

**Original Article**

# Prevalence of Depressive Symptoms Among Entrance Test Applicants of Mirpurkhas

Aatir H. Rajput<sup>1</sup>, Sana Ayesha<sup>2</sup> & Saher Rafique<sup>3</sup>

1. LUMHS Research Forum
  2. Liaquat University Hospital, Hyderabad
  3. Liaquat University of Medical & Health Sciences, Jamshoro
- Corresponding Author:** aatirh.rajput@gmail.com

## Abstract

**Background** The interest of the scientific community regarding depression in students is rather new. However, case reports dating back to the seventeenth century do exist. In that era, the belief prevailed that depression rarely existed (if at all) among students but the belief is now being challenged. Our research takes the belief one step further and hypothesizes that depression is most often high during tests & exams and the highest when they are preparing for & about to appear in entrance tests. **Objective** Entrance tests are, without doubt, the most crucial career defining periods of a student's life. This study aims to test this hypothesis and figure out whether the belief, that depressive symptoms are intensified during the period of entrance tests, holds truth. **Methodology** A cross-sectional, observational study was conducted in Mirpurkhas district. A data sample of 222 entrance test students was chosen via purposive sampling. Data was collected through a self-administered structured questionnaire (which included the Hamilton stress scale) from May to July 2014. The data was analyzed using SPSS v.16.0. **Results** The mean stress score of the entrance test applicants was 21.56, which indicate moderate severity. The mean stress score of females (22.43) was higher than that of males (20.82) showing that females are more severely affected. A significant proportion of applicants admitted that they consciously experienced depressive mood. The applicants also complained of other general depressive symptoms like loss of appetite, general aches, weight loss, anxiety and agitation. Health worries were also common among the entrance test applicants. **Conclusions** On the basis of our data we conclude that depression is common and wide array of general depressive symptoms are aggravated in entrance test applicants. This issue needs immediate attention and steps must be taken to pre-empt the future adverse health problems that can stem from this condition.

## Keywords

Depression, Entrance test applicants, Depressive Symptoms, Depression, Exam Stress and Test Anxiety

## Introduction

Depression, worldwide, is surfacing more today than ever before. Studies reporting depression among young adolescents and high school students (Saluja, et al; 2004) are surfacing. However, there evidence present is still scarce and at an early stage. It is now an

established fact that students are commonly faced with major depression and not only does it limit their potential and lead to significant morbidity and mortality, it surfaces again and again despite efforts to fight it off. Yet, our community still fails to

recognize the seriousness of this disease and let alone treating it.

Depression brings to the equation, a great deal of morbidity, mortality and economic cost, one that is not paralleled by any other disorder of psychiatric lineage. Depression ranks 4th on an internationally validated scale that ranks the all major medical ailments on the overall impact they have on the world and the disability that they cause worldwide. (Murray, et al; 1996) Such high impact on the world is unfortunate because depression is highly responsive to treatment and if a little recognition and importance is dedicated to the diagnosis and treatment of this ailment, the lives of all who suffer from it can be made better (Hirschfeld, et al; 1997). As stated above, depression is neither much recognized, nor effectively treated in adults but the situation is even worse in individual of tender age (i.e. children and adolescents). Research suggests that nearly 8.3 percent of adolescents in the U.S are plagued with depression. Not focusing on depression among the young may lead to dire results, since depression is linked to a heightened suicide risk. (Birmaher, et al; 1996) It might be more than just a coincidence that the rate of suicide in teens has almost risen threefold in the past five decades (CDC; 2003). Among the early young victims of depression, the chances are that depression will persist with them more often than not throughout their life, (Lewinsohn, et al; 1999) in addition to that it is also likely that the depression they battle will be more severe than one encountered by others in their adulthood. (Weissman, et al; 1999) Furthermore, depression even at a subclinical level, if encountered during adolescence, may pose a twofold to threefold risk of developing major depressive disorder later in life (Pine, et al; 1998).

