JPPS 2008; 5(2): 90-96 ORIGINAL ARTICLE

A SURVEY OF DEPRESSION AMONG IRANIAN MEDICAL STUDENTS AND ITS CORRELATION WITH SOCIAL

SUPPORT AND SATISFACTION

Ali Talaei, Amir Rezaei Ardani, Ali Saghebi

# ABSTRACT

**Objective:** To investigate the correlation between depression and level of social support and satisfaction in Iranian medical students.

**Design:** Descriptive-analytic and cross-sectional study

**Place and duration of study:** The study was carried out on the students of Mashhad University of Medical Sciences in 2004 and 2005.

**Subjects and Method*:*** Self administered questionnaires about socio-demographic information (age, gender, marital status, educational level) and satisfaction (satisfaction with the educational staff, univer- sity employees and environmental facilities), Beck Depression Inventory (BDI) and Cassidy social sup- port scale were given to students who were selected by multi stage randomized sampling. The data were analyzed by SPSS version 14 using especially the x2-test.

**Results:** 796 students answered the questionnaires anonymously (88.84% response rate). A total of 53% of participants had depression (38.3% mild, 10.2% moderate and 4.5% severe type). No associa- tions were found between depression and gender and marital status. Results showed that 8.4%, 32% and 59.6% of participants reported low, moderate and high levels of social support respectively. 46.50% and 47.92% of the students were somewhat satisfied with the educational staff and university employees respectively but 42.05% were strongly dissatisfied with environmental facilities.

**Conclusions:** Depression is more frequent in Iranian medical students than general population. A negative correlation was seen between depression and the level of social support in students and the prevalence of depression had a significant relation with their satisfaction with the educational staff, university employees and their attitude and environmental facilities.

**Keywords:** Depression, Medical students, Iran, Satisfaction, Social support.

# INTRODUCTION

Depression, one of the oldest common mental dis- orders of all decades1, has become a frequent universal health problem which makes severe changes in mood, behavior and thought and is accompanied by many physical complaints2, 3. It has also been identified as the most significant clinical risk factor for suicide4-6. In addi-

**Ali Talaei,** M.D. Assistant Professor of Psychiatry, Mashhad University of Medical Sciences, Ibn-e-Sina Psychiatric Hospi- tal, Department of Psychiatry.

E-mail: [TalaeiA@mums.ac.ir.](mailto:TalaeiA@mums.ac.ir)

**Amir Rezaei Ardani,** M.D. Resident of Psychiatry, Mashhad University of Medical Sciences, Ibn-e-Sina Psychiatric Hospi- tal, Department of Psychiatry

**Ali Saghebi,** M.D. Resident of Psychiatry, Mashhad University of Medical Sciences, Ibn-e-Sina Psychiatric Hospital, Depart- ment of Psychiatry

**Correspondence: Dr. Ali Talaei**

tion to its high lifetime prevalence, depression is known to be disabling, recurrent and in some cases chronic6. Depression interferes with interpersonal relationships between the patient and his/her family members and also has effects on the everyday activities of the pa- tient7.

Although depression happens in all ages and so- cial classes, in numerous cases its first episode occurs during adolescence and early adulthood2, 6. It is more common among women8, 9.

According to the raised attention to occupational stress and knowing that human stressful experiences in the first years of their adult life leads to the presence of depression10 and the great influence depression has on one’s attitude towards profession, the concern about depression in college students is fundamental2. Also, students are prone to have more psychiatric problems including depression11, 12 because of their interpersonal and emotional conflicts as well as economical and aca- demic problems8, 13-15.

Nowadays there is a great concern about the qual- ity of social relationships and its predictive power for general health and mortality. As social support could mediate emotional adjustment to stresses16-18, many stud- ies suggest a negative relationship between the risk for major depression and level of social support19-21. Higher levels of family support were shown to be associated with lower levels of depression and even suicide ide- ation22, 23.

Satisfaction has been used as a healthcare qual- ity indicator24. Job satisfaction is an individual’s emo- tional response to his or her current job condition. Dis- satisfaction with career choice has a strong relation with depression and one’s career satisfaction is inversely correlated with burnout and depression25, 26.

