CODEN [USA]: IAJPBB **ISSN: 2349-7750**

INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES

http://doi.org/10.5281/zenodo.3097448

Available online at: http://www.iajps.com ***Research Article***

A CROSS-SECTIONAL RESEARCH TO HIGHLIGHT PSYCHOLOGICAL DISTRESS IN CONNECTION WITH DEPRESSIVENESS, SOMATIC, SOCIAL ABNORMALITY AND DEPRESSION

[1]Dr Muhammad Usama Afzal, [2]Dr Nughza Zaheer, [3]Dr. Muhammad Javeed
[1]House Officer, Ghurki Trust Teaching Hospital, [2]House Officer, Jinnah Hospital Lahore, [3]MO, SZMC RYK.

Article Received: March 2019 **Accepted:** April 2019 **Published:** May 2019

Abstract:
Objective: *The objective of the research was to find out psychological distress in reference to depression, social abnormality and somatic and depressiveness indications among those students who are participating in entrance exams for medical colleges.*
Methodology: *This cross-sectional research was carried out at Sir Ganga Ram Hospital, Lahore from October 2017 to July 2018. The research consisted of entire those students who participated in the written examination. To find out psychological distress, entire students were demanded to fill the questionnaire regarding general health. All those candidates who obtained more than 24 marks were recalled for an initial interview and additionally evaluated on the Hamilton rating scale for depressive disorder. With the objective of data analysis, SPSS was utilized.*
Results: *Total numbers of students were 1334 among them, five-hundred & eighty-nine (44.2%) were females and seven hundred & forty-five (55.8%) were males. The average age of the students was 18.9± 1.41 and one-hundred & eighty-two (13.6%) candidates had psychological distress. Three-hundred &twenty-three (24.2%) subjects were identified as depressive disorder along with eight-hundred and nineteen (61.4%) social dysfunction as well as the number of anxiety insomnia and somatic symptoms are four-hundred & seventy-two (35.4%) and five-hundred & sixty (42.0%) respectively. The number of cases identified with mental distress established on the bases of the questionnaire was seventy-three (22.7%) along with nine (2.8%) depressive disorder cases established on the base of Hamilton scale. Among the total of three-hundred & twenty-two candidates who were recalled with the objective of the interview, the substantial association was found between mental distress and female gender established on the marks of the questionnaire ($P < 0.05$). No important gender-based association was found in those subjects who had both the assessment ($p > 0.05$). Moreover, no meaningful association was diagnosed between academic functioning and any instrument used for assessment ($P > 0.05$ each).*
Conclusion: *An important substantial ratio of candidates at the entrance test for medical school level had mental distress.*
Keywords: *Psychological Distress (PD), General Health Questionnaire (GHQ).*

Corresponding author:
Dr. Muhammad Usama Afzal,
House Officer, Ghurki Trust Teaching Hospital.

QR code

Please cite this article in press Muhammad Usama Afzal et al., ***A Cross-Sectional Research To Highlight Psychological Distress In Connection With Depressiveness, Somatic, Social Abnormality And Depression.,*** *Indo Am. J. P. Sci, 2019; 06(05).*

INTRODUCTION:

The students of health sciences, as well as higher education, are cognized to undergo huge mental distress as compared to the common population [1, 2]. Students learn to pick this PD and make it as a factor of their professional education, however, if the limit of this psychological distress rises beyond their handling capacity it not only strikes with their academic functioning but also adversely affect their health and endure extended term effects.

Medical profession exacting nature along with nerve rocking environment competitor academic as well as inescapable exposition to human tragedy and suffering provides the medical students vulnerable to psychological distress [3]. Earlier research presented psychological distress in medical students from (21.6 to 50%) of frequency range [4 – 6]. Vulnerability in medical students appears during the transitional stage just like initial years of medical colleges and 2nd meanwhile settlement period in medical clerkship fresh environment [4 – 6]. Research presented that psychological distress is linked with mental as well as physical health issues among student's disputes between personals, sleeping issues and low clinical and academic capacity [7 – 10]. Hence in time identification of the undefined psychological distress in initial period of health professional learning can help the subjects in coping with the psychological distress efficaciously with preservation of smooth and brilliant academic performance along with personal health. The present research was organized at the critical time of medical college's students. I.e. the entrance levels.

