IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)
e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 21, Issue 8 Ser.3 (August. 2022), PP 37-45
www.iosrjournals.org

Prevalence and Factors Associated with Depression, Anxiety, and Stress among Undergraduate Management Students in Kathmandu, Nepal

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Abstract
Background:
The commonness of psychological illness occurring within the university curriculum, along with the socioeconomic or behavioral status of students, is growing with the development of the deteriorating education system. It is gradually developing into a mental health issue among undergraduate students in Nepal and poses a significant challenge for public health globally. This research study aimed to determine the prevalence and factors associated with depression, anxiety, and stress among undergraduate management students in Kathmandu, Nepal.
Methods:
Out of 600 sample sizes, 516 students participated in the descriptive cross-sectional study carried out among undergraduate management students in Kathmandu. Depression, anxiety, and stress were measured using the DASS21 (depression, anxiety, and stress scale 21) tool, designed for self-administered data collection in Nepali and English. The questionnaire comprises four sections: socio-demographic information, depression, anxiety, and stress, to measure the different emotional states of the student.
Findings:
The overall prevalence of depression, anxiety, and stress was found to be 57.8%, 60.9%, and 43%, respectively, among undergraduate management students in Kathmandu, and most female students experienced it in contrast to male students. Almost all students (100%) who participated in the research study have experienced the unnecessary pressure of college studies as the most significant cause of depression, anxiety, and stress. Students, those having less family income (<20000 NPR per month), those breaking up with loved ones, those having no daily physical exercise, and having pressured college studies were at higher risk of experiencing depression (P=0.004, P=0.007, P=0.000, and P=0.023 respectively). The prevalence rate of extremely severe depression, anxiety, and stress was about 9.1%, 23.8%, and 7%, respectively.
Conclusion:
The study found that undergraduate management students in Kathmandu had high rates of anxiety, depression, and stress. Special attention and necessary psychological health intervention from their respective colleges/universities and government sectors are highly recommended.
Keywords: *Depression, Anxiety, Stress, Mental Health, Kathmandu*

Date of Submission: 01-08-2022 Date of Acceptance: 13-08-2022

I. Introduction

There is no uncertainty that learning and teaching principles have changed over the years according to psychological development, which may have motivated students in terms of education at their college or university. Teaching methodologies, education systems, and their interests, as well as global necessities, have changed the psychology of students over time and vary from person to person. The student's negative psychological prospects with the inappropriate education system at college and university according to their interests may lead to mental health issues and threaten the public health sector globally.

An individual's mental health includes cognitive, behavioral, and emotional well-being, as well as their thoughts, feelings, and behaviors, which matter most for mental health. The term "mental health" is sometimes used to refer to the absence of mental disorders [1]. Various conditions can affect mental health and disrupt a person's daily life, including stress, depression, and anxiety [1]. Depression is a common mental disorder characterized by persistent sadness and a lack of interest or pleasure in previously rewarding or enjoyable activities, which also disturbs sleep and appetite [2]. Anxiety is a feeling of unease, such as worry or fear, that can be mild or severe [3]. Stress is any change that causes physical, emotional, or psychological strain. Additionally, stress is our body's response to anything that requires attention or action [4].

Depression, anxiety, and stress are the most common mental health disorders globally, and more than 264 million people of all ages suffer from depression [7]. It has been projected that in 2020, suicide accounts for one death every 20 seconds, and the large majority of those occur in low and middle-income countries [8]. Depression is the world's leading cause of disability and contributes significantly to the global disease burden. The previous study shows that the higher level of psychiatric morbidity and depression was 29.9 %, anxiety at 41.1 %, and stress at 27 % among undergraduate medical students [9]. Similarly, among Slovak students, the prevalence rate of somatic complaints, anxiety, and depression was 69.5, 34.6, and 47 %, respectively [6]. Depression is also common among Nepalese medical students, especially in their first year with the high pressure of college studies [5].

However, the mental health issue is still largely ignored and has not been given priority. To our knowledge, no study reported the prevalence and factors associated with depression, anxiety, and stress among undergraduate management students in the Kathmandu district. Since Kathmandu is Nepal's education hub, students from all over the country prefer to come to Kathmandu for higher education. There is also limited information regarding risk factors associated with the causation of depression, anxiety, and stress in Nepal. This research study aimed to assess the prevalence and risk factors associated with depression, anxiety, and stress among undergraduate management students in the Kathmandu District.

