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Mental Health and Academic Achievement:

The Relationship between Mental Health and Learning

Outcomes amongst Students

ABSTRACT

This quantitative descriptive research study looks at the significance of a student's mental health and academic performance, focusing on a high school in Zimbabwe. It builds upon my existing observations in a primary school setting where I noticed that children who showed higher levels of happiness, confidence, and self-esteem seemed to understand content more quickly. The study also looks at prior academic literature indicates that mental health concerns, especially anxiety, and depression, can significantly influence educational outcomes. Eisenberg et al. (2019) stated that a significant indicator of a lower grade point average and a higher possibility of dropping out of school was depression and that this was especially significant among students with an anxiety disorder. This investigation was conducted with 78 high school students using a 'convenience' sampling method. The study focuses on understanding the prevalence and severity of mental health issues, as measured by the Beck Anxiety Inventory, which is a self-report that measures the severity of anxiety (Beck et al.; R. A.,1988), and Beck Depression Inventory that investigates evaluating several cognitive and physical symptoms of depression, (Beck et al.; G. K.,1987). The Inventories showed that a substantial portion of students experienced symptoms that indicated varying degrees of anxiety and depression. The research looked at the correlation between mental health status and academic performance, as indicated by students' grades, and found that there was a correlation between students grappling with mental health issues and lower grades compared to their peers with better mental well-being. This was more significant among students with comorbid anxiety disorders, matching the insights of Eisenberg et al. (2019).

The research also analyzed attendance; some individual students dealing with known mental health concerns showed less consistent attendance, with some missing school frequently; however, in general, there did not seem to be a significant correlation between absenteeism and high levels of anxiety and depression in this group. During the research, I explored potential mediators such as access to psychological support services and the effectiveness of coping strategies. The findings showed that while some students had access to these resources, their effectiveness varied; this highlighted the importance of specific support for students facing mental health challenges.

In conclusion, my research highlights the prevalence of mental health concerns among high school students in a school in Zimbabwe and demonstrates their negative impact on satisfaction with academic performance. Identifying these challenges and considering the

effectiveness of available support, as well as the need for targeted interventions to improve both mental health and academic outcomes, is necessary.

RATIONAL FOR THE RESEARCH

Globally, education has changed recently, especially in the post-COVID-19 era, with increasing attention paid to students' overall well-being. Hunt and Eisenberg (2010) stated in their study that mental health problems such as depression and anxiety are associated with lower grade point average, decreased academic performance, and increased likelihood of dropping out of school and that they appear to be increasing in number and severity. A study by Lawrence D. et al. (2019) showed that students with mental disorders have lower school attendance, and symptoms of these mental disorders are a significant reason for absences from school. Quinn (2022) also detailed negative attendance rates for mental health disorders. Additionally, students who experience mental health problems may have difficulty coping with stress and may engage in unhealthy behaviors such as substance abuse, which can further exacerbate their mental health problems and academic performance. ("Substance Abuse and Mental Health Services Administration," n.d.). In this study, we see how depression and anxiety affect students at a school in Zimbabwe. As educators, it is our job to impart knowledge. However, it is essential that we also understand and address the various needs of our students, and an essential aspect of our students' well-being is their mental health. My observations in the classroom have raised my concern about the potential connection between students' mental health and their academic performance, as well as the teacher's impact on the children's success or failure.

Notably, students who exhibit symptoms of depression, anxiety, or other mental health challenges seem to face additional difficulties in their educational journey, as noted in a study by Lawrence D. et al. (2019), which shows that students with mental disorders have lower school attendance, Symptoms of these mental disorders are a significant reason for absences from school. This observation has sparked my research into the relationship between mental health and academic achievement. Additionally, during my community work in Zimbabwe, I have observed an increase in alcohol and drug abuse and school dropouts, as well as stress levels and anxiety increased during and after the COVID-19 pandemic. Sujarwoto, Saputri, R.A.M., and Yumarni, T. (2023) noted that students' mental health deteriorated during the COVID-19 pandemic, stating that it is a serious worldwide public health concern. Other studies observed increased levels of stress, anxiety, depression, and other mental health issues

among students of all ages post-COVID-19. It is believed that isolation, social distancing measures, fear of infection, and disruption of routines have contributed to increased levels of stress (Cao et al., 2020; González-Sanguino et al., 2020). Mental health concerns like these can affect concentration, motivation, and overall well-being, hindering effective learning. In Zimbabwe, the situation is made worse by factors such as poverty and limited access to teaching staff and technology. My study investigated this link and shed light on the impact of mental health on students' academic performance and how we, as educators, can help.

By conducting a quantitative descriptive research study, we have gathered data that can inform our understanding of how mental health factors such as depression and anxiety correlate with academic performance, attendance, and overall well-being among our students. In doing so, I have identified opportunities for intervention and support services that can enhance these children's mental health and academic outcomes.

RESEARCH QUESTIONS AND OBJECTIVES

The primary motivation behind this research is to shed light on the impact of mental health on students' academic performance, drawing upon a secondary school in Zimbabwe as the focal point. This study takes root in my initial observations in a primary school setting, where I discerned a distinct correlation between students' mental well-being and their ability to grasp educational content swiftly. I also reflected on my community work in rural Zimbabwe, where after COVID-19, I noted an increase in school dropouts and drug and alcohol abuse in minors. Furthermore, it is grounded in prior academic literature, which states that mental health concerns, particularly anxiety and depression, wield substantial influence over educational outcomes. As mentioned by Eisenberg et al. (2019), depression emerged as a pivotal determinant, signifying a lower grade point average and a heightened susceptibility to academic attrition, especially among students grappling with anxiety disorders.

Research Questions:

In this research study, a survey has been designed to address several key objectives related to the mental health of high school students in a school in Zimbabwe. I have included standardized assessments such as Beck Depression Inventory (Appendix i) and Beck Anxiety Inventory (Appendix ii), ensuring a systematic measurement of the prevalence and severity of mental health concerns, and have incorporated demographic factors (Appendix iii), like age,

gender, grade, and years of school, the research aims to provide a broader understanding of mental health among high school students.

Based on the literature reviewed, the following hypotheses were proposed for this study:

1. There is a prevalence of mental health concerns in students in Zimbabwe.
2. Secondary students in Zimbabwe who experience higher levels of mental health concerns, such as anxiety and depression, will show lower academic achievement compared to students with lower levels of mental health concerns.
3. There will be a negative relationship between the severity of mental health concerns and students' attendance rates in school.
4. Students who have access to adequate psychological support services and utilize effective coping strategies will demonstrate better academic outcomes, even in the presence of mental health concerns.

Research Objectives:

1. To determine the prevalence and severity of mental health concerns, particularly anxiety and depression, among high school students in Zimbabwe, drawing on standardized assessments.
2. To evaluate the relationship between students' mental health status and academic performance, as gauged by their grades.
3. To analyze attendance patterns and find the impact of mental health concerns on students' presence in the school.
4. To investigate potential mediating factors, including access to psychological support services and the efficacy of coping strategies, that may influence the connection between mental health status and academic achievement.
5. To formulate recommendations for tailored interventions and support services aimed at improving mental health and academic outcomes among high school students, considering the findings of this research.