METHODOLOGY:

This cross-sectional research was carried out at Sir Ganga Ram Hospital, Lahore from October 2017 to July 2018. The research consisted of entire those students who participated in the written examination. Statistical data was composed via the form used for the entrance examination. The entrance tests of medical students consist of written examination succeeded with viva examination established on their academic marks. To find out psychological distress, entire students were demanded to fill the questionnaire regarding general health. All those candidates who obtained more than 24 marks were recalled for an initial interview and additionally evaluated on the Hamilton rating scale for depressive disorder. With the objective of data analysis, SPSS was utilized. Researcher utilizes a uniform two-tier technique on the specimen with clearly separate variables [11]. General health questionnaire was formulated by Gold berg in 1978 as a testing instrument to diagnose those probably to have or at chances of developing psychological distress. This GHQ is a twenty-eight item measure of emotional suffering, somatic indication (item 1 to 17) anxiousness and sleeping disorder (item 8 to 14), social impairment (item 15 to 21), and intense depressive disorder (22 t 28), are four subscales of Goldberg GHQ [12]. The marks of questions in general health questionnaire are from zero to three with a suitable probable mark ranging from zero to eighty-four. 23/24 marks are the beginning point indicating psychological distress. Only marks greater than four in subscale show the presence of psychological distress. Intra, as well as intra –rater dependability has both been shown to be excellent as well as examination and reexamination dependability, have been accounted to be eminent (0.78 to 0.09) [13]. Five to ten minutes is approximate time to finish a general health questionnaire.

Hamilton rating scale for depression is formulated by Max Hamilton composed of multiple items questionnaire to support in detection as well as the valuation of depression and model to assess improvements [14]. Its normally take fifteen to twenty minutes to accomplish the Hamilton rating scale for depression.

The researcher investigates the composed information by utilizing SPSS and used descriptive statistics with the object of assessing primary variables. Researcher also used chi-square test for estimation of any important relationship of statistical information on the general health questionnaire and Hamilton "D" score, spearmen correlation was measured to detect any important connection between the academic marks of the medical students in reference to matriculation, intermediate level, (ETEA), general health questionnaire, and Hamilton rating scale for development marks. The findings were assumed important at (P>0.05) level. The registered medical students of the research will be traced up meanwhile the course for psychological distress.

RESULTS:

The total number of registered candidates for research was 1405, among them 44 did not fill the questionnaire along with 27 students who were not present on test day. Afterwards the numbers of students were 1334 among them, five-hundred & eighty-nine (44.2%) were females and seven hundred & forty-five (55.8%) were males. The average age of the students was 18.9± 1.41 and one-hundred & eighty-two (13.6%) candidates had psychological distress. Three-hundred &twenty-three (24.2%) subjects were identified as depressive disorder along

with eight-hundred and nineteen (61.4%) social dysfunction. Results prove that the female candidates and particularly those relating to southern KP had an expressively huge proportion of psychological distress. The important association was found between psychological distress established on general health questionnaire and academic achievements on ETEA. A total number of student selected for an interview for entrance test was 322 (24%). Among them, 189 (58.7%) were females with 18.9±1.03 years of average age. The number of anxiety insomnia and somatic symptoms are four-hundred & seventy-two (35.4%) and five-hundred & sixty (42.0%) respectively. The number of cases identified with mental distress established on the bases of the questionnaire was seventy-three (22.7%) along with nine (2.8%) depressive disorder cases established on the base of Hamilton scale.

Spearmen association presented nil expressive association between general health questionnaire / Hamilton rating scale for depression and academic indicators.

