Prevalence of determinants of stress, anxiety and depression among students at the Main Campus University of Namibia: Community activity in Celebration of World Health Mental Day, 2019.

Taimi Amakali-Nauiseb [1], Monika Nakweenda [1], Sesilia Ndafenongo [1]

[1]*(School of Nursing, Department Community & Mental Health Nursing Science, University Namibia, Namibia)*
[1]*(School of Nursing, Department Community & Mental Health Nursing Science, University Namibia, Namibia)*
[1]*(School of Nursing, Department Community & Mental Health Nursing Science, University Namibia, Namibia)*

Abstract
Introduction: *Stress, anxiety and depression are significant psycho-social factors in the educational process that may influence academic performance and well-being of students.*
Aim: *the aim of the community activity was to determine the prevalence of stress, anxiety, depression and suicidal thoughts among students at the University of Namibia (UNAM) main campus.*
Methods: *the survey employed a quantitative descriptive design to describe the determinants of stress, anxiety, depression and suicidal thoughts amongst students at the University of Namibia. The population for this survey was all students and staff members currently studying or working at the University of Namibia main campus. Convenience sampling was used to select 88 students and staff members who participated in the study. Data was analysed manually and was entered into excel 10 into an excel spread sheet for easy analysis.*
Results: *the findings revealed that all students have experienced symptoms of stress, anxiety and depression. Headache was the most experienced symptom under stress with 65%. In addition, worry was experienced by 43% of students as a sign of anxiety where as 59% of participants experienced tiredness as a sign of depression. Lastly, only 28% of participants felt like they were a burden to other which was classified as a sign of suicide.*
Conclusion: *In conclusion, it is quite evident that students are battling with mental health issues which require serious attention. Therefore, regular awareness campaigns on campus are recommended for the students to be able to identify the signs and symptoms of mental illnesses and to seek for help well in advance.*
Keywords: *Anxiety, Depression, Determinants, Prevalence, Stress, Suicide.*

I.   Introduction

Stress is a significant psych-social factor in the educational process that may influence academic performance and well-being of students. Stress is defined as an unavoidable part of life and is especially pervasive in the lives of people. Stress is a feeling of emotional or physical tension. Stress is when the body react to a challenge or demand (WHO, 2016). It is normal to feel anxious about changing the new environment, starting a new job or taking a test. Female students are more stressed than men. Stress can come from any event or thought that makes one feel frustrated, angry or nervous. In short eruptions, stress can be positive such as when it helps a person to avoid danger or meet a deadline. When stress lasts for a long time, it may harm your health (WHO, 2014).

Anxiety is a physiological state characterised by cognitive, somatic, emotional and behavioural components. A person gets fear or apprehension about what to expect when they are anxious (WHO, 2014). Anxiety is practiced by every individual at some point or other in his /her life.

Depression is a common, serious and complex illness that affects an estimated 121 million people worldwide and more than 264 million people are affected (WHO, 2018). Women are more likely than men to experience depression. Some studies show that one-third of women will experience a major depressive episode in their lifetime. There is a high degree of heritability approximately 40% when the first degree relatives (parents/children/siblings) have depression (American Psychiatric Association, 2013). It is one of the leading causes of disability across the world.

No statistics found both in Namibia and WHO concerning stress, anxiety and depression but the fact remains that depression in Namibia and worldwide is escalating starting from stress through anxiety.

Nugent, Ballard and Park, (2019) indicates that risk factors for suicide include mental and physical illness, alcohol or drug abuse, chronic illness, acute emotional distress, violence, a sudden and major change in

---

an individual's life such as loss of employment, separation from partner or other adverse events or a combination of these factors.

Few practitioners provide counselling and other mental health services in Namibia. The World Health Organisation (WHO,2018) estimates that just 1.79 psychologists, 0.34 psychiatrists, 0.17 social workers and 5.32 nurses per 100,000 Namibians work in mental health services in the country (WHO, 2014).

Suicide is a leading cause of death worldwide and one of the main causes of death in young people aged from 25 years. Globally suicide deaths have increased by 60% over the last 45 years with the high number of these deaths occurring among adolescents aged young adults. In 2012, approximately 75% of global suicides occurred in low-and middle-income countries The European Commission and the WHO encourage professionals to increase the availability of information on this area to prevent it.

