



Prevalence of depression amongst university students during the 2nd wave of the Covid 19 pandemic in Zimbabwe.

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Abstract

Tertiary education is associated with newly found freedom, experimenting with drugs, multiple sexual relations, pressure of schoolwork and many other life challenges with potential painful consequences. With the advent of COVID-19, many uncertainties were raised in the student body. This study sought to unveil the pervasiveness of depression during the 2nd wave of the COVID-19 imposed lockdown in Social Science students of different ages, marital status and academic year of study at Great Zimbabwe University, Zimbabwe. A quantitative, cross-sectional design was adopted, riding on a stratified random sampling technique in recruiting 200 participants. An online Shona Symptoms Questionnaire (SSQ-14) was used to collect data. Data was analysed using descriptive statistics using statistical package for social sciences (SPSS) version 16.0. The study established a 37.5 % general prevalence of depression in the student body. Furthermore, suicidal ideation was a cause for concern. The study recommended the establishment of strong institutional mental health services accessible to the entire student body.

Keywords: COVID-19, Prevalence, Students, Depression

1. Introduction

Coronavirus pandemic (COVID-19) is a public health emergency of international concern which originated in China, in December 2019 and rapidly spread around the globe. (Zhu et al., 2020). The virus swept the globe like veld fire and the number of confirmed cases increased on daily basis. As the numbers continued to sour globally, the local arena felt the pinch. In



December 2020, the government-imposed 2nd wave lockdown which commenced on the 5th of January 2021 to flatten the Covid-19 curve. This lockdown prohibited non-essential activities, social gatherings, intercity travel and educational institutions among other things were to remain closed. This meant that tutorship was to happen virtually. Social distancing and quarantining were implemented to prevent the spread of the virus.

Though quarantine proved an effective measure in mitigating the spread of COVID-19, it spurred economic, social and mental health difficulties more pervasive than the epidemic itself. (Wang, Pan, Wan, Tan, Xu, 2020; Maziti & Mujuru, 2020). In particular, high levels of stress, anxiety and depression have been observed across populations, (Wang, Pan, Wan, Tan, Xu, Ho, et al, 2020; Zhu, Chen, Ji, Xi, Fang & Li 2020). Similarly, Brooks et al., (2020) echoed the negative impact of quarantine such as development of irritability, anger, insomnia, anxiety, and depression. Depression in particular has been observed in various populations and tertiary student have not been spared. Due to an abrupt shift from physical to virtual tutorship, tertiary students could have been affected by the shift. The transition to online learning, lack of internet infrastructure, economic challenges, fear of infection uncertainty about academic development among others have been identified as risk factors. (Chirikov, Soria, Horgos & Jones-White, 2020). Kecojevic , Basch , Sullivan & Davi (2020) found that student mental health difficulties were associated with employment losses, difficulties focusing on academic work and concern about Covid-19 . Aristovnik, Keržič, Ravšelj, Tomažević and Umek, (2020) found that distance learning and social isolation were high risk factors of depression among students.

2. Literature review

Prior to the outbreak of COVID-19, higher rates of depression have been reported in tertiary students as compared to the general population due to academic, interpersonal, and financial stressors they face in a relatively short period of time. (Ahmed, Negash, Kerebih, Alemu & Tesfaye,2020: Ibrahim, Kelly, Adams & Glazebrook, 2012). Several studies (Basheti, Mhaidat , Mhaidat, 2021; Kaparounaki & Patsali, 2021; Huang & Zhao, 2020; Kavčič , Avsec , Zager & Kocjan, 2020; Vijayaraghavan & Singhal, 2020) conducted during the COVID-19 pandemic



also indicate that university students are the most vulnerable group during the pandemic. Vidyadhara, Chakravarty, Kumar & Rahul (2020) corroborated the above claims in a mental health survey of South Indian students which presented with disturbing levels of stress, anxiety, and depression after a one-month quarantine period due to COVID-19 outbreak.

