*Original Research Article*

# A Cross-Sectional Study on Stress and Alcohol Consumption Among Undergraduate Medical Students in a Private Medical College

Haorongbam Meesha[1], Akshatha Dhanashree H.S.[2]

[1]Medical Officer, Manipur Health Services.
[2]Assistant Professor, Department of Psychiatry, Sri Siddhartha Medical College, Tumkur, Karnataka.
**Corresponding author:** Akshatha Dhanashree H.S.
**Email** – akshatagowda.hs@gmail.com

**ABSTRACT**

**Background:** The rising number of medical students with mental health issues has become a worrying trend. This is a matter of concern both nationally and globally, as psychiatric morbidity in our future doctors would directly affect patient care. The aim was to study the relationship between stress and alcohol use among undergraduate medical students.
**Methodology:** A cross-sectional study was done on 428 undergraduate students in a private medical college in Karnataka. They were assessed using a semi structured proforma, Perceived Stress Scale (PSS) and Alcohol Use Disorders Identification Test (AUDIT).
**Results:** Majority of the students were between 17-20 years, females, studying in second year, had never failed earlier, stayed in hostel with roommate(s), and were not in a relationship. 13.1% had no stress, 40.2% had average stress, and 46.7% had high stress. 15.7% had hazardous level of drinking while 3.7% had dependence level of drinking. Common stressors were a need to do well academically and vast amount of content to be learned. Coping measures used by the students were: using TV/internet/music to relax and seeking out friends for conversation and support.
**Conclusion:** Stress and alcohol use are highly prevalent in undergraduate medical students. Most of them reported stressors in the academic, relationship and adjustment domains and used various coping strategies to deal with them. Since there is ample evidence that stress or alcohol use during undergraduate medical training foresees future predicaments in physicians, effective measures need to be taken up.

**Keywords:** Undergraduate medical students, stress, alcohol use

(Paper received – 9th February 2020, Peer review completed – 28th March 2020)
(Accepted – 30th March 2020)

## INTRODUCTION

As stipulated by the Medical Council of India, a medical student in India spends four and a half years of undergraduate (UG) medical training followed by a year of compulsory rotating internship. In the quest for attainment of medical knowledge and skills, students often neglect their health with mental health often being hushed down. The surge in the number of suicides in medical students in the past few years has left many pondering the reasons for the drastic steps taken up by them [1-5]. Ragging, academic stress, relationship troubles etc. have been thought of as contributing factors.

Undergraduate medical students have been often found to be the most distressed group of students compared to students of any other undergraduate course [6]. This can have serious consequences which may lead to various mental health problems. However, only few medical students seek out treatment; when asked for reasons, they cite lack of time (48 %), lack of confidentiality (37 %), stigma (30 %), cost (28%) and fear of documentation on their records (24%) [7].

Alcohol consumption is the trend among college students who see it as a lifestyle adaptation or as a way to fit in with their peers. Alcohol dependence among medical students assumes significant implications not only for their own health but also of the general population as they are looked upon as role models in terms of health-related behaviours. Recent studies found a general acceptance among undergraduate medical students that alcohol could provide positive reinforcement and also considered alcohol intake as one of the methods to deal with stress [8].

In view of the fact that mental health conditions such as stress and alcohol use among doctors can directly hamper patient care, this study was undertaken. The aim of this study was to evaluate the relationship between stress and alcohol use among undergraduate medical students. The objectives were: (1) To screen for the prevalence of stress and alcohol use among undergraduate medical students (2) To evaluate the relationship between the prevalence of stress and alcohol use.

## METHODOLOGY

This was a cross sectional study conducted in a private medical college in the South Indian state of Karnataka between October 2017 and January 2018. Ethical clearance was obtained from the ethical clearance committee of the institute. All undergraduate students were included in the study while all interns and those refusing to give consent were excluded. A total of 428 students participated in the study. After explaining the nature of the study, written informed consent was taken from the participants. Students were asked not to mention their name anywhere in the questionnaires so as to ensure anonymity.