Mental disorders have been highlighted as some of the strongest predictors of suicidal behaviour among adolescents and youth (Nugent et al., 2019). Suicidal behaviours can vary from suicidal ideation, which can be talked through verbal or non-verbal means, to planning of suicide, attempting suicide and in worst case, suicide. Suicidal behaviours are influenced by networking biological, genetic, psychological, social, environmental and situational factors (WHO, 2014).

Mental health and suicide are still heavily stigmatised, and these stigmas remain major obstacles to suicide prevention plans. Those who are left behind or who have attempted to take their life often face substantial stigma within their communities which can knowingly obstruct help seeking (WHO, 2015).

According to the latest WHO, (2018) data published in 2018 suicide deaths in Namibia have reached 216 or 1, 23% of total deaths. The age adjusted death rate is 11.51 per 100,000 of population in Namibia compared to 11, 4 suicides per 100 000 populations worldwide. This ranks Namibia at the 57th position in the world.

Problem statement: Depression and anxiety are reported to be common among University students in many regions of the world and impact on quality of life and academic attainment. The extent of the problem of depression and anxiety among students in low- and middle-income countries is largely unknown (Pelzer & Penpid, 2015).

Many people are taking their lives worldwide, each year suicide ranks among the top 20 leading causes of death globally for people of all ages. The World Health Organisation (WHO, 2018) revealed that suicide accounts for over 800 000 deaths per year. It links to one suicide every 40 seconds. Suicides and suicide attempts have a ripple effect that influences on families, friends, colleagues, communities and societies (Turecki & Brent, 2016). Mental health and suicide are still heavily stigmatised, and these stigmas remain major obstacles to suicide prevention plans. Those who are left behind or who have attempted to take their life often face substantial stigma within their communities which can knowingly obstruct help seeking (WHO, 2015).

II.   Literature Review:

A study done in Dubai medical College on medical staff in Dubai (Ahmadi, Galal, AliBayoumi, Abdul & Alshawa, 2012) indicated that medical school is documented as a stressful environment that often exerts a negative effect on the academic performance, physical health and psychological welfare of the student. Medical students encounter multiple emotions in change from unconfident student young knowledgeable physician. Number of students, 75% was in a moderate stress category, 12% in a high stress category and 13% in a low stress category (Ahmadi et al.,2012).

A study done in Botswana indicated that stressful life events are related to substance abuse especially among young adults. The association between stressful life events and alcohol use among young adults pursuing University education in a University of Botswana was studied. A mainstream of 59% of participants reported drinking alcohol (Moitlakgola & Armone-P'Olak, 2015).

Anxiety refers to a feeling of worry, nervousness or uneasiness or unease about something with an uncertain outcome (WHO, 2013).

Depression and anxiety are reported to be mutual among University students in many regions of the world and impact on quality of life and academic achievement. The extent of the problem of depression and anxiety among students in low- and middle-income countries is mainly unknown (American Psychiatric Association: DSM 5, 2013).

Depression is defined as a psychological condition categorized by severe feelings of hopelessness and inadequacy escorted by lack of energy and interest in life. Depression is defined in several different ways. Depression as a brain disorder affect people of all ages, races, religious and income worldwide (WHO, 2013).

A study done in KN University College of Nursing in South Korea that nursing student's experienced depression, anxiety, stress and decreased mindfulness which may decrease their patient care and effectiveness. Mindfulness-based stress reduction used which effectively reduced depression, anxiety and stress. Depression is

known as to lead to social problems or to suicide. Suicide is a serious problem in Korea and is the leading cause of death of Koreans in their twenties (WHO, 2013).

Study done in the United States in 2018 for disease control announced that the suicide rate had risen to 30% between 2000 and 2016, reaching a rate of 13.5 per 100 000. They estimated that suicide rate had increased 1% per year from 2000 to 2006 and 25 per year from 2006 to 2016. Notably, if these suicide rates continue at current trends, an estimated 54000 individuals per year will die by suicide in the US by 2025 (Hedegaar, Curtin & Warner, 2018).

In 2015, 34 farmers and agricultural laboratories in India took their lives every day. In South Korea suicide rate was a staggering 32 per 100 000 in 2015. South Korea had the 11th highest gross domestic product in 2016 (Adrian, McCauley, Asarnow, Avina & Lineham, 2014).

A study was done in Kerachi Pakistan and it is found that it has also become a major public health problem which has affected many people of different age, gender and area of residence. The study indicated that the predictors of suicide in Pakistan are psychiatric disorders especially depression, marital status being married, unemployment and negative and stressful life events (Sveticic, Jerneja & Diego, 2013).

Study done in the Far Eastern University, Manila, Philippine, indicated that one of the specific social problems under the umbrella of mental health issues is suicide. Suicide or deliberate self-harm with the intention to end one's life and this is a problem both on the global and national scale.

In the global, it was estimated that 800,000 deaths worldwide were due to suicide every year. Some deaths due to suicide are not reported since are not counted because of the stigma behind or due to untrustworthy death registration processes of countries. It was also reported that suicide is committed every 40 seconds globally and by 2015, the World Health Organisation reported that suicide became the 17th leading cause of death worldwide and the 2nd leading cause of death among the 15-29 years old subpopulation. It was also reported that 78% of suicides occurred in low- and middle-income countries (American Foundation for Suicide Prevention, 2019).

Significance of the study: The findings of the survey determined the knowledge, the existence of stress, anxiety, depression and suicidal thoughts among university students. The findings might assist the School of Nursing management at the main Campus to develop guidelines and implement activities that will promote mental health amongst university students.

Limitation of the study: The survey was only limited to students studying at the University of Namibia main Campus. Students who are studying at other campus within or outside Windhoek were excluded from the study.

III. Methodology

Purpose of the study: The purpose of the community activity was to determine the prevalence of stress, anxiety, depression and suicidal thoughts among students at the main campus. In addition, the activity aimed at raising awareness regarding mental illnesses and promotes mental health at UNAM Main Campus.

Specific objectives of the study were: To determine the prevalence of stress among students at UNAM main campus. To determine the prevalence of anxiety among students UNAM main campus. To determine the prevalence of depression among students at UNAM main campus.

Study design: The survey employed a quantitative descriptive design to describe the determinants of stress, anxiety, depression and suicidal thoughts amongst students at the University of Namibia. This design was opted for as it enabled researchers to determine, quantify and describe the determinants of stress, anxiety, depression and suicide amongst University of Namibia students.

Study Location: The activity was done at the UNAM library foyer main campus.

Study Duration: One day, 09 October 2019.

Sampling and sample size: Simple convenient sampling was utilized to select participants who took part in the study. All students who came for information sharing were eligible to participate in the study. 88 participants were sampled and completed the questionnaire voluntarily.

Population: The population for this survey was all students and staff members currently studying or working at the University of Namibia main campus. The target population was all 300 people that participated in the commemoration of the World Mental Health day at the UNAM library foyer.

Data collection tool: Data was collected using a well-structured questionnaire which was developed by the investigators based on the objectives of the study.

Data collection procedure: Data was collected at the library foyer were the commemoration of the World Mental Health day took place. All students and staff members who came for information sharing or who were entering and exiting the library were recruited to participate in the study. The aim of the survey was explained to them and those willing voluntarily participated in the study by completing the questionnaires and submitted them that moment.

Statistical analysis: Data was analysed manually. However, Microsoft excel 10 was used to enter the data in to an excel spread sheet for easier analysis.

Ethical considerations: Permission to conduct the study was obtained from the University of Namibia, and School of Nursing Management.

The following principles were adhered to:

Principle of respect for persons: A verbal informed consent was obtained from the willing participants after adequate information relating to the survey, was given. Participation was voluntary, subject to verbal consent, and no participant was forced to participate. Anonymity and confidentiality was maintained as participants were not required to enter their personal information on the questionnaire.

Principle of beneficence and maleficence: the survey did not pose any physical or emotional harm to the participants**.** Should there have been any emotional distress; participants would have been referred to the social worker on campus.

Principle of justice: Participants were treated fairly and equally. All participants had an equal chance to participate in the study. None of the participants received preferential treatment over the others.