Despite this high prevalence, depression among students is frequently under-diagnosed and help seeking behavior is very low. (Castaldelli-Maia, Martins & Bhugra, 2012). With the disturbances and uncertainties caused by the pandemic, research evidence has been proffered that students might sink into depression resulting in poor academic performance, suicidal ideation, alcohol and substance misuse, missing greater number of classes, assignments, examinations and dropping out from the University. (Ahmed, Negash, Kerbed, Alemu & Tesfaye, 2020; Pillay, Ramlall & Burns, 2017; Othman, Ahmad, Morr & Ritvo, 2019; Minchekar, 2018; Salem, Allah & Said, 2016; Sivertsen, Hysing, Knapstad, Harvey, Reneflot, Lonning, & Connor, 2019).

Zimbabwe is a country that has recently emerged from socio-economic challenges and against this background, mental health has fallen down the priority list, as matters such as food shortages and the HIV and AIDS scourge have taken precedence. (Mangezi & Chibanda, 2010). Hence, studies gauging the prevalence of depression among university students are scarce. In light of the economic meltdown, coupled with multiple stressors brought by the COVID-19 pandemic, Zimbabwe's tertiary students are at higher risk of developing depression. This study will become a springboard for implementation of sound mental health services among the student body.



3. Materials and Methods

3.1 Approach, design and sampling

The study adopted a quantitative approach focusing on the collection of data that is measurable and countable (Franklin, 2012). The approach was essential on the assessment of the level of depression due to its emphasis on collecting numerical data. A cross-sectional survey design was used as the study only focused on the prevalence of depression among students without studying influencing the variables. The Yamane formula was used to determine the sample size and stratified random sampling was used to recruit 200 participants (aged 18 years and above) from the Faculty of Social Sciences, with each academic year represented. The Shona Symptoms Questionnaire (SSQ-14) was used to collect data.

3.2 Research procedure and research instruments

Permission was sought and granted by the Registrar's office and a written proof was obtained before data collection commenced. Data was collected using an online Shona Symptoms Questionnaire (SSQ-14). SSQ-14 is a depression screening instrument adapted from the Beck Depression Inventory (BDI). If one scores 8 and above, it becomes significant. And if one scores less than 8, then one is just experiencing 'normal' problems of living. Its validity and reliability are well established as many studies have used it in Zimbabwe.

3.3 Data analysis and interpretation

Data was analyzed using descriptive statistics which allows to summarize information using frequencies and cross-tabulations. The statistical package for social sciences (SPSS) version 16.0 was used.

3.4 Ethical considerations

The rights and privileges of the participants were upheld in this study. An online administered consent form allowed one to proceed after consenting, confidentiality and anonymity were addressed as background and purpose of the study were availed to them. Voluntary



participation and right to withdraw at any time were addressed. Anonymity and confidentiality were importantly considered as information as such information is sensitive information. Due to sensitivity of information and potential for 'red flags', the study had the university clinic with counselors, nurses and psychologists on standby.

4 Findings and Discussion

The reporting of the results must be clearly linked to the research objectives and research hypotheses where appropriate. This section may be divided by subheadings. It should provide a concise and precise description of the experimental results, their interpretation, as well as the experimental conclusions that can be drawn.

The 200 administered SSQ 14 got a 100% response rate enabling the researcher to obtain a magnitude of depression among GZU students based on that sample size. The obtained results are discussed below.



Table 1. Magnitude of depression at GZU School of Social Sciences

Depressed					
Depression		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	75	37.5	37.5	37.5
	No	125	62.5	62.5	100.0
	Total	200	100.0	100.0	

Source: Survey data

Out of a sample of 200 students who participated in the study, less than half (37.5%) of them have symptoms of depression. They scored 8 ‘yesses’ and above on the questionnaire, excluding question 5 and 11 which are termed red flags assessing suicidal thoughts and hallucinations.



While the majority of the respondents (62.5%) scored below the SSQ-14 cut-off point of 8 'yeses. The majority have substantial problems of living which may predispose them to depression any time. Having almost 40% of respondents who scored significantly for depression is very worrisome.

Table 2. Gender and depression.



Gender * depressed Cross tabulation				
Count		Depression		
		Yes	No	Total
Gender	Male	21	40	61
	Female	54	85	139
Total		75	125	200

Source: Survey data

The study results show that out of the 75 students who tested positive for depression symptoms, more female (54) than male (21) students tested positive on depression symptoms. However, the sample was not had more female students than males. Therefore, this study has proved that depression is more prevalent in female students than males.

