



# The Impact of Depression on Undergraduate Students' Educational Performance: A Case of Nawalparasi and Chitwan Districts

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## Abstract

Depression is a growing concern among college students, including Nepalese students. Identifying its origin holds the potential to enhance mental health assistance and strategies, fostering a more supportive academic atmosphere. This research investigated the impact of depression on the academic performance of undergraduates. Employing a quantitative research approach, the survey questionnaire was used as the primary tool for data collection, and descriptive statistics were used for data analysis. The sample consisted of two hundred and one (N = 201) undergraduates selected from Oxford College of Engineering and Management, selected through random sampling to ensure representativeness. The results of this study show a positive association between academic stress and the impact of depression on undergraduate students' educational performance. Further the results show a negative association between financial pressure and family relationship problems and the impact of depression on undergraduate students' educational performance. However the result shows no association between the social isolation and the impact of depression on educational performance. This study's implications would offer benefits to policymakers, teachers, parents, colleges, and universities alike in understanding the current issue of depression in undergraduate students' performance. This study is limited to specific area, so we can't strongly suggest to generalize the current results in other similar cases.

**Keywords:** *chitwan, depression, logistic regression analysis, principal component analysis, Undergraduate students*

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## Introduction

Depression is a common mental health issue which people normally face in their life now a days. The medical illness negatively affects how we think, perceive things, feel, and act in a specific situation. The feeling of sadness, emptiness, inability to feel joy and happiness might appear for no reason. Identifying depression, anxiety, and stress levels are crucial mental health indicators. Three emotional disorders discussed above could lead to negative outcomes, such as normal impaired functioning, burnout, and health problems (Manap, Hamid & Ghani, 2019). Depression is more than just sadness. People with depression could experience a lack of interest and pleasure in daily activities, significant weight loss or gain, excessive sleeping, lack of energy, inability to concentrate, feelings of worthlessness and recurrent thoughts of death or suicide (Jamil et al., 2022). Depression poses significant risks to university students, who play a crucial societal role. The prominent challenges associated with students' depression encompass low self-evaluation, diminished enjoyment and engagement in daily activities, disruptions in eating and sleeping patterns, and contemplation of self-harm (Dapaah & Amoako, 2019).

In the context of higher education, depression can have a significant impact on a student's academic performance. It is common for undergraduate students to feel stressed because it is an exciting time for students to explore their life and grow as a person (Zhang & Zhau, 2023). Most students perceive depression as an extended duration of profound sadness, lasting for days, weeks, or even months, during which they experience feelings of hopelessness and worthlessness, leading them to withdraw from social interactions with their peers (Dapaah & Amoako, 2019). Depression can profoundly affect students' cognitive and emotional functioning, which may affect their academic performance. It leads to decreased energy and difficulty in thinking, concentrating, and making career decisions (Deng, Cherian & Khan, 2022). Students are the pillar of the future in building an educated society. For them, academic achievement is a big life goal and can severely be affected if the students fall prey to depression.. The article aims to explore the depression influencing factors and the impact of depression on undergraduate students'

performance, with a critical factor contributing to this issue.

Depression affects individuals from diverse backgrounds and ages, making it a prevalent health issue. Among undergraduate students, mainly those unprepared for the challenges of college/university life, depression is frequently observed (Ahmed, 2015). The demanding workload, intense competition, and the constant pressure to excel contribute to stress, which is a leading cause of depression (Rayhal, 2018). Researchers have demonstrated that anxiety symptoms are positively correlated with academic stress, and that academic stress is a risk factor for anxiety symptoms among students. Anxiety symptoms are closely related to school performance, exams, assignments, ranking, test scores, teacher-student relationships, and other related topics (Zhang, Shi & Tian, 2022).

Even though there are several studies on the relationship between depression and academic performance. Limited research focuses on the impact of depression among undergraduate students and how it affects their academic performance. That is why this study is relevant in the Nepalese context . Students who exhibit moderate levels of depressive symptoms showed poorer academic performance when compared to their peers with normal or minimal levels of depression (DeRoma, Leach & Leverett, 2009). After removing an insignificant influence of social support on the correlation between anxiety and academic performance, the overall impact of anxiety on academic performance was found to be negligible (Bisson, 2017). College students with depression have lower academic achievement and are more likely to drop out of college (Ibrahim, Kelly & Adams, 2013). Depression can affect students' cognitive functioning, such as attention, memory, and decision-making and affecting academic performance (Yu, Xiong & Zhang, 2023). Depression symptoms in students are linked to an increased probability of falling behind and could contribute to the current low graduation rates (Wagner, Wagner & Kolanisi, 2022).

The problem addressed in this research is the impact of depression on undergraduate students educational performance. Although depression is a rising mental health issue among college

students, limited research specifically focuses on finding the factors contributing to depression and how it affects the performance of undergraduate students. Lack of awareness and understanding about mental health and not recognizing the symptoms of depression is the major problem of this population. They might feel ashamed to seek help or to talk about their problem openly due to the lack of awareness. College students face high stress and pressure, affecting their mental health. Factors such as academic stress, financial pressure, social isolation, and family relationship problems can impact on the mental health of students.

The study on the impact of depression on undergraduate students' educational performance is significant for several reasons. In this context, depression is one of the most common mental health problems among undergraduate students, and understanding its causes can help minimize it. Depression negatively impacts on a significant portion of the population, including young adults. College students undergo significant changes in their life, leading them to stress and anxiety because the college period is the foundation for their future careers and growth. Therefore, any factor that negatively impacts on students' academic performance can have long-term future consequences in future. This research can help to detect the impact of depression among college students could help to identify the risk and provide them with the necessary support. The study's primary objective was to identify the impact of depression on undergraduate students' educational performance. Furthermore, the research question was: *What was the association between the influencing factor and the impact of depression on undergraduate students' educational performance?*

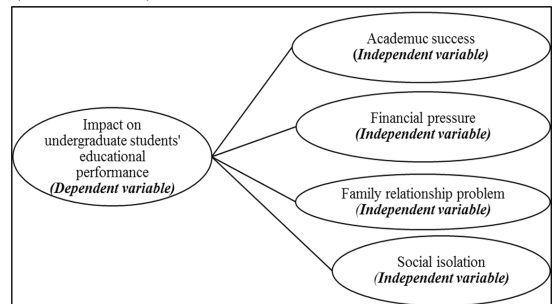
## Literature Review

Literature review of this study is started with the foundation of theoretical frameworks from the previously published studies and then review of related studies.

## Theoretical Framework

Bisson(2017) and Ashraful Islam(2018) argued that one's self-perception causes depression rather than depression resulting from one's negative self-view. This argument holds significant social implications for how we perceive and interact with each other

as a collective. Research on college admissions serves as a prime illustration of this phenomenon. The study revealed that students' pessimistic outlook on their future played a significant role in the relationship between dysfunctional attitudes and an increase in the depressed mood. The findings strongly supported Beck's assertion that individuals vulnerable to depression due to dysfunctional attitudes experienced doubt about their future when they failed to get into their preferred college. Above discussed thoughts then led to depressive symptoms. Consequently, the students' self-perception turned negative after the college rejection, resulting in many displaying signs of depression. However, certain study aspects did not align well with Beck's perspective (Allen, 2020).



**Figure 1:** *The Conceptual Framework of this Study*

## Review of Previous Studies

Prior studies have extensively explored the impact of depression on the educational performance of undergraduate students, which have shed light on the significant adverse effects of depression, including lower academic achievement, decreased motivation, impaired concentration, and reduced overall well-being (see Table 1). By examining the previous research in this area, we could gain valuable insights into the multifaceted relationship between depression and educational outcomes, which can ultimately inform interventions and support strategies to promote undergraduate students' success and well-being.

The results of literature review indicates that social isolation negatively impacts academic performance; depression was prevalent among undergraduate students; family stress affects academic performance; depression lowers GPA; gender influences depression; addressing students' holistic needs improves success and employability;

**Table 1:** *The Review of the Literature of Previous Studies on the Impact of Depression on Undergraduate Students on their Educational Performance*

Objective of study	Methods	Finding	Authors & year	Research gap
The objective is to explore the correlation between depression, anxiety, and stress level in female college students.	Quantitative method	The findings suggest a positive association between depression, anxiety, and stress in female college students.	Ahmed (2015)	The study focused on the correlation between depression, anxiety, and stress level of female college students only.
This study examines the impact of psychosocial factors on the academic stress and mental well-being of high school students in India.	Quantitative method	Academic stress exhibited a positive association with both parental pressure and psychiatric issues.	Deb, Strodl and Sun (2015)	The sample has taken from high school students.
To examine the impact of academic and familial stress on students' academic performance	Both qualitative and quantitative methods	Family stress has a negative impact on students' academic performance	Deng et al. (2022)	The sample was collected in Pakistan and a small sample size
To examine the effect of social isolation on students' academic performance	Quantitative method	There is a strong correlation between social isolation and the student's academic performance.	Giovenco, Shook-Sa and Hotson.(2022)	The study was conducted in a different location rather than in Nepal.
To evaluate the impact of depression on students' performance	Both quantitative and qualitative	Depression affects the GPA of the students	Jamil, Alakkari and Al-Mahini. (2022)	The sample size was small, so there was the problem of results generalization.
To examine the correlation between students' isolation and their university learning.	Quantitative method	A holistic approach to students' needs improves success and employability.	Lim and Vighnarajah (2018)	It has covered a single factor which causes depression.
In this study, we examine how adolescents' perception of parental acceptance or rejection influences their anxiety levels.	Quantitative method	A positive association was found between parental acceptance and rejection of student behaviour.	Raina and Goyal. (2018)	The sample was collected from high school students.
To examine the depression level of the students.	Quantitative method	The gender of a person also has a significant effect on depression	Rayhan (2018)	The sample size was small, so there was a problem with the generalization of the results.
To examine the impact of financial literacy on the financial well-being of students	Quantitative	Financial literacy significantly impacts students' academic performance.	Usman and Banu (2019)	Random samples were taken from 100 participants, which is very small.

financial literacy affects academic performance; and academic stress is associated with parental pressure and psychiatric issues. The results also show a positive association between parental acceptance or rejection and student behaviour, suggesting that the level of parental support and acceptance can impact students' behaviour and educational performance(see Table 1).

### Research Gap

Previous studies were conducted in European, American and British contexts. Still, not in the Nepalese context, so the previous findings cannot be relevant in the Nepalese context because the research location, the population sample, selected research approach, and applied sampling methods can make differences in the outcomes of research. The previous study by Jamil, Alakkari and Al-Mahini (2022) collected a small sample of high school students in Pakistan, which limits the generalizability of the results. Furthermore, the previous studies focused on a single factor contributing to depression(see Table 1). Similarly, another study by Usman and Banu (2019) collected data from the sample of 100 participants in medical colleges, further highlighting the issue of limited generalizability, which signifies the emergence of this research in the Nepalese context.

### Methodology

This research has adopted quantitative method that used structured questionnaire for the data collection.

### Quantitative Approach

The quantitative research approach is based on positivist world-views to understand social reality. The positivist world-views believe that social reality is based on objectivity and has a single reality. The quantitative philosophy of social reality emphasizes using numerical data and statistical methods to understand and explain social phenomena. It is rooted in the belief that social realities can be measured, quantified, and analyzed using objective and systematic approaches. This philosophy assumes that social phenomena can be broken down into discrete variables that can be measured and analyzed mathematically. It often involves conducting surveys, experiments, or statistical analyses to collect data and draw conclusions about social phenomena. The quantitative philosophy aims to uncover patterns, relationships, and generalizable findings that can contribute to our understanding of social reality (Creswell & Piano Clerk, 2018).

Our study employed a quantitative approach, which involved collecting and analyzing data

numerically. This method uses a deductive approach that tests theories and observes unfamiliar, unexplained phenomena. It was applied to explore the existing theories related to the problem under investigation, as it is considered more dependable and precise compared to alternative approaches. The participants responded to Likert-type questions using a five-point scale (Piya & Adhikari, 2023).

### **The Survey Method**

In this research, we have employed a survey approach that utilizes a variety of processes, tools, and techniques to collect data from a specific group of individuals. This methodology allows us to obtain information from a sizable sample population, thereby increasing the reliability and accuracy of the results. Additionally, it offers a convenient data collection method for both the researcher and the participants. (Adhikari, 2023).

### **The Sample Population**

A total of two hundred and one (N = 201) random samples were taken from undergraduate students. Different faculty members of undergraduate students were chosen as respondents using a simple random sampling method from all semesters of all three faculties (BBA, BCA and Engineering of OCEM).

The analysis of this study's data primarily relies on conducting primary research to investigate the association between the impact factors of depression and academic performance of undergraduate students. We analyzed the collected data using IBM SPSS Statistics 26 version for Windows, as it is cost-effective and suitable for students, derived from the professional version offered by IBM. The data analysis primarily involved statistical techniques to explore the association between the dependent and independent variables. First, the collected data were edited and excluded uncompleted information of the survey. First, the factor reduction method was applied to find the Principal Component Analysis (PCA), and later, PCs were converted into subscales and their mean, Standard Deviation, and Alpha value were calculated. After that binary logistic regression method was applied to find the association between the dependent and independent variables (Adhikari, 2022).

### **Reliability and Validity of Results**

The reliability and validity of a survey questionnaire are essential considerations in assessing the quality and accuracy of the data collected. Reliability refers to the consistency and stability of the measurements obtained from the questionnaire, while validity refers to the extent to which the questionnaire measures what it intends to measure. Statistical measures were conducted (Craeswell & Plano Clark, 2011). Cronbach's Alpha was used to assess internal consistency, indicating how closely related the items in the questionnaire were to each other. This study's high Cronbach's Alpha results suggest strong reliability, indicating that the items consistently measure the same construct to evaluate reliability (Adhikari, 2022).

The validity, on the other hand, can be assessed through various methods. Content validity ensures the questionnaire adequately covers all relevant aspects of the measured construct. Construct validity involves examining the extent to which the questionnaire aligns with theoretical expectations and correlates with other established measures of the same construct. Concurrent validity assesses the questionnaire's ability to produce similar results to a benchmark measure, while predictive validity determines whether the questionnaire can accurately predict future outcomes (Creswell & Plano Clark, 2011).

Overall, this study's results ensure a survey questionnaire's high reliability and validity involves careful design, piloting, and analysis. It requires establishing clear research objectives, using appropriate measurement scales, and conducting statistical analyses to assess the quality of the questionnaire and the accuracy of the data collected.

### **Regression Analysis**

Binary logistic regression is a suitable data analysis method for examining the impact of depression on undergraduate students' educational performance due to its ability to analyze the relationship between a binary dependent variable (in this case, impact on academic performance) and one or more independent variables (academic stress, financial pressure, the family relationship problem and social isolation) (Cohental, 2011).



## Results and Discussion

Result and discussion session of this research has described each of the factors individually with their impact on student's educational performance.

### Social Isolation

Several studies have identified a positive association between social isolation and depressive symptoms among undergraduate students. For example, Giovenco et al. (2022) found a strong association between social isolation and negative impacts on the mental well-being of U.K. undergraduate students. Additionally, a study by Lim and Vighnarajah (2018) found psychological isolation was less strongly associated with negative university learning experiences than academic and social isolation.

### Association between Social Isolation and the Impact of Depression on Educational Performance

**Table 2:** Mean, SD, and Alpha Values of Academic Factors (N = 201)

Scales(PCs)	Mean	SD	Alpha
Academic stress and mental well-being	3.097	0.888	0.711
Loneliness and Social Isolation	3.246	0.873	0.614

**Table 3:** Results of Logistic Regression Block 1 Model

Model	Chi-square	Df	P-value	Cox and Snell's R Square	Nagelkerke's R square	-2loglikelihood
Omnibus tests of model coefficients	3.496	2	0.025	37%	50.0 %	254.078
Hosmer and Lemeshow test	10.24	8	0.296			

**Table 4:** Regression Analysis on Predicting the Association between Social Isolation and the Impact of Depression on Undergraduate Students' Educational Performance (N = 201)

Independent variables	B	S.E	Wald	df	P-value	Exp	95% CI for Exp(B)	
							Lower	Upper
Peer-family pressure	0.052	0.146	0.126	1	0.723	1.053	0.791	1.401
Social Influence on Junk Food Choices	-0.406	0.15	7.314	1	0.007	0.666	0.496	0.894
Constant	-0.072	0.145	0.247	1	0.619	0.931		

The results indicate that the mean values of the two subscales are calculated as 3.097 and 3.246; the signifying mean is greater than the average (3) values. The participants slightly disclosed their agreement with the statements that they had difficulty communicating their feelings and emotions with others. They felt like they did not belong to their academic program; others did not understand them or their experiences and worried their isolation would negatively affect their mental health and academic success. They avoided social events to meet new people. The result's further show that the participant also slightly disclosed their agreement with statements they found challenging to form and maintain close relationships with others and felt isolated

from their peers and colleagues in their academic program. They often felt lonely and disconnected from the university community (see Table 2.)

The regression analysis examined the association between the depression impacting factor and their impact on undergraduate students' educational performance. The tabulated data of Block 1 are evaluated using Chi-square, df, Cox and Snell's R Square, Nagelkerke's R Square, and 2 log-likelihood.

The Binary Regression output shows the overall model summary statistics for each of the three models. The table labelled Omnibus Test of Model Coefficients induces the Chi-square statistic (which is related to -2LL) for the model overall (Model) and the change since the previous model (Block 0) [ $X^2(2) = 3.496, p = 0.025, -2LL = 254.078$ ]. The classification table result showed that the Block 0 Model accurately predicted 59.8 % of the 201 data. Block 1 Models improved compared to the block 0 Models, which included all variable and had an accurately classified rate of 60.3 % (see Table 3).

The results indicate no association between academic stress and mental well-being and the impact of depression on undergraduate students'

educational performance ( $p > 0.05$ , odd ratio = 1.453  $> 1$ , B = .374). Further results show no association between loneliness and social isolation and the impact of depression on undergraduate students' educational performance ( $p > 0.05$ , with odd ratio = 0.989  $< 1$ , B = -.011) (See Table 4).

### Academic Stress

Several studies have identified a positive association between academic stress and depressive symptoms among undergraduate students. For example (Zhang et al., 2022) highlighted that academic stress levels significantly associated with common symptoms like anxiety, hopelessness, and depressive symptoms among college students. Additionally, a study by Ashraful Islam, Yun Low and Ting Tong(2018) demonstrated a significant

positive association between academic stress and depressive symptoms among Malaysian undergraduate students.

**Association between Academic Stress and the Impact of Depression on educational performance**

The results indicate that the mean values of the three subscales are calculated as 3.507, 3.512 and 3.297; the signifying mean is greater than the average (3) values. The participants slightly disclosed their agreement with the statements; they felt that the syllabus was tough to comprehend at a undergraduate level college.

**Table 5: Mean, SD, and Alpha Values for Factors of Academic Stress (N = 201)**

Scales(PCs)	Mean	S.D	Alpha
Academic pressure creates self-doubt	3.508	1.001	0.795
Educational workload anxiety	3.512	0.779	0.618
Depression disorder impact on students	3.297	0.902	0.515

**Table 6: Results of Regression Block 1 Model**

Model	Chi-square	Df	P-value	Cox and Snell's R Square	Nagelkerke's R square	-2loglikelihood
Omnibus tests of model coefficients	13.872	3	0.03	0.068	0.115	163.817
Hosmer and Lemeshow test	4.714	8	0.788			

**Table 7: Regression Analysis on Predicting the Association between Academic Stress and the Impact of Depression on Undergraduate Students' Educational Performance (N = 201)**

Independent variables	B	S.E	Wald	df	P-value	Exp	95% CI for Exp(B)	
							Lower	Upper
Academic pressure creates self-doubt	0.412	0.185	4.933	1	0.026	1.51	1.05	2.172
Educational workload anxiety	0.434	0.187	5.38	1	0.02	1.544	1.07	2.229
Depression disorder impact on students	-0.407	0.213	3.632	1	0.057	0.666	0.438	1.012
Constant	-1.778	0.216	67.476	1	0	0.169		

They worried that their grades would not meet their expectations or the expectations of others and often felt like they weren't doing enough to succeed in my academic program. The results further show that the participants also slightly disclosed their agreement with statements they struggled to manage their time effectively and prioritize tasks, felt pressure to perform well academically, which caused them stress, had difficulty concentrating or focusing on their work, and felt overwhelmed by the demands of their academic programme.

The results further show that the participant also slightly disclosed their agreement with statements depression disorder started to decline between the age of 18 and 25, which impacted the academic performance of students, they experienced physical symptoms of stress, such as headaches, and worried that their academic stress would have negative consequences for their mental health and overall well-being (see Table 5).

**Logistic Regression Analysis**

The results show the proposed model significant [ $X^2(3) = 13.872, p = 0.03 -2LL = 163.817$ ]. The results of classification table show that the Block 0 Model accurately predicted 70.2% of the 201 data. Block 1 Models did not improve compared to the block 0 Models, which included all the variables and had an accurately classified rate of 75.2%. (see Table 6).

The results show that there was a positive association between academic pressure creating self-doubt and the impact of depression on undergraduate students' educational performance ( $p < 0.05, odds\ ratio = 1.510 > 1, B = .412 > 0$ ). Further results show that there is a positive association between education workload anxiety and the impact of depression on undergraduate students' educational performance indicating ( $p < 0.05, odds = 1.544 > 1, B = 0.434 > 0$ ).

But the results show no association between depression disorder impacts on students and the impact of depression on undergraduate students' educational performance ( $p > 0.5$ ) (see Table 7).

The table labelled Omnibus Test of Model Coefficients induces the chi-square statistic (which is related to -2LL) for the model overall (Model) and the change since the previous model (Block 0) [ $X^2(2) = 8.075, p = 0.045 -2LL = 268.213$ ].

**Financial Pressure**

Several studies have identified a positive association between financial pressure and depressive symptoms among undergraduate students. For example, Andrews and Wilding (2004) found that financial challenges, along with other obstacles, have the potential to heighten anxiety and depression among British students, leading to a negative impact on their academic performance. Additionally, Usman and Banu (2019) states that financial literacy significantly

impacts students' academic performance.

### Association between Financial Pressure and the Impact of Depression on Educational Performance

The results indicate that the mean value of the subscale is calculated as 2.927 and 2.897, signifying the mean of factors is less than average (3) values.

The participants disclosed their agreement with the statements that they had difficulty balancing their academic responsibilities with their family or relationship obligations, parental participation and learning affect how parents treated their children, parents' supportive reactions encourage children to explore their emotions by encouraging them to express.

**Table 8:** Mean, SD, and Alpha Values for Financial Pressure Factors (N = 201)

Scales(PCs)	Mean	S.D	Alpha
Easing financial anxiety through the assistance	3.314	0.804	0.754
Suffocating monetary burden	2.979	1.176	0.515

**Table 9:** Results of Regression Block 1 Model

Model	Chi-square	Df	P-value	Cox and Snell's R Square	Nagelkerke's R square	-2loglikelihood
Omnibus tests of model coefficients	18.467	2	0.001	8.80%	12.60%	224.161
Hosmer and Lemeshow test	14.075	8	0.081			

**Table 10:** Regression Analysis on Predicting the Association between Financial Pressure and the Impact of Depression on Undergraduate Students' Educational Performance (N = 201)

Independent variables	B	S.E	Wald	df	P-value	Exp	95% C.I for Exp(B)	
							Lower	Upper
Easing financial anxiety through the assistance	-0.695	0.177	15.512	1	0.000	0.499	0.353	0.705
Suffocating monetary burden	-0.108	0.161	0.454	1	0.049	0.897	0.654	1.23
Constant	-0.216	0.172	1.590	1	0.002	0.806	0.576	1.127

They felt like their family or relationship problems were contributed to their feelings of depression or anxiety, they felt like they didn't have enough emotional support from their family or romantic partner, they had difficulty communicating with or understanding the perspectives of their family members or romantic partner, they worried about the impact of their academic stress on their relationships with others, they worried that their family or relationship problems would have negative consequences for their mental health and academic success, and they struggled with conflict in their relationships with family members (see Table 8).

The results show that table labelled Omnibus Test of Model Coefficients induces the Chi-square statistic (which is related to -2LL) for the model overall (Model) and the change since the previous model (Block 0) [ $X^2(2) = 18.467, p = 0.001$  -2LL

= 224.161]. The classification table results showed that the Block 0 Model accurately predicted 70.5% of the 201 data. Block 1 models improved compared to the block 0 models, which included all variables and had an accurately classified rate of 73.5% (see Table 9).

The results show that there was a negative association between easing financial anxiety through assistance and the impact of depression on the academic performance of undergraduate students indicating ( $p < 0.05$ , odds ratio =  $0.499 < 1, B = -0.695 < 0$ ). Further results show that there was a negative association between suffocating monetary burden and the impact of depression on the academic performance of undergraduate students indicating ( $p < 0.05$ , odds ratio =  $0.897 < 1, B = -0.108 < 0$ )) (see Table 10).

The result show the negative association between easing financial anxiety through the assistance and impact of depression on undergraduate students' educational performance ( $B = -0.695$ ).

### Family Relationship Problem

Several studies have identified a positive association between family relationship problems and depressive symptoms among undergraduate students. For example, Deb et al. (2015) found that academic stress is positively associated with parental pressure and psychiatric issues. Additionally, a study by Raina and Goyal (2018) found that parental acceptance or rejection causes students depression.

### Association between Family Relationship Problems and the Impact of Depression on Educational Performance

The results indicate that the mean value of the subscale is calculated as 2.9267 and 2.897, signifying the mean of factors is less than average (3) values. The participants disclosed their agreement with the statements that they had difficulty balancing their academic responsibilities



impacts students' academic performance.