This research highlights the prevalence of mental health concerns among high school students in this school in Zimbabwe and explains their adverse effects on academic performance. By identifying these challenges and exploring the efficacy of available support systems, this study highlights the urgency of implementing targeted interventions to improve students' mental well-being and educational outcomes.

LITERATURE REVIEW

Overview of Mental Health and Educational Outcomes

Through the reviewed literature, I noticed significant research exploring the relationship between mental health and educational outcomes. The World Health Organization describes mental health as "a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community." (World Health Organization, 2022) with mental health being deemed as a crucial factor influencing students' academic performance and overall academic outcomes, including academic achievement, attendance, and retention. (Cornaglia, F., Crivellaro, E., & McNally, S., 2015.; Breslau, J., Lane, M., Sampson, N., & Kessler, R. C. 2008.; Cranford, J. A., Eisenberg, D., & Serras, A. M. 2009.; Maziti, E., & Mujuru, A. 2021.; Eisenberg, D., Golberstein, E. & Hunt, J. 2009.; Murphy, J.M., 2015; Hunt, J., & Eisenberg, D. 2009.; Lawrence, D., Dawson, V., Houghton, S., Goodsell, B., & Sawyer, M. G. 2019). Additionally, even though there are some mediating mental health programs to address this issue, it is not significant enough to meet the need. (Blanco, C., Okuda, M., Wright, C., et al. 2008.; Kirsch, D. J., Pinder-Amaker, S. L., Morse, C., et al. 2014.; Cook, L. J. 2007).

Mental Health and Academic Performance

There have been several studies that have consistently demonstrated a negative association between mental health issues and academic performance among students and how it has increased over time (Eisenberg et al.; J. L., 2007). Research by Hunt and Eisenberg (2009) found that mental health problems such as depression and anxiety were associated with lower grades, decreased academic performance, and increased likelihood of dropping out. Similar findings were reported by Arria, A. M., Caldeira, K. M., Vincent, K. B., Winick, E. R., Baron, R. A., & O'Grady, K. E. (2013), who noted that the diagnosis of depression "was associated with more than a twofold increase in the risk of discontinuity."

Factors Influencing Mental Health and Educational Outcomes

Through reviewing previous studies, I have seen that many factors contribute to mental health concerns among students, which in turn influence their educational outcomes. Contributions to adverse mental health include factors at a personal level, such as characteristics, coping strategies, and social support networks, which play an essential role in helping shape the students' mental health and academic performance. External factors influence students' mental well-being and educational outcomes, including the campus

environment, access to mental health services, financial stability, social expectations, and academic pressure. Limone, P., & Toto, G. A. (2022) noted several factors contribute to the mental distress experienced by students. For example, gender plays a significant role, with mental illnesses being more prevalent among female students compared to male students. Additionally, students facing social challenges like poverty are more vulnerable to mental health issues. They stated that educational institutions' demanding schedules and continuous study sequences can negatively impact students' performance and well-being. Recognizing that challenges and predisposing factors affecting students arise from their school environment and personal history is essential. (Limone, P., & Toto, G. A., 2022) Understanding all these factors is essential for developing effective interventions and support services to improve student's mental health and academic success.

Gaps in Existing Research

Even though there is a large amount of research on mental health and educational outcomes among students, there are several gaps and limitations. Most studies in this area have focused on Western countries, neglecting students' experiences from non-Western countries, including Zimbabwe. This gap in the literature highlights the need for research specifically addressing the mental health and educational outcomes of Zimbabwean students. There is also limited research investigating the mediating factors that may explain the relationship between mental health and educational outcomes among students and limited research on resilience and how it affects persistence. Hartley, M. T. (2011). Understanding these factors can provide valuable insights into how mental health impacts academic performance. It should be noted that resilience, along with parental insistence, plays a significant role in the lack of absenteeism in Zimbabwean students who have mental health concerns.

Unique Contributions of This Study

This study aims to address gaps identified in the existing literature by focusing on Zimbabwean students and investigating the mediating factors influencing the relationship between mental health and educational outcomes.

DESCRIPTION OF PARTICIPANTS OF THE STUDY

This quantitative study focused on upper and lower-sixth-grade students attending a secondary school in Harare, Zimbabwe, born between 2006 and 2008. The students reside primarily in a medium-income area, though some hail from low-income neighborhoods.

These students, aged between 17 and 19, confront economic challenges intensified by Zimbabwe's difficult economic situation (Kabonga et al.; R., 2021).

Despite their parents' educational background, the broader economic hardships in the country have translated into financial struggles for families, particularly in meeting the rising costs of school fees. This financial strain directly affects students' access to quality education and the essential resources for effective learning.

The demographic breakdown of the participants reveals a distribution of 28 males and 40 females, with 51 students enrolled in Upper 6, while the remaining participants were in Lower 6. Out of the initially targeted 78 participants, only 68 questionnaires proved usable, with various factors contributing to this discrepancy, including incomplete responses and instances of apparent dishonesty.

It is crucial to note that these students endured two years of interrupted schooling due to the COVID-19 pandemic. They transitioned to online lessons during this challenging period to sustain their education. However, the hurdles posed by unreliable internet connectivity and frequent power shortages added additional complexities, underscoring the profound impact of external factors on their educational experience.

METHODOLOGY
Choice of participants of the study

During the selection of participants for this research paper, which assesses mental health and its impact on learning, I had to ensure the study would address relevant and meaningful aspects. These students, being students of upper and lower sixth-grade students in Harare, Zimbabwe, born between 2006 and 2008, were chosen primarily due to their developmental stage. Adolescence is an essential developmental stage where children undergo significant cognitive, emotional, and social changes. Sixth grade in senior school represents a stressful time in a student's career, preparing for their A-Levels, University, and adulthood; this transitional stage lays a foundation for the need for tools to manage the stresses of this period in a student's life. As the students are from medium to low-income households, it indicates the larger sample of children in Zimbabwe, considering how socio-economic factors, coupled with economic hardships in Zimbabwe, influence mental health and, consequently, academic performance. This group of students provides a rich context for studying mental health and its

impact on learning, considering developmental, educational, and socio-economic factors that add to the complexity of the students' experiences.

Description of Data Collection Tool

After engaging in a discussion with the school's headmaster, it came to my attention that teachers had noted instances of self-harm and attempted suicide among the students, indicating potential concerns regarding their mental health. Following subsequent research and ongoing conversations with the headmaster, a collective decision was made to have teachers administer the questionnaires. This choice was influenced by various factors, encompassing language proficiency, familiarity with the students, and the sensitivity inherent in addressing such a delicate topic.

To ensure a standardized and objective approach, I employed the Becks Depression Inventory (BDI) and the Beck Anxiety Inventory (BAI) as assessment tools. The BDI and the BAI are widely recognized instruments that are designed to assess the levels of depression and anxiety experienced by individuals; this self-administered tool provides them with valuable insights into their mental health status. Both inventories have 21 multiple-choice questions that measure the severity of depressive symptoms. Respondents rate their experiences on a scale ranging from 0 to 3, with higher scores indicating higher levels of depression or anxiety.

Before administering the BDI and BAI, a questionnaire was used to collect demographic information about the students. This preliminary survey included age, gender, and academic grades. It also explored aspects of their perceived mental health and inquired about any previous diagnoses of mental health disorders. This comprehensive approach to data collection aimed to provide an all-rounded understanding of the student's mental health status while ensuring sensitivity to the nature of the topic under investigation.