Early detection and management of depression can lead to improvement in the field of general healthcare27 especially when target groups are students who are responsible for the healthcare of society them- selves. As level of social support and satisfaction are considered to have great roles in the onset and continu- ation of depression, the purpose of the current study, besides studying demographic items of depression, was to investigate the correlation between depression and level of social support and satisfaction in Iranian medi- cal students.

# SUBJECTS AND METHODS

***Sample:*** The present study is a descriptive-analytic and cross-sectional research, carried out in Mashhad, the second largest city in Iran with a population of over 3 million in 2004 and 2005. The target population was the students of Mashhad University of Medical Sciences. A total of 896 individuals aged 18 years or older, repre- sentative of the student population were asked to com- plete the questionnaires. The response rate was 88.84%. Subjects with any chronic medical illnesses or disabilities, or major stresses in 6 months prior to re- search and females with premenstrual dysphoric disor- der were not included.

***Procedures:*** In the first stage, the number of samples was calculated on the basis of other surveys on depres- sion done in similar populations with 95% confidence intervals, 5% error and 3% precision. A self adminis- tered questionnaire was randomly given out to students who were selected by multi-stage randomized sampling proportionally to the population size of each college and with respect to both age and gender of respondents to maintain a sample representative of these two param- eters. In the second stage, the goals of the study were explained to potential participants. Subjects who gave up after completing the questionnaires were classified as refusals.

The data were analyzed by SPSS version 14 us- ing especially the x2-test. Reported differences were significant at the 0.05 level or less.

***Instrument:*** To obtain information, everyone completed questionnaires about socio-demographic information (age, gender, marital status, educational level) and sat- isfaction, Beck Depression Inventory (BDI) and Cassidy social support scale.

The job satisfaction questions were about three different aspects including satisfaction with the educa- tional staff, with university employees and their attitude and with environmental facilities. Each item was scored by five-point Likert scales. Likert scale is used as a se- mantic differential. A statement is given, and the end- points correspond to agree strongly and disagree strongly. Five-point Likert scales are perhaps the most commonly used. With a five-point scale the points can be labeled: agree strongly, agree somewhat, neutral, disagree somewhat and disagree strongly28.

The Cassidy social support scale consists of 7 questions and is answered “yes/not sure/no”. Each question has 0 to 2 scores and the total score is ranged between 0 – 14; which signifies low (0-4), moderate (5-9) and high social support (10-14). The validity of this scale was confirmed by Cassidy in 198929, 30. Its validity was confirmed by Korke Abadi (R=0.89) in Iran31.

Beck Depression Inventory is still one of the most common and valid depression scales32. It is applicable to all social levels and environments and is neither age nor culture-based33. It has a high content validity and an acceptable sensitivity in differentiating depressed and non-depressed patients34. In this scale, scores 0-9 sig- nify normality, 10-19 mild depression, 20-29 moderate depression and 30+ severe depression35.

# RESULTS

Of the initial pool of 896 students, 796 answered the anonymous questionnaire (88.84% response rate), 330 of responders were male and 466 were female. Demographic variables are shown in Table 1. A total of 53% of participants had depression (38.3% mild, 10.2% moderate and 4.5% severe). It was shown that some degrees of depression was present in 249 (53%) of females and 173 (52.4%) of males. 102 of the samples were married. 370 (53.3%) of single students and 52 (51%) of married ones reported depression respec- tively.

The results could not prove any association be- tween depression and gender or marital status.

Age was the only demographic variable associ- ated with depression. Depression was more experienced in the under-20- year-old category and was less reported in the over-30-year-old category.