### Association between Financial Pressure and the Impact of Depression on Educational Performance

The results indicate that the mean value of the subscale is calculated as 2.927 and 2.897, signifying the mean of factors is less than average (3) values.

The participants disclosed their agreement with the statements that they had difficulty balancing their academic responsibilities with their family or relationship obligations, parental participation and members they worried about the impact of their academic stress on their relationships with others, they worried that their family or relationship problems would have negative consequences for their mental health and academic success, and they struggled with conflict or tension in their relationships with family members (see Table 11).

**Table 11:** Mean, SD, and Alpha value for Family Relationship Problem Factors (N = 201)

Scales (P.Cs)	Mean	SD	Alpha
Relationship struggle and limited support	2.927	0.939	0.886
Breakdown of negative impact on the study	2.897	0.9987	0.799

**Table 12:** Results of Regression Results of Block 1 Models

Model	Chi-square	df	P-value	Cox and Snell's R Square	Nagelkerke's R square	-2loglikelihood
Omnibus tests of model coefficients	8.075	2	0.45	4.00%	5.30%	268.213
Hosmer and Lemeshow test	8.879	8	0.353			

**Table 13:** Regression Analysis on Predicting the Association between Family Relationship Problems and the Impact of Depression on Undergraduate Students' Educational Performance (N = 201)

Independent variables	B	S.E	Wald	df	P-value	Exp	95% C.I for Exp(B)	
							Lower	Upper
Relationship struggle and limited support	0.052	0.146	0.126	1	0.723	1.053	0.791	1.401
Breakdown of negative impact on the study	-0.406	0.150	7.314	1	0.007	0.666	0.496	0.894
Constant	0.078	0.151	0.268	1	0.605	1.081	0.804	1.454

The regression analysis examined the association between the influencing factor and the impact of depression on undergraduate students' educational performance.

The table labelled Omnibus Test of Model Coefficients induces the Chi-square statistic (which is related to -2LL) for the model overall (Model) and the change since the previous model (Block 0) [ $X^2(2) = 8.075, p = 0.045$  -2LL =268.213]. The classification table results showed that the Block 0 Model accurately predicted 52.2 % of the 201 data. Block 1 models improved compared to the block 0 models, which included all variables and had accurately classified rate of 58.02% (see Table 12).

The results show that there was a negative association between the breakdown of negative impact on the study and the impact of depression on undergraduate students' educational performance

indicating ( $p < 0.05$ , odds ratio =  $0.666 < 1$ ,  $B = -0.406 < 0$ ). But the results indicate no association between relationship struggle, limited support and the impact of depression on undergraduate students' educational performance ( $p > 0.05$ , odds ratio =  $1.053 > 1$ ,  $B = 0.052 > 0$ ) (see Table 13).

Depression encompasses more than mere sadness, encompassing a range of symptoms including reduced interest and enjoyment in daily activities, noticeable changes in weight, sleep disturbances, diminished energy, difficulty focusing, feelings of low self-worth or intense guilt, and recurring thoughts of death or suicide (Parvez et al., 2018). This research is situated within the context of investigating the impact of depression on the academic performance of undergraduate students. The main objective of this study was to find an association between the influencing factors and the impact of depression on undergraduate students' educational performance. A quantitative approach was employed, including a survey methodology

Primary data was collected through the survey questionnaire and analyzed using regression and association techniques. The findings were presented through the utilization of data analysis software such as SPSS and Excel to generate tables.

The results show a positive association between academic pressure creating self-doubt, educational workload anxiety and the impact of depression on undergraduate students' educational performance. Further results show a negative association between easing financial anxiety through assistance, suffocating monetary burden, breakdown of negative impact on the study and the impact of depression on undergraduate students' educational performance. Alternatively, the results show no association between academic stress and mental well-being, loneliness and social isolation, depression disorder impact on students, relationship struggle and limited support

and the impact of depression on undergraduate students' educational performance.

The results indicate that the highest predictor of the impact of depression on undergraduate students' performance in Nepalese higher-level education was educational workload anxiety (odds = 1.544) (see Table 14).