Detailed and Descriptive Data Collection Procedure

The data collection procedure started with a consultation with the school's headmaster to gain necessary insights and approvals. Following approvals, teachers went through a thorough review, providing instructions on administering the questionnaire. Teachers were allowed to familiarize themselves with the survey and ask any questions regarding its administration.

The survey, encompassing a demographic background, the Beck Depression Inventory, and the Beck Anxiety Inventory, was administered in class by the trained teachers. All students were assured that their answers were anonymous and that there was no time constraint on their responses, emphasizing the importance of providing thoughtful and accurate answers. While most students engaged enthusiastically with the questionnaire, it is noteworthy that several students displayed apathy and disinterest in participating. This apathy resulted in the exclusion of surveys during the analysis phase. This decision was made to ensure the data's integrity and reliability, as it was crucial to focus on responses reflective of genuine engagement and thoughtful consideration.

DATA ANALYSIS AND PRESENTATION OF RESULTS OF FINDINGS

Data Analysis

After inputting the data into Excel, the results were categorized into different categories for the hypothesis analysis.

Category 1 – Anxiety and Depression

Category 2 – Mental Health Concerns and Academic Achievement

Category 3 – School Absenteeism and Mental Health Concerns

Category 4 – Psychological Support Services and Academic Achievement

Isolating the data into these categories enabled me to analyze the statistical data to prove or disprove the hypothesis; however, without considering other factors, the data captured did not give a complete picture of the implications of the mental health difficulties the children are facing. Further assessment is needed.

Findings and Results

Hypothesis 1: The hypothesis that mental health concerns were prevalent in students in Zimbabwe was *confirmed* through statistical analysis of the collected data, providing a solid foundation for the findings.

To determine if Upper six and Lower six students at a school in Harare were suffering from mental health concerns, I analyzed the data collected from the Becks Depression Inventory and the Becks Anxiety Inventory.

Depression Levels

Depression Level	normal	borderline	moderate	severe	extreme	total
Number of Students	25	10	14	9	10	68
Percentage	37%	15%	21%	13%	15%	100%

Fig 1.

The Becks Depression Inventory survey highlighted the prevalence and severity of depression amongst these children. The data shows a varied distribution across different levels of depression, with the majority (37%) falling within the "Normal" category (Normal indicates normal level of ups and downs with occasional mood swings), indicating healthy mental health. However, concerning levels of depression exist in the "Borderline" (15%) and "Moderate" (21%) categories, with lower percentages in the "Severe" (13%) and "Extreme" (10%). These concerning levels of depression indicated a need for intervention regarding the mental health status of the students.

Anxiety Levels

Anxiety Level	low	moderate	high	total
Number of Students	16	23	29	68
Percentage	24%	34%	43%	100%

Fig 2.

The results of the Beck Anxiety Inventory administered to the same children show a diverse distribution of anxiety levels within the studied group. Most of the participants fall into the categories of Medium Anxiety (34%) and High Anxiety (43%); this shows that a large portion of the sample experiences high levels of anxiety, which highlights the potential significance of anxiety-related issues among these students. The Low Anxiety category (24%) indicates that the minority of the surveyed group shows relatively lower levels of anxiety. These results indicate that intervention is necessary amongst these students, and discovering the cause of their anxiety is paramount.
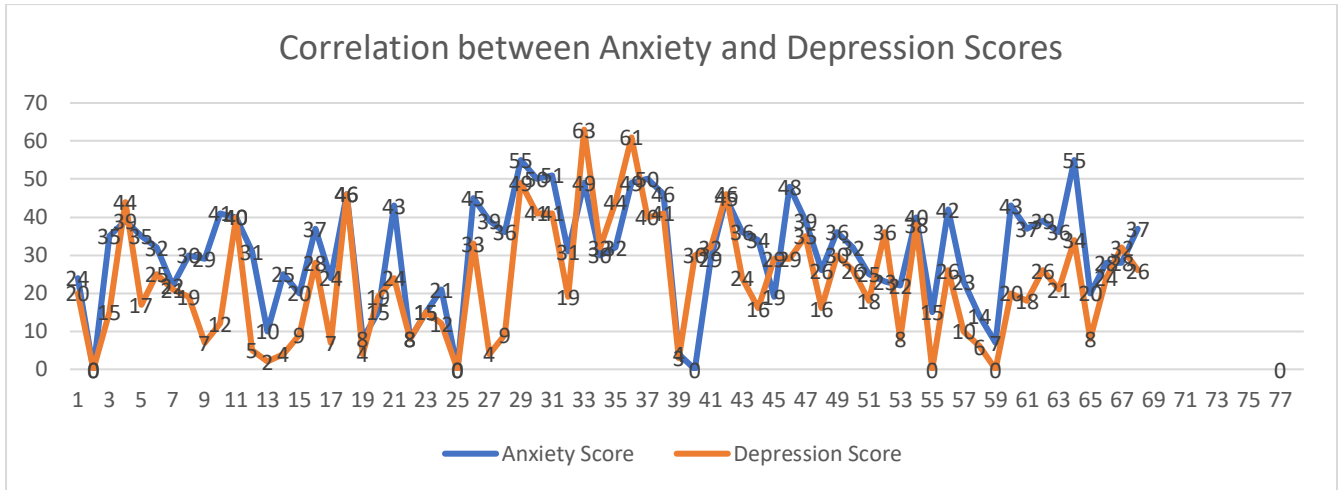
Fig 3.

The line graph above shows the correlation between anxiety and depression. Using Pearson's correlation coefficient between the data collected from the Becks Anxiety Inventory and the Becks Depression Inventory, I could identify a correlation coefficient of 0.65, indicating a modest positive correlation between anxiety and depression. This positive correlation indicates that as the anxiety levels increase, there tends to be an increase in depression levels as well.

Hypothesis 2: Using linear regression analysis and Pearson's correlation co-efficient I was able to determine that secondary students in Zimbabwe who experience higher levels of mental health concerns, such as anxiety and depression, will show lower academic achievement compared to students with lower levels of mental health concerns thus *confirming* the hypothesis.

Fig 4.

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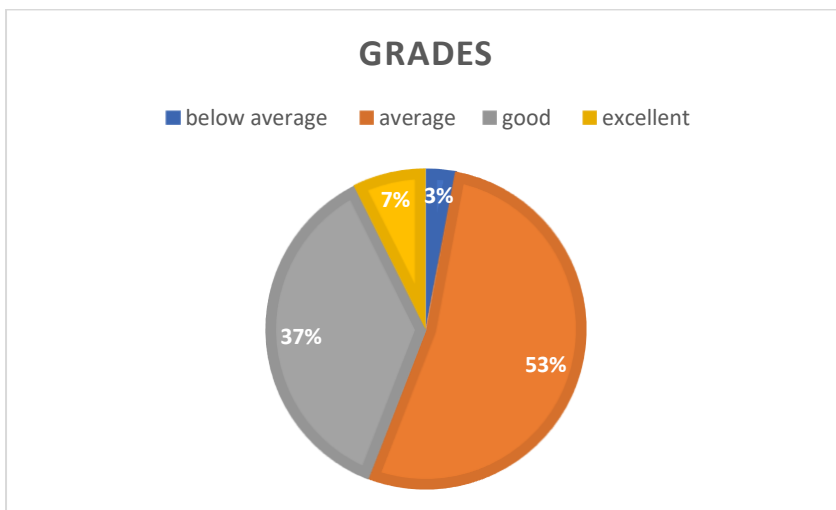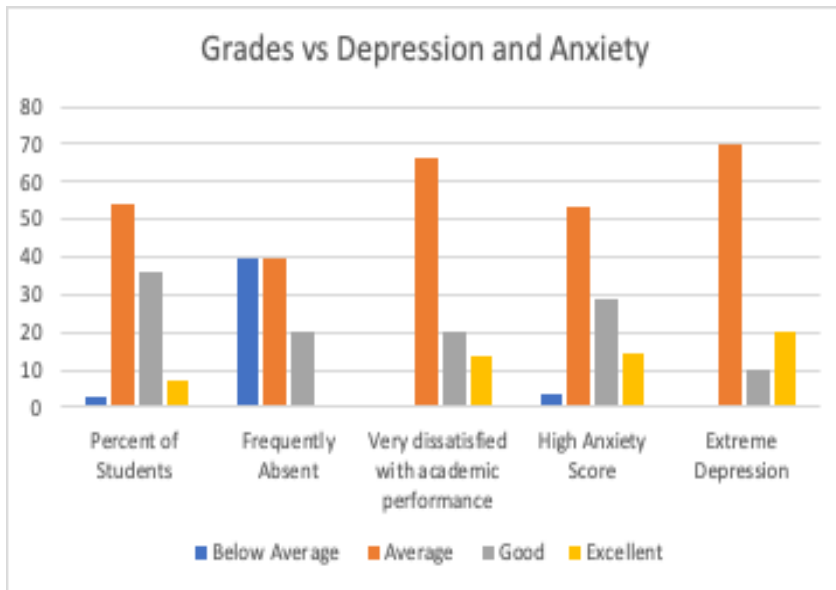
Fig 5.

Using Excel's LINEST function, I inputted the data from the depression levels and absenteeism information. Based on the slope value of -0.085 from the linear regression analysis, it suggests that there is a negative correlation between depression levels and academic performance amongst the surveyed participants. Using Pearson's correlation coefficient, I discovered a weak negative correlation of -0.169 between depression and academic results, meaning there was a slight tendency for higher depression to have lower academic results.
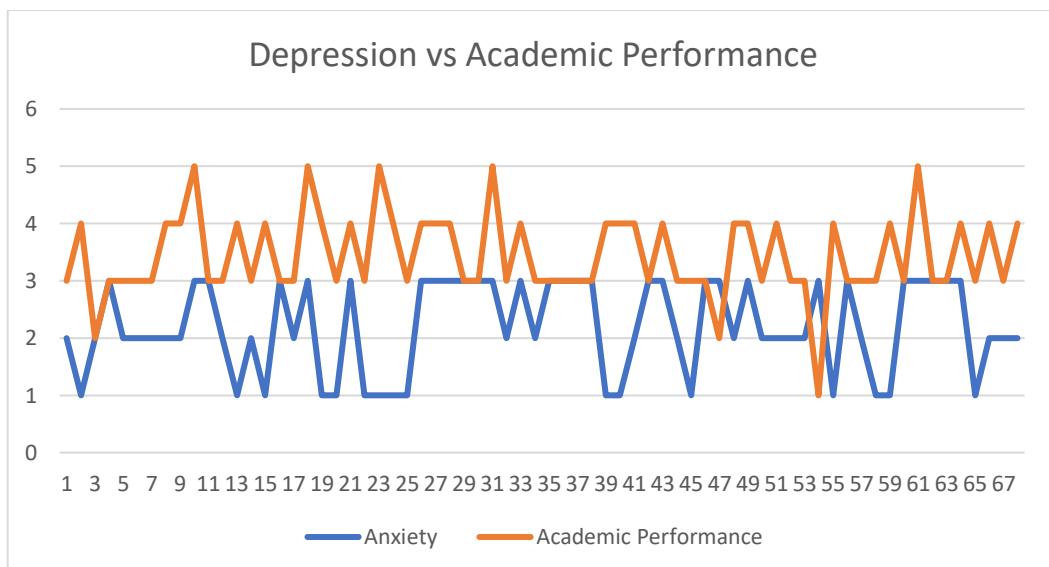
The analysis of linear regression analysis on anxiety levels also showed a negative correlation of -0.088, and Pearson's correlation coefficient discovered a weak correlation between anxiety and academic achievements of 0.09488. It must be noted that these surveys were taken one month before the students were writing their external A and AS level examinations and that this could account for the higher levels of anxiety. To determine if this is their baseline level of anxiety, the BAI would need to be taken at a different point in time.
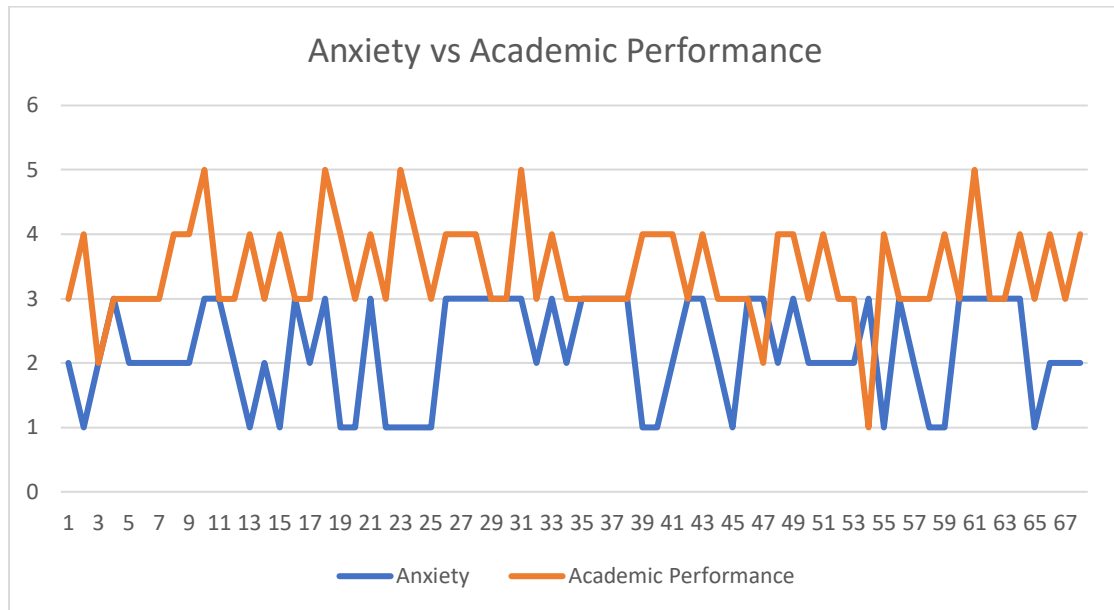
Hypothesis 3: The data *did not* support the hypothesis, positing a negative relationship between the severity of mental health concerns and students' attendance rates in school. The analysis did not reveal a significant correlation between mental health severity and attendance rates among the studied population.