Table 3. Marital status and depression



Marital status * depressed Cross tabulation				
Count		Depression		
		Yes	No	Total
Marital status	Single	64	110	174
	Married	11	15	26
Total		75	125	200

Source: Survey data

The above table shows the relationship between marital status and depression. The results show that out of the pool of the depressed students, the majority of them are single (64) as compared to the married ones (11). Therefore, the study is highlighting an important discovery that being single predispose the student body to situations that if shared in a marital union, the burden could be lighter. It could mean that being married is a protective factor to development of depressive symptoms. Therefore, marital status has an influence on the presence of depressive symptoms in student population.

Table 4. Depression and academic year of study



Study year * depressed Cross tabulation				
Count		Depression		Total
		Yes	No	
Study year	first year	18	45	63
	second year	24	35	59
	fourth year	33	45	78
Total		75	125	200

Source: Survey data

The above table shows the relationship between academic level and depressive symptoms. Out of the 75 students who presented with depressive symptoms, the results show that, depressive symptoms prevalence rises as one climb up the academic ladder. The majority of the students who presented with depressive symptoms were fourth year students (33), followed by 2nd year students (24) and the least prevalence was observed in the 1st year students (18). The intimations shows that depression affects students depending on the level of study with first years having a lower prevalence than second years and fourth years having the highest prevalence of depression. However, students on work related learning (WRL) were not considered in this study.

Table 5. Age and depression among students



Age * depressed Cross tabulation					
Count		Depression			Total
		Yes	No		
Age	18-23	60	100	160	
	24-29	15	25	40	
Total		75	125	200	

Source: Survey data

The table above presented the relationship between age and depressive symptoms. Out of the lot of students who exhibited significant depressive symptoms, majority of them were those in the lower age ranges (18-23 years). A lower number of depressed students was found to be in the upper age range (24-29). As shown above, younger students in this study are more prone to depression than older students.

Table 6. Suicidal ideations among students



Suicidal thoughts		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	25	12.5	12.5	12.5
	No	175	87.5	87.5	100.0
	Total	200	100.0	100.0	

Source: Survey data

The SSQ-14 has two critical questions that constitute ‘red flags.’ These include suicidal ideation and hallucinations. Some students who had never shown depressive symptoms could present with red flags. The results of this study shows that a substantial percentage (12.5%) had suicidal ideation. Although the percentage is small, suicidal ideation is an emergency.

The main objective of the study was to find the prevalence of depression among tertiary students during the 2nd wave of the Covid 19 pandemic. The study found that prevalence of depression among Great Zimbabwe University School of Social Sciences students was 37.5 %. This figure is consistent with the prevalence rates reported among university students in the United States of America (31.7%), Middle East (33.8%) and India (10.7%). (Basheti, Mhaidat, Mhaidat, 2021; Fruehwirth, Biswas, Perreira, 2021; Yadav, Baral et al., 2021). This prevalence is higher than prevalence of depression reported in the general population during the pandemic and prior to the pandemic. This substantiate that the pandemic increased mental health difficulties across populations. However, the prevalence of depression in this study was higher than depression rates reported from other countries. This can be a result of financial challenges faced by students in Zimbabwe especially during the pandemic, the study was carried when the country was experiencing serious economic recession due to the pandemic and most students were having challenges to pay their tuition, to connect to the internet, work for extra cash and



were uncertain about academic development, and future career prospects. These factors might have spurred depression symptomatology.

The study also indicated that students between the age of 18 and 23 had higher prevalence of depression than higher age groups. One possible explanation for this pattern of results is that this age range falls under a sensitive period within which mood disorders might manifest (Mall et al., 2018) and this is also critical transitory period in which they are going from adolescence to adulthood; a period with unique pressures and requirements such as marriage pressure, planning for the future and maintaining good grades. With disruptions and uncertainties in academic and personal lives brought by COVID-19, this age group was more likely to be depressed. The study also found that females were susceptible to depression than male students. This is consistent with Fruehwirth, Biswas and Perreira (2021) who also found higher levels of depression among female students. This variation might be attributed to the fact that females have higher vulnerability to psychosocial distress than men. Contrary to this study finding, Sarokhani et al., (2013) found no differences in depression between genders.