Table – I: Psychological Distress Based Questionnaire Distribution

Psychological Distress Based Questionnaire		Yes		No	
		Number	Percentage	Number	Percentage
Gender	Male	81	6.1	664	49.7
	Female	101	7.6	488	36.6
Age (Years)	Under 20	143	10.7	886	66.5
	Above 24	39	2.9	266	19.9
Residence	South	26	1.9	94	7.1
	North	162	12.1	986	73.9
	Outer Areas	12	0.9	54	4.1

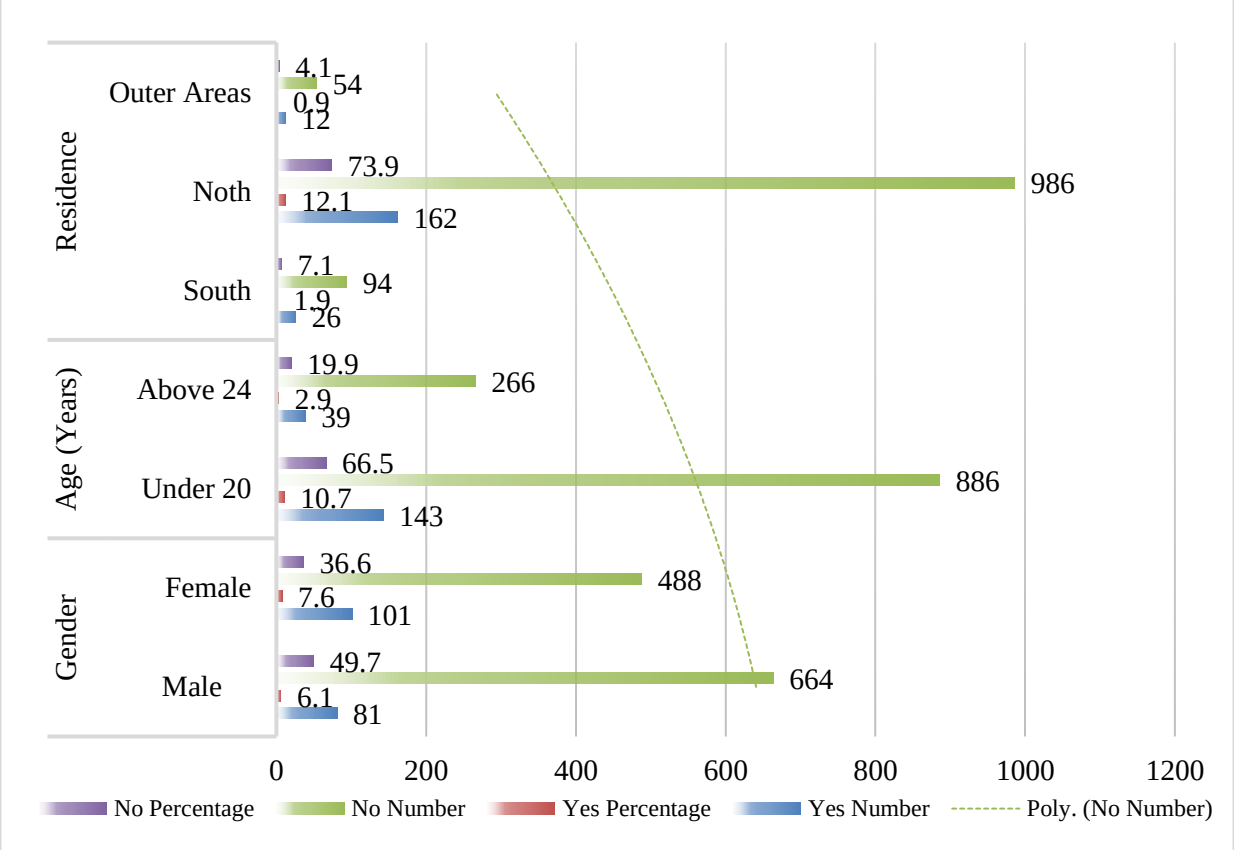

Table – II: Gender and Age Stratification

Variables		Psychological Distress - Questionnaire				HAM-D			
		Yes		No		Yes		No	
		No	%	No	%	No	%	No	%
Gender	Male	8	2.5	125	38.8	2	0.6	131	40.7
	Female	32	9.9	157	48.8	7	2.2	182	56.5
Age (Years)	Under 20	32	9.9	217	67.4	5	1.6	244	75.8
	20 - 24	8	2.5	65	20.2	4	1.2	69	21.4

