INCENTIVE GRANT FINAL REPORT

## PSYCHOLOGICAL DISTRESS AMONG UNDERGRADUATES IN THE NORTHERN UNIVERSITY OF MALAYSIA: AN EXPLORATORY STUDY

Wan Mohd. Rushidi Wan Mahmud\*, Wan Zarina Wan Mahmud \*\*

\*Department of Psychiatry, Universiti Sains Malaysia, Kubang Kerian, Kelantan. \*\*Student Health Center, Universiti Utara Malaysia, Sintok, Kedah

### Abstract

**Objectives:** To determine the prevalence of psychological distress and its' associated risk factors among undergraduates in the Northern University of Malaysia.

**Methods:** A cross sectional survey, involving 468 randomly selected students attending the Health Center for their routine medical check-ups. Psychological distress was assessed using the Malay version of GHQ-12. A score of 3 and above was considered a 'case' in this study. Participants were also given the Student Stress Scale and questionnaires on basic demographic details and various putative risk factors

**Results:** 450 returned completed questionnaires. 117 scored 3 and above on the GHQ – 12, giving a prevalence rate of 26%. Females were more than twice as likely to be affected ( $F= 35.8\%$ ;  $M=12.7\%$ ). Psychological distress was found to be linked to higher number of life events experienced over the last one year ( $p < 0.01$ ) and high scores on the Student Stress Scale ( $p < 0.01$ ), presence of any stressor ( $p < 0.01$ ), and poor relationship with tutors/lecturers ( $p < 0.01$ ).

**Conclusions:** The rate of psychological distress among the undergraduates is 2.5 times higher than the national average. Stress management programs can be an important strategy to enhance their ability to cope with the demands of tertiary education. Regular screening for possible 'psychological casualties' and immediate treatment may prevent potential waste of valuable human resources.

## Introduction

Students are societies' hope for the future. Those eligible for tertiary education are usually the cream of the population. They need to be nurtured properly to achieve their maximum potentials. Unfortunately there are now growing concerns about the mental health status of these undergraduates especially with empirical evidence suggesting ever-expanding numbers of students with increasingly serious psychological problems presented each year by college and university counseling centers (Bishop, 1990; Bertocci et al, 1992)

There are reasonable grounds to expect university undergraduates to be at risk for elevated distress. Ryle (1969) indicated that this could be a combination of internal and external irritants. The internal factor, for example personality, predisposes the individual to succumb to external stressors. University students, usually in their late teens and early twenties are exposed to a variety of life experiences such as biological and maturational changes, adjustment to the 'university culture' and a new way of studying and living, peer and group behavior with its pressures, and separation from familiar and supportive environments. These factors all conspire to place the students under enormous amount of strain and their vulnerability to stress may render them as prime candidates for mental health problems (Monk and Mahmood, 1999).

To date, much needed data on this phenomenon is lacking in the Malaysian setting. Very few published studies have concentrated specifically on these issues. This is quite surprising since undergraduates are in the socio demographic life span in which the rates of psychological distress are notably elevated. This is evidenced by the results from Malaysia's National Health and Morbidity Survey 1996 (Maniam et al, 1999) which shows a J shaped pattern with higher prevalence rates among the youngest to the oldest age group. The prevalence in the age group 16 – 24 years was 11.0% compared to 6.8 % (25 – 34 years), 5.9% (35 – 44 years)

This study was conducted as part of the 'Healthy Campus' program organized by the Student Health Center in the Northern University of Malaysia. The main aim was to explore the prevalence of psychological distress and its' associated risk factors among undergraduates of the university. The results will then provide necessary data to assist in rational planning of possible mental health facilities and training of human resources to cater for the needs of these students.

### **Materials and methods**

Students attending the Health Center as part of their routine medical check-ups were invited to participate in the study. Exclusion criteria were those with evidence of organic brain syndromes, history of substance abuse, schizophrenia and other known mental disorders, and students who refused to give informed consent with or without reasons. Those who agreed were briefed about the research protocol and given the following questionnaires (1) questions on basic demographic and psychosocial characteristics (2) Student Stress Scale (Mullen and Costello, 1986) (3) the Malay version of the 12 items General Health Questionnaires.(Maniam et al, 1998) All the results were analyzed using SPSS version 10.05 and EPI-INFO 6.

### **Results**

468 students were recruited for the study. None refused to participate but 18 of them have to be excluded due to incomplete data. The final number of students included is 450, majority of whom were females (n=345) accounting for 76.7% of the sample. The median age of the study population was 23 (inter-quartile range: 22 – 75). Most of them were single (n=443) with Malays accounting for half of the participants (Malay = 50%; Chinese = 46.9%; Indian=0.01% and others =0.02%).

117 students scored 3 or above on the Malay version of the 12 item General Health Questionnaires giving a prevalence of elevated distress among students in the Northern University of Malaysia of 26%. 42% had experience major life-events of any forms over the last 1-year prior to the onset of the study with a median number of 3 events (min= 0; max = 13; inter-quartile range = 1 – 4). The distribution of the life change unit scores (LCU) on the Student Stress Scale is shown in table I, and the lists of the 5 most frequent and least frequent life events experienced by the students in this study are shown in table II. Increase in workload was endorsed by more than 41% of the students followed by getting lower grades in their studies than expected (32.9%). Being imprisoned or getting pregnant were not endorsed by any of the students

**Table I : Distribution of the Life Change Unit scores (N=450)**

Scores	Interpretation (Mullen and Costello, 1986)	Number of students	Percentage of students
Below 150	33.33% chance of experiencing serious health change over the next 2 years	307	68.22
150 – 300	50 % chance of experiencing serious health change over the next 2 years	122	27.11
> 300	Higher risks of experiencing serious health change over the next 2 years	21	4.67

**Table II : 5 most frequent and least frequent life-events endorsed by the students**

5 most frequent life-events		5 least frequent life-events	
Events	n	Events	n
1. Increase in workload in college	185	1. Jail term	0
2. Lower grades than expected	148	2. Pregnancy	0
3. Change in financial status	123	3. Divorce between parents	1
4. Change in sleeping habits	114	4. Marriage	3
5. Change in eating habits	98	5. Sex problems	3

72.2% (n=365) of the students relied on student loans. The rests were either supported by their parents (n=70), on scholarships (n=12) or depended on their own salaries (n=3). 363 students (80.7%) students admitted being under some form of stress at the time of the study. As probably expected from their status as students, stress related to academic matters heads the list endorsed by 55.6% of the students (Table III). The pressure to complete their assignments and incoming exams, poor performance in their studies than expected and the demands from their parents to do well in their studies were among the most common complaints. 13.1% (n=59) of the students were stressed about future employment upon graduation. Health related stressors were next on the list. Some of the students were worried about their physical health, body weights and even about their pimples. One student was troubled about the possibility of contracting HIV and while another about getting breast cancer. Other related stressors include financial, marital and relationships difficulties, and parental problems.

**Table III: Types of stress endorsed by the students**

Types of stress	Students	
	N	%
1. None	87	19.3
2. Academic related factors	250	55.6
3. Future (finding suitable jobs)	59	13.1
4. Health related problems (physical, weight problems, pimples, etc.)	19	4.2
5. Financial problems	14	3.1
6. Marital problems / relationship problems	6	1.3
7. Others (parental disharmony / problems/ illness; personal)	15	3.3

Encouragingly, 95.5 % of the students have someone to talk to or turn to when under stress. Most of them preferred their mothers as their main source of support (38.9%). Friends/ colleagues were next in line (32.4%) followed by other siblings (brothers/ sisters) (10.4%),

boyfriends/ girlfriends (10%), fathers (2.4%) and husbands/ wives (1.3%). The fact that 76.7% (345) of the students were females and only 7 of them married may be contributory (Table IV)

**Table IV : Individuals whom the students turn to when under stress**

Individual	Students (N=450)	
	n	%
1. Mothers	175	38.9
2. Friends	146	32.4
3. Siblings	47	10.4
4. Boyfriends/ girlfriends	45	10.0
5. Fathers	11	2.4
6. Husbands/wives	6	1.3
7. None	20	4.4

Only 6.2% (n=28) and 7.3% (n=33) of the students have significant past medical and surgical history respectively. 24 of the students have history of asthma, 3 with thyroid problems and another with epilepsy. In terms of operations, 18 had surgical removal of their appendices, 4 had breast lumps removal; 3 thyroid operations, 3 eye related operations; and 6 other minor operations such as for abscesses and cysts. 109 (93.2%) of those with psychological distress rated their mental health status as good and only 8 of them (6.8%) as poor. 28 students (6.2%) rated their relationship with their tutor or lecturer as poor and 11 of these students had elevated scores on the GHQ.

Detailed analyses of the results were performed using chi-squares for categorical variables and Mann-Whitney U-tests for non-parametric analyses and (Table V and VI). Presence of any stressors, poor relationships with tutors and lecturers, high number of life events and high scores on the Student Stress Scale were the factors associated with psychological distress among these students.

**Table V: Chi – Square / Fisher’s Exact Tests for categorical data**

Variables		GHQ positive		GHQ negative		P Value
		N	%	N	%	
Sex	Male	26	22.2	79	23.7	p=0.74
	Female	91	77.8	254	76.3	
Married	Yes	1	0.8	6	1.8	*p=0.68
	No	116	99.2	326	97.8	
Past medical illness	Yes	11	9.4	17	5.1	p = 0.10
	No	106	90.6	316	94.9	
Past surgical illness	Yes	9	7.7	24	7.2	p= 0.86
	No	108	92.3	309	92.8	
Someone to talk to	Yes	111	94.9	319	95.8	p= 0.67
	No	6	5.1	14	4.2	
Presence of any stressors	Yes	108	92.3	255	76.6	p<0.01
	No	9	7.7	78	23.4	
Race	Malay	71	60.7	154	46.2	p=0.06
	Chinese	44	37.6	167	50.2	
	Indian	1	0.9	4	1.2	
	Others	1	0.9	8	2.4	
Year of study	1	2	1.7	11	3.3	**p=0.75
	2	17	14.5	39	11.7	
	3	90	76.9	265	79.6	
	4 and >	8	6.8	18	5.4	
Relationship with tutors/ lecturers	Bad	11	9.4	17	5.1	**p<0.01
	Fair	96	82.5	202	60.6	
	Good	10	8.5	54	16.2	
Life Change Unit scores	< 150	55	47.0	252	75.6	**p<0.01
	150 - 300	51	43.6	71	21.3	
	> 300	11	8.5	10	3.0	

\* Fisher exact tests    \*\* Chi square for trend

**Table VI : Mann Whitney U Test for non-parametric analyses**

<b>Variables</b>	<b>GHQ Group</b>	<b>N</b>	<b>Mean ranks</b>	<b>Sum of ranks</b>	<b>Mann Whitney U</b>	<b>P value</b>
Age	Positive	117	206.95	24213.50	17310.5	0.063
	Negative	333	232.02	77261.50		
Total number of life events	Positive	117	288.56	33761.00	12103.0	<0.01
	Negative	333	203.35	67714.00		

## **DISCUSSION**

Psychological problems among students remain as a largely unexplored area in this country. Very few published studies are available despite the growing empirical evidence of the increasing numbers of students presenting with psychological problems and the increasing severity of the presentations elsewhere (Bishop, 1990; Stone and Archer, 1990). The pressures of leaving home, juggling a rigorous academic schedules, unrealistic expectations and demands for higher grades and achievements, adjusting to new relationships with fellow students and lecturers may take a toll on many young students. Most of the universities in Malaysia have excellent facilities to deal with students' physical health but very few (if any) have adequate facilities to cater for students' mental health problems.

The most frequent distinction that needs to be made when defining university or college mental health services is between the clinical and the educational models (Lore, 1997). In the educational model, the agency might be affiliated with the student development office, staffed by counseling psychologists and master's level counselors, and called a counseling center; subscribers would be clients, or students. By contrast, in the clinical model, the department may be called a mental health center and the subscribers referred as patients. This center would

probably be affiliated with the health center, staffed by psychiatrist, clinical psychologists, and psychiatric social workers. Most of the Malaysian universities adopt the educational model with none having specific mental health centers for the students.

This study represents a unique effort by the Student Health Center of the Northern University of Malaysia to explore the rates of psychological distress or possible psychiatric morbidity among their student population. It was organized as part of the 'Healthy Campus' program, which emphasizes not only on the physical but also on the mental health of these students. The main aim was to obtain preliminary data on the extent of the problems and perhaps (if necessary) provide justification for future planning of mental health facilities to suite their needs.

Students attending the health center for their routine screening for physical health and medical check-ups were invited to participate in the study. 468 of them were randomly selected, none of whom refused to participate. 18 of them had to be excluded due to incomplete data. The Malay version of the General Health Questionnaire (12 items) (GHQ-12) was used to identify the presence of psychological distress. This instrument has been validated among the Malaysian population (Maniam et al, 1998; 1999) and used in the recent National Health and Morbidity Survey, Malaysia 1996 (Maniam et al, 1999). It was found to be highly discriminating between cases and normal controls, and has a specificity of 87% and sensitivity of 81% at a threshold value of 2 / 3.

From the 450 students recruited, 117 or 26% of them scored 3 or above on GHQ-12 giving a prevalence rate of 26%. This value is more than twice as high compared to the average rate of 11% for the 16 -24 age group (2.3 times higher) and 10.1% overall average (2.5 times higher) obtained in the National Health and Morbidity Survey 1996 (Maniam et al, 1999).

Females were more likely to be affected (F= 35.8% ; M=12.7% ) although this difference did not reach statistical significance.

As expected, academic related stressors predominated among students in this university. Increasing amount of academic work, pressures to complete assignments and sit for exams, getting poorer grades than anticipated, and the unrealistic demands from relatives and parents were among the most common complaints. Ko and colleagues (1999) documented similar findings in their study among undergraduates in Singapore. "The avalanche of knowledge that students are expected to imbibe and master, personal and social sacrifice they have to make in order to maintain good academic standing, coupled with a highly achievement-oriented and competitive environment would certainly leave no conscientious undergraduates unperturbed" (Ko , Kua and Fones, 1999)

The decreasing number of job opportunities in the Malaysian labour market following the recent economic slowdown was another important stressor. Basically, these students were worried about not getting employed after graduation. The fact that majority of them 72.2% (n=365) relied on loans from either private or government institutions, was perhaps contributory. Most of them were able to survive with the loans, although some were forced to seek part-time employment to finance their studies. Financial problems were endorsed by 3.1% (n=14) of the students. Nonetheless, such problems should not be ignored. Roberts et al (2000) recently explored the impact economic circumstances on the mental and physical health of university students in London. Those with poor financial status were found to be more at risks of abandoning their studies, poorer mental and physical health, and impaired social functioning; more likely to be heavy smokers, and knowing people in prostitutions, crime and drug dealing to help support them financially.

The other important finding in this study was significant contribution of recent life-events on the psycho-emotional status of these students. Those with greater number of life-events experienced over the last one-year and high LCU scores on the Student Stress Scale were at higher risks of developing psychological distress compared to those without such experiences. These findings are of course not new in the psychological literature (Rahe, 1999) but it certainly provided confirmatory empirical evidence that such influence is also important in the Malaysian setting.

There were several other interesting points worth noting. First was the fact that more than 80% of the students were under stress and the majority of them (95.5%) had someone to turn to or confide in when faced with a problem. Their parents still remain as their main source of support. Such findings are encouraging indeed amidst the growing beliefs that the Malaysian population has lost most of its' family values and cohesions. Secondly, having poor relationship with their tutor / lecturers was one of the associated factors to the elevated GHQ scores among the students. Whether such phenomenon was the result of poor mental health status or as a risk factor remains elusive unless proper prospective study is conducted.

There were of course limitations to this exploratory study. It was cross-sectional in nature, with relatively small sample size and conducted only among students in the Northern University of Malaysia. Generalization to students from other universities (government universities or private institutions) should be made with caution. Also, the Student Stress Scale has not been validated among the Malaysian population and GHQ should be ideally used as a screening instrument. Those with elevated scores must then be interviewed with using proper clinician rated instrument in order to determine the exact nature of the psychological distress experienced by the students. The Composite International Diagnostic Interview (WHO, 1997) is a good example of such instrument.

Nonetheless, despite these limitations, this study has provided important contributions to the current Malaysian literature, specifically on the mental health status of the local undergraduates. First, it has demonstrated that psychological distress is not only elevated among the student population but also significantly higher than the general Malaysian population. Second, it has illustrated the importance of life-events and various stressors including academic, future employment, financial and others in increasing the risk of developing psychological distress among these students.

The issue of stressful environment in tertiary education has been always been acknowledged. Various strategies have been proposed. Among them include a review of the current curricula. Passive learning models and curricula grossly overcrowded with information are viewed as potentially damaging to the students. Instead many advocate universities to focus more on inculcating better self learning and critical thinking skills among these students to enable them to cope effectively with the dramatic, and sometimes unpredictable changes throughout their future careers (Ko, Kuah, and Fones, 1999).

Another strategy is to have formal stress management programs for fresh undergraduates to facilitate their transitions to university life. Effective time management, coping and social skills techniques are among the crucial components. Similar programs have been implemented elsewhere with encouraging results (Silver, 2001; Adlaf et al, 2001). Finally, perhaps it is high time to have a closer look at the current educational model of providing mental health services in the Malaysian universities. Such system is no longer capable of coping with the changing trend and nature of psychological problems faced by the student, and most counselors are simply ill equipped to deal with severe mental health problems. A service model merging the medical and educational systems may be a better alternative. In addition, regular screening should be

encouraged so that possible 'psychological casualties' can be detected and treated early to prevent potential waste of valuable human resources.

## REFERENCES

1. Adlaf EM, Gliksman L, Demers A, Newton-Taylor B. The Prevalence of Elevated Psychological Distress Among Canadian Undergraduates: Findings from the 1998 Canadian Campus Survey. *Journal of American College Health*, 2001;50(2): 67 – 72.
2. Bertocci D, Hirsch E, Sommer W, Williams A. Student Mental Health Needs : Survey of Results and Implications for Service. *Journal of American College Health*, 1992: 42 : 3 – 10.
3. Bishop JB. The University Counseling Center: An Agenda for the 1990s. *Journal of Counseling and Development*, 1990: 68: 408 – 413.
4. Ko SM , Kua EH, Fones CSL. Stress and the Undergraduates. *Singapore Med. J*, 1999: 49(10): 627 – 630.
5. Lore CJ. Student Mental Health and Funding Constraints: A Delicate Balance. *Journal of American College Health*, 1997: Vol. 46: 43 – 46.
6. Maniam T, Hamid AR, Kanni A, Lim CH. Validation of the Malay Version of the General Health Questionnaire (GHQ-12) for A Malaysian Population. Paper Presented at the Sixth Malaysian Conference on Psychological Medicine, Kuala Lumpur, 1998.
7. Maniam T, Ming DL, Onn LT, et al. National Health and Morbidity Survey 1996: Vol. 6: Psychiatric Morbidity in Adults. Ministry of Health. Malaysia. 1999.
8. Monk EM, Mahmood Z. Student Mental Health: A Pilot Study. *Counseling Psychology Quarterly*, 1999: 12(2) : 199 – 210.
9. Mullen K, Costello G. Student Stress Scale. In *Health Awareness Through Self Discovery*. Dubuque IA, Wm. C. Brown Co. Publishers. 1986.

10. Rahe RH. Stress and Coping : History and Applications. In *Medicine of the Mind*. Gawler I (Ed). The Gowler Foundation. 1999: pp. 209 – 236.
11. Roberts R, Golding J, Towell T, et al. Mental and Physical health in Students: The Role of Economic Circumstances. *British Journal of Health Psychology*, 2000:5:289 – 297.
12. Ryle A. *Student Casualties*. London, Allen Lane. The Penguin Press. 1969.
13. Silver, ES. Keeping College Freshman On Course. *Business Week*, March 12, New York. 2001
14. World Health Organization: *Composite International Diagnostic Interview: CIDI-Auto 2.1: Administrator's Guide and Reference* 1997. Geneva.

**PSYCHOLOGICAL DISTRESS AMONG UNDERGRADUATES IN THE UNIVERSITY OF  
MALAYSIA: AN EXPLORATORY STUDY**



UNIVERSITI SAINS MALAYSIA  
PERMOHONAN GERAN PENYELIDIKAN JANGKA PENDEK

<b>A</b>	Nama: Professor/Prof. Madya/Dr/Tuan/Puan Name: Professor/Assoc.Prof. /Dr./Mr./Mrs. <b>DR. WAN MOHD. RUSHIDI BIN HAJI WAN MAHMUD</b>	No. Kad Pengenalan: Identity Card No.: <b>680606-02-6275</b>
	Pusat Pengajian/Jabatan: School/Department/Unit:	<b>SCHOOL OF MEDICAL SCIENCES , UNIVERSITI SAINS MALAYSIA / DEPARTMENT OF PSYCHIATRY</b>
	No. Telefon Pejabat: <b>09-7651700 ext. 2593</b> Office Telefon No.:	Alamat E-mail: <b>rushidi@kb.usm.my</b> E-Mail address.:
	Jawatan Akademik: Academic Post:	<b>LECTURER</b>
	Tarikh mula berkhidmat dengan Universiti ini: Date of first Appointment with University:	<b>9 / 7 / 1996 ( TRAINEE LECTURER ) 21 / 5 / 2000 ( LECTURER )</b>
	Jika kontrak, nyatakan tarikh tamat: If contract, state expiry date:	<b>N/A</b>
<b>B(i)</b>	Tajuk penyelidikan yang dicadangkan: Title of proposed research:	<b>PSYCHOLOGICAL DISTRESS AMONG UNDERGRADUATES IN THE NORTHERN UNIVERSITY OF MALAYSIA : AN EXPLORATORY STUDY</b>
	Kumpulan FOR (Field of Research Group) * (Sila rujuk kepada Panduan/Please refer to Guide "Malaysian Research & Development (R&D) Classification System"	Kumpulan SEO (Socio-Economic Group) * (Sila rujuk kepada Panduan/Please refer to Guide "Malaysian Research & Development (R&D) Classification System"
	Tempat Penyelidikan dijalankan: Location of research:	<b>STUDENT HEALTH CENTER – NORTHERN UNIVERSITY OF MALAYSIA</b>
	Tempoh projek (maksimum 12 bulan): Duration of project (maximum 12 months) :	<b>1 YEAR</b>
	Tarikh jangka bermula: Date of commencement:	<b>01 / 04 / 2001</b>
	Tarikh jangka berakhir: Date of expected completion:	<b>31 / 03 / 2002</b>

\*Terdapat di Pusat Pengajian masing-masing.

**PSYCHOLOGICAL DISTRESS AMONG UNDERGRADUATES IN THE UNIVERSITY OF  
MALAYSIA: AN EXPLORATORY STUDY**

<b>B(ii)</b>	<p>Ringkasan Cadangan Penyelidikan <i>Research Summary Proposal</i></p> <p><i>*(Cadangan ini hendaklah meliputi latar belakang, tujuan, kaedah penyelidikan dan hasil yang akan diperolehi. Satu jadual kerja, senarai penyelidikan yang pernah dijalankan dan penerbitan yang pernah diterbitkan patut disediakan)</i> <i>*( The proposal must include the background, objective, research methodology and the projected results. Work schedule, list of research undertaken and the publications published should be prepared)</i></p> <p>Tertiary education has always been regarded as highly stressful with only the cream of society is eligible. Yet a stressful environment can often exert negative effects on the academic performance, physical health and psychological well-being of these undergraduates. To date, relevant data on this issue in the Malaysian literature is notably scarce.</p> <p>This study proposes to explore the prevalence of psychological distress among students attending the student health center in the Northern University of Malaysia. The results will provide necessary data to assist in planning of services, allocation of resources and training of personnel in order to suit the needs of the student population.</p> <p><b>OBJECTIVES</b></p> <ol style="list-style-type: none"><li>1. To determine the prevalence of psychological distress and its' associated risk factors among students in the Northern University of Malaysia</li></ol> <p><b>METHODOLOGY</b></p> <ol style="list-style-type: none"><li>1. <b>Study type</b><ul style="list-style-type: none"><li><input type="checkbox"/> A cross-sectional study.</li></ul></li><li>2. <b>Study Area</b><ul style="list-style-type: none"><li><input type="checkbox"/> Student Health Center - Northern University of Malaysia</li></ul></li><li>3. <b>Sample</b><ul style="list-style-type: none"><li><input type="checkbox"/> All patients ( students ) attending the health center who have given informed consent</li><li><input type="checkbox"/> Exclusion Criteria<ol style="list-style-type: none"><li>a. Organic brain syndrome</li><li>b. History of substance abuse</li><li>c. Schizophrenia</li><li>d. Mentally retarded</li><li>e. Those who refuse to give consent to participate in the study</li></ol></li></ul></li><li>4. <b>Procedure</b><ul style="list-style-type: none"><li><input type="checkbox"/> All those who fulfill the above criteria would be given the demographic self report; Student Stress Scale and the Malay version of GHQ -12</li></ul></li><li>5. <b>Instruments.</b><p>The instruments to be used in this study include</p><ol style="list-style-type: none"><li>a. Student Stress Scale</li><li>b. General Health Questionnaire (12 items)</li></ol></li></ol>
--------------	---

- \* Jika ada butir-butir tambahan, sila kepitkan
- \* Please attach additional information if necessary/available

**PSYCHOLOGICAL DISTRESS AMONG UNDERGRADUATES IN THE UNIVERSITY OF MALAYSIA: AN EXPLORATORY STUDY**

---

<b>B(iii)</b>	<p><b>Kepentingan dan faedah penyelidikan</b> <i>The Importance and The Benefits Of the Research</i></p> <p><i>Terangkan tujuan kepentingan dan faedahnya cadangan penyelidikan tuan/puan kepada Universiti dan negara (tidak lebih daripada 50 perkataan)</i> <i>Explain your objectives and benefits of the research proposal to the University and the country (not more than 50 words)</i></p> <p>We would be able to determine the rate of psychological distress among students of Northern University of Malaysia and its' associated risk factors . Prompt referral and treatment could thus be offered.</p>
---------------	--

**PSYCHOLOGICAL DISTRESS AMONG UNDERGRADUATES IN THE UNIVERSITY OF  
MALAYSIA: AN EXPLORATORY STUDY**

Belanjaan  
(Budget)

Sebutkan di sini anggaran perbelanjaan tuan/puan bagi cadangan penyelidikan ini.  
(Please indicate here estimated budget for research proposal)

Sila beri butir-butir perbelanjaan dengan lengkap dengan berpandukan kepada panduan yang dilampirkan.  
(Please provides complete details of expenditure according to guide attached.)

Butiran Belanjaan Budget Details	Yang dipohon Oleh Penyelidik Amt. Requested by applicant	Yang diluluskan Oleh J/K Penyelidikan Univ. Amount approved by Univ. Research Committee
Vot 11000 – Gaji dan Upahan Salary and Wages		
Sub-Total		
Vot 140000 – Elaun Lebih Masa Overtime		
Sub-Total	-	
Vot 21000 – Perbelanjaan Perjalanan dan Sara Hidup Travelling Expenses And Subsistence		
1. Mileage to the UUM health center <span style="float:right">RM 150</span> <input type="checkbox"/> Researcher( 1 visit ) <span style="float:right">+ 55</span> a. Return flight to Alor Setar from Kota Bharu = RM 75 X 2 ( Pelangi Air ) = 150 b. Mileage from A/Setar Airport to UUM = 0.55 x 100 km X 1 visit = RM 55 ( 100 km is the average milage to and fro Alor Setar to UUM )	RM 205	
2. Data presentation at local conference (airfare, accommodation, daily allowance and taxi fare).	RM 300	
Sub-Total	RM 505	
Vot 22000 = Pengangkutan Barang Transportation of Goods		
Sub-Total	-	
Vot 23000 – Perhubungan dan Utiliti (Tel, Faks, Pos, dll) Communication and Utilities (Phone, Fax, Postage etc.)		
1. Telephone/Fax/Postage	RM 45	
Sub-Total	RM 45	

**PSYCHOLOGICAL DISTRESS AMONG UNDERGRADUATES IN THE UNIVERSITY OF  
MALAYSIA: AN EXPLORATORY STUDY**

Butiran Belanjawan <i>Budget Details</i>	Yang dipohon Oleh Penyelidik <i>Amt.</i> <i>Requested by applicant</i>	Yang diluluskan Oleh J/K Penyelidikan Univ. <i>Amount approved by Univ. Research Committee</i>
Vot 24000 – Sewaan Rental		
Sub-Total	-	
Vot 26000 – Bekalan Bahan Mentah dan Bahan-Bahan Untuk Penyelenggaraan dan Pembaikan <i>Supply of Raw Materials and Materials For Repair and Maintenance</i>		
Sub-Total	-	
Vot 27000 – Bekalan dan Bahan-Bahan Lain (termasuk Haiwan, Pokok dan Benih untuk Penyelidikan) <i>Research Materials and Supplies (including Animals, Disposable, etc.)</i>  Kertas	RM 100	
Sub-Total	RM 100	
Vot 28000 – Penyelenggaraan dan Pembaikan Kecil yang dibeli <i>Maintenance and Minor Repair Services</i>		
Sub-Total	-	

**PSYCHOLOGICAL DISTRESS AMONG UNDERGRADUATES IN THE UNIVERSITY OF  
MALAYSIA: AN EXPLORATORY STUDY**

Butiran Belanjawan <i>Budget Details</i>	Yang dipohon Oleh Penyelidik <i>Amt. Requested by applicant</i>	Yang diluluskan Oleh J/K Penyelidikan Univ. <i>Amount approved by Univ. Research Committee</i>
Vot 29000 – Perkhidmatan Ikhlas dan Perkhidmatan lain-lain yang dibeli termasuk percetakan Hospitaliti, dan honorarium <b>Professional Services and Other Services including printing and Hospitality, honorarium for subjects)</b>		
Photocopy Refreshments ( 150 X 1 visit ) Conference registration	RM 100.00 RM 150.00 RM 100	
<b>Sub-Total</b>	<b>RM 350 .00</b>	
Vot 35000 – Harta Modal – Harta Modal yang lain termasuk alat >RM500.00 (Assets e.g. Equipment >RM500/-) Perlu nyatakan justifikasi spesifikasi dan sebutharga <i>(must include justification specifications and quotation)</i>		
<b>Sub-Total</b>		
<b>*JUMLAH BESAR TOTAL AMOUNT</b>	<b>RM 1000</b>	

D. Jika penyelidikan ini dijalankan bersama dengan pensyarah lain, nyatakan:  
*If the research is conducted together with other lecturers, please state:*

Nama dan No. Kad Pengenalan <i>Name and Identity Card No.</i>	P. Pengajian / Jabatan/Unit <i>School/Department/Unit</i>	Tandatangan <i>Signature</i>
Dr. Wan Zarina Wan Mahmud I/C : 610604 – 02 - 5216	Pegarah Pusat Kesihatan Pelajar , Universiti Utara Malaysia	

**PSYCHOLOGICAL DISTRESS AMONG UNDERGRADUATES IN THE UNIVERSITY OF  
MALAYSIA: AN EXPLORATORY STUDY**

D(i)	Penyelidikan geran Jangka Pendek yang telah dijalankan/sedang dijalankan oleh setiap penyelidik di dalam kumpulan penyelidikan ini. <i>Short Term Research grants that are completed/ongoing by each researcher in this research team.</i>			
	Nama Penyelidik <i>Researcher's Name</i>	Tajuk Penyelidik <i>Title of Research</i>	Sedang Berjalan <i>In Progress</i>	Telah dijalankan <i>Completed</i>
			Tandakan ( / ) yang mana berkaitan <i>Please tick ( / ) wherever applicable</i>	
	Tarikh : <i>Date:</i>		Tandatangan Pemohon : <i>Applicant's Signature</i>	
E	Komen Jawatankuasa Penyelidikan Pusat Pengajian <i>Comments of the school's Research Committee</i>			
	<p align="center">                 .....                  (Tandatangan Pengerusi Jawatankuasa Penyelidikan &amp; Etika PPSP)                  (Signature Chairman of Research and Ethical Comm. of PPSP)             </p>			

**PSYCHOLOGICAL DISTRESS AMONG UNDERGRADUATES IN THE UNIVERSITY OF  
MALAYSIA: AN EXPLORATORY STUDY**

---

F		Sumbangan yang boleh diberi oleh Pusat Pengajian dari segi: <i>Contribution/ Assistance by school in :</i>
	(a)	Kakitangan Sokongan <i>Staff Assistance</i>
	(b)	Alat-Alat Kelengkapan <i>Equipment</i>
	(c)	Bahan-Bahan <i>Materials</i>
	(d)	Lain-lain Komen <i>Other Comments</i>

### MAKLUMAT PERIBADI ANDA

1. Nama : .....
2. Umur : .....tahun      3. Jantina : .....
4. Bangsa :  
Melayu       Cina       India       lain-lain       Nyatakan : .....
5. Ugama  
Islam       Buddha       Hindu       Kristian       Lain-lain   
Nyatakan : .....
6. Tahun Pengajian  
1       2       3       4       5   
Lain – lain       Nyatakan : .....
7. Taraf Perkahwinan  
 Belum berkahwin  
 Berkahwin      Bilangan anak : .....orang  
 Janda / Duda      Bilangan anak : .....orang  
 Lain-lain      Nyatakan : .....
8. Status  
Pelajar sepenuh masa   
Bekerja sambil belajar ( luar - kampus dan lain-lain )   
Lain-lain       Nyatakan .....
9. Sila nyatakan sumber tersebut ( ibu bapa / biasiswa / gaji dan sebagainya) .....
10. Adakah anda mengidap apa-apa penyakit fizikal ( seperti asthma / kencing manis ) atau penyakit jiwa ?  
Ya       Tidak   
Jika ya , sila nyatakan penyakit tersebut ( serta tarikh mula mengalaminya )  
.....
11. Adakah anda pernah menjalani apa – apa pembedahan sebelum ini ?  
Ya       Tidak   
Jika ya , sila nyatakan pembedahan tersebut ( serta tarikhnya )  
.....
12. Adakah anda mempunyai sesiapa untuk berbincang atau meluahkan perasaan anda sekiranya mempunyai masalah ?      Ya       Tiada   
Jika Ya , nyatakan hubungannya dengan anda  
 Ibu       bapa       abang / kakak / adik  
 suami / isteri       kawan       teman lelaki / wanita  
 pensyarah / tutor       doktor/ profesional       lain – lain - Nyatakan : .....



Tandakan ( ✓ ) pada setiap peristiwa / perkara yang telah menimpa diri anda dalam masa satu tahun kebelakangan ini

	( ✓ )	
1. Kematian ahli keluarga terdekat	0	100
2. Kematian teman/ rakan yang rapat	0	73
3. Penceraian ibu bapa	0	65
4. Dipenjarakan	0	63
5. Mengalami kecederaan / penyakit yang serius	0	63
6. Perkahwinan	0	58
7. Mencari pekerjaan	0	50
8. Kegagalan dalam kursus yang penting	0	47
9. Perubahan kesihatan ahli keluarga (sakit dan sebagainya)	0	45
10. Mengandung	0	45
11. Masalah seks	0	44
12. Perbalahan yang serius dengan kawan yang rapat	0	40
13. Perubahan kedudukan kewangan (semakin baik / buruk)	0	39
14. Perubahan bidang pengajian	0	39
15. Masalah dengan keluarga	0	39
16. Mendapat teman lelaki / wanita yang baru	0	37
17. Pertambahan beban kerja di tempat pengajian	0	37
18. Mendapat sesuatu kejayaan yang cemerlang	0	36
19. Baru memasuki semester pertama pengajian	0	36
20. Perubahan tempat tinggal	0	31
21. Perbalahan yang serius dengan tutor / pensyarah	0	30
22. Mendapat markah / gred yang rendah daripada yang dijangkakan	0	29
23. Perubahan dalam tabiat tidur / mengalami masalah tidur	0	29
24. Masalah dengan kenderaan yang telah lama berlarutan	0	29
25. Perubahan tabiat permakanan (lebih / kurang)	0	28
26. Perubahan jumlah perjumpaan dengan keluarga	0	26
27. Terlalu banyak tidak hadir ke kelas / kuliah	0	25
28. Bertukar kolej / universiti / tempat pengajian	0	24
29. Mengugurkan lebih daripada satu mata pelajaran di tempat pengajian	0	23
30. Melakukan kesalahan trafik yang kecil	0	20
Jumlah	<input type="text"/>	<input type="text"/>

## SOAL SELIDIK KESIHATAN AWAM – 12

### SILA BACA DENGAN TELITI

Kami ingin mengetahui sama ada anda mempunyai sebarang masalah kesihatan anda keseluruhannya pada minggu-minggu kebelakangan ini. Sila jawab **SEMUA** soalan dibawah dengan menghitam / menandakan kotak jawapan yang paling sesuai dengan keadaan anda . **PERINGATAN:** kami ingin mengetahui masalah kesihatan anda masa kini dan akhir-akhir ini sahaja dan tidak di masa – masa yang lampau. Adalah amat penting anda menjawab **SEMUA** soalan. Terima kasih atas kerjasama anda.

### **ADAKAH ANDA KEBELAKANGAN INI / AKHIR-AKHIR INI .....**

1. Boleh menumpukan perhatian pada apa yang anda lakukan?

- Lebih boleh menumpukan perhatian lebih daripada biasa
- Sama seperti biasa
- Kurang daripada biasa
- Sangat kurang dari biasa

2. Tidak boleh tidur kerana risau?

- Tiada masalah tidur kerana risau
- Boleh tidur seperti biasa
- Agak kurang dari biasa
- Sangat kurang dari biasa

3. Merasa dapat mengambil bahagian yang berguna dalam banyak hal

- Lebih merasa dapat mengambil bahagian daripada biasa
- Merasa sama seperti biasa
- Merasa kurang berguna daripada biasa
- Merasa sangat kurang berguna

4. Merasa berupaya membuat keputusan dalam sesuatu hal/perkara

- Lebih merasa berupaya membuat keputusan lebih daripada biasa
- Sama seperti biasa
- Kurang daripada biasa
- Merasa sangat kurang daripada biasa

5. Merasa sentiasa tertekan?

- Tidak langsung merasa sentiasa tertekan
- Tidak lebih daripada biasa
- Lebih daripada biasa
- Amat lebih daripada biasa

6. Merasa tidak boleh mengatasi masalah anda?

- Tidak langsung merasa susah mengatasi masalah
- Tidak lebih daripada biasa
- Agak lebih daripada biasa
- Amat lebih daripada biasa

7. Boleh merasa seronok menjalani kegiatan harian?

- Lebih boleh merasa seronok daripada biasa
- Sama seperti biasa
- Agak kurang daripada biasa
- Sangat kurang daripada biasa

8. Berupaya menghadapi masalah anda?

- Lebih berupaya menghadapi masalah daripada biasa
- Sama seperti biasa
- Agak kurang daripada biasa
- Sangat kurang daripada biasa

9. Merasa sedih dan susah hati?

- Tidak langsung merasa sedih dan susah hati
- Tidak lebih daripada biasa
- Agak lebih daripada biasa
- Amat lebih daripada biasa

10. Hilang keyakinan diri?

- Tidak langsung hilang keyakinan diri
- Tidak lebih daripada biasa
- Agak lebih daripada biasa
- Amat lebih daripada biasa

11. Merasa diri sendiri tidak berguna?

- Tidak langsung merasa diri sendiri tidak berguna
- Tidak lebih daripada biasa
- Agak lebih daripada biasa
- Amat lebih daripada biasa

12. Merasa agak gembira pada keseluruhannya?

- Lebih merasa gembira dari biasa
- Sama seperti biasa
- Agak kurang daripada biasa
- Sangat kurang daripada biasa

**JUMLAH =** .....

## FLOW CHART

### PSYCHOLOGICAL DISTRESS AMONG UNDERGRADUATES IN THE NORTHERN UNIVERSITY OF MALAYSIA : AN EXPLORATORY STUDY

All those who fulfill the research criteria would be given the a) Demographic self report, b) Student Stress Scale , and c) General Health Questionnaire. The following scoring would apply :

Instrument	Scoring	Interpretation
Student Stress Scale	Less than 150	33.3% chance of having serious health change in 2 years
	150 – 300	50 – 50 % chance
	More than 300	High risk
General Health Questionnaire 12 items	Less than 2	Negative
	3 and above	Possible presence of psychiatric morbidity

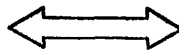
**Students fulfilling the research criteria**



**Demographic self report , Student Stress Scale , GHQ-12**



**Positive for psychological  
distress**



**Negative for psychological  
distress**



**To offer referral to  
appropriate doctors /  
specialist**

**Sample size : expected sample = 300 ( February – April 2001 )**

Population of students attending Student Health Center per year = 18,000 (estimated)

Expected frequency with psychiatric morbidity = 10 %

Worse acceptable = 1 %

Confidence level	Sample size
1. 80%	18
2. 90%	30
3. 95%	43
4. 99%	73
5. 99.9%	120
6. 99.99%	167



Universiti Sains Malaysia

Pusat Pengajian Sains Perubatan  
School of Medical Sciences

Rujukan kami : USM/PPSP@/Ger.Peny.(5)  
Tarikh : 12 Februari 2001

Dr. Wan Mohd. Rushidi Wan Mahmud  
Jabatan Psikiatri  
Pusat Pengajian Sains Perubatan  
Universiti Sains Malaysia

Tuan/Puan

### PERMOHONAN GERAN INSENTIF

Sukacita dimaklumkan bahawa Jawatankuasa Penyelidikan & Etika PPSP telah meluluskan permohonan penyelidikan tuan/puan di atas tajuk "Psychiatric Morbidity among Patients Attending Student Health Center" daripada peruntukan geran *Insentif PPSP*. Sebanyak **RM1,000.00** diluluskan dengan perincian seperti berikut:

Vot 21000 (Perbelanjaan Perjalanan & Sarahidup)	RM 505.00
Vot 23000 (Perhubungan dan Utiliti)	RM 45.00
Vot 27000 (Bekalan Bahan Mentah & Bahan-Bahan Untuk Penyelenggaraan dan Pembaikan)	RM 100.00
Vot 29000 (Perkhidmatan Ikhtisas & Perkhidmatan-Lain yang dibeli dan Hospitaliti)	RM 350.00
<b>JUMLAH BESAR</b>	<b>RM 1,000.00</b>

\* ***Sila ambil perhatian komen Penilai/Jawatankuasa Penyelidikan & Etika PPSP seperti Lampiran 1.***

Dari segi perjalanan, kadar tuntutan yang dibenarkan ialah berasaskan tuntutan Pegawai A/B/C Tingkatan Biasa dengan tidak mengambil kira jawatan hakiki tuan/puan.

Lain-Lain Penyelidik: **Dr. Wan Zarina Wan Mahmud**  
**Pusat Kesihatan Pelajar,**  
**Universiti Utara Malaysia**

Apa jua kelulusan yang diberikan di bawah Fot 29000 yang melibatkan kerja-kerja fotokopi, bahan fotokopi ini menjadi hakmilik Universiti dan sekiranya berguna, perlu disampaikan untuk simpanan Bahagian Penyelidikan, PPSP.

Sekiranya bahan rujukan dan jurnal diluluskan, pembelian bahan-bahan ini mesti diuruskan melalui Perpustakaan USM. Bahan-bahan ini akan dikatalogkan dan akan dipinjamkan kepada tuan/puan sepanjang tempoh penyelidikan tuan/puan. Seterusnya bahan-bahan ini perlu dikembalikan kepada Perpustakaan sebaik sahaja projek berakhir.

Kelulusan ini adalah tertakluk kepada syarat-syarat seperti yang terkandung dalam Buku Panduan Penyelidikan Univeristi Sains Malaysia (Januari 1990) dan syarat-syarat berikut:

- (a) Sebarang penerbitan dihasilkan mestilah:
- (i) Mengakui bahawa Penyelidikan adalah dibiayai oleh Universiti Sains Malaysia ataupun dibiayai secara bersama oleh Universiti Sains Malaysia.

Di dalam hal ini, contoh kredit yang telah dipersetujui oleh Jawatankuasa ialah:

***Bahasa Malaysia***

Penulis menghargai geran penyelidikan yang diberikan oleh Pusat Pengajian Sains Perubatan, Universiti Sains Malaysia, Cawangan Kelantan dan sehubungan dengan itu, artikel ini diterbitkan.

***Bahasa Inggeris***

The author acknowledges the research grant provided by School of Medical Sciences, Universiti Sains Malaysia, Kelantan Campus that has resulted in this article.

- (ii) Satu salinan penerbitan berkaitan mesti dikirimkan ke Bahagian Penyelidikan PPSP untuk tindakan selanjutnya.
- (iii) USM mempunyai opsyen pertama untuk menerbitkan bahan yang dihasilkan melalui projek ini. Ini akan dilakukan melalui Penerbitan USM dan keputusan untuk menerbitkan bahan ini akan dibuat dalam tempoh enam bulan.
- (a) Laporan kemajuan mestilah dikemukakan enam (6) bulan sekali selepas kerja penyelidikan dimulakan. Seterusnya laporan akhir (*format dilampirkan*) dan laporan komprehensif juga diperlukan diakhir tempoh kajian. Laporan-laporan ini perlu disampaikan kepada Bahagian Penyelidikan ,PPSP melalui Jawatankuasa Penyelidikan & Etika Pusat Pengajian atau melalui Dekan Pusat Pengajian Pengajian Sains Perubatan. Laporan akhir yang tidak lengkap atau tidak ditandatangani/diperakukan oleh Pengerusi Jawatankuasa Penyelidikan & Etika , PPSP tidak akan diterima dan akan dikembali semula sehingga syarat tersebut dipenuhi. (borang-borang tersebut disertakan bersama)
- (b) Tuan perlu/digalakan membentangkan hasil penyelidikan di Seminar Pusat Pengajian.



## LAMPIRAN 1



### BAHAGIAN PENYELIDIKAN PUSAT PENGAJIAN SAINS PERUBATAN

#### Komen Penilai JK Penyelidikan & Etika PPSP

1. This is an "inter-university study". As such there must be a formal indication from UUM that this study is permissible.
2. Questionnaire need to be validated.
3. This study aims at students attending health centre. As such, there may be biased. Suggest to do this on randomly selected population of students.

(EN. HALIM OTHMAN)

**Setiausaha**

Jawatankuasa Penyelidikan & Etika  
Pusat Pengajian Sains Perubatan

*Fn:lampiran/adl/halimac/nak.*