School Absenteeism

Depression Level	Never	Rarely	Occasionally	Frequently
Normal Depression	16	6	2	1
Borderline Depression	5	4	0	1
Moderate Depression	2	9	3	0
Severe Depression	0	9	0	0
Extreme Depression	4	3	2	1

Using Pearson's correlation coefficient, the correlation coefficient was 0.26, indicating that as the severity of depression increases, school attendance tends to increase as well; it is essential

to note that this was a weak correlation and that the result does not show causation. When testing anxiety against attendance, the correlation coefficient was 0.109, indicating a very weak positive correlation between anxiety and school attendance. Hence, the hypothesis was *not supported.*

Grades and their impact on mental health and absenteism

Mental Health and Attendance Rates
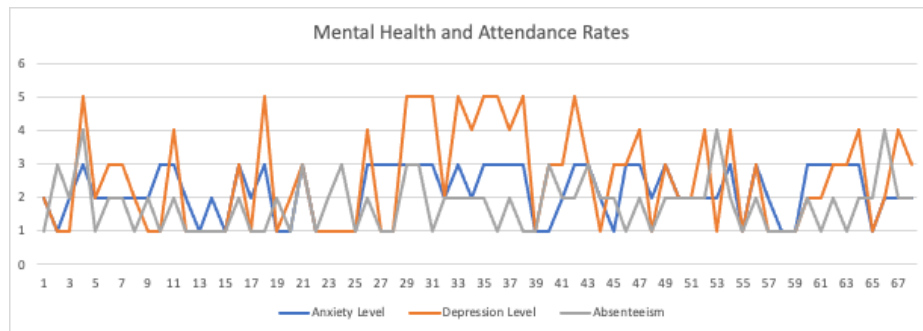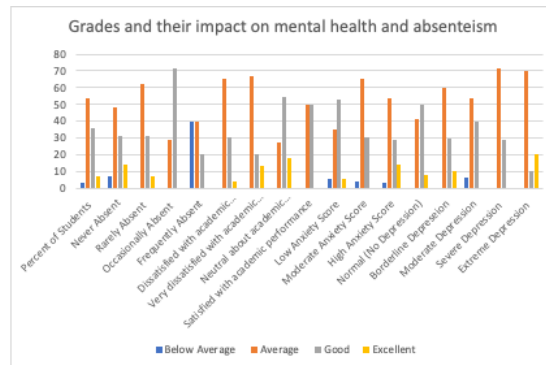
Hypothesis 4: The hypothesis stated that students with access to adequate psychological support services and effective coping strategies will demonstrate better academic outcomes, even in the presence of mental health concerns. However, this hypothesis was *not* supported by the data.

Question	P4	P7	P17	P18	P23	P28	P29	P31	P33	P41	P46	P49	P57
Age	18	17	18	17	19	17	18	18	19	17	18	17	17
Gender	M	F	F	F	M	F	F	F	F	M	M	F	F
Grade	U6	L6	U6	L6	U6	L6A	U6	U6	U6	L6	U6	U6	L6
Years of School	6	5	6	5	6	5	6	6	6	5	6	6	5
Mental Health Diagnosis/treatment	yes	no	no	no	no	no	no	no	yes	yes	yes	no	no
How often do you experience anxiety symptoms	4	5	3	5	5	4	5	3	5	3	4	4	2
How often do you experience depression symptoms	5	5	4	5	3	2	5	5	5	4	5	4	1
Overall Academic Peformance	average	average	average	excellent	excellent	good	average	excellent	good	good	average	good	average
School Absenteeism	frequent	rarely	never	never	rarely	never	ocassionally	never	rarely	rarerly	never	rarely	never
Receival of Psychological Support Services	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Effectiveness of services	1	1	4	2	5	4	2	3	1	4	3	3	2
Coping Strategies	yes	no	yes	yes	no	yes	no	yes	no	yes	yes	no	yes
Effectiveness of coping strategies	3	3	5	3		4	1	4	1	5	3		2
Personal Satisfaction of academic performance	very dissatisfied	satisfied	satisfied	dissatisfied	very satisfied	satisfied	very dissatisfied	very dissatisfied	very dissatisfied	dissatisfied	satisfied	dissatisfied	satisfied
Mental Health Impact on Academic Performance	5	3	2	4	2	5	5	5	5		5	3	1
Anxiety Score	39	22	24	46	15	36	55	51	49	29	48	36	23
	62%	35%	38%	73%	24%	57%	87%	81%	78%	46%	76%	52%	37%
	high	moderate	moderate	high	low	high	high	high	high	moderate	high	high	moderate
Depression Score	44	21	7	46	15	9	49	41	63	32	29	30	10
	70%	33%	13%	73%	24%	14%	78%	65%	100%	51%	46%	48%	16%
	extreme	moderate	normal	extreme	normal	normal	extreme	extreme	extreme	moderate	moderate	moderate	normal

From the above chart, which represents the children who receive psychological support, we can see that the effectiveness of the services varies, with one being ineffective and five being very effective. The Pearson correlation coefficient between academic achievement and the effectiveness of psychological services is -0.126. This value shows a weak negative correlation between the two variables; thus, the data does not support the hypothesis.

CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

Conclusion

The data reveals that there is a concerning prevalence of mental health concerns among students in this group, specifically in the areas of anxiety and depression. While a significant percentage of students exhibit normal levels of ups and downs with mood swings, a notable portion suggest borderline and moderate levels of depression, indicating a need for intervention. Anxiety levels are even more substantial, with a large proportion experiencing medium to high levels of anxiety. The correlation analysis underscores the interconnection between anxiety and depression, emphasizing the importance of addressing both issues at the same time.

Implications

The analysis findings support the hypothesis that higher levels of mental health concerns are associated with lower academic achievement among secondary students in this group of students. The negative correlation between depression levels and academic performance suggests that students with elevated depression may face challenges in academic outcomes. However, it is essential to consider contextual factors, such as the timing of the surveys about external examinations, which may have influenced anxiety levels.

Despite expectations, the analysis does not support the hypothesis proposing a negative relationship between the severity of mental health concerns and students' attendance rates. Weak correlations between depression severity and attendance rates, as well as between anxiety and school attendance, indicate a nuanced relationship that warrants further investigation. Having spoken to the headmaster post-evaluation, I noted that parents often send their children to school, even if they are sick; this has been a notable issue with the school. Furthermore, the data does not support the hypothesis suggesting that students with access to psychological support services and effective coping strategies would demonstrate better academic outcomes. The weak negative correlation between the effectiveness of

psychological services and academic achievement implies that the current support services may not be as influential in academic outcomes as initially hypothesized or that the services received need to be more adequate; this requires further investigation.

Recommendations

1. **Intervention Programs:** Implement targeted intervention programs to address the prevalence of anxiety and depression among students. This may include counseling services, mental health education, and stress management workshops. It was evident through the data collection that many of the student scored high levels of anxiety and depression in the Beck Anxiety Inventory and the Beck Depression Inventory. This was higher than I had anticipated. As Zimbabwe has a limited number of mental health practitioners and because these services are usually costly, I would recommend Psychosocial Support Programs such as the Shamwari Project, Friendship Bench or Sinding to the Lions. These programs work with group work and are delivered by local not for profit organisation. In addition, I would recommend teachers undergo training in order to help them identify or screen children who may be suffering from mental health concerns, as well as provide a safe environment for the children to address their concerns. I would also recommend that the school look into a referral system for children who have severe symptoms.