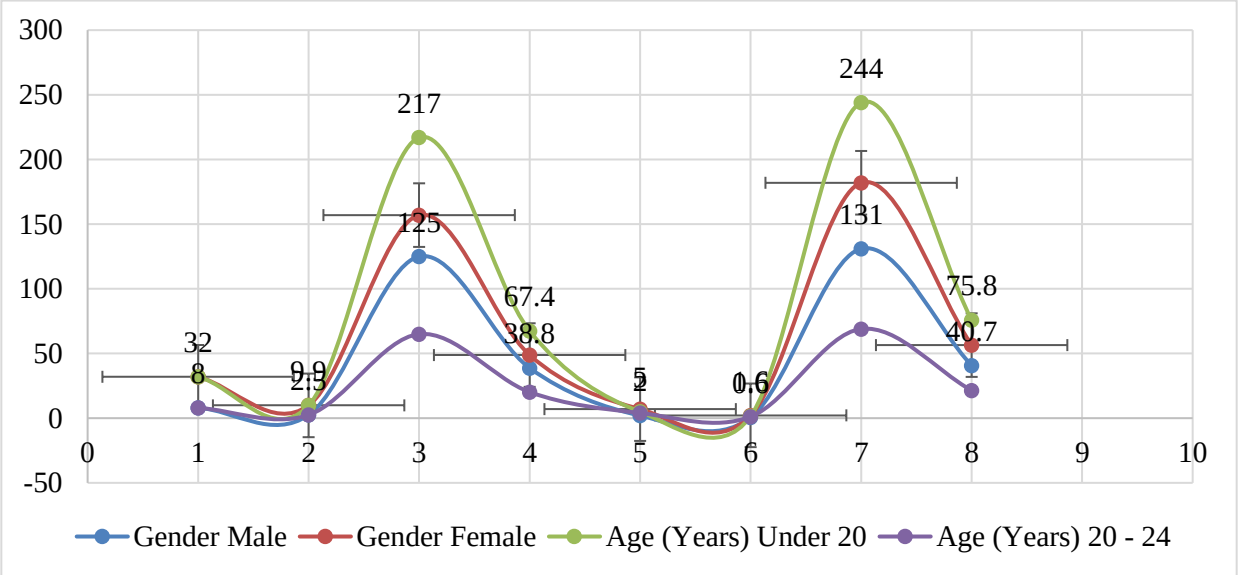

Table – III: Comparison of P-Values

P-Values	Matriculation	Intermediate	Intermediate ETEA
General Health Questionnaire (GHQ)	0.054	-0.007	-0.025
	0.335	0.901	0.657
Hamilton Rating Scale for Depression (HAM-D)	0.03	0.003	0.015
	0.587	0.957	0.786

DISCUSSION:

The carrier which helps in protecting from different germs causes diseases and developing health in multi-dimension (Metaphysical, physiological and physical) is unknowingly confronted with difficulties of ensuring the mental health as well as well being of its own staff [3]. Multiple research has concentrated on the appraisal of psychological distress in the initial years of medical colleges education, moreover, it is the most critical stage in the life of medical students [6 – 15]. The fresh research concentrated on the analysis of medical students for psychological distress as they start their medical academic session, a step earlier to their initial academic years. With respect to the common difficulties faced by the medical students and particularly complication of the initial years if the subjects are evaluated at entrance level, which is in a most compromising stage can be pointed out and provides guidance respectively. Psychological assessment of the medical students in huge no of dental as well as medical departments is not a formal job. With respect to this, our research is

the pioneer one. In our research large no of medical students were highlighted with multiple, psychological distress indicators. An outcome which is in agreement with earlier research comprising health science in higher education students [2, 3]. In our research, we identified female students as greatly experiencing psychological distress as compared to male students. Our results are similar to the results of earlier research [3, 16]. Uniformly other relevant research has presented huge psychological distress among females, however, the variation was not statistically expressive [17, 18]. Researches carried out in USA, Pakistan, and Canada by utilizing scales rather than general health questionnaire for detecting psychological differences also displayed uniform results [19 – 21]. Moreover, little bit research established on a number of scales expressed unexpressive variation between males and females thus not verifying the finding of our research [17 – 18].