Results showed that 8.4% of participants reported low levels of social support, 32% reported moderate lev- els and 59.6% reported high levels and a negative cor- relation was seen between depression and the level of social support. (Table 2)

Table 1

Frequency of demographic variables and depression among the students of Mashhad University of Medical Sciences

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | | **Non depressed** | | **Depresed** | | | | | | **Total** | | **Result** |
| **Mild** | | **Moderate** | | **Severe** | |
| **No.** | **%** | **No.** | **%** | **No.** | **%** | **No.** | **%** | **No.** | **%** |
| Gender | Male | 157 | 47.6 | 119 | 36.1 | 29 | 8.9 | 25 | 7.6 | 330 | 41.5 | P=0.082 X2=6.69  d=3 |
| Female | 217 | 46.7 | 186 | 39.9 | 52 | 11.2 | 11 | 2.4 | 466 | 58.5 |
| Marital status | Single | 324 | 46.7 | 267 | 38.5 | 72 | 10.4 | 31 | 4.5 | 694 | 87.2 | P=082 X2=5.12  df=9 |
| Married | 50 | 49 | 38 | 37.3 | 9 | 8.8 | 5 | 4.9 | 102 | 12.8 |
| Age | < 20 years | 39 | 40.2 | 45 | 46.4 | 12 | 12.4 | 1 | 1 | 97 | 12.2 | P=0.00 X2=33.62  df=9 |
| 20-24 years | 301 | 47.4 | 243 | 38.3 | 65 | 10.2 | 26 | 4.1 | 635 | 79.8 |
| 25-29 years | 25 | 46.3 | 17 | 31.5 | 3 | 5.6 | 9 | 16.7 | 54 | 6.8 |
| > 30 years | 9 | 90 | 0 | 0 | 1 | 10 | 0 | 0 | 10 | 13 |

Table 2

Frequency of depression and social support and their correlation among the students of Mashhad University of Medical Sciences

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | | **Non depressed** | | **Depresed** | | | | | | **Total** | | **Result** |
| **Mild** | | **Moderate** | | **Severe** | |
| **No.** | **%** | **No.** | **%** | **No.** | **%** | **No.** | **%** | **No.** | **%** |
| Social support score | Low | 24 | 35.8 | 19 | 28.4 | 13 | 19.4 | 11 | 16.4 | 67 | 8.4 | P=0.00 X2=54.15  d=6 |
| Moderate | 104 | 40.8 | 98 | 38.4 | 37 | 14.5 | 16 | 6.3 | 255 | 32 |
| High | 246 | 51.9 | 188 | 39.7 | 31 | 6.5 | 9 | 1.9 | 474 | 59.6 |
| Total No. of depressed students | | 374 | 47 | 305 | 38.3 | 81 | 10.2 | 36 | 4.5 | 796 | 100 |  |

The findings of this study showed that 4.4% of the students were strongly satisfied with the educational staffs; 48% were somewhat satisfied; 10.1% were neu- tral; while 29.8% were somewhat dissatisfied and 7.8% were strongly dissatisfied. The prevalence of depres- sion in students had a significant relation with their sat- isfaction with the educational staffs. 7.2% of the students were strongly satisfied with university employees and their attitude; 48.4% of the students were somewhat sat- isfied and 12.8% were neutral; while 22.7% were some- what dissatisfied and 8.9% were strongly dissatisfied. The prevalence of depression in students had a signifi- cant relation with their satisfaction with the employees and their attitude. 3.52% of the students were strongly satisfied with environmental facilities; 5.28% of the stu- dents were somewhat satisfied; 10.68% were neutral;

while 38.44% were somewhat dissatisfied and 42.08% were strongly dissatisfied. The prevalence of depres- sion in students had a significant relation with their sat- isfaction with environmental facilities. (Table 3)

# DISCUSSION AND CONCLUSION

The self-reported mild, moderate and severe de- pression rates among students of Mashhad University of Medical Science were 38.3%, 10.2% and 4.5% re- spectively. Women reported depression as frequently as men; and so did single and married students. 47% of students did not report any depression. Observed high rates of depression were comparable to previously pub- lished studies over the last 20 years on Iranian medical students36. High rates of depressive symptoms were re-

Table 3

Frequency of depression and satisfaction and their correlation among the students of Mashhad University of Medical Sciences