***Study Tools Used***

1. A self-administered, semi structured proforma questionnaire compiled by the authors pertaining to students' demographic variables and 12 closed and open-ended questions.
2. **Perceived Stress Scale (PSS):** Perceived Stress Scale, consisting of 10 questions, measures the degree to which situations in one's life are appraised as stressful. The participants were asked to rate each question as to how often they felt or thought a certain way on a scale from 0-4, signifying never, almost never, sometimes, fairly often and very often. Based on the total score it is categorized into: High stress (>20), average stress (13-19) and no stress (<13) [9].
3. **Alcohol Use Disorder Identification Test (AUDIT):** AUDIT helps to identify alcohol dependence and some specific consequences of harmful drinking. There are 10 questions and a maximum score of 40. Total scores between 8 and 19 indicate hazardous drinking and scores >20 indicate dependence level [10].

## STATISTICAL ANALYSIS

Data was analysed using SPSS 20 (IBM). Proportion was compared using Chi Square Test. P value <0.05 has been taken as significant.

## RESULTS

Our collected data showed that majority of the students (54%) were between 17-20 years old, followed by 21-23 years (40.4%) and 24-26 years (5.6%). There was almost equal distribution of males and females with females (50.5%) being slightly more than males (49.5%). Majority of the respondents were in second year (30.6%) followed by third year (24.8%), first year (23.8%) and final
year (20.8%). Of the 428 students, 59.1% had never failed, 31.5% had failed once, and 6.8% had failed thrice. Majority of the students were staying in hostel (74.7%). Out of this 64% were staying with a roommate while 10.7% were staying in single-seater rooms. Only 25.2% of the students were in a relationship/married.

As shown in Table 1, 86.9% of students reported stress with 40.2% reporting average stress and 46.7% with high stress. On taking high stress into consideration, age, gender and year of study was statistically significant with p-values of 0.030, 0.034 and 0.022 respectively. High stress was seen more in students between 17-20

years of age (60.5%). Females had more high stress (57.0%) than males (53.0%). Contrary to popular assumptions, more students in second year had high stress (33.5%). Though it was not statistically significant, high stress was seen more in students who had never failed (62.0%) and those who were staying in hostel with a roommate (67.5%). Stress was seen less in students who were not married or not in a relationship.

Table 1: Perceived Stress Scale Parameters

| PARAMETERS | CATEGORIES | NO STRESS (N=56) | | AVERAGE STRESS (N=172) | | HIGH STRESS (N=200) | | P VALUE |
|---|---|---|---|---|---|---|---|---|
| | | **N** | **%** | **n** | **%** | **n** | **%** | |
| **AGE** | 17-20 yrs | 27 | 48.2% | 83 | 48.3% | 121 | 60.5% | ***0.030*** |
| | 21-23 yrs | 25 | 44.6% | 74 | 43.0% | 74 | 37.0% | |
| | 24-26 yrs | 4 | 7.1% | 15 | 8.7% | 5 | 2.5% | |
| **GENDER** | Male | 29 | 51.8% | 97 | 56.4% | 86 | 43.0% | ***0.034*** |
| | Female | 27 | 48.2% | 75 | 43.6% | 114 | 57.0% | |
| **YEAR** | First | 12 | 21.4% | 31 | 18.0% | 59 | 29.5% | ***0.022*** |
| | Second | 15 | 26.8% | 49 | 28.5% | 67 | 33.5% | |
| | Third | 18 | 32.1% | 45 | 26.2% | 43 | 21.5% | |
| | Final | 11 | 19.6% | 47 | 27.3% | 31 | 15.5% | |
| **FAILURES** | None | 36 | 64.3% | 93 | 54.1% | 124 | 62.0% | 0.585 |
| | Once | 17 | 30.4% | 60 | 34.9% | 58 | 29.0% | |
| | Twice | 1 | 1.8% | 14 | 8.1% | 14 | 7.0% | |
| | Three times | 2 | 3.6% | 4 | 2.3% | 3 | 1.5% | |
| | Four times | 0 | 0.0% | 0 | 0.0% | 1 | 0.5% | |
| | Five times | 0 | 0.0% | 1 | 0.6% | 0 | 0.0% | |
| **LIVING STATUS** | Hostel alone | 4 | 7.1% | 20 | 11.6% | 22 | 11.0% | 0.431 |
| | Hostel with roommate | 33 | 58.9% | 106 | 61.6% | 135 | 67.5% | |
| | Rent alone | 4 | 7.1% | 15 | 8.7% | 7 | 3.5% | |
| | Rent with roommate | 4 | 7.1% | 10 | 5.8% | 10 | 5.0% | |
| | With parents | 11 | 19.6% | 21 | 12.2% | 26 | 13.0% | |
| **RELATIONSHIP STATUS** | In a relationship | 11 | 19.6% | 36 | 20.9% | 61 | 30.5% | 0.062 |
| | Others | 45 | 80.4% | 136 | 79.1% | 139 | 69.5% | |