Our research presented that southern Khyber Pakhtunkhwa students had multiple of general health problems with respect to the medical student of the other area. Even so, research has suggested that the marking in general health questionnaire is not affected by the region of residence [12]. This verdict required to be investigated further. The results of the prevailing research are in accordance with the other related research, displaying that there is a counter relationship between general health questionnaires and academic marks. Our research also presented that the primary cause of PD among medical students is academic pressure [22]. One additional research also verified the findings that those medical colleges students who are not strong in an academic reported high level of depression [23]. In one of the researches, the proportion of homework in students of Nigerian medical colleges was identified as the strongest element influencing the general health questionnaires-12 marks [24].

The number of factors affecting the well being of medical college's student-facing PD as the main problem because medical college's students go through major changes in their conduct, social environment as well as prolong study time meanwhile there academic carrier [25, 26]. Different research conducted in Pakistan also identifying the existence of anxiety as well as depression in medical student [27]. Our finding presented no important association between PD and academic performance calculated by the Hamilton rating scale for depression. Some other researches also investigated the association between depressions; anxiety, as well as academic performance level, reported nil statistically important association [28, 29].

The prevailing research has identified the proportion of psychological distress in medical students at the time of entrance exams and its association with academic achievements. Persuasion of reported future implication of psychological distress for above mentioned subjects in reference to psychologically sick, burnout, miserable academic performance, social problem such as academic fraudulent, substance abuse along with no sympathy for patients, it is imperative to carry on prospective research about etiological causes concerning to psychological distress and how to handle this or decrease this efficiently by the students [3]. The current research has its drawbacks. The cross-sectional design of the research, although it establishes a baseline, however, does not permit insight into the causes which promote the improvement of psychological distress in medical students and how students can counter it.

CONCLUSION:

An important substantial ratio of candidates at the entrance test for medical school level had mental distress and females have a stronger association with psychological distress. Academic performance gauges were also associated with happening of psychological distress. No important association was identified between depression in medical student and academic performance.

REFERENCES:

1. Omigbodun OO, Odukogbe ATA, Omigbodun AO, Bella OBYTT, Olayemi O. Stressors and psychological symptoms in students of medicine and allied health professions in Nigeria. Soc Psychiatry Psychiatr Epidemiol. 2006; 41:415-21.
2. Toews JA, Lockyer JM, Dobson DJ, Simpson E, Brownell AK, Brenneis F, et al. Analysis of stress levels among medical students, residents, and graduate students at four Canadian schools of medicine. Acad Med. 1997; 72:997-1002
3. Katz ED, Sharp L, Ferguson E. Depression among emergency medicine residents over an academic year. Acad Emerg Med. 2006;13: 284-7.
4. Alvi T, Assad F, Ramzan M, Khan FA. Depression, anxiety and their associated factors among medical students. J Coll Physicians Surg Pak. 2010; 20:122-6.
5. Yeh YC, Yen CY, Lai CS, Huang CH, Liu KM, Huang IT. Correlations between academic t and anxiety and depression in medical students experiencing integrated curriculum reform. Kaohsiung J Med Sci. 2007; 23:379-86.