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | | **Non depressed** | | **Depresed** | | | | | | **Total** | | **Result** |
| **Mild** | | **Moderate** | | **Severe** | |
| **No.** | **%** | **No.** | **%** | **No.** | **%** | **No.** | **%** | **No.** | **%** |
| Satisfaction with educational staff | Strongly dissatisfied | 22 | 35.5 | 28 | 45.2 | 6 | 9.7 | 6 | 9.7 | 62 | 7.8 | P=0.001 X2=47.07  df=15 |
| Somewhat  dissatisfied | 102 | 43 | 98 | 41.4 | 22 | 9.3 | 15 | 6.3 | 237 | 29.8 |
| Neutral | 21 | 26.3 | 40 | 50 | 16 | 20 | 3 | 3.8 | 80 | 10.1 |
| Somewhat  satisfied | 215 | 56.3 | 124 | 32.5 | 34 | 8.9 | 9 | 2.4 | 382 | 48 |
| Strongly satisfied | 14 | 40 | 15 | 42.9 | 3 | 8.6 | 3 | 8.6 | 35 | 4.4 |
| Satisfaction with environmental facilities | Strongly dissatisfied | 45 | 13.43 | 76 | 22.69 | 53 | 15.82 | 161 | 48.06 | 335 | 42.08 | P=001 X2=24.66  df=12 |
| Somewhat  dissatisfied | 40 | 13.07 | 73 | 23.86 | 76 | 24.84 | 117 | 38.24 | 306 | 38.44 |
| Neutral | 19 | 22.35 | 22 | 25.88 | 15 | 17.65 | 29 | 34.12 | 85 | 10.68 |
| Somewhat satisfied | 9 | 21.43 | 11 | 26.19 | 5 | 11.9 | 17 | 40.48 | 42 | 5.28 |
| Strongly satisfied | 19 | 67.86 | 7 | 25 | 1 | 3.57 | 1 | 3.57 | 28 | 3.52 |
| Satisfaction with University employees and their attitude | Strongly dissatisfied | 22 | 31 | 31 | 43.7 | 9 | 12.7 | 9 | 12.7 | 71 | 8.9 | P=001 X2=35.68  df=15 |
| Somewhat  dissatisfied | 87 | 48.1 | 62 | 34.3 | 24 | 13.3 | 8 | 4.4 | 181 | 22.7 |
| Neutral | 45 | 44.1 | 38 | 37.3 | 11 | 10.8 | 8 | 7.8 | 102 | 12.8 |
| Somewhat satisfied | 193 | 50.1 | 146 | 37.9 | 36 | 9.4 | 10 | 2.6 | 385 | 48.4 |
| Strongly  satisfied | 27 | 47.4 | 28 | 49.1 | 1 | 1.8 | 1 | 1.8 | 57 | 7.2 |

ported by 55% and 50.1% of nursing students in Rockville and Thailand respectively12, 37. But according to publica- tions, prevalence of depression in general population is 15-25% which is lower than the rates of our study38. How- ever, students’ self-reported higher symptom levels in comparison to general population norms cannot be as- sumed to indicate higher levels of more serious mental health conditions. Yet, this is not to deny the genuine distress and severe problems that some students expe- rience11.

Mild depression was reported 8 times more preva- lent than severe depression in this study. As the impact of perceived social efficacy was mediated through low level of depression and perceived self-regulatory effi- cacy was related to academic achievement, special at- tention to even mild depression is necessary39.

Our study revealed that the incidence of depres- sion was slightly higher in women without any statistical significance. The findings of this study were similar to

other reports which found no gender difference at baseline; however, some of them discovered that women experienced higher depression levels than men during their educational years8. There are other studies which have shown higher incidences of major depressive dis- order in women, although the differences have no sta- tistical significance40, 41.

There was no significant difference in depression rates between single and married students. This finding is of the same order with those reported by previous surveys42, 43. Findings failed to support ideas of marriage being protective (through social support), or detrimental (through family roles) against psychological distress44.