The study also found significant differences in the magnitude of depression among first years and their counter parts, with first years having a lower percentage than second years and fourth years having the highest percentage of depressed students. The findings are in contrast with Mortier, Taljaard, Roos, Stein and Lochner, (2018) who found that first year students were more vulnerable to depression than their counterparts. Possible reasons why the Zimbabwean sample had such a trend could be among a plethora of factors. Chief among them could be that during the final years of study, students become more worried about job prospects especially facing the piercing sting of COVID-19. Furthermore, lack of opportunities and uncertainties about future could have predisposed final year students to depression. Considering economic recession experienced by the nation during the pandemic coupled with unemployment rate in Zimbabwe, it's not surprising that final years are more susceptible to depression.

The study also found that a substantial percentage of respondents reported having suicidal thoughts. This figure is consistent with the Midlands state University study which also found an almost same percentage (13.75%) of students reporting suicidal ideation. (Mutambara,



2016). Considering the high prevalence of depression in the chosen sample, presence of suicide ideation is expected since depression is usually accompanied by suicidal thoughts, attempted suicide and suicide. Despite, low prevalence of suicide ideation in the chosen sample, this must not be taken lightly any cognition surrounding suicide is predictive of later suicide attempts and death by suicide (Sivertsen et al., 2019).

5 Conclusions

The study has shown that a significant number of students at Great Zimbabwe University are depressed (37.5%). The percentage showing depressed symptoms is close to half of the student population. This is a big number warranting serious intervention. This could translate to mean that tertiary institutions have become centers of mental health crises. Furthermore, this implies that many university students are experiencing substantial life problems that are triggers of depression and if interventions are not rendered to them early, the percentages of depressed students are likely to rise above the obtained percentage in this current study. The high prevalence rate of depression in older and final year students serve as evidence that as one is approaching the completion period, academic demands get high and pressing that if nothing is done to mediate the stressors then the students are highly susceptible to depression. Female students presented with high depression symptoms than their male counterparts implying the higher vulnerability of women to depression than men.

6 Recommendations

The study recommends the following:

- Awareness campaigns to sensitize the student body on the depression and its dangers.
- Increase assessment of depression to all students both on admission as first year student and on their exit into the world of work.
- The establishment of strong institutional mental health services accessible to the entire student body such as peer counselling clubs and employing mental health specialists to facilitate coping with life challenges.
- Gender sensitive initiatives to deal with high depression rates in female students.



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“Conceptualization, E.M. and A.M.; methodology, E.M.; software, E.M.; validation, E.M. and A.M.; formal analysis, E.M.; investigation, E.M and A.M.; resources, E.M.; data curation, EM and A.M.; writing—original draft preparation, E.M and A.M.; writing—review and editing, E.M and A.M.; visualization, E.M and A.G.; supervision, EM and AM.; project administration, E.M. All authors have read and agreed to the published version of the manuscript

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References

- Ahmed. G, Negash. A, Kerebih.H, Alemu. D & Tesfaye.Y. (2020). Prevalence and associated factors of depression among Jimma University students. A cross-sectional study. *International Journal of Mental Health Systems* 14:52
- Aristovnik A, Keržič D, Ravšelj D, Tomaževič N, Umek L. (2020) Impacts of the COVID-19 Pandemic on Life of Higher Education Students: A Global Perspective. *Sustainability.*; 12(20):8438. <https://doi.org/10.3390/su12208438>
- Basheti IA, Mhaidat QN, Mhaidat HN (2021) Prevalence of anxiety and depression during COVID-19 pandemic among health care students in Jordan and its effect on their learning process: A national survey. *16(4):e0249716*. <https://doi.org/10.1371/journal.pone.0249716>
- Cao W, Fang Z, Hou G, Han M, Xu X, Dong J, et al. (2020) The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry Res.* 202287:112934 [Available from: <https://linkinghub.elsevier.com/retrieve/pii/S0165178120305400>.



Castaldelli-Maia J. M, Martins, S. S, Bhugra. D et al., (2012) “Does ragging play a role in medical student depression—cause or effect?” *Journal of Affective Disorders*, vol.139, no.3. 291–297

Chirikov I, Soria KM, Horgos B, Jones-White D. (2020) Undergraduate and Graduate Students’ Mental Health During the COVID-19 Pandemic. Available from: <https://escholarship.org/uc/item/80k5d5hw#main>

Huang Y, Zhao N. Generalized anxiety disorder, depressive symptoms and sleep quality during COVID-19 outbreak in China: a web-based cross-sectional survey. *Psychiatry Res.* 2020; 288:112954.

