

# Examination-induced depression, anxiety and stress among final year hospitality students of the University of Energy and Natural Resources in Ghana

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## Abstract

In recent years, the incidence of mental health disorders and psychological problems seem to be on the ascendancy. However, recent studies have focused the incidence on depression, anxiety and stress within the general population or among medical students. The current study therefore focused on examination induced depression, anxiety and stress among final year hospitality students. Using a census approach, questionnaires based on DAS21 scale were administered to 400 students preparing to write their exit examination. Results from the study show that 67.9%, 76.6% and 64/3% of the students experienced moderate to extremely severe depression, anxiety and stress respectively. Completing school in good time (55.8%) and worry about failing exit examinations (54.6%) were the main factors accounting for high incidence of psychological tantrums. Chi-square statistic revealed significant relationships between sex and depression ( $X^2=0.005$ ) and program of study and anxiety ( $X^2=0.005$ ). Universities should make maximum use of their social supporting systems such as counselling unit and academic tutorship to offer the needed counselling and social support for students, particularly before examination periods. Seminars on mental health and examinations could be organized for students in the bid to providing support for students. Mental health awareness week could also be instituted in order to promote mental health education among students.

## Keywords

Examination, depression, anxiety, stress, hospitality students, Ghana

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## 1. Introduction

The incidence of mental health disorders and psychological problems seem to be on the ascendancy (Bashiri et al., 2019; Cheung et al., 2020; Kamruzzaman et al., 2022; World Health Organisation, WHO, 2017). This seemingly high incidence of mental health challenges is a global phenomenon reported in both developing and developed nations (Bass et al.; Rabby et al., 2023). Accordingly, Tay et al. (2018) report that an estimated quarter of the global population have challenges with one mental health disorder or the other. Specifically, whilst around 300 million of the global population have been affected by depression, about 264 million are faced with issues related to anxiety (WHO, 2017).

Depression is a common mental disorder that affects every facet of human life, be it relationships with family members, friends and community or issues relating to

academic life (WHO, 2017). People with depressive disorders general have feelings of guilt, challenges with sleep and mostly have difficulty concentrating (Nouri, 2017; Parveen & Saqlain, 2018). Anxiety is a situation which causes people to feelings of fear and can result in what is termed as “anxiety disorder, panic disorder, phobias and social anxiety disorder” (Amu et al., 2021). According to Malach-Pines and Keinan (2007) stress is the mismatch between a person’s ability to and the fulfil the burden from one’s environment. In essence, one becomes stressful when the person’s ability does not match the demands from the environment. These mental health disorders, that is, depression, anxiety and stress (DAS) have been found to have negative consequences on human health, including students. For instance, DAS affect the quality of life of a person. They also greatly affect students’ academic life (Agolla, 2009; Amu et al., 2021).

Recent studies (such as Gijón Puerta et al., 2022; Huang & Zhao, 2020; Wang et al., al., 2020) have cited the advent of the COVID-19 and its attended challenges such as closure of international borders and schools as well as lockdowns as a major contributor to mental health disorders including depression, anxiety and stress (DAS). However, there is enough empirical evidence pointing to the university environment being one of the main causes of DAS (Gao et al., 2020; January et. al., 2018; Ramtek & Amsari, 2016; Wahed & Hassan, 2017). The fact that universities/colleges serve as a transition point between secondary education and work life makes the university environment a bit stressing (Gurbuz, et al., 2019; Lee & Kim, 2019). Some students, for the first time in their lives would have to make their own transport arrangement, search for accommodation as well as leave their friends and family behind whilst attending university.

This can be challenging and overwhelming, particular for those who did not have “boarding school” experience during their secondary education. Again, unlike secondary education which is more structured and students are more dependent on school authorities regarding their daily routines, life at the university is less structured with students having to make most of the decisions regarding their daily routines. Students having to adjust to such less structured environment coupled with peer influence could make the university environment becoming an antidote to psychological health challenges such as DAS (Davoren et al., 2015; Keeling, 2003).

Aside this, university examination has also been identified as a great source of DAS (Bashir et al., 2019). From the perspective of Kumara and Jain (2014), psychological difficulties emanating from college students’ examination is gradually becoming an interesting topic of inquiry. In fact, a major predisposing cause of DAS among university students as identified by Lagunes et al. (2020) is university examinations. If left unchecked, this could negatively affect students’ academic performance, lead to

suicidal thoughts, cause them to drop out of school, and lower their quality of life (Asif et al., 2020; Haq et al., 2018; Islam et al., 2020; Ladejo, 2023; Rabby et al., 2023; WHO, 2019).

In essence, the university environment, coupled with examinations, especially final/exit examinations have been found to be a predator of DAS among university students. This has resulted in the proliferation of research on the subject matter. However, most studies on DAS were conducted among the general population (Lee et al., 2021). In terms of university students, majority of the studies on prevalence of DAS have focused on medical students (e.g. Abebe et al., 2018; Kumar et al., 2017; Panda et al., 2017), accounting and aquaculture students (see Astutik et al., 2020) or entrance examinations (see Rabby et al., 2023). Meanwhile, results from previous research on DAS among students are not conclusive. Whist some results have concluded that students experience moderate to extremely severe DAS (see Kumar et al., 2019), others show that most students experience mild to severe DAS (see Kugbey et al., 2015). This gives rise for further investigation into the incidