DEPRESSION AND STRESS AMONG THE FIRST YEAR MEDICAL STUDENTS IN UNVERSITY OF MEDICINE AND PHARMACY, HOCHIMINH CITY, VIETNAM

Quyen Dinh Do[*] Prida Tasanapradit

College of Public Health Sciences, Chulalongkorn University, Bangkok 10330

ABSTRACT: The prevalence of depressive symptoms, sources of stress in a cross-sectional descriptive study among the first year Medical students at Hochiminh was conducted in February 2008. The Center for Epidemiologic Studies Depression scale (CES-D) with cut-off point 22 and Students Stress Survey (SSS) questions was self-administrated to 351 subjects. Prevalence of depressive symptoms was 39.6%. Top five stressors were prone to intrapersonal, academic, and environmental sources. Potential personal consequences as exercise practice, leisure activities and quality of relationship with parents and friends were related to students' mental status.

Keywords: CES-D, depression, first year Medical students, student stress survey

INTRODUCTION: Depressive disorders, causing a very high rate of diseases' burden, are expected to show a rising trend during the coming 20 years. General population surveys conducted in many parts of the world, including some South-East Asian Region countries, 15% to 20% children and adolescents suffered from it are mostly similar to that of adult populations. Isolation from peers, family, and other emotional relationships; or the inability to keep one's disappointments in perspective and academic stress may lead to mental health problems[1]. Medical University is responsible for ensuring that graduates are knowledgeable, skillful, and professional. The medical knowledge is immense and this is particularly science in training programs for specialist medical undergraduate. Medical students are more distressed than the general population, especially in freshmen who face transitional nature of university life[2]. This study aimed to determine sources of stress and prevalence of depression.

MATERIALS AND METHODS: a cross-sectional study design, using the Center for Epidemiologic Studies Depression scale[3] (CES-D) with cut-off point 22 and Students Stress Survey questions were used as self-administrated questionnaire to the first year medical students in Hochiminh city.

RESULTS: Data were collected in 351 first year medical students with 91% of respondent rate. The students' age ranged from 18 to 25 with a mean of 19. The majority of ethnicity (85.2%) was Vietnamese group. They mainly came from other provinces (77.8%) and lived in rent room/house (35%), dormitory (32.5%) and lived with friends (46.4%). More than half of students (54.2%) felt that their finance was not enough. The percentage of students who occasionally do exercise was 28.2%, with 21.4% often exercise and 11.7% always exercise.

Regarding stress, among six interpersonal sources, the highest percentage (62.7%) of student was stressed due to working with un-acquainted people, followed by 51.3% of change in social activities. The other sources of stress were troubles in finding new friends experience (36.8%), trouble with parents (26.5%), conflicted with roommate (22.8%).

*To whom correspondence should be addressed.
Email: mdquyen@yahoo.com

Table 1 Leisure activities and exercise practice

	Frequency	Percentage
	(n=351)	
Leisure activities*		
Listen to music/read book/TV/game	261	74.4
Go out with friend	104	29.6
Sport	51	14.5
Others	31	8.8
Sleeping	12	3.4
Exercise activities (times/month)		
Never	43	12.3
Seldom (<1)	93	26.5
Sometime ($\geq$ 1 & $\leq$ 3)	99	28.2
Often (>3 & <12)	75	21.4
Always ($\geq$ 12)	41	11.7

* Multiple choice question. More than one item can be chosen

Among sixteen intrapersonal sources, most of the students had to deal with new responsibilities (88.6%), changing their sleeping (76.1%), eating habits (70.7%) and decline in their health (60.1%). In addition, many students (64.1%) found difficulty in speaking in public and nearly half of the students (47.9%) admitted that they violated the minor law such as the traffic laws, while 44.4% of students faced financial difficulties.

Being a student with increased class workload and lower grader than anticipated were 2 major problems that most of medical students experienced (88% and 82.3% respectively); they also reported missing too many classes (55%) and anticipation of graduation (47.3%).

According to environmental sources, approximately 72% of students had to change their living environment and were placed in unfamiliar situation; they were put on hold for extended period of time (67%) and their vacation or break time were not enough (61.8%); other stressors were car troubles (56.1%), waiting in long line (55%), and computer problems (49.3%).

As shown in table 1, leisure activities which were popular was listening to music or reading book or watching television of playing games (74.4%);

however only 8.8% of the students responded that they did not have free time. More than half of the students chose talking to friend as a way to coping with problems; followed with talking to parents. In table 2, potential personal consequence factor included the satisfaction of their relationship in which very satisfy with relationship with parents was 63%, satisfy with friends was 60.7%.

Table 2 Quality of relationship

Quality of friendship	Frequency	Percentage
	(n=351)	
Having Close friend	286	81.5
Having lover	71	20.2
Satisfaction with friendship		
Very satisfy	99	28.2
Satisfy	213	60.7
Not satisfy	36	10.3
Not satisfy at all	3	0.9
Satisfaction of relationship with parents		
Very satisfy	221	63.0
Satisfy	114	32.5
Not satisfy	15	4.3
Not satisfy at all	1	.3

Prevalence of depressive symptoms among first year medical students was quite high (39.6%) with the CES-D tool for screening depression at cut-off point = 22. **DISCUSSION:** being a freshman in university, the students had to face with the transition from a personal to an impersonal academic environment. Highly structured academic experience at college level and medical major provoked high pressures and demanding requirement. As a consequence, there was showing in high prevalence of stress in increased class workload (88%) and lower grade than anticipated (82.3%). In addition 76.1% of students changed their sleeping habit might be result from not only too many class works but also from lack of time management skills and learning strategy[4]. It is evident that necessary information and skills were not available for freshmen students. Moreover, most of them (77.8%) might live far from home for the first time and the majority had to live in a rented room or

rented house or dormitory with their friends. However, among 118 students who lived in dormitory, 17.0% of them responded that they lived alone. Spending more than 4 months (since September to February) but still could not make any friends, thus they felt lonely. This characteristic was reflected in by high percentage of stress in troubles in finding new friends (36.8%).

In terms of stress, most of the stressors were daily hassles. Intrapersonal sources of stress resulted from internal factors and academic factors caused by university-related activities and issues were the most common source of stress. There were 2 factors of intrapersonal, 2 factors of academic sources and 1 factor from environment sources that were listed in first the top five sources of stress. Those finding consisted with stressors among Iranian nursing students, which stated intrapersonal sources were the most common source of stress[5].

Regarding quality of relationship being important support systems, 11.2% of "not satisfy with their friends" and 4.6% "not satisfy with their relationship with their parents" might be linked to depressive status. Similarly, the students who had no close friends and lover (15.0%) might have difficulties in solving their problems and have stress as well. Poor interpersonal skills can create difficulties for adolescents in changing relationship with peers[6]. It might be an explanation for high percentage of stress in interpersonal factors. Furthermore, exercising as the personal self-care showed in this study that only 33.1% of students did their exercise often (<12 times/month). Additionally, among the students, choices for leisure activities seemed to be limited, thus there was ineffectively stress manage-ment and 74.4% of respondents chose immobility activities for leisure as the way to coped with problems. This is similar with poor self-care and an increase depressive symptoms which were found in a study by Pakistani Medical School that more leisure time activities reduce the stress[7]. This might be explained for high prevalence of depressive symptoms.

Stressful life events was powerful predictor of depression in longitudinal study[8]. This study found that the prevalence of depression among the first year medical students was quite high (39.6%). It was higher than Freshman College in Beijing (24.8%) (cut-off point 16)[9] and higher than the result in the study done by Ratana in Thai adolescents ageing between 18 to 21 (33.1%)[10]. With very strict and tough requirement of medical academic environment in addition to the fact that data collection of this study was at the end of the first term, the students were spending time for many exams so they might respond with high percentage of poor feeling.

It is suggested that for further study, qualitative and quantitative study should be conducted to determine level of stress and its relationship with depression in duration of medical learning stage as well as in different faculties for a broader picture about depression in medical students in Vietnam.

REFERENCES:

1. The World Health Organization-Regional Office for South-East Asia. 2001. Conquering depression. 48.

2. Dahlin M, Joneborg N, Runeson B. 2005. Stress and depression among medical students : a cross-sectional study. Med Educ 39(6): 594-604.

3. Radloff LS. 1991. The use of The Center for Epidemiologic studies Depression Scale in adolescents and young adults. J Youth Adolesc 20(2): 149-166.

4.   Misra R, McKean M. 2000. College students' academic stress and its relation to their anxiety, time management, and leisure satisfaction. Am J Health Stud 16(1): 41-51.

5.   Seyedfatemi N, Tafreshi M, Hageni H. 2007. Experienced stressors and coping strategies among Iranian nursing students. BMC Nursing 6:11. [DOI: 10.1186/1472-6955-6-11].

6.   Burns JM, Andrews G, Szabo M. 2002. Depression in young people: What cause it and can we prevent it? Med J Aust 177 Suppl : S93-6.

7.   Shaikh BT, Kahloon A, Kazmi M, Khalid H, Nawaz K, Khan N, *et al.* 2004. Students, stress and coping strategies: a case of Pakistani medical school. Educ Health (Abingdon) 17(3): 346-353.

8.   David AC, Nolen-Hoeksema S. 2006. Stress exposure and Stress generation in child and adolescent depression: A Latent Trait-State-Error approach to Longitudinal analyses. J Abnorm Psychol 115(1): 40-51.

9.   Song Y, Huang Y, Liu D, Kwan JSH, Zhang F, Sham PC, *et al.* 2008. Depression in college: depressive symptoms and personality factors in Beijing and Hong Kong college freshmen. Compr Psychiatry (in press). Availabe online DOI:1016/j.comppsych. 2008.04.007.

10. Somrongthong R. 2004. Adolescent health needs, Accessibility of services, Depression and Quality of Life by assisting in the development of community partnerships. Doctoral dissertation, College of Public Health, Chulalongkorn University.

ความซึมเศร้าและความเครียดในนักศึกษาปีที่หนึ่ง ในคณะแพทยศาสตร์ มหาวิทยาลัยโฮจิมินท์ ประเทศเวียตนาม

ควิน ดิน โด* ปรีดา ทัศนประดิษฐ์

วิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย กรุงเทพฯ 10330

บทคัดย่อ: การศึกษาความชุกของความซึมเศร้าและความเครียดในนักศึกษาปีที่หนึ่งคณะแพทยศาสตร์ มหาวิทยาลัย โฮจิมินท์ ได้ดำเนินการเก็บข้อมูลในเดือนกุมภาพันธ์ 2551 โดยใช้แบบวัดความซึมเศร้าของศูนย์ระบาดวิทยาด้านความ ซึมเศร้า (CES-D) ซึ่งคะแนนตัดแบ่งว่ามีความซึมเศร้าคือคะแนนรวม มากกว่า 22 คะแนน สำหรับความเครียดวัดโดย แบบสำรวจความเครียดในนักศึกษา (SSS) กลุ่มตัวอย่างจำนวน 351 คน ได้ตอบแบบสอบถามด้วยตนเอง พบว่าร้อยละ 39.6 ของกลุ่มตัวอย่างมีความซึมเศร้า ในเรื่องความเครียด พบว่าห้าลำดับสำคัญที่เป็นสาเหตุของความเครียด คือ ลักษณะ ภายในของตนเอง การศึกษา สิ่งแวดล้อม ศักยภาพในการทำกิจกรรมต่างๆ การทำกิจกรรมในเวลาว่าง ความสัมพันธ์กับ ครอบครัว และกับเพื่อน

คำสำคัญ: แบบวัดความซึมเศร้าของศูนย์ระบาดด้านความซึมเศร้า นักศึกษาปีที่หนึ่งคณะแพทยศาสตร์ การสำรวจความเครียดในนักศึกษา

*ติดต่อได้ที่ mdquyen@yahoo.com โทรศัพท์ 08 4670 4733