Ibrahim AK, Kelly SJ, Adams CE, Glazebrook C. A systematic review of studies of depression prevalence in university students. *J Psychiatr Res.* 2013;47(3):391–400

Kaparounaki CK, Patsali ME, Mousa DPV, Papadopoulou EVK, Papadopoulou KKK, Fountoulakis KN. (2020) University students’ mental health amidst the COVID-19 quarantine in Greece. *Psychiatry Res.* 2020; 290:113111 Elsevier Ireland Ltd.

Kavčič T, Avsec A, Zager Kocjan G. Psychological Functioning of Slovene Adults during the COVID-19 Pandemic: Does Resilience Matter? *Psychiatr Q.* 2020:1–10 [cited 2020 Aug 21]. Available from: <https://doi.org/10.1007/-020-09789-4>.

Kecojevic A, Basch CH, Sullivan M, Davi NK. (2020) The impact of the COVID-19 epidemic on mental health of undergraduate students in New Jersey, cross-sectional study. (9): e0239696. <https://doi.org/10.1371/journal.pone.0239696> PMID: 32997683

Mall, S., Mortier, P., Taljaard, L., Roos, J., Stein, D., & Lochner, C. (2018). The relationship between childhood adversity, recent stressors, and depression in college students attending a South African University. *BMC Psychiatry*, 18(1), 1-10. doi:10.1186/s12888-017-1583-9

Mangezi. W & Chibanda D. (2010) *Mental health in Zimbabwe* 3 (4) 93-94

Maziti E & Mujuru A (2020) Levels of Hopelessness During Covid19 Imposed Lockdown. *Business Excellence and Management*, 10(1):155- 167

Minchekar VS. Academic stress and depression among college students. *Int J Curr Res.* 2018;10(12):76429–33.

Mutambara. J. (2016) Prevalence of suicide ideation and hopelessness at a state University in Zimbabwe <http://hdl.handle.net/11408/1961>



Pillay N, Ramlall S, Burns JK. Spirituality, depression and quality of life in medical students in KwaZulu-Natal. *South Afr J Psychiatry*. 2016 1 [cited 2017 Feb 4];22(1). Available from: <https://sajp.org.za/index.php/sajp/article/view/731/588>

Reddy KJ, Karishmarajanmenon MS. Academic Stress and its Sources among University Students. *Biomed Pharmacol J*. 2018;11(1):531–7.

Salem GM, Allah MBA, Said RM. Prevalence and Predictors of Depression, Anxiety, and Stress among Zagazig University Students. *Med J Cairo Univ*. 2016;84(2):325–34.

Sarokhani. D, Delpisheh. A, Veisani. Y, Sarokhani. M. T, Manesh. R. S, and Sayehmiri K (2013) Prevalence of Depression among University Students: A Systematic Review and Meta-Analysis Study. *Depression Research and Treatment* ArticleID373857,7pages <http://dx.doi.org/10.1155/2013/373857>

Sivertsen, B., Hysing, M., Knapstad, M., Harvey, A., Reneflot, A., Lonning, K., & Connor, R. (2019). Suicide attempts and non-suicidal self-harm among university students: Prevalence study. *BJPsych Open*, 5(26), 1-8. doi: 10.1192/bjo.2019.4

Sokratous S, Merkouris A, Middleton N, Karanikola M. The prevalence and socio-demographic correlates of depressive symptoms among Cypriot university students: a cross-sectional descriptive correlational study. *BMC Med Educ*. 2014;14(235):1–15.

Vijayaraghavan P, Singhal D. A Descriptive Study of Indian General Public's Psychological responses during COVID-19 Pandemic Lockdown Period in India. 2020; [cited 2020 Aug 17]. Available from: <https://psyarxiv.com/jeksn/>.

Yadav RK, Baral S, Khatri E, Pandey S, Pandeya P, Neupane R, Yadav DK, Marahatta SB, Kaphle HP, Poudyal JK and Adhikari C (2021) Anxiety and Depression Among Health Sciences Students in Home Quarantine During the COVID-19 Pandemic in Selected Provinces of Nepal. *Front. Public Health* 9:580561. doi: 10.3389/fpubh.2021.580561