We hypothesized that depression is most often aggravated during tests & exams and the highest when they are preparing for & about to appear in entrance tests. Entrance tests are, without doubt, the most crucial career defining periods of a student's life. This study aims to test this hypothesis and figure out whether the belief, that depressive symptoms are aggravated during the period of entrance tests, holds truth. By finding the answer to this question, proper preventive measures will be identified and taken to decrease the burden of depressive agents that will surely lead to better quality of life for students.

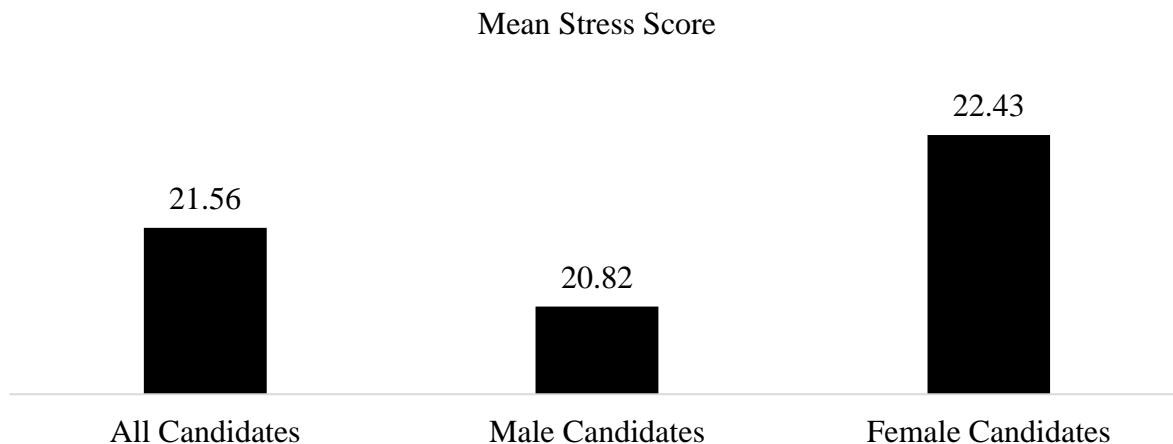
### Methods

A cross-sectional, observational study was conducted in Mirpurkhas district. A data sample of 222 entrance test students (pre-medical and pre-engineering) was chosen via purposive sampling. Data was collected through a self-administered structured questionnaire (which included the Hamilton stress scale) during May to July 2014. Different entrance test preparation centers were visited and the students interviewed after taking informed consent. No ethical guidelines were violated and permission was acquired from the respective heads of each entrance test preparatory center before data collection. The students were guaranteed anonymity. Online questionnaires (Google docs) were also sent to students who did not attend the preparatory classes via email and their responses included in the total data sample. No distinction was made between students appearing in the entrance test for the first or second time. No gender bias was observed and a total of 119 males and 103 females were included in our sample. The data was analyzed using SPSS v.16.0 and Ms. Excel (v. 2007).

## Results

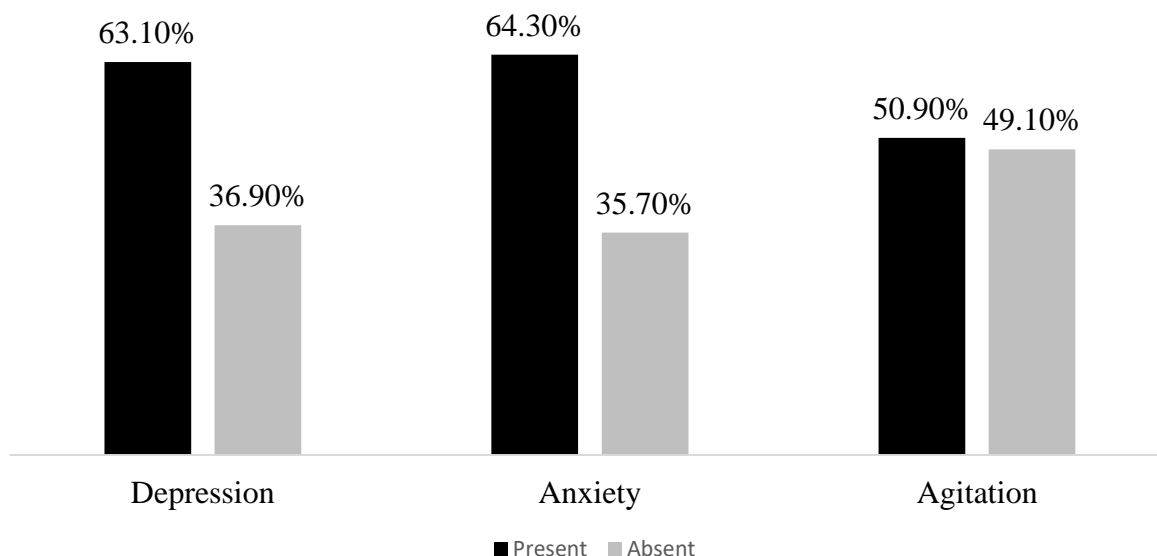
The mean stress score of the entrance test applicants was 21.56, which indicate moderate severity. The mean stress score of

females (22.43) was higher than that of males (20.82) showing that females are more severely affected.



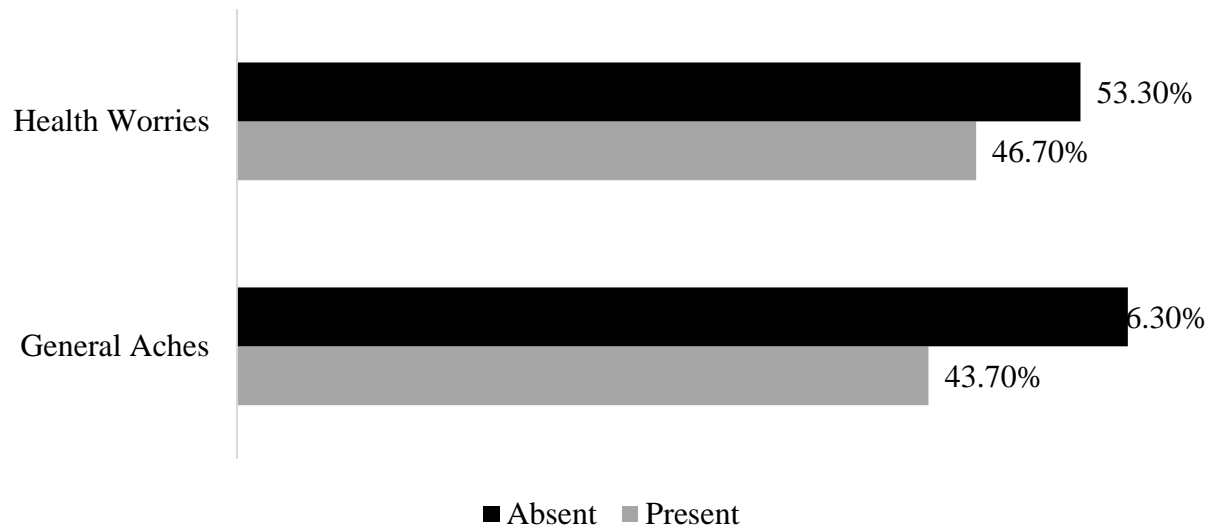
**Figure 1: It is interesting to note that the mean stress score of male applicants is lesser than that of female candidates.**

A significant proportion of applicants admitted that they consciously experienced depressive mood. The applicants also complained of other general depressive symptoms like anxiety and agitation. (Table 2)



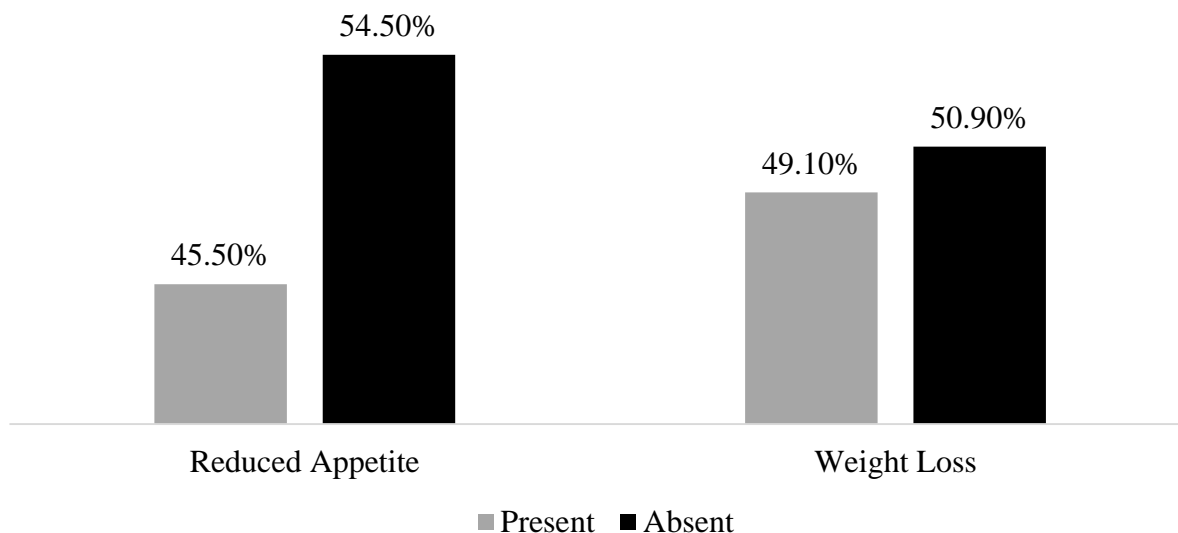
**Figure 2: Anxiety was the most common depressive symptom among the three, immediately followed by depressed mood and agitation in the applicants.**

General aches & health were also reported at rather alarming levels. The figure 3 below gives detailed statistics.



**Figure 3: With 43.7% of the sample complaining of general aches and 46.7% of sample worried about their health, it is clear that the applicants are rather rattled.**

Other symptoms that exhibit direct health impacts were also present, such as reduced appetite and weight loss.



**Figure 4: Reduced appetite was present among 45.5% of the sample and measurable weight loss was present 49.1% of the applicants. This poses a direct threat to the health of the students and can potentially lead to malnutrition and/or under nutrition.**

## Discussion

Research conducted upon students in high school (Lewinsohn, et al; 1999, Brooks, et al; 2002, Lewinsohn, et al; 1998) hints that, just like in adulthood, females are more prone to suffer from depression in adolescence than their male counterparts (Hankin, et al; 1999, Petersen, et al; 1993). Our results too show that women are more prone to suffer from depression. Entrance test applicants are faced with the mammoth task of memorizing an immense load of information. Together with the fact that they are on a tight schedule, the mammoth studying task leads to disappointment more often than not because they of inability to cope up with the stress associated with their task. Such stress is not conducive to good learning and may result in the applicants failing their tests. Further pressure is added owing to the fact that not only do the applicants have to pass the test but they have to do it better than the rest to make it into colleges and universities of their choice (Yussof, et al; 2013).

To further add to the already worrisome mix, situational stressors such as long study/work hours, lack of sleep, domineering list of responsibilities, lack of adequate support from teachers, subjects that a little too many and a little too difficult, and stressful learning conditions are present all around. Stressors originating from personal scenarios such as family pressure and coercion to perform at all costs, economic constraints as many entrance test preparatory classes charge hefty amounts of money, not to mention the impending costs of medical and engineering university fees looming before their eyes. Isolation too is often encountered when students choose to spend time at libraries and silent places away from friends and family that are thought of as distracting influences. Other

stressors include lack of time to spend on leisure activities for the sake of relaxation and inadequately developed coping skills due to tender age (Ray, et al; 2010).

Stress is not always bad and in some circumstances, a certain level of stress may prove useful since it aids in the development of coping mechanisms. (Rizvi; 2010) But the positive side ends there and as soon as stress exceeds the coping limits, it goes back to being a menace and leads to other problems such as ones highlighted in literature (anxiety, behavioral problems and emotional disturbance). (O'Rourke, et al; 2010) Feelings of disappointment academically are most prevalent in those students who have a poor academic performance (Yussof, et al; 2013).