IV.   Results
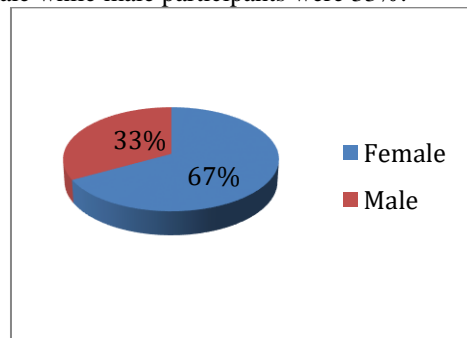
a). Demographic information

1. Age

Most of the participants (86%) were aged between 18- 25 years, 11 % were aged between 26 and 35years whereas the least participants were aged 36 and above with 3% as stipulated in the pie chart below.
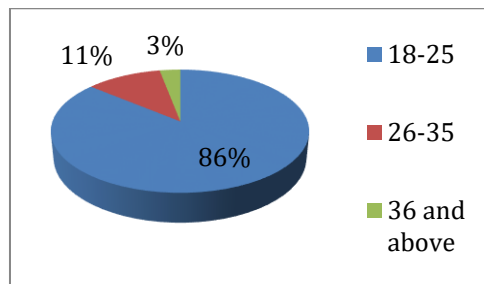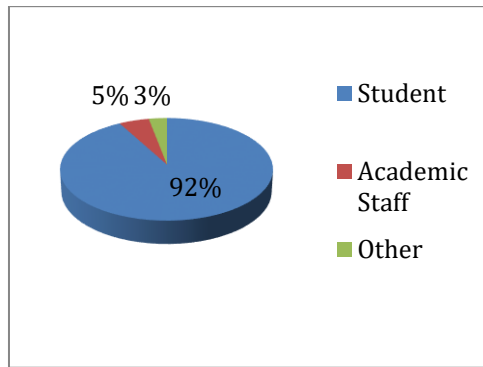

2. Gender

67% of the participants were female while male participants were 33%.

3. Status

Most of the participants were students with a total of 92%, academic staff and other categories constituted of 5% and 4 % respectively.

4. Academic year

40 % which was the majority of participants being first years whereas 2nd and 3rd percent made up 22% and 28% respectively. The least of the participants were 4th years and others making up a total of 5 % for each.
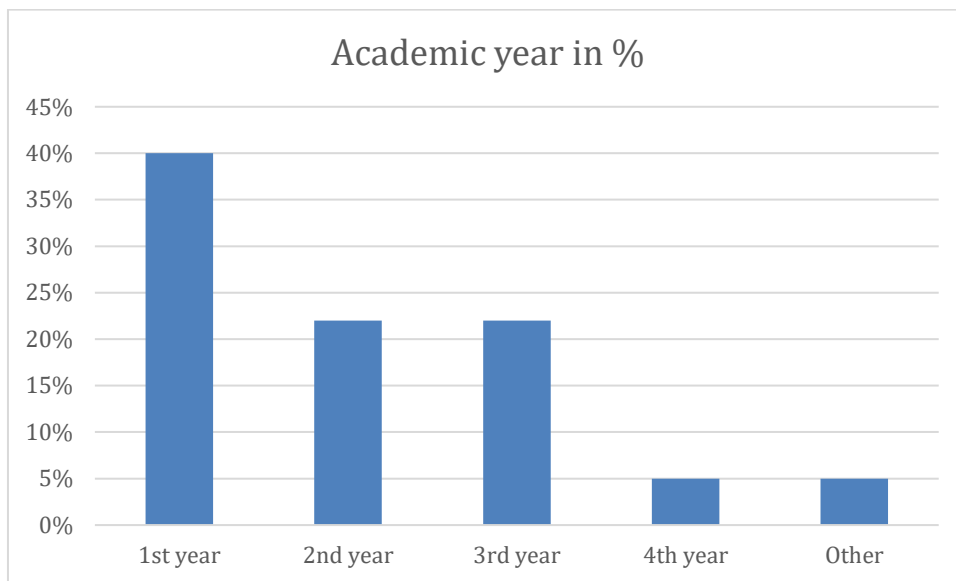
5. Mode of study