II. Methods

Study Design:
A descriptive cross-sectional study with a quantitative research methodology was used to determine the prevalence and factors associated with depression, anxiety, and stress among undergraduate management students in Kathmandu.

Study area:
Different management colleges/universities located in the Kathmandu district were taken as a study area for this research study.

Study Population:
The study population consisted of undergraduate management students, 18–32 years old, from selected colleges and universities in the Kathmandu district.

Sample size:
The total 600 sample size was calculated by taking the 50 % prevalence, and the level of significance was set at $p<0.05$ with a confidence interval (CI) of 95%.
Degree of confidence (Z): 95% (i.e. 1.96)
Level of significance: 5%
The margin of error (d): 4% (0.04)
Prevalence (p): 50% = 0.5
q= 1-p=0.5
By using formula
Sample size $n_0 = \frac{z^2 pq}{d^2}$

$$= \frac{1.96^2 \times 0.5 \times 0.5}{0.04^2}$$
$$= 600.25$$

Sample Size $(n_o) = 600.25 \approx 600$
Sample size = 600
However, we were only able to collect 516 samples for this study since the rest of the students refused to participate.

Sampling Techniques:
This research study used the students as the study unit and all of Kathmandu's colleges as a sampling frame. Then, three colleges were picked at random via a lottery method from a simple random sample. The students were chosen using convenience sampling, and the number of students from each college was determined using the proportionate sampling technique.

Tools and Techniques for data collection:
For self-administrative data collection, sets of three scales from the DASS21 (depression, anxiety, and stress scale 21) tool were used to measure the emotional states of depression, anxiety, and stress. The structured data collection tool covered four subtopics: socio-demographic data, depression, anxiety, and stress. The rating scale had four levels: 0 for "not at all," 1 for "some degree or some of the time," 2 for "a considerable degree or a good part of the time," and 3 for "very much or most of the time."

Data management, analysis, and interpretation procedures:
EpiData (3.1 version) was used for data entry, and IBM SPSS (26 version) was used for data analysis. Data coding and editing were done manually. MS Office 2016, MS Excel 2016, and Mendeley were also used for the documentation and referencing. Descriptive data analysis included frequencies, percentages, and mean, followed by a chi-square test to determine the significance between the dependent and independent variables. The standard $\alpha = 0.05$ was taken as the cutoff value for the significant result.

Validity and reliability of tools
A sufficient literature review was carried out to ensure the accuracy of the data and the validity of the tools. For the data collection, the DASS21 tool was used as a questionnaire. The research methodology, guidelines, and feedback from the supervisor were strictly followed.

Inclusion criteria
Undergraduate students who are studying management within the Kathmandu district from selected colleges and universities that are capable of giving consent to participate in the study were included as research participants.

Ethical consideration
Formal approval was taken from the Department of Public Health of the Kantipur Academy of Health Sciences (Ethics approval letter Ref. No.: 02/079). And approval was also taken from selected colleges/universities before conducting research among students. Written consent was taken from each participant before participation in the study.

Confidentiality
Each respondent was informed of the purpose of the study before their voluntary participation. The anonymity of personal data ensures the confidentiality of the data. Collected information was utilized only for study purposes.

Operational Definition
Depression: Depression (major depressive disorder) is a common and serious medical illness that negatively affects how you feel, the way you think, and how you act. Depression is measured by the Depression, Anxiety, and Stress Scale (DASS21). The scale consists of seven questions about depression. The depression scale assesses dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest or involvement, anhedonia, and inertia. During inferential statistics, we kept no depression as normal and the rest of the others as depression.

Anxiety: Anxiety is the mind and body's reaction to stressful, dangerous, or unfamiliar situations. It's the sense of uneasiness, distress, or dread you feel before a significant event. Anxiety is measured by the depression, anxiety, and stress scale (DASS21). The scale consists of seven questions for anxiety. The anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect. During inferential statistics, we kept no anxiety as normal and the rest of the others as anxiety.

Stress: Stress is a normal reaction the body has when changes occur. It can respond to these changes physically, mentally, or emotionally. Stress is measured by the depression, anxiety, and stress scale (DASS21). The scale consists of seven questions for anxiety. The stress scale is sensitive to levels of chronic nonspecific arousal. It assesses difficulty relaxing, nervous arousal, being upset or agitated, irritable or over-reactive, and impatient. During inferential statistics, we kept no stress as normal and the rest of the others as stressed.