The problems that ensue with the above mentioned disorders (emotional and behavioral) include inability to experience joy, mild insomnia, exacerbated sense of worry, persistent feeling of strain, low mood, lack of concentration, incapacity to derive joy from every day activities, confidence loss, surrender to odds, poor decision making ability and lessened self-worth (Firth; 1986).

## Conflict of Interest

All the authors disclosed that there is no Conflict of interest associated in the preparation of this article.

## Acknowledgement

We would like to acknowledge the intellectual assistance and technical support provided by LUMHS Research Forum and Dr. Muhammad Muneeb.

## Conclusion

On the basis of our results we conclude that the entrance test applicants are at a severe

risk of developing major depression and incurring severe health problems if the current set up continues. Proper steps need to be taken to address this issue and further studies are advised to unearth the other hidden factors contributing towards stress.

## References

- Birmaher, B., Ryan, N. D., Williamson, D. E., Brent, D. A., Kaufman, J., Dahl, R. E., James Perel & Nelson, B. (1996). Childhood and adolescent depression: a review of the past 10 years. Part I. *Journal of the American Academy of Child & Adolescent Psychiatry*, 35(11), 351427-351439.
- Brooks, T. L., Harris, S. K., Thrall, J. S., Woods, E. R. (2002). Association of adolescent risk behaviors with mental health symptoms in high school students. *J Adolesc Health*. 31240-31246.
- Centers for Disease Control, Suicide in the United States. Retrieved from: <http://www.cdc.gov/ncipc/factsheets/suifacts.htm>. Accessed on: December 16, 2003
- Firth, J. (1986). Levels and sources of stress in medical students. *BMJ*, 15(65), 1177–1180.
- Hankin, B. L., Abramson, L. Y. (1999). Development of gender differences in depression: description and possible explanations. *Ann Med*. 31372-31379.
- Hirschfeld, R. M., et al. (1997). The National Depressive and Manic-Depressive Association consensus statement on the under treatment of depression. *JAMA*, 277333-277340.
- Lewinsohn, P. M., Rhode. P., Klein, D. N., Seeley, J. R. (1999). Natural course of adolescent major depressive disorder, I: continuity into young adulthood. *J Am Acad Child Adolesc Psychiatry*. 3856-3663.
- Lewinsohn, P. M., Rohde. P., Seeley, J. R. (1998). Major depressive disorder in older adolescents: prevalence, risk factors, and clinical implications. *Clin Psychol Rev*, 18765-18794.
- Murray, C. J., Lopez, A. D. (1996). The Global Burden of Disease: A Comprehensive Assessment of Mortality and Disability from Disease, Injuries, and Risk Factors in 1990 and Projected to 2020. *Harvard University Press*.
- O'Rourke, M., Hammond, S. (2010). The Medical Student Stress Profile: a tool for stress audit in medical training. *Medical Education*, 27(44), 1027–1037.
- Petersen, A. C., Compas, B. E., Brooks-Gunn, J., Stemmler, M. E. (1998). Depression in adolescence. *Am Psychol*. 48155-48168.
- Pine, D.S., Cohen, P., Gurley, D., Brook, J., Ma, Y. (1998). The risk for early-adulthood anxiety and depressive disorders in adolescents with anxiety and depressive disorders. *Arch Gen Psychiatry*, 5556-5564.
- Ray, I., Joseph, D. (2010). Stress in medical student. *JK Sci*, 12,(4), 163–164.
- Rizvi, A. (2010). Pre-examination stress in second year medical students in a government college. *BMJ*, 292(65), 1177–1180.
- Saluja, G., Iachan, R., Scheidt, P. C., Overpeck, M. D., Sun, W., Giedd, J. N. (2004). Prevalence of and Risk Factors for Depressive Symptoms Among Young Adolescents. *Arch Pediatr Adolesc*, 158(8), 760-765.
- Weissman, M. M., et al. (1990). Depressed adolescents grown up. *JAMA*, 2811707-2811713.
- Yussof, M., Baba, A. (2013). Prevalence and associated factors of stress, anxiety and depression among prospective medical students. *Asian Journal of Psychiatry*, 59(2), 128–133.