Though students reported stressors in every domain, maximum was seen in academic domain where 71.7% of the students reported that a constant need to do well was distressing them. 70.8% reported vast amount of content to be learned and 65.4% reported heavy workload as the cause for stress. Relationship difficulties such as lack of time for friends, family and significant others (38.6%) and conflict with other students (22.4%) was also cited as reasons. Adjustment problems also such as problems with food (58.6%), parental separation (27.3%), and managing transition (35.7%) were also reported as stressors. Emotional difficulties such as loneliness or homesickness (38.6%), lack of self-confidence (35.3%) and feeling of incompetence (30.6%) were also reported as stressors by the students. 10.5% had indulged in self-injurious activities while 9.1% had suicidal thoughts. 32.9% reported worries about their self-appearance while 5.8% had issues around sex and sexuality. Table 2 shows the various coping measures used by the students to deal with stress.

Table 2: Table showing the coping measures used by the students to deal with stress (N=428)*

| | **Total (N=428)** | |
|---|---|---|
| | n | % |
| **Use internet/TV/music to relax** | 357 | 84.6% |
| **Use humour to take the edge off** | 185 | 44.7% |
| **Seek out friends for conversation and support** | 266 | 63.8% |
| **Maintain a healthy diet** | 158 | 36.9% |
| **Get involved in a hobby or interests that help me unwind and enjoy myself** | 229 | 53.5% |
| **Just ignore the problem and hope it will go away** | 216 | 50.5% |
| **Pray or meditate** | 151 | 35.3% |
| **Go out shopping** | 144 | 33.6% |
| **Confront the source of depression and work to change it** | 161 | 37.6% |
| **Sleep more than usual** | 228 | 53.3% |
| **Get irritable and take it out on those around** | 166 | 38.8% |
| **Withdraw emotionally and just go through the motions of the day** | 140 | 32.8% |
| **Seek professional help** | 69 | 16.1% |
| **Drink alcohol** | 76 | 17.8% |
| **Smoke a cigarette** | 55 | 12.9% |
| **Others** | 16 | 3.8% |

*Multiple answers

As shown in Table 3, 50.9% of the students were non-drinkers. Of the remaining 49.1%, 15.7% had hazardous pattern of drinking while 3.7% had dependence level of drinking. Age, gender, academic year, academic failures and relationship status were statistically associated with drinking (p values <0.001, <0.001, <0.001, <0.001 and <0.032 respectively). While hazardous drinking was more prevalent in final year (40.3%), dependence was equally present in second and final year. Hazardous (41.8%) and dependence (56.3%) level of drinking were seen more in those students who had failed once since joining the course. It was also significantly prevalent in those who were not in a relationship (p value 0.032). Most of the students started consuming alcohol between the ages of 18 to 20. Curiosity (40%) and parties (35.7%) appear to be the most common reason for initiating alcohol consumption. 64.2% claimed that they were drinking for enjoyment while 30% used alcohol as a medium for socialisation. Beer (27.6%), vodka (20.6%), whiskey (16.6%), and rum (13.3%) were the most commonly consumed types of alcohol.

Table 3: AUDIT: Parameters

| **P**arameter | Category | AUDIT | | | | | | | | P value |
|---|---|---|---|---|---|---|---|---|---|---|
| | | **Non-Alcoholic (N=218)** | | **Mild (N=127)** | | **Hazardous (N=67)** | | **Dependence (N=16)** | | |
| | | **N** | **%** | **n** | **%** | **n** | **%** | **n** | **%** | |
| **Age** | 17-20 yrs | 142 | 65.1% | 61 | 48.0% | 23 | 34.3% | 5 | 31.3% | ***<0.001*** |
| | 21-23 yrs | 73 | 33.5% | 57 | 44.9% | 34 | 50.7% | 9 | 56.3% | |
| | 24-26 yrs | 3 | 1.4% | 9 | 7.1% | 10 | 14.9% | 2 | 12.5% | |
| **Gender** | Male | 75 | 34.4% | 72 | 56.7% | 51 | 76.1% | 14 | 87.5% | ***<0.001*** |
| | Female | 143 | 65.6% | 55 | 43.3% | 16 | 23.9% | 2 | 12.5% | |
| **Year** | First | 64 | 29.4% | 28 | 22.0% | 10 | 14.9% | 0 | 0.0% | ***<0.001*** |
| | Second | 68 | 31.2% | 38 | 29.9% | 19 | 28.4% | 6 | 37.5% | |
| | Third | 53 | 24.3% | 38 | 29.9% | 11 | 16.4% | 4 | 25.0% | |
| | Final | 33 | 15.1% | 23 | 18.1% | 27 | 40.3% | 6 | 37.5% | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Failures** | Never failed | 152 | 69.7% | 73 | 57.5% | 25 | 37.3% | 3 | 18.8% | ***<0.001*** |
| | Failed once | 59 | 27.1% | 39 | 30.7% | 28 | 41.8% | 9 | 56.3% | |
| | Failed twice | 5 | 2.3% | 11 | 8.7% | 11 | 16.4% | 2 | 12.5% | |
| | Failed thrice | 2 | 0.9% | 3 | 2.4% | 2 | 3.0% | 2 | 12.5% | |
| | Failed four times | 0 | 0.0% | 1 | 0.8% | 0 | 0.0% | 0 | 0.0% | |
| | Failed five times | 0 | 0.0% | 0 | 0.0% | 1 | 1.5% | 0 | 0.0% | |
| **Living arrangement** | Hostel- alone | 23 | 10.6% | 14 | 11.0% | 9 | 13.4% | 0 | 0.0% | 0.241 |
| | Hostel with roommate | 142 | 65.1% | 80 | 63.0% | 42 | 62.7% | 10 | 62.5% | |
| | Rent- alone | 8 | 3.7% | 10 | 7.9% | 7 | 10.4% | 1 | 6.3% | |
| | Rent with roommate | 12 | 5.5% | 5 | 3.9% | 4 | 6.0% | 3 | 18.8% | |
| | With parents | 33 | 15.1% | 18 | 14.2% | 5 | 7.5% | 2 | 12.5% | |
| **Relationship status** | In a relationship | 42 | 19.3% | 41 | 32.3% | 21 | 31.3% | 4 | 25.0% | ***0.032*** |
| | Others | 176 | 80.7% | 86 | 67.7% | 46 | 68.7% | 12 | 75.0% | |

Students who drink have more family members who consume alcohol. 44.7% of students who drink have a father who consumes alcohol as opposed to 13.3% of students who don't drink but has father with alcohol consumption. Students with mother who consumes alcohol is also slightly more in those who drink (3.8%) on being compared to students who don't drink (1.4%). Out of the 210 students who consume alcohol, 36.2% has thought about quitting. 5.7% of them responded that alcohol has affected their ability to concentrate while 9.5% responded that alcohol has affected their attendance to class. 46.2% responded that alcohol has reduced stress in their lives.

## DISCUSSION

We had made an attempt to study the prevalence of stress and alcohol use in undergraduate medical students of a private medical college. We have also attempted to find the relationship, if any, between stress and alcohol use.

**Stress**

In this study, 86.9% of students had stress, which is higher than results from other studies. [11-17] In tune with findings from other studies, [6,18-19] females had more high stress (57.0%) than males (53.0%). Contrary to popular assumptions, more students in second year had high stress (33.5%). Whether this is because of first time exposure to clinics, with the added burden of having to read for clinical subjects on top of their other four subjects or because there were more respondents in second year (30.6%) is unclear. Stress was seen less in students who were not married or not in a relationship which is contradictory to a finding by Yusuff and Rahim [20] that marriage or relationship decreases stress to some extent. The reason for this could be that our study had more single or unmarried students. Our sample also consisted of mostly students between the ages of 17-20 years where marriage is not quite common. Other factors like no added responsibilities or cultural differences could have been factors too.

Various studies reported that academic difficulties exert pressure on undergraduate medical students which cause emotional disturbances in them [20-25]. Similar findings were obtained in this study where students reported stressors mostly in academic domain as compared to emotional or adjustment problems. A startling finding was that 10.5% had indulged in self-injurious activities while 9.1% had suicidal thoughts. It is quite alarming that students, who are being trained as future healers who have to help others with physical and/or mental problems, are harbouring suicidal thoughts. This, in addition to individual torment, may unconstructively affect patient care.

Students use various coping mechanisms to process stress. Strategies such as problem solving, positive reinterpretation and expression of emotion facilitate student adaptation, which reduces stress and their effects on mental wellbeing and physical health. Studies have reported that extracurricular activities involving music and physical exercise have been associated with decreased burnout levels in medical students [26-28]. We found similar results in our study. It was, however, interesting to note that only 16.1% reported to have sought professional help for dealing with stress. This brings up the critical issue of medical students suffering in silence; afraid to seek help because of the fear that they will be penalized professionally, and probably, judged personally as well. Far more than any other factor, the deep prejudice towards mental illness that still exists within the medical community is a major hurdle.

**Alcohol**

Similar to findings from other studies, [29-31] our study showed more males than females with hazardous and dependence level of drinking (76.1% and 87.5% respectively). Most of the students started consuming alcohol between the ages of 18 to 20 which was higher than the finding by Devi [32] which revealed that most of the medical students start drinking by the age of 16 years. Parental supervision till the age of 18, after which the students shifted to hostel or inability to procure alcohol by underage students could have played a role here. Similar to findings of Devi [32] and Apoorva [33], most of the students drank for enjoyment and to take their mind off other issues.

Similar to a result from a multi-centric cross-sectional study [31] done earlier, our study found that the most commonly consumed alcoholic beverage among students was beer (56.2%), closely followed by vodka (41.9%). Vodka, followed by breezer, was favoured by females. 36.2% of those who consume alcohol had thought about quitting at some point of time citing various reasons such as health issues, pressure from parents, not liking the taste etc. 5.7% responded that alcohol had affected their concentration while 9.5% reported that alcohol had affected their attendance to class, with some claiming that alcohol had made them unable to get up the next morning. This was reported less by girls as compared to boys. Leavy and Alexander [34], recorded that 49% of medical students had missed morning lectures due to drinking. In the Delk and Meilman study [35], 56.2% maintained that they had missed a class as a consequence of their drinking. It is worth mentioning that alcohol might be a convenient scapegoat. It can be speculated that questionnaires which ask about drinking behaviour, and then about attendance and concentration, may unwittingly provide a link which the student is willing to follow.

Various reviews [31,32,36,37] have cited the influence of family members on a person's drinking with family history of alcohol consumption leading to increased likelihood of drinking. This is supported by the present study which noted that those with a positive family history had higher prevalence of alcohol use. This finding is particularly important in a country like India, where our behaviours are greatly influenced by our family values. It also shows the potential role families can play in reducing alcohol consumption.

Similar to findings by Mphele [25] and Lipton [38], this study found no statistically significant relationship between stress and alcohol use (p value 0.940; R 0.004)

**Strengths and Limitations**

As this was a cross-sectional study, conclusions about the direction of observed relationships cannot be drawn. Anonymity served as both strength as well as a limitation in our study. As strict anonymity was offered, students had no hesitation in filling up the questionnaires. On the other hand, as the students were anonymous and couldn't be identified, those who needed help e.g. those with suicidal thoughts, those with AUDIT score of >20, etc could not be given the help they needed.

## CONCLUSIONS

This study suggests that stress and alcohol use are highly prevalent in undergraduate medical students. Since there is proof that stress or alcohol use during undergraduate medical training foresees future predicaments in physicians, effective measures must be taken up by concerned authorities. Medical students would benefit from greater assurance that the use of mental health services is confidential and completely separate from academic records.

## REFERENCES


1. Biswas T. First Year MBBS Student at AIIMS Hospital Found Hanging in Girls Hostel. NDTV [news on the Internet]. 2017 Oct 11. Available from: https://www.ndtv.com/delhi-news/mbbs-student-at-delhis-aiims-hospital-found-hanging-in-girls-hostel-1212380
2. MBBS student commits suicide. The Hans India. [newspaper on the Internet]. 2017 Oct 15. Available from: http://www.thehansindia.com/posts/index/Crime/2017-08-25/MBBS-student-commits-suicide/321619
3. MBBS student jumps off fourth floor, dies. The Hindu. 2017 [newspaper on the Internet] 2017 Sept 26. Available from: http://www.thehindu.com/todays-paper/mbbs-student-jumps-off-fourth-floor-dies/article18381187.ece
4. Medical Student Ends Life By Jumping Off College Building In Andhra Pradesh NDTV. [news on the Internet]. 2017 Feb 27. Available from: https://www.ndtv.com/andhra-pradesh-news/medical-student-ends-life-by-jumping-off-college-building-in-andhra-pradesh-1632755
5. PTI. Bareilly Medical Student Found Hanging In Her Hostel Room. NDTV. [news on the Internet]. 2017 Nov 11. Available from: https://www.ndtv.com/cities/bareilly-medical-student-found-hanging-in-her-hostel-room-1747011
6. Sherina MS, Rampal L, Kaneson N. Psychological stress among undergraduate medical students. Med J Malaysia 2004;59(2):207-11.
7. Givens JL, Tjia J. Depressed medical students' use of mental health services and barriers to use. Acad Med 2002;77(9):918-21.
8. Wahed WY, Hassan SK. Prevalence and associated factors of stress, anxiety and depression among medical Fayoum University students. Alexandria J Med 2017;53(1):77-84.
9. Cohen S, Kamarck T, Mermelstein R. A global measure of perceived stress. J Health Soc Behav 1983;1:385-96.
10. Babor TF, de la Fuente JR, Saunders J, Grant M. The Alcohol Use Disorders Identification Test: Guidelines for use in. Prim Care 2001;May 25.
11. Fares J, Saadeddin Z, Al Tabosh H, Aridi H, El Mouhayyar C, Koleilat MK, Chaaya M, El Asmar K. Extracurricular activities associated with stress and burnout in preclinical medical students. J Epidemiol Glob Health 2016;6(3):177-85.
12. Mohd Sidik S, Rampal L, Kaneson N. Prevalence of emotional disorders among medical students in a Malaysian university. Asia Pacific Fam Med 2003;2(4):213-7.
13. Zaid ZA, Chan SC, Ho JJ. Emotional disorders among medical students in a Malaysian private medical school. Singapore Med J 2007;48(10):895-9.
14. Fares J, Al Tabosh H, Saadeddin Z, El Mouhayyar C, Aridi H. Stress, burnout and coping strategies in preclinical medical students. North Am J Med Sci 2016;8(2):75-9.
15. Mosley TH, Perrin SG, Neral SM, Dubbert PM, Grothues CA, Pinto BM. Stress, coping, and well-being among third-year medical students. Acad Med 1994;65(9):765-7.
16. Ko SM, Kua EH, Fones CS. Stress and the undergraduates. Singapore Med J 1999;40(10):627-30.
17. Konjengbam S, Laishram J, Singh BA, Elangbam V. Psychological morbidity among undergraduate medical students. Indian J Pub Health 2015;59(1):65-8.
18. Sinha R. Chronic stress, drug use, and vulnerability to addiction. Ann NY Acad Sci 2008;141:105-30.
19. Abdulghani HM, AlKanhal AA, Mahmoud ES, Ponnamperuma GG, Alfaris EA. Stress and its effects on medical students: a cross-sectional study at a college of medicine in Saudi Arabia. J Health Popul Mutat 2011;29(5):516-9.
20. Yusoff MS, Pa MN, Rahim AF. Mental health of medical students before and during medical education: A prospective study. J Taibah Univ Med Sci 2013;8(2):86-92.
21. Yusoff MS, Abdul Rahim AF, Baba AA, Ismail SB, Mat Pa MN, Esa AR. The impact of medical education on psychological health of students: a cohort study. Psychol Health Med 2013;18(4):420-30.
22. Qamar K, Khan NS, Bashir Kiani MR. Factors associated with stress among medical students. J Pak Med Assoc 2015;65(7):753-5.
23. Fares J, Al Tabosh H, Saadeddin Z, El Mouhayyar C, Aridi H. Stress, burnout and coping strategies in preclinical medical students. North Am J Med Sci 2016;8(2):75-9.
24. Altaf M, Altaf KF, Zahid S, Sharaf R, Inayat A, Owais M, Usmani H. Medical students bearing mental stress due to their academic schedule. Int J Endors Health Sci Res 2013;1(2):93-7.
25. Mphele SB, Gralewski C, Balogun S. Stress and alcohol use among college students: a case of Molepolole College students. IOSR J Human Soc Sci 2013;8(3):1-6.
26. Fares J, Saadeddin Z, Al Tabosh H, Aridi H, El Mouhayyar C, Koleilat MK, Chaaya M, El Asmar K. Extracurricular activities associated with stress and burnout in preclinical medical students. J Epidemiol Glob Health 2016;6(3):177-85.
27. Maslach C, Schaufeli WB, Leiter MP. Job burnout. Ann Rev Psychol 2001;52(1):397-422.
28. Park CL, Adler NE. Coping style as a predictor of health and well-being across the first year of medical school. Health Psychol 2003;22(6):627-32.
29. Lamberti M, Napolitano F, Napolitano P, Arnese A, Crispino V, Panariello G, Di Giuseppe G. Prevalence of alcohol use disorders among under-and post-graduate healthcare students in Italy. PloS One 2017;12(4).

30. Nash LM, Daly MG, Kelly PJ, Van Ekert EH, Walter G, Walton M, Willcock SM, Tennant CC. Factors associated with psychiatric morbidity and hazardous alcohol use in Australian doctors. Med J Australia 2010;193(3):161-6.
31. Goel N, Khandelwal V, Pandya K, Kotwal A. Alcohol and tobacco use among undergraduate and postgraduate medical students in India: A multicentric cross-sectional study. Central Asian J Glob Health 2015;4(1).
32. Devi V. Alcohol use, its predictors and academic performance among Malaysian students of a medical college in India. Educ Med J 2013;5(4).
33. Haorongbam M, Sathyanarayana MT. Depression and Alcohol use in undergraduate medical students. J Evol Med Dent Sci 2018;7(12):1473-80.
34. Leavy RL, Alexander DA. Perceptions of drinking problems among undergraduate students in the United States and Scotland. Int J Addict 1992;27(10):1179-85.
35. Delk EW, Meilman PW. Alcohol use among college students in Scotland compared with norms from the United States. J Amer Coll Health 1996;44(6):274-81.
36. Kumar P, Basu D. Substance abuse by medical students and doctors. J Indian Med Assoc 2000;98(8):447-52.
37. Mir AR, Mahesh SH, Ranjanna MS, Ashok J, Singh D. Substance abuse pattern among medical college students in Tumkur, Karnataka, India: a cross sectional study. Int J Commun Med Pub Health 2017;4(1):238-42.
38. Lipton RI. The effect of moderate alcohol use on the relationship between stress and depression. Am J Pubb Health 1994;84(12):1913-7.

**********

Acknowledgements – Nil
Conflict of Interest – Nil
Funding – Nil