2. **Contextual Understanding:** Consider contextual factors, such as the timing of mental health assessments and exams, to understand better and interpret the data. This will aid in developing more accurate and nuanced interventions. Unfortunately this assessment was delivered in the third term, which is exam term and therefore a stressful time of year for these students.

3. **Enhanced Support Services:** Re-evaluate and enhance psychological support services to better align with students' needs, ensuring that these services effectively address mental health concerns and promote overall well-being. The data collected indicated some of the students who were receiving support services felt that the interventions they were receiving was not valuable or helpful. Engaging in conversations with these students may better help the teachers to support them and implement effective mental health services.

4. **Longitudinal Studies:** Conduct longitudinal studies to track changes in mental health and academic outcomes over time. This will provide a more comprehensive understanding of the dynamic nature of these relationships.

5. **Further Investigation:** The high levels of anxiety and depression are of particular concern, with 18 students indicating that the have considered 'hurting themselves' and 19 students indicating that they have 'thought about suicide'. I recommend that the school have a suicide specialist come into the school and offer workshops and further investigate the implications of the data collected so that the school can put in place an intervention to this concerning statistic.

In conclusion, addressing the mental health challenges of students in Zimbabwe requires a multi-faceted approach, encompassing targeted interventions, contextual awareness, and continuous evaluation of support services. This data provides a valuable foundation for further research and developing evidence-based strategies to improve secondary students' mental health and academic outcomes.

LIMITATIONS

This study had many limitations. The original basis for the study was on more children, but the researcher could not get the government permission to do the extended research. As a result, the research was done with a smaller pool of participants from a private institution; this affected the study concerning the number of participants and sampling technique, which relied on voluntary participation at a singular private institution. Additionally, the low number of participants resulted in limited data to analyze. The study was done in the examination term, which would have impacted the level of stress that the students were facing, therefore, some of the data may be misrepresented and is only appropriate to their current situation, having data collected over a longer period of time would improve the reliability of the data collected.

Having completed the survey and analyzing the data, it became apparent that the quantitative study was a limitation; through a qualitative portion of the study, the researcher would have been able to answer some questions regarding the nuances of why students at this particular institution did not miss school due to mental health, or why some of the mental health services they were receiving did not seem to be effective.

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Appendix i

This questionnaire has been developed to investigate the hypotheses related to the impact of mental health concerns on academic achievement and attendance rates among secondary school students in Zimbabwe. Please respond to the questions **honestly** and to the best of your ability. **Your responses will remain confidential**.

Beck Depression Inventory Questionnaire

Please read each statement carefully and **CIRCLE** the answer that best reflects how you have been feeling over the past two weeks, including today. There are four possible responses for each statement:

    0   - I do not feel this way at all.
    1   - I feel this way to some degree.
    2   - I feel this way moderately.
    3   - I feel this way very much.

    example: I like cats.   0   (1)   2   3

Questions

		0	1	2	3
1.	I feel sad.	0	1	2	3
2.	I feel discouraged.	0	1	2	3
3.	I feel I have failed.	0	1	2	3
4.	I don't enjoy things the way I used to.	0	1	2	3
5.	I feel guilty a good part of the time.	0	1	2	3
6.	I feel I should be punished.	0	1	2	3
7.	I am disappointed in myself.	0	1	2	3
8.	I blame myself.	0	1	2	3
9.	I want to kill myself.	0	1	2	3
10.	I cry all the time.	0	1	2	3
11.	I feel irritated.	0	1	2	3
12.	I am not interested in other people.	0	1	2	3
13.	I can't make my own decisions.	0	1	2	3
14.	I am ugly.	0	1	2	3
15.	I don't feel like working.	0	1	2	3
16.	I don't sleep well.	0	1	2	3
17.	I'm too tired to do anything.	0	1	2	3
18.	I have no appetite.	0	1	2	3
19.	I have lost a lot of weight.	0	1	2	3
20.	I am worried about my health.	0	1	2	3
21.	I would like to hurt myself.	0	1	2	3

Appendix ii

Beck Anxiety Inventory Questionnaire

Please read each statement carefully and **CIRCLE** the answer that best reflects how you have been feeling over the past week, including today. There are four possible responses for each statement:

0   - I do not feel this way at all.

1   - I feel this way to some degree.

2   - I feel this way moderately.

3   - I feel this way severely.

example: I do not like cats.   (0)   1   2   3

Questions

1.	Numbness or tingling.	0	1	2	3
2.	Feeling hot.	0	1	2	3
3.	Wobbliness in legs	0	1	2	3
4.	Unable to relax.	0	1	2	3
5.	Fear of the worst happening.	0	1	2	3
6.	Dizzy or light headed.	0	1	2	3
7.	Heart pounding or racing.	0	1	2	3
8.	Unsteady.	0	1	2	3
9.	Terrified or afraid.	0	1	2	3
10.	Nervous.	0	1	2	3
11.	Feeling of choaking.	0	1	2	3
12.	Hands trembling.	0	1	2	3
13.	Shakey/unsteady.	0	1	2	3
14.	Fear of losing control.	0	1	2	3
15.	Difficulty in breathing.	0	1	2	3
16.	Fear of dying.	0	1	2	3
17.	Scared.	0	1	2	3
18.	Indigestion.	0	1	2	3
19.	Faint/ lightheaded.	0	1	2	3
20.	Face flushed.	0	1	2	3
21.	Hot/cold sweats.	0	1	2	3

Please note that this questionnaire is a self-assessment tool and is not a substitute for professional diagnosis or treatment. If you have concerns about your anxiety, it is important to consult with a mental health professional.

Appendix iii

PLEASE CIRCLE THE RESPONSE THAT BEST SUITS HOW YOU FEEL. THERE ARE NO RIGHT OR WRONG ANSWERS.

e.g., Your favourite colour is blue: (yes)   no

Demographic Information:

1. Age: _____

2. Gender: _____

3. Grade/Class: _____

4. How many years have you been attending secondary school? _____

5. Have you ever received a diagnosis or treatment for mental health concerns (e.g., anxiety, depression, etc.)? PLEASE CIRCLE THE CORRECT RESPONSE

   Yes   No

Mental Health Concerns:

6. On a scale of 1 to 5, with 1 being "Not at all" and 5 being "Often," how often do you experience anxiety symptoms (e.g., excessive worrying, nervousness, restlessness)?

   1   2   3   4   5

7. On a scale of 1 to 5, with 1 being "Not at all" and 5 being "Often," how often do you experience symptoms of depression (e.g., sadness, loss of interest, low energy)?

   1   2   3   4   5

Academic Achievement:

8. What is your overall academic performance like?

   Excellent   Good   Average   Below Average Poor

Attendance Rates:

9. How often have you missed school in the past semester due to health-related reasons?

   Frequent   Occasionally   Rarely   Never

Psychological Support Services:

10. Have you ever sought or received psychological support services (e.g., counselling, therapy, support groups) for your mental health concerns?

    Yes   No

11. If yes, please rate the effectiveness of the psychological support services you received on a scale of 1 to 5, with 1 being "Not Effective" and 5 being "Very Effective."