Age was associated with depression. Depression was more prevalent in the under-20-year-old category although severe depression was more prevalent in stu- dents who were not in the first year of education. Mild depression was more frequent than severe depression. In medical students of the Lodz Medical University, 28.8% of the 2nd year students and 14% of the 4th year medi- cal students were diagnosed with depressive symptoms which show a decrease in self-reported depressive symp- toms during their educational years45. It could be dem- onstrated by significant changes in student’s health hab- its like decreases in exercise and socialization. The changes in health habits were predictive of both emo- tional and academic adjustment, with students who had less positive health habits, particularly socialization, being more depressed at their final examinations46.

As mentioned before, all satisfaction items had significant correlations with depression. 37.6% of stu- dents were dissatisfied with their educational staff, 31.6% were dissatisfied with university employees and their attitude and 80.52% were dissatisfied with the environ- mental facilities and a negative correlation was found between student’s depression and each satisfaction item. Impairment of mental health influences the level of job satisfaction47. There was also a positive and significant relationship between job satisfaction and mental hy- giene48 and a negative correlation between the depres- sive symptom intensity and a feeling of satisfaction shown in medical students of Lodz Medical University, Poland45.

8.4% of participants reported low levels of social support and moderate and high levels were reported in 32% and 59.6% respectively. Multivariate analysis dem- onstrated that family and peer connections were protec- tive against depression40. Emotional support by the fam- ily members can improve mental health by reducing anxi- ety, stress and depression12, 49, 50. Behaviors such as sub- stance abuse or burnout symptoms in depressives were related to a lack of social support and external attribu- tion style37.

Students reported the greatest perceived nega- tive academic impact related to experiencing interper- sonal concerns (concerns about troubled friends or family members, death of a friend or family member, and rela-

tionship difficulty) and mental health concerns (depres- sion, anxiety, seasonal affective disorder and stress)51. Our research produced similar results. This study dem- onstrates the importance of health education and health promotion programs for students attending the medical schools which include prevention of initiation as well as treatment. These interventions demonstrated promising effects on changing the patterns of specific challenges associated with acute adjustment as well as long-term stressors. Therefore, counseling services should be pro- vided in medical schools to assist students to handle issues that constitute a source of stress in their psycho- social environment52.