The majority of the participants were 85% which accounts for fulltime studies, followed by 8% for part time, 5% accounts for distance and 2% for other.
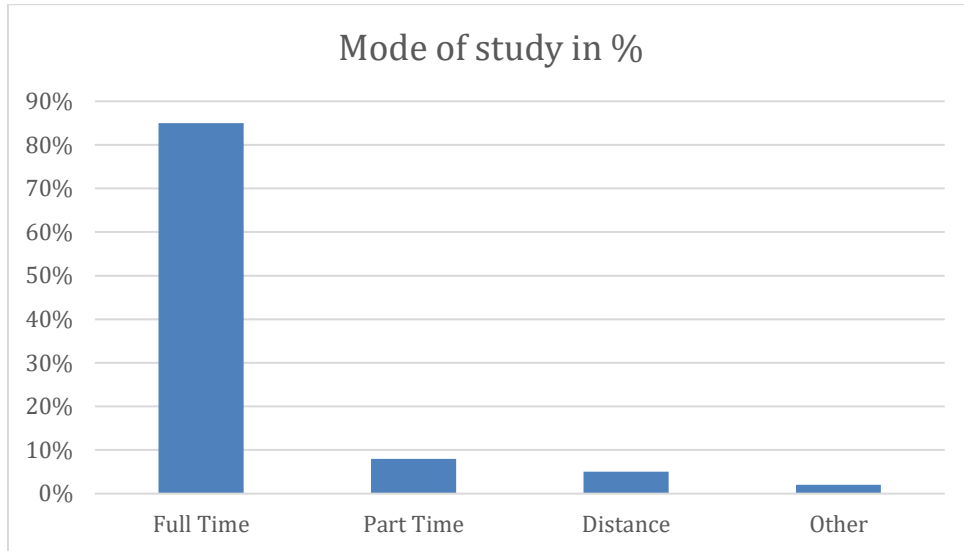
6. Campus Residence
87% of participants were living off campus and only 13% were residing on campus.

| Response	Number of responses	Percentage
Yes	11	13 %
No	77	87%
Total	88	100%

7. Coping with studies
65 % of the students were coping well with their studies whereas 35% indicated that they were not coping well with their studies.

Response	Number of responses	Percentage
Yes	57	65%
No	31	35%
Total	88	100%

8. Adaptation to campus environment
Most of the participants (75%) adapted well to the environment and 25% are still struggling with environment adaptation.
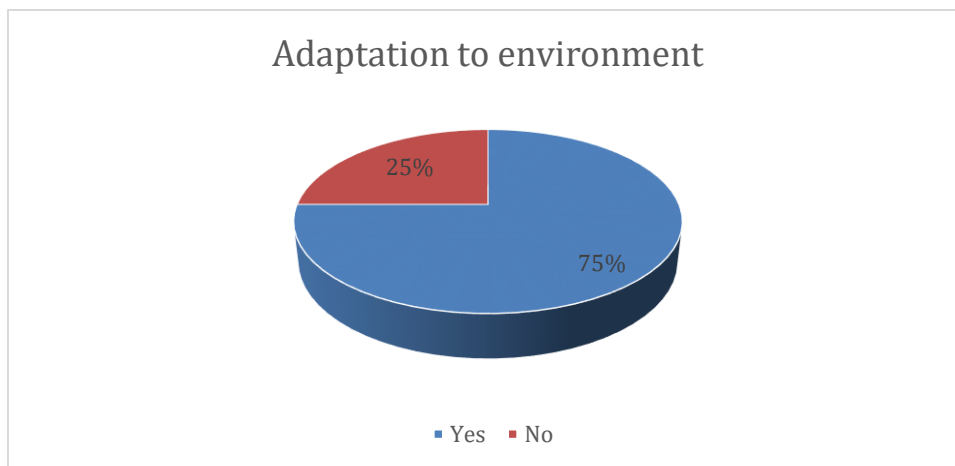
b). Determinants of stress, anxiety, depression & suicide
Participants were expected to indicate **ALL** signs and symptoms experienced and not to limit themselves to only those experienced more **OFTEN/COMMON**.

Table 1: Participants who experienced signs and symptoms of Stress

Symptoms	Actual no.	Percentage
A= Headache	57	65%
B= Frustrations	30	34%
C=Tensed	11	12%
D= Muscle cramps	16	18%
E= Restlessness	23	26%
F= Increased heart beat	19	22%
G= Chest pains	13	15%
H= Anger for no reason	25	28%
I= Isolation or withdrawal	15	17%

Headache was the commonly experienced symptom of stress with 65%, followed by frustrations and anger for no reason with 34% and 28% respectively. Meanwhile, feeling tensed was the least experienced symptom with only 12%.