Table 1: Cut-off scores table for conventional severity label

Cut-off scores for conventional severity label of Depression		**Cut-off scores for conventional severity label of anxiety**		**Cut-off scores for conventional severity labels of stress**	
Depression level	Score	Anxiety level	Score	Stress Level	Score
Normal	0-9	Normal	0-7	Normal	0-14
Mild	10-13	Mild	8-9	Mild	15-18
Moderate	14-20	Moderate	10-14	Moderate	19-25
Severe	21-27	Severe	15-19	Severe	26-33
Extremely severe	28+	Extremely severe	20+	Extremely severe	34+

Timeframe of the study:
The study was conducted from August 2021 to July 2022.

III. Results

Socio-demographic and academic characteristics of respondents:

Out of 600 sample sizes, only 516 students participated in the descriptive cross-sectional study carried out among undergraduate management students in Kathmandu. The rest of the students (84) were unable to give consent for the research study. About 53.1% of the 516 students who participated in the study were female, while 46.9% were male. The age ranged from 18 to 32, with a mean age of 19.98 (SD= ±1.28). Most respondents were single (98.8%), and only 1.2% were married. About 62.8% were living with family members. Similarly, about 70.7% of the family was nuclear, and the remaining were joint/extended (29.3%), with the highest 45.5% of the income range falling from NPR 25,000–NPR 50,000 per month. Participants were enrolled from two universities (80.2% from Tribhuvan University and 19.8% from Pokhara University), studying management courses BBA/BBS (41.5%), BHM (29.7%), and BTTM (28.9%).

Table 2: Socio-demographic and academic characteristics of respondents (n=516)

Variables	**Frequency (n=516)**	**Percentage (%)**
Age Group		
18-22	476	92.2
23-27	36	7.0
28-32	4	0.8
Mean(±SD):19.98 (±1.28)		
Gender		
Female	274	53.1
Male	242	46.9
Ethnicity		
Dalit/Janajati	186	36.0
Brahmin/Chhetri	268	51.9
Others	62	12.0
Religion		
Hindu	444	86.0
Buddhist	46	8.9
Others	26	5.0
Marital Status of Respondents		
Single	510	98.8
Married	6	1.2
Family Income Per Month (NPR)		
<20000	135	26.2
20000-50000	235	45.5
>50000	146	28.3
Types of Family		
Nuclear	365	70.7
Joint/extended	151	29.3
Living Status During Study Time		
Living with family	324	62.8
Living without family	192	37.2
University		
Tribhuvan University	414	80.2
Pokhara University	102	19.8
Management Courses of Study*		
BBA/BBS	214	41.5
BHM	153	29.7
BTTM	149	28.9

**BBA= Bachelors of Business Administration, BBS= Bachelor of Business Studies, BHM= Bachelor of Hotel Management, BTTM= Bachelor of Tourism and Travel Management.*

Personal and behavioral characteristics of respondents:

About 17.1% of the participants had experienced the death of a family member in the last six months. Similarly, 64.3% of participants felt pressure from studies, and among them, 54.7 % always worried about their future. Likewise, COVID-19 was diagnosed as positive in 18.2% of respondents and 34.5% of family members diagnosed with COVID-19. Similarly, only 21.3% of the participants always do general physical exercise. Likewise, 13.6 percent of the participants were smokers, and alcoholism was found to be 45.7%. **(See table 3.)**

Table 3: Personal and Behavioral characteristics of respondents (n=516)

Variables	Frequency (n=516)	Percentage (%)
Death of a Family Member		
Yes	88	17.1
No	428	82.9
Breakup with Loved Ones		
Yes	91	17.6
No	425	82.4
Felt Pressure of Study		
Yes	332	64.3
No	184	35.7
Worried About Future		
Always	282	54.7
Sometimes	228	44.2
Never	6	1.2
Diagnosed with COVID-19		
Yes	94	18.2
No	329	63.8
Not tested	93	18.0
Family Member Diagnosed with COVID-19		
Yes	178	34.5
No	308	59.7
Not tested	30	5.8
General Physical Exercise Habits		
Always	110	21.3
Occasionally	331	64.1
Never	75	14.5
Smoking Habits		
Smoker	70	13.6
Non-smoker	446	86.4
Alcoholism Habits		
No	236	45.7
Yes	280	54.3

Prevalence of depression, anxiety, and stress among undergraduate management students:

Table 4 shows the prevalence of depression, anxiety, and stress among undergraduate management students, which was found at 57.8%, 60.9%, and 43%, respectively. It means that the prevalence of anxiety was higher among undergraduate management students in the Kathmandu district, followed by depression and stress. The overall prevalence was calculated using the cut-off score table **(see table 1.)** for the conventional severity label of the DASS21 tool.