**Table 14:** Predictors of the Depression on Academic Performance of Undergraduate Students (N = 201)

Independent variables	B	S.E.	Wald	df	P-value	Exp(B)
Academic pressure creates self-doubt	0.412	0.185	4.933	1	0.026	1.510
Educational workload anxiety	0.434	0.187	5.380	1	0.020	1.544
Easing financial anxiety through the assistance	-0.695	0.177	15.512	1	0.000	.499
Breakdown of negative impact on the study	-0.406	0.150	7.314	1	0.007	.666
Suffocating monetary burden	-0.108	0.161	0.454	1	0.49	.897

### Association between Social Isolation and the Impact of Depression on Educational Performance

The findings establish no significant association between academic stress and mental well-being, loneliness and social isolation, and the impact of depression on undergraduate students' educational performance.

### Association between Academic Stress and the Impact of Depression on Undergraduate Students' Educational Performance

The results show a positive association between academic pressure creating self-doubt, education workload anxiety, and the impact of depression on undergraduate students' educational performance. This study was supported by Wagner et al. (2022), who found that 10% of the participants displayed signs suggesting severe depression, which was also associated with an increased probability of encountering a delay in advancement.

### Association between financial pressure and the impact of depression on undergraduate students' educational performance

The results highlight a negative association between easing financial anxiety through assistance and suffocating monetary burden and the impact of depression on undergraduate students' educational performance. The result of this study is supported by the study of Usman and Banu (2019), who found that students experiencing financial stress demonstrate lower academic performance in terms of grades and credit hours earned.

### Association between Family Relationship Problems and the Impact of Depression on Educational Performance

The results indicates a negative association between the breakdown of negative impact on the study and the impact of depression on

undergraduate students' education. This study receives support from by Deng et al. (2022), who found that the presence of academic and family-related stress contributes to the onset of depression in students, thereby the presence of academic and family-related stress contributes to the onset of depression in students, exerting a

detrimental impact on their academic performance and educational achievements.

### Discussion

This research mainly focuses on the impact of depression on undergraduate students' educational performance. Depression is a significant and increasing concern among undergraduate students in both developed and developing nations, posing a complex and prevalent mental health challenge. The factors contributing to this issue are substantial and warrant serious attention. Based on previous research conducted in Malaysia, depression has risen significantly, from 12% in 2011 to 29% in 2020 (Velu & Tabianan, 2022). After analyzing all the factors that impact depression among undergraduate students, we discovered that academic pressure has a significant effect on students' academic performance, creating self-doubt and leading to low self-esteem. Additionally, family and relationship problems have a negative significant impact on student's educational performance. Breakdown negatively impacts students' studies and discourages their participation in college activities, gradually contributing to depression and negatively affecting their educational performance.

Giovenco et al. (2022) established a significant association between social isolation and negative mental health effects. However, our analysis contradicts this finding as we found no connection between social isolation and the impact of depression on the academic performance of undergraduate students. Conversely, Usman and Banu (2019) discovered a positive association between financial difficulties and the influence of depression on academic performance among

undergraduate students. In contrast, our findings indicate a negative correlation between financial stress and depression concerning the educational performance of undergraduate students.

Our results partially supported the previous findings of different authors indicating that the impact of depression on undergraduate students' educational performance (see Table).

## Conclusion

The objective of this study was to examine the impact of depression on undergraduate students' performance. This study applied quantitative research method to understand the opinions and experience of undergraduate students for the impact of depression on educational performance. The impact of depression on undergraduate students' educational performance in Nepal has been studied to understand its effects on various aspects of their lives. Research has shown that depression can significantly affect academic performance, psychological well-being, and overall quality of life among undergraduate students in Nepal. It has been found that students with depression may experience decreased motivation, difficulty concentrating, and a higher risk of dropout or delayed graduation. Furthermore, depression can contribute to social withdrawal, increased loneliness, and decreased interpersonal relationships. The findings emphasize the importance of addressing mental health concerns and implementing appropriate support systems within educational institutions in Nepal to mitigate the negative impact of depression on undergraduate students. The highest predictor of the impact of depression on undergraduate-level students' educational performance was easing financial anxiety through assistance.

## Recommendation

We highly recommend that future researchers employ qualitative research methods to gain a deeper understanding of how depression affects the educational performance of undergraduate students. Additionally, they should consider comparing the prevalence of depression among males and females, analyzing its impact on academic performance. To enhance the reliability and diversity of findings, a larger sample size beyond 201 participants is advisable.

Furthermore, employing a mixed-method approach would offer a comprehensive insight into the multifaceted causes of depression. It is also suggested that future researchers broaden their data collection scope by including a larger and more diverse sample from different areas.

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