6. Vaidya PM, Mulgaonkar KP. Prevalence of depression, anxiety and stress in undergraduate medical students and its correlation with their academic performance. Indian J Occup Ther. 2007; 39:7-10.
7. Guthrie EA, Black D, Shaw CM, Hamilton J, Creed FH, Tomenson B. Embarking upon a medical career: Psychological morbidity in first-year medical students. M ed Educ. 1995; 29:337-41.
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. Miller PM, Surtees PG. Psychological symptoms and their course in first-year medical students as assessed by the Interval General Health Questionnaire (I-GHQ). Br J Psychiatry. 1991; 159:199-207.
10. Niemi PM, Vainiomaki PT. Medical students' distress-quality, continuity and gender differences during a six-year medical programme. Med Teach. 2006; 28:136-41.
11. Linn BS, Zeppa R. Stress in junior medical students: relationship to personality and performance. J Med Educ. 1984; 59:7-12.
12. Irfan M, Abdullah AS, Sethi MR, Saleem U, Zeeshan MF, Haq N. Assessment of personality disorders in students appearing for the medical school entrance examination. J Pak Med Assoc. 2018; 68: 1597-602.
13. Goldberg D, Williams P. General health questionnaire (GHQ). Swindon, Wiltshire, UK: NFER Nelson; 1988.
14. Failde I, Ramos I, Fernandez-Palacin F. Comparison between the GHQ-28 and SF-36 (MH 1-5) for the assessment of the mental health in patients with ischaemic heart disease. Eur J Epidemiol. 2000; 16: 311-6.
15. Hedlund JL, Vieweg BW. The Hamilton rating scale for depression: a comprehensive review. J Oper Psych. 1979;10:149-65.
16. Yusoff MSB, Abdul Rahim AF, Baba AZ, Ismail SB, Sidi H, Esa AR. Psychological Distress of First Year Medical Students Who Underwent Two Different Admission Processes During a Stressful Period. Sains Malaysiana. 2013; 42:423-8.
17. Verger P, Combes JB, Kovess-Masfety V, Choquet M, Guagliardo V, Rouillon F, et al.Psychological distress in first-year university students: socioeconomic and academic stressors, mastery and social support in young men and women. Soc Psychiatry Psychiatr Epidemiol. 2009; 44:643-50.
18. Shah M, Hasan S, Malik S, Sreeramareddy CT. Perceived stress, sources and severity of stress among medical undergraduates in a Pakistani medical school. BMC Med Educ. 2010; 10:2-9.
19. Amr M, El-Gilani A, El-Sayed M, El-Sheshtawy E. Study of stress among medical students at Mansoura University. Banha Med J. 2007; 37:25-31.
20. Dyrbye LN, Thomas MR, Massie FS, Power DV, Eacker A, Harper W, et al. Burnout and suicidal ideation among US medical students. Ann Intern Med. 2008; 149:334-41.
21. Dyrbye LN, Thomas MR, Harper W, Massie FS Jr, Power DV, Eacker A, et al. The learning environment and medical student burnout: a multicentre study. J Med Educ. 200 9; 43:274-82.
22. Khan SM, Sajid M, Areef B, Syed AU, Yasir J. Prevalence of depression, anxiety and their associated factors among medical students in Karachi, Pakistan. J Pak Med Assoc. 2006; 56:584-6.
23. Vitaliano PP, Russo J, Carr JE, Heerwagen JH. Medical school pressures and their relationship to anxiety. J Nerv Ment Dis. 1984; 172:730-6.
24. Stewart SM, Betson C, Lam TH, Marshall IB, Lee PWH, Wong CM. Predicting stress in first-year medical students: a longitudinal study. Med Educ. 1997; 31:163-8.
25. Liébana-Presa C, Fernández-Martínez E, Gándara AR, MuñozVillanueva C, Vázquez-Casares AM, Rodríguez-Borrego A. Psychological distress in health sciences college students and its relationship with academic engagement. Rev Esc Enferm USP. 2014; 48:715-22.
26. Deasy C, Coughlan B, Pironom J, Jourdan D, Mannix-McNamara P. Psychological Distress and Coping amongst Higher Education Students: A Mixed Method Enquiry.PLoS One. 2014; 9: e1-23.
27. Dyrbye LN, Thomas MR, Shanafelt TD. A systematic review of depression, anxiety, and other indicators of psychological distress among U.S. and Canadian medical students. Acad Med. 2006; 81:354-73.
28. Yusoff MSB, Rahim AFA, Yaacob MJ. Prevalence and sources of stress among UniversitiSains Malaysia Medical students. Malaysian J Med Sci. 2010; 17:30-7.
29. Aktekin M, Karaman T, Senol YY, Erdem S, Erengin H, Akaydin M. Anxiety, depression and stressful life events among medical students: a prospective study in Antalya, Turkey. Med Educ. 2001; 35:12-7.