Table 4: Prevalence of depression, anxiety, and stress among undergraduate management students (n=516)

DAS Level	Depression (%)	Anxiety (%)	Stress (%)
Yes	298(57.8)	314(60.9)	222(43.0)
No	218(42.2)	202(39.1)	294(57.0)
Total	**516(100)**	**516(100)**	**516(100)**

The overall prevalence of severe/extremely severe depression was found to be 17.4%, severe/extremely severe anxiety was 35.4%, and severe/extremely severe stress was 14.2% among undergraduate management students **(see table 5).**

The scores are obtained from each of the three DASS-21 sub-scales that were summed up and multiplied by two. Sum scores of 0–9 for depression, 0–7 for anxiety, and 0–14 for stress were deemed to be normal. Sum ratings of 14–20 for depression, 10–14 for anxiety, and 19–25 for stress, were deemed to be moderate. Similarly, sum scores of 21–27 for depression, 15–19 for anxiety, and 26–33 for stress were calculated to be severe. Any scores above these were considered extremely severe.

Table 5: DAS level among undergraduate management students (n=516)

DAS Level	Depression (%)	Anxiety (%)	Stress (%)
Normal	218(42.2)	202 (39.1)	294(57.0)
Mild	91(7.6)	38(7.4)	70(13.6)
Moderate	117(22.7)	93(18.0)	79(15.3)
Severe	43(8.3)	60(11.6)	37(7.2)
Extremely severe	47(9.1)	123(23.8)	36(7.0)
Total	**516 (100%)**	**516 (100%)**	**516 (100%)**

Association of independent variables with depression, anxiety, and stress:

At the 95% level of confidence, depression, anxiety, and stress are strongly correlated with the pressure of college studies ($p<0.05$). It is also significantly associated with the drinking habits of students ($p = 0.03$, 0.025, $0.002<0.05$ respectively). Students who do not have general physical exercise on a regular basis are at a high risk of depression and anxiety ($p = 0.23$, $0.08<0.05$). Similarly, female students (50%) who have not been married yet (43.5%) and have broken up with loved ones (52.7%) are more likely to experience stress.

Table 6: Association of depression, anxiety, and stress with independent variables (n=516)

Variables	Variable Categories (n=516)	Depression (%)	P-value (Depression)	Anxiety (%)	P-value (Anxiety)	Stress (%)	P-value (Stress)
Gender	Female (274) Male (242)	172 (62.8) 126 (37.2)	0.014*	176 (64.2) 138 (57.0)	0.094	137 (50.0) 85 (35.1)	0.001*
Age Group	18-22 (476) 23-27 (36) 28-32 (4)	272 (57.2) 23 (63.9) 3 (75)	0.572	 289 (60.7) 23(63.9) 2 (50.0)	0.843	204 (42.9) 16 (44.4) 2 (50.0)	0.944
University	Tribhuwan University (414) Pokhara University (102)	241 (58.2) 57 (55.9)	0.670	269 (65.0) 45 (44.1)	0.00*	190 (45.9) 32 (31.4)	0.008*
Management Courses of Study	BBA/BBS (214) BHM (153) BTTM (149)	115(35.6) 100(50.3) 83(46.3)	0.71	111(51.9) 99(64.7) 104(69.8)	0.001*	76(35.5) 77(50.3) 69(46.3)	0.012*
Ethnicity	Dalit/Janajati (186) Brahmin/Chhetri (268) Others (62)	117 (62.9) 148 (55.2) 33 (53.2)	0.197	124 (66.7) 155 (57.8) 35 (56.5)	0.124	92 (49.5) 111 (41.4) 19 (30.6)	0.026*
Religion	Hindu (444) Buddhist (46) Others (26)	246 (55.4) 30 (65.2) 22 (84.6)	0.008*	263 (59.2) 31 (67.4) 20 (76.9)	0.127	182 (41.0) 24 (52.2) 16 (61.5)	0.051*
Marital Status of Respondents	Single (510) Married (6)	295 (57.8) 3 (50)	 0.699	314(61.6) 0(00.0)	0.02*	222(43.5) 0(0.00)	0.032*
Family Income Per Month (NPR)	<20000 (135) 20000-50000 (117) >50000 (146)	92 (68.1) 135 (57.44) 71 (48.6)	0.004*	85 (63.0) 141 (60.0) 88 (60.3)	0.842	65 (48.1) 90 (38.3) 67 (45.9)	0.130
Living Status During Study Time	Living with family (324) Living without family (192)	194 (59.87) 104 (54.16)	0.204	212 (65.4) 102 (53.1)	0.006*	150 (46.3) 72 (37.5)	0.051*
Types of Family	Nuclear (365) Joint/extended (151)	220 (60.27) 78 (51.65)	0.071	224 (61.4) 90 (59.6)	0.708	162 (44.4) 60 (39.7)	0.332
Death of Family Member	Yes (86) No (428)	66 (75) 232 (54.20)	 0.00*	52 (59.1) 262 (61.2)	0.720	43 (48.9) 179 (41.8)	0.224