# REFERENCES

1. Rouillon F. Depression, yesterday, today and tomorrow: historical evolution of concepts. Therapie 2005;60: 425-9.
2. Furegato ARF, Santos JLF, Silva ECD. Depression among nursing students associated to their self-esteem, health perception and interest in mental health. Revista Latino- Americana de Enfermagem 2008;16:198-204.
3. Franck E, De Raedt R. Self-esteem reconsidered: Un- stable self-esteem outperforms level of self-esteem as vulnerability marker for depression. Behav Res Therapy 2007; 45:1531-41.
4. de Man AF. Correlates of suicide ideation in high school students: the importance of depression. J Genet Psychol 1999;160:105-14.
5. de Man AF, Leduc CP. Suicidal ideation in high school students: depression and other correlates. J Clin Psychol 1995;51:173-81.
6. Merritt RK, Price JR, Mollison J, Geddes JR. A cluster randomized controlled trial to assess the effectiveness of an intervention to educate students about depres- sion. Psychol Med 2007; 37:363-72.
7. Blazer D, Williams CD. Epidemiology of dysphoria and depression in an elderly population. Am J Psychiatry 1980;137:439-44.
8. Rosal MC, Ockene IS, Ockene JK, Barrett SV, Ma Y, Hebert JR. A longitudinal study of students’ depression at one medical school. Acad Med 1997;72:542-6.
9. Brown GW, Bifulco A, Andrews B. Self-esteem and de- pression. III. Aetiological issues. Soc Psychiatry Psychiatr Epidemiol 1990; 25:235-43.
10. Modrzejewska R, Bomba J. Prevalence of depression in Krakow population of 17 years old students in years 1984 and 2001. Psychiatr Pol 2004; 38:13-27.
11. Andrews B, Hejdenberg J, Wilding J. Student anxiety and depression: comparison of questionnaire and interview assessments. J Affect Disord 2006;95: 29-34.
12. Ross R, Zeller R, Srisaeng P, Yimmee S, Somchid S, Sawatphanit W. Depression, stress, emotional support, and self-esteem among baccalaureate nursing students in Thailand. Int J Nurs Educ Scholarsh 2005; 2: 25.
13. Modabber-Nia MJ, Shodjai-Tehrani H, Moosavi SR, Jahanbakhsh-Asli N, Fallahi M. The prevalence of de- pression among high school and preuniversity adoles- cents: Rasht, northern Iran. Arch Iran Med 2007;10: 141-6.
14. Cole DA. Relation of social and academic competence to depressive symptoms in childhood. J Abnorm Psychol 1990;99:422-9.
15. Stewart SM, Betson C, Marshall I, Wong CM, Lee PW, Lam TH. Stress and vulnerability in medical students. Med Educ 1995;29:119-27.
16. Cutrona CE, Troutman BR. Social support, infant tem- perament, and parenting self-efficacy: a mediational model of postpartum depression. Child Dev 1986; 57:1507-18.
17. Engdahl BE, Page WF, Miller TW. Age, education, mal- treatment, and social support as predictors of chronic depression in former prisoners of war. Soc Psychiatry Psychiatr Epidemiol 1991; 26:63-7.
18. Flaherty JA, Gaviria FM, Black EM, Altman E, Mitchell T. The role of social support in the functioning of patients with unipolar depression. Am J Psychiatry 1983; 140: 473-6.
19. Kim O. Sex differences in social support, loneliness, and depression among Korean college students. Psychol Rep 2001;88:521-6.
20. Rawson HE, Bloomer K, Kendall A. Stress, anxiety, de- pression, and physical illness in college students. J Genet Psychol 1994;155:321-30.
21. Olsson G. Adolescent depression. Epidemiology, noso- logy, life stress and social network. Minireview based on a doctoral thesis. Ups J Med Sci 1998;103:77-145.
22. Harris TL, Molock SD. Cultural orientation, family cohe- sion, and family support in suicide ideation and depres- sion among African American college students. Suicide Life Threat Behav 2000;30:341-53.
23. Galambos NL, Barker ET, Krahn HJ. Depression, self- esteem, and anger in emerging adulthood: seven-year trajectories. Dev Psychol 2006;42:350-65.
24. Bair MJ, Kroenke K, Sutherland JM, McCoy KD, Harris H, McHorney CA. Effects of depression and pain sever- ity on satisfaction in medical outpatients: analysis of the Medical Outcomes Study. J Rehabil Res Dev 2007;44:143-52.
25. Alshallah S. Job satisfaction and motivation: how do we inspire employees? Radiol Manage 2004;26:47-51.
26. Becker JL, Milad MP, Klock SC. Burnout, depression, and career satisfaction: cross-sectional study of obstet- rics and gynecology residents. Am J Obstet Gynecol 2006;195:1444-9.
27. Alexander JL. Quest for timely detection and treatment of women with depression. J Manag Care Pharm 2007;13:S3-11.
28. Sclove SL. Notes on Likert Scales. [Online] 2001[Cited on 2008 Oct 01]. Available from URL: <http://www.uic.edu/> classes/idsc/ids270sls/likert.htm.
29. Liva C, Figuroa V. Estrogen therapy for depression in post menopausal women. Int J Gynaecol Obstet 1999; 65: 354-8.
30. Cassidy T. Problem-solving style, stress and psychologi- cal illness. Br Clinical Psychology 1996; 35: 265-77.
31. Korke Abadi M. Comparison of depression in employed and unemployed mothers in Mashhad in 1997. [Thesis] Mashhad: Mashhad University of Medical Sciences, Faculty of Nursing and Midwives, 1997.
32. Golden J, Conroy RM, O’Dwyer AM. Reliability and validity of the Hospital Anxiety and Depression Scale and the Beck Depression Inventory (Full and Fast Screen scales) in detecting depression in persons with hepatitis C. J Affect Disord 2007; 100:265-9.
33. Tashakkori A, Barefoot B, Mehryar AH. What does the Beck depression inventory measure in college students? J Clin Psychol 1989; 45: 595-602.
34. Furlanetto LM, Mendlowicz MV, Romildo Bueno J. The validity of the Beck Depression Inventory-Short Form as a screening and diagnostic instrument for moderate and severe depression in medical inpatients. J Affect Disord 2005; 86:87-91.
35. Ghassemzadeh H, Mojtabai R, Karamghadiri N, Ebrahimkhani N. Psychometric properties of a Persian- language version of the Beck Depression Inventory - Second edition: BDI-II-PERSIAN. Depression and Anxi- ety 2005; 21: 185-92.
36. Molavi P, Fayazi Bordbar MR, Karimollahi M. Prevalence of depression in Ardabil Medical Students. Fundamen- tals of Mental Health 2000; 2: 31-5.
37. Haack MR. Stress and impairment among nursing stu- dents. Res Nurs Health 1988; 11:125-34.
38. Sharifi K, Souki Z, Khademi Z, Hoseinian M, Tagharobi