Table 2: Participants who have experienced signs and symptoms of Anxiety

Symptoms	Actual no.	Percentage
A=Headache	31	35%
B=Worried	38	43%
C=Mood swings	29	33%
D=Helplessness	22	25%
E=Loneliness	25	28%
F=Uneasiness	23	26%
G= Unable to cope	21	24%
H= Fear	28	32%
I= Trouble sleeping	24	27%

The most commonly experienced symptom of anxiety was worry with 43%. Furthermore, headache, mood swings and fear were some of the other signs of anxiety frequently experienced by participants with 35%, 33% and 32% respectively. Inability to cope was the least experienced symptom of anxiety with 24%.

Table 3: Participants who have experienced signs and symptoms of Depression

Symptoms	Actual no.	Percentage
A=Tiredness	52	59%
B=Loss of interest in activities	36	41%
C=Poor concentration	25	28%
D=Irritability	15	17%
E=Sleepless	23	26%
F=Poor appetite	16	18%
G=Hopelessness	18	20%
H=Self-blame	35	40%
I=Insecure	24	27%

59 % of participants experienced tiredness as a symptom of depression. However, most of the participants further experienced loss of interest in activities and self-blame with 41% and 40% respectively. The least experienced sign of depression was irritability with 15%.

Table 4: Participants who have experienced signs and symptoms of Suicide

Symptoms	Actual no.	Percentage
A=Just feel like dying	13	15%
B=Seeing life useless	16	18%
C=Trouble sleeping	23	26%

D= Being burden to others	**25**	**28%**
E=Uncontrolled feeling of worry	**20**	**23%**
F= Increase use of alcohol or drugs	**11**	**13%**
G= Hopelessness	**13**	**14%**
H= Looking for ways to kill one self	**1**	**1%**
I= Poor appetite	**13**	**15%**

Feeling like a burden to others, trouble sleeping, uncontrolled feeling of worry and feeling like dying were some of the symptoms of suicide which were commonly experienced by participants with 28%, 26%, 23% and 15% respectively. However, one of the participants representing 1% of the participants experienced the major symptom of suicide which is looking for ways to kill one self.

V. Discussions

The survey assessed the prevalence of stress, anxiety, depression and suicide determinants among University of Namibia students. The survey revealed a strong relationship between stress and the level of study. 1st year students were found to be more stressed than senior students. This supports the findings of   Jia & Loo (2018) who found that 1st year and females were more stressed in comparison to their counterparts. Similar to findings of literature, most participants experienced symptoms of stress, anxiety and depression at some point during their studies (Paudel, Gautam, Adhikari & Yadav 2020; Asif, Mudassar, Shahzad, et.al., 2020). Furthermore, a considerable number of students experienced symptoms related to suicide such as feeling hopeless or willing to die. The former is consistent with the findings of Mamun, Rayhan Khaleda et al., 2020, who reported increased ideations of suicide among students. It is therefore evident that students are struggling with mental health issues which in most cases go untreated due to lack of awareness.

VI. Recommendations

Based on the findings of the survey, it is recommended that there should be regular awareness campaigns on campus for the students to be able to identify the signs and symptoms of mental illnesses and seek for help well in advance.

Strengthening of orientation and mentoring programmes, regular motivational talks to be provided to the students. In addition, the University should recruit more social workers and psychologists in order to be able to assist students with mental health issues.

VII. Conclusions

The survey revealed most of the students experienced signs and symptoms of stress, anxiety, depression and even suicide while studying at the university. Headache came out as the most commonly experienced symptom of stress whereas feeling of worry was a common symptom experienced under anxiety. Tiredness, loss of interest in activities and feeling like a burden to others were the most common symptoms experienced by students under depression and suicide respectively. In conclusion, it is quite evident that students are battling with mental health issues which require serious attention.