    1   2   3   4   5

Coping Strategies:

12. Do you know any coping strategies that help manage your mental health concerns?

     yes   no

13. On a scale of 1 to 5, with 1 being "Not Effective" and 5 being "Very Effective," please rate the effectiveness of your coping strategies in managing your mental health.

     1   2   3   4   5

Academic Outcomes:

14. How satisfied are you with your current academic performance?

     Very Satisfied   Satisfied   Neutral Dissatisfied   Very Dissatisfied

15. On a scale of 1 to 5, with 1 being "Strongly Disagree" and 5 being "Strongly Agree," please indicate your agreement with the following statement: "My mental health concerns have a significant impact on my academic performance."

     1   2   3   4   5

Additional Information:

16. Is there any additional information or comments you would like to provide regarding your mental health, academic performance, or attendance rates?

Thank you for participating in this survey. Your input is valuable and will contribute to our understanding of the relationship between mental health and academic outcomes among secondary school students in Zimbabwe.

Appendix iv

Scoring

Beck Depression Inventory Scoring

The various scoring ranges correspond to the following guidance:

- Score of 1-10: These ups and downs are considered normal
- Score of 11-16: Mild mood disturbance
- Score of 17-20: Borderline clinical depression
- Score of 21-30: Moderate depression
- Score of 31-40: Severe depression
- Score of 40+ Extreme depression

Beck Anxiety Inventory Scoring

The various scoring ranges correspond to the following guidance:

- Score of 0-21: Low anxiety
- Score of 22-35: Moderate anxiety
- Score of 36+ Severe anxiety

Appendix v

RESULTS

Question	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10
Age	17	19	18	18	19	18	17	17	18	19
Gender	M	M	F	M	F	F	F	F	M	F
Grade	L6	U6	U6	U6	U6	U6	L6	L6	U6	U6
Years of School	5	6	6	6	6	6	5	5	6	6
Mental Health Diagnosis/treatment	no	no	no	yes	no	no	no	no	no	no
How often do you experience anxiety symptoms	5	3	5	4	1	3	5	4	4	3
How often do you experience depression symptoms	4	3	5	5	3	2	5	1	3	2
Overall Academic Peformance	average	good	below average	average	average	average	average	good	good	excellent
School Absenteeism	never	occasionally	rarely	frequent	never	rarely	rarely	never	rarely	never
Receival of Psychological Support Services	No	No	no	yes	no	no	yes	no	no	no
Effectiveness of services				1				1		
Coping Strategies	yes	yes	no	yes	yes	no	no	yes	no	no
Effectiveness of coping strategies	3	4		3	3			3	4	4
Personal Satisfaction of academic performance	satisfied	neutral	dissatisfied	very dissatisfied	satisfied	dissatisfied	satisfied	neutral	satisfied	neutral
Mental Health Impact on Academic Performance	3	5	3	5	2	3	3	5	3	1
Anxiety Score	24	0	35	39	35	32	22	30	29	41
	38%	0%	56%	62%	56%	51%	35%	48%	46%	65%
	moderate	low	moderate	high	moderate	moderate	moderate	moderate	moderate	high
Depression Score	20	0	15	44	17	25	21	19	7	12
	32%	0%	24%	70%	27%	40%	33%	30%	11%	19%
	borderline	normal	normal	extreme	borderline	moderate	moderate	borderline	normal	normal
Mean % for mental health score	35%	0%	40%	66%	41%	45%	34%	39%	29%	42%

Question	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20
Age	17	18	18	19	18	17	18	17	18	17
Gender	F	F	M	M	M	F	F	F	F	F
Grade	L6	U6	U6	U6	U6	U6	U6	L6	L6	L6
Years of School	5	6	6	6	6	6	6	5	5	5
Mental Health Diagnosis/treatment	no	no	no	no	no	no	no	no	no	no
How often do you experience anxiety symptoms	5	5	1	1	4	3	3	5	2	4
How often do you experience depression symptoms	4	5	2	3	3	1	4	5	2	1
Overall Academic Peformance	average	average	good	average	good	average	average	excellent	good	average
School Absenteeism	rarely	never	never	never	never	rarely	never	never	rarely	never
Receival of Psychological Support Services	no	no	no	no	no	no	yes	yes	no	no
Effectiveness of services		3		1			4	2	1	
Coping Strategies	yes	no	yes	yes	yes	yes	yes	yes	yes	yes
Effectiveness of coping strategies	3	2	5	5	4	5	5	3	3	4
Personal Satisfaction of academic performance	very dissatisfied	dissatisfied	satisfied	neutral	satisfied	dissatisfied	satisfied	dissatisfied	dissatisfied	very dissatisfied
Mental Health Impact on Academic Performance	3	4	2	3	5	3	2	4	1	5
Anxiety Score	40	31	10	25	20	37	24	46	8	15
	63%	49%	16%	40%	32%	59%	38%	73%	13%	24%
	high	moderate	low	moderate	low	high	moderate	high	low	low
Depression Score	40	5	2	4	9	28	7	46	4	19
	63%	8%	3%	6%	14%	44%	13%	73%	6%	30%
	severe	normal	normal	normal	normal	moderate	normal	extreme	normal	borderline

Question	P21	P22	P23	P24	P25	P26	P27	P28	P29	P30
Age	18	18	19	18	17	19	18	17	18	18
Gender	F	M	M	F	F	M	F	F	F	F
Grade	U6	U6	U6	U6	U6	U6	L6	L6A	U6	U6
Years of School	6	6	6	6	6	6	5	5	6	6
Mental Health Diagnosis/treatment	yes	no	no	no	no	no	no	no	no	no
How often do you experience anxiety symptoms	4	1	5	2	1	4	5	4	5	4
How often do you experience depression symptoms	3	2	3	3	1	5	1	2	5	5
Overall Academic Peformance	good	average	excellent	good	average	good	good	good	average	average
School Absenteeism	ocassionally	never	rarely	occassionally	never	rarely	never	never	ocassionally	ocassionally
Receival of Psychological Support Services	no	no	yes	no	no	no	no	yes	ys	no
Effectiveness of services		1	5		1	1		4	2	
Coping Strategies	yes	no	no	no	no	yes	yes	yes	no	yes
Effectiveness of coping strategies	2	1				2	5	4	1	1
Personal Satisfaction of academic performance	dissatisfied	dissatisfied	very satisfied	dissatisfied	satisfied	dissatisfied	very dissatisfied	satisfied	very dissatisfied	dissatisfied
Mental Health Impact on Academic Performance	5	2	2	5	1	3	1	5	5	5
Anxiety Score	43	8	15	21	0	45	39	36	55	50
	68%	13%	24%	33%	0%	71%	62%	57%	87%	79%
	high	low	low	low	low	high	high	high	high	high
Depression Score	24	8	15	12	0	33	4	9	49	41
	38%	13%	24%	19%	0%	52%	6%	14%	78%	65%
	moderate	normal	normal	normal	normal	severe	normal	normal	extreme	extreme
Mean % for mental health score	53%	13%	24%	26%	0%	62%	34%	36%	83%	72%