Breakup with Loved Ones	Yes (93) No (423)	66 (72.52) 232 (54.58)	0.007*	60 (65.9) 254 (59.8)	0.274	48 (52.7) 174 (40.9)	0.039*
Pressure of College Study	Yes (516) No (0)	298 (57.75)	0.00*	314 (60.9)	0.00*	222 (43.0)	0.00*
Worried About Future	Always (282) Sometimes (228) Never (6)	171 (60.63) 125 (54.82) 2 (33.33)	0.199	180 (63.8) 131 (57.5) 3 (50.0)	0.294	128 (45.4) 93 (40.8) 1 (16.7)	0.246
Responded Diagnosed With COVID - 19	Positive (94) Negative (329) Not tested (93)	52 (55.31) 191 (58.05) 55 (59.13)	0.855	62 (66.0) 204 (62.0) 48 (51.6)	0.103	45 (47.9) 143 (43.5) 34 (36.6)	0.285
Family Member Diagnosed With COVID-19	Positive (178) Negative (308) Not tested (30)	101 (56.74) 177 (57.46) 20 (66.67)	0.588	101 (56.7) 197 (64.0) 169 (53.3)	0.199	45 (47.9) 143 (43.5) 34 (36.6)	0.285
General Physical Exercise	Always (110) Occasionally (331) Never (75)	51(46.36) 200(60.42) 47(62.67)	0.023*	53(48.2) 215(65.0 46(61.3)	0.008*	38 (34.5) 150 (45.3) 34 (45.3)	0.129
Smoking Habits	Smoker (70) Non-smoker (446)	41 (58.57) 257 (57.62)	0.881	45 (64.3) 269 (60.3)	0.527	32 (45.7) 190 (42.6)	0.625
Alcoholism Habits	Yes (236) No (280)	149 (63.1) 149 (53.2)	0.023*	156 (66.1) 158 (56.4)	0.025*	124 (52.5) 98 (35.0)	0.00*
** Significant at p< 0.05*							

IV. Discussion

The study provides evidence on the prevalence and factors associated with depression, anxiety, and stress among undergraduate management students in Kathmandu. In the context of Nepal, students prefer Katmandu for higher education from different corners of the nation since Kathmandu is the capital city of Nepal, which might have affected the prevalence rate of depression, anxiety, and stress accordingly to its various associated factors. The most prominent risk factors associated with depression, anxiety, and stress are parental education and academic performance [10]. Adolescent students aged 15–19 years in rural Nepal who are not satisfied with their academic performance are still 2.4 times more likely to have a risk of depression [11]. It is slowly making mental health issues more complicated in Kathmandu and poses a significant challenge for public health in Nepal.

In our study, the prevalence of depression (57.8 %), anxiety (60.9 %), and stress (43 %) are higher in Kathmandu, Nepal, than those found in a recent study conducted among Nepalese undergraduate students in Pokhara, which showed the overall prevalence of depression, anxiety, and stress at 38.2 %, 46. 9 %, and 24.1 %, respectively [10]. In comparison to stress and depression, anxiety is correspondingly more common among undergraduate students in Kathmandu. The prevalence rate of extremely severe depression, anxiety, and stress was about 9.1 %, 23.8 %, and 7 %, respectively. It also revealed moderate levels of depression, anxiety, and stress among undergraduate management students at 22.7 %, 18 %, and 15.3 %, respectively, compared with a previous study that also showed a similar prevalence of 25 %, 17 %, and 9 % of moderate levels of depression, anxiety, and stress [13].