Z. Frequency of depression and the associated factors in students of Kashan University of Medical Sciences. Feyz 2001; 4: 54-8.

1. Bandura A, Barbaranelli C, Caprara GV, Pastorelli C. Multifaceted impact of self-efficacy beliefs on academic functioning. Child Dev 1996; 67:1206-22.
2. Denny S, Clark TC, Fleming T, Wall M. Emotional resil- ience: risk and protective factors for depression among alternative education students in New Zealand. Am J Orthopsychiatry 2004;74:137-49.
3. Patten SB, Stuart HL, Russell ML, Maxwell CJ, rboleda- Florez J. Epidemiology of major depression in a pre- dominantly rural health region. Soc Psychiatry Psychiatr Epidemiol 2003;38:360-5.
4. Demir F, Ay P, Erbas M, Ozdil M, Yasar E. The preva- lence of depression and its associated factors among resident doctors working in a training hospital in Istanbul. Turk Psikiyatri Derg 2007;18:31-7.
5. Karimi AA, Tavallaei SA, Adibzadeh A, Hoseinlou S. A survey on depression and its associated Factors in medi- cal students. Kosar Med J 2003;8:231-4.
6. Hope S, Rodgers B, Power C. Marital status transitions and psychological distress: longitudinal evidence from

a national population sample. Psychol Med 1999; 29: 381-9.

1. Adamiak G, Swiatnicka E, Wolodzko-Makarska L, Switalska MJ. Assessment of quality of life of medical students relative to the number and intensity of depres- sive symptoms. Psychiatr Pol 2004; 38:631-8.
2. Ball S, Bax A. Self-care in medical education: effective- ness of health-habits interventions for first-year medical students. Acad Med 2002; 77:911-7.
3. Puriene A, Aleksejuniene J, Petrauskiene J, Balciuniene I, Janulyte V. Self-perceived Mental Health and Job Satisfaction among Lithuanian Dentists. Industrial Health 2008; 46: 247–52.
4. Alavi SH, Benadeki MD. Mental hygiene of the special schools teachers in Kerman, Iran. Adm Policy Ment Health 2005; 32:293-6.
5. Holt-Lunstad J, Birmingham W, Jones BQ. Is there some- thing unique about marriage? The relative impact of marital status, relationship quality, and network social support on ambulatory blood pressure and mental health. Ann Behav Med 2008; 35:239-44.
6. Lee YS, Kim KH, Cho YC. Relationships between mental health and psychosocial factors with single-child high school students in an urban city of Korea. J Prev Med Pub Health 2006; 39: 419-26.
7. Kernan WD, Wheat ME, Lerner BA. Linking learning and health: a pilot study of medical students’ percep- tions of the academic impact of various health issues. Acad Psychiatry 2008; 32: 61-4.
8. Omokhodion FO, Gureje O. Psychosocial problems of clinical students in the University of Ibadan Medical School. Afr J Med Med Sci 2003; 32: 55-8.