Question	P31	P32	P33	P34	P35	P36	P37	P38	P39	P40
Age	18	19	19	18	17	17	18	17	16	18
Gender	F	F	F	F	F	F	F	F	M	M
Grade	U6	U6	U6	U6	L6	U6	U6	U6	L6	U6
Years of School	6	6	6	6	5	6	5	6	5	6
Mental Health Diagnosis/treatment	no	no	yes	no	no	no	no	no	no	no
How often do you experience anxiety symptoms	3	2	5	3	5	5	5	5	1	4
How often do you experience depression symptoms	5	4	5	2	5	5	4	5	1	4
Overall Academic Peformance	excellent	average	good	average	average	average	average	acerage	good	good
School Absenteeism	never	rarely	rarely	rarely	rarely	never	rarely	never	never	occassionally
Receival of Psychological Support Services	yes	no	yes	no	no	no	no	no	no	no
Effectiveness of services	3		1	3						5
Coping Strategies	yes	no	no	no	yes	yes	yes	yes	no	no
Effectiveness of coping strategies	4		1			5	3	3		5
Personal Satisfaction of academic performance	very dissatisfied	ery dissatsifie	ery dissatsifie	dissatisfied	dissatisfied	neutral	dissatisfied	ery dissatisfie	satisfied	very dissatisfied
Mental Health Impact on Academic Performance	5	3	5	2	3	5				
Anxiety Score	51	31	49	30	32	49	50	46	4	0
	81%	49%	78%	48%	67%	78%	79%	73%	6%	0%
	high	moderate	high	moderate	high	high	high	high	low	low
Depression Score	41	19	63	32	44	61	40	41	3	30
	65%	30%	100%	51%	70%	97%	63%	65%	5%	48%
	extreme	borderline	extreme	severe	extreme	extreme	severe	extreme	normal	moderate
Mean % for mental health score	73%	40%	89%	49%	68%	87%	71%	69%	6%	24%

Question	P41	P42	P43	P44	P45	P46	P47	P48	P49	P50
Age	17	18	18	18	18	18	19	17	17	18
Gender	M	M	M	M	M	M	M	M	F	F
Grade	L6	U6	U6	U6	U6	U6	U6	L6	U6	U6
Years of School	5	6	6	6	6	6	6	6	6	6
Mental Health Diagnosis/treatment	yes	no	no	no	no	yes	no	no	no	no
How often do you experience anxiety symptoms	3	4	4	4	3	4	4	3	4	3
How often do you experience depression symptoms	4	5	5	4	5	5	3	1	4	5
Overall Academic Peformance	good	average	good	average	average	average	elow averag	good	good	average
School Absenteeism	rarerly	rarely	occassionally	rarely	rarely	never	rarely	never	rarely	rarely
Receival of Psychological Support Services	yes	no	no	no	no	yes	no	no	yes	no
Effectiveness of services	4					3	3	3	3	
Coping Strategies	yes	yes	yes	yes	no	yes	yes	yes	no	yes
Effectiveness of coping strategies	5	2	3	3	2	3	3	4		2
Personal Satisfaction of academic performance	dissatisfied	ery dissatisfie	neutral	dissatisfied	satisfied	satisfied	dissatisfied	neutral	dissatisfied	dissatisfied
Mental Health Impact on Academic Performance			3	3	3	5	1		3	5
Anxiety Score	29	45	36	34	19	48	39	26	36	32
	46%	71%	57%	54%	30%	76%	62%	41%	52%	51%
	moderate	high	high	moderate	low	high	high	moderate	high	moderate
Depression Score	32	46	24	16	29	29	35	16	30	26
	51%	73%	38%	25%	46%	46%	56%	25%	48%	41%
	moderate	extreme	moderate	normal	moderate	moderate	severe	normal	moderate	borderline
Mean % for mental health score	48%	72%	48%	40%	38%	61%	59%	33%	50%	46%

Question	P51	P52	P53	P54	P55	P56	P57	P58	P59	P60
Age	18	17	18	18	18	19	17	17	17	19
Gender	F	M	F	M	M	M	F	F	M	F
Grade	U6	U6	U6	U6	U6	U6	L6	L6	L6	U6
Years of School	6	6	6	6	6	6	5	5	5	6
Mental Health Diagnosis/treatment	no	no	no	5	no	no	no	no	no	no
How often do you experience anxiety symptoms	4	2	1	5	2	3	2	4	1	3
How often do you experience depression symptoms	2	1	1	4	2	4	1	5	1	1
Overall Academic Peformance	good	average	average	poor	good	average	average	average	good	average
School Absenteeism	rarely	rarely	frequent	rarely	never	rarely	never	never	never	rarely
Receival of Psychological Support Services	no	no	no	no	no	no	yes	no	no	no
Effectiveness of services						3	2			
Coping Strategies	yes	yes	no	yes	no	yes	yes	yes	no	no
Effectiveness of coping strategies	3	3	1	5		4	2	2		
Personal Satisfaction of academic performance	satisfied	neutral	dissatisfied	dissatisfied	satisfied	dissatisfied	satisfied	dissatisfied	satisfied	very dissatisfied
Mental Health Impact on Academic Performance	3	4	3	1	1	5	1	5	3	3
Anxiety Score	25	23	22	40	15	42	23	14	7	43
	40%	37%	33%	63%	22%	63%	37%	22%	11%	68%
	moderate	moderate	moderate	high	low	high	moderate	low	low	high
Depression Score	18	36	8	38	0	26	10	6	0	20
	29%	57%	13%	60%	0%	41%	16%	10%	0%	32%
	borderline	severe	normal	severe	normal	moderate	normal	normal	normal	borderline
Mean % for mental health score	34%	47%	23%	62%	11%	52%	26%	16%	6%	50%

Question	P61	P62	P63	P64	P65	P66	P67	P68	P69	P70
Age	18	18	18	17	18	18	18	18		
Gender	F	M	F	male	F	F	M	F		
Grade	U6	U6	U6	U6	U6	U6	U6	U^		
Years of School	6	6	6	6	6	6	4	6		
Mental Health Diagnosis/treatment	no	no	no	no	no	yes	no	no		
How often do you experience anxiety symptoms	2	3	5	4	3	5	1	1		
How often do you experience depression symptoms	2	4	5	4	2	3	1	3		
Overall Academic Peformance	excellent	average	average	good	average	good	average	good		
School Absenteeism	never	rarely	never	rarely	rarely	frequent	rarely	rarely		
Receival of Psychological Support Services	no	no	no	no	no	no	no	no		
Effectiveness of services	1							3		
Coping Strategies	no	yes	no	yes	yes	yes	no	no		
Effectiveness of coping strategies	4	3		3	5	4		3		
Personal Satisfaction of academic performance	neutral	dissatisfied	ery dissatisfie	dissatisfied	ery dissatisfie	neutral	satisfied	neutral		
Mental Health Impact on Academic Performance	3	3	5	5		5		1		
Anxiety Score	37	39	36	55	20	28	28	37		
	59%	62%	57%	87%	32%	44%	44%	59%		
	high	high	high	high	low	moderate	moderate	moderate		
Depression Score	18	26	21	34	8	24	32	26		
	29%	41%	33%	54%	13%	38%	51%	41%		
	borderline	moderate	moderate	severe	normal	borderline	severe	moderate		
Mean % for mental health score	44%	52%	45%	71%	22%	41%	48%	50%		