In contrast to males, females are more likely to experience depression (62.8 %), anxiety (64.2 %), and stress (50 %) than males (37.2 %, 57 %, and 35.1 %, respectively). Similarly, our study also found that depression and stress are statistically strongly related to gender ($p = 0.014 < 0.05$ and $p = 0.001 < 0.05$, respectively). The pressure to marry at an early age, the pressure to be self-dependent, and less support from family and friends could be the principal cause, as Nepalese society has distinct psychological insecurities toward female students as they mature with college studies, especially if they live outside their home district. Conversely, a survey among undergraduate students in Shaanxi province during the COVID-19 epidemic in China found that male students had higher rates of depression, anxiety, and stress symptoms than female students, as females get more support from family and friends [12].

The findings further reveal that the prevalence of depression seems to be affected by numerous variables such as family income, courses of study, the death of a family member, break-ups with loved ones, and other personal habits. It also revealed that the possibility of depression increases with age (18–22 years old of 57.2 %, 23–27 of 63.9, and 28–32 of 75 %, respectively). The living status of a student (loneliness) and unfamiliarity with the heavy crowding environment in the city area (most students come from rural villages where there is more competition among individuals) might have affected the prevalence rate. It might be due to the pressure of a better career from family and society with the age maturity of students and an unsecured future by the deteriorating education system in Nepal, as well as financial crisis during student life are the primary causes of depression. Additionally, it might be due to differences in socioeconomic background, difficulties in college/university courses, and limited time for self-care among college students. Further in our study, students with a family income of < 20,000 NPR per month have more depressive symptoms than students with a family income of >50000 NPR. On the contrary, in a previous study, financial problems were associated with only anxiety [15].

Similarly, a study among nursing students at Kathmandu University in 2016 showed academic stress at 18.4 % [14]. This is in contrast to the higher prevalence rate of stress in our study, which was 43 %. Another study done in 2013 correspondingly showed a higher prevalence (100 %) among undergraduate dental students at the Tertiary Health Care Centre in Eastern Nepal [16]. Consequently, most Nepalese students feel under pressure to spend the majority of their working hours on education at their colleges, universities, or even at home due to an inappropriate education system, which adds undue pressure to their academic performance and causes unnecessary stress. Additionally, no statistical association between stress and other factors was found, such as the age of students, family income, type of family, death of a family member, worrying about the future, and the student's diagnosis with COVID-19, a family member diagnosed with COVID-19, physical exercise habits, and smoking habits of students. In particular, female students experienced more stress (50 %) than males (35.1 %), whereas a previous study showed that males were more stressed than females regarding financial concerns [15].

V. Limitations

We collected data through self-administered questionnaires, but the subjective experiences of individuals may vary depending on their premorbid personalities, ability to experience anxiety and fear, and ability to tolerate stress. As depression, anxiety, and stress were assessed by self-rating, there was a chance of making a false or over-judgment.

VI. Conclusion and Recommendations

In conclusion, a high prevalence of anxiety, depression, and stress among undergraduate management students has been detected in Kathmandu, and most female students have experienced it in contrast to male students. Approximately one out of 10 students has experienced severe or extremely severe depression, and three out of 10 have experienced severe or extremely severe anxiety, which is significantly related to the unnecessary pressure of college studies. Similarly, stress among undergraduate students was significantly associated with other factors like courses of study, living status, and breakups with loved ones during student life. Therefore, colleges/universities and government sectors need to pay special attention to and provide psychological health interventions to decrease the prevalence of DAS among undergraduate management students. Further studies should emphasize a deeper investigation of the association between a country's educational system and its psychological impact on students.

DECLARATIONS

The authors have no conflicts of interest to declare. There are no financial interests to disclose, and each co-author has reviewed the manuscript and approved its contents. We certify that the contribution is original and not currently being reviewed by another publication.

ACKNOWLEDGEMENT

We highly appreciate the support we have received from Asst. Prof. Mr. Maginsh Dahal, Ms. Pooja Devkota, Ms. Khusbu Deo, and Mr. Prakash Datt Chataut of Kantipur Academy of Health Sciences (KAHS) throughout this research project.

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