References
[1]. Adrian, M., & Lyon, A. (2018). Social Media data for Prevention of Adolescent Suicide: Considerations for Integration in Platforms, Clinics and Schools. In M. Moreno & A. Radovic (Eds) Technology and Adolescent Mental Health Cambridge, MA: Springer.
[2]. Ahmadi J, GalalAhmed M, AliBayoumi F, Abdul Moneenum A, Alshawa H. (2012). Mental Health of Dubai Medical College Students. Iran J Psychiatry Behave Sci. 2012; 6(2): 79-83.
[3]. American Foundations for Suicide Prevention (2019). Suicide Statistics. https://afsp.org/about-suicide/suicide-statistics/.
[4]. American Psychiatric Association (2013). Diagnostic and Statistical Manual of Mental Disorders (DSM-5), Fifth edition.
[5]. Asif, S., Mudassar, A., Shahzad, T. Z., Raouf, M., & Pervaiz, T. (2020). Frequency of Depression, Anxiety and Stress among University Students. Pakistan Journal of Medical Sciences, *36*(5), 971–976. https://doi.org/10.12669/pjms.36.5.1873
[6]. Berk, M., & Adrian, M. (2018). The Suicidal Student. In L.L Roberts(Ed). University Student Mental Health: A Guide for Psychiatrists, Psychologists and Leaders Serving Higher Education. Arlington, VA: American Psychiatric Association Publishing.
[7]. Charter, K.G., Hesselbrock, M.N., & Hesselbrock, V.M. (2010). Development and Vulnerability Factors in Adolescent an Alcohol use. Child and Adolescent Psychiatric Clinics of North America.

[8]. Dumbili, E.W. (2013). Patterns and Determinants of Alcohol use among Nigerian University students: An Overview of Recent Developments. African Journal of Drug and Alcohol Studies.

[9]. Hedegaard H, Curtin SC, Warner M. (2018). Suicide Rates in the United States continue to Increase. National Centre for Health Statistics: Hyattsville.

[10]. Jia Y.F, & Loo, Y.T. (2018). Prevalence and Determinants of Perceived Stress among Undergraduate Students in a Malaysian university. Journal of Health and Translational Medicine, 21(1).

[11]. Mamun, M.A., Rayhan, I., Akter, K. and Griffiths, M.D. (2020). Prevalence and Predisposing Factors of Suicidal ideation among the University Students in Bangladesh: A Single-site Survey. International Journal of Mental Health and Addiction.

[12]. Milner, Allison Sveticic, Jerneja and De Leo, Dirgo (2013). Suicide in the Absence of Mental Disorder? A Review of Psychological Autopsy Studies Across Countries. International Journal of Social Psychiatry, Vol.59, Issue.6, p.545.

[13]. Moitlakgola, K. K., & Amone-P'Olak, K. (2015). Stressful life Events and Alcohol using among University Students in Botswana. African Journal of Drug and Alcohol Studies, 14,81-93.

[14]. Nugent, A, C., Ballard, E.D., Park,L.T. (2019) Research on the Pathophysiology, Treatment, and Prevention of Suicide: Practical and Ethical issues. BMC Psychiatry 19,332.https://doi.org/10.1186/s12888-019-2301-6

[15]. Paudel, S., Gautam, H., Adhikari. C., Yadav. K.D. (2020) Depression, Anxiety and Stress among the Undergraduate Students of Pokhara Metropolitan. Nepal Health Res Council 2020 Jan-Mar;18(46): 27-34

[16]. Pelzer, K; K; Penpid, S. (2015). Sitting Time and Associated Factors among Chronic Disease Patients in Cambodia, MYNMAR AND Vietnam. Afri. J.Phys. Health Educ. Recreation Dance2015, 21 930-940.

[17]. Turecki G, Brent DA. Suicide and Suicidal Behaviour. Lancet (London, England) 2016; 387(10024):1227-1239.

[18]. World Health Organization. (2018). Suicide: Key Facts. Geneva.

[19]. World Health Organization. (2016). Geneva Mental Health Atlas. Geneva: World Health Organization; 2016.

[20]. World Health Organization. (2015). Geneva Mental Health Atlas. Geneva: World Health Organization; 2016.

[21]. World Health Organization. (2014). Geneva Mental Health Atlas. Geneva: World Health Organization; 2015.

[22]. World Health Organization. Depression Fact Sheet (2013). .Available at: http://www.who.Int/mental-health/en/investing-in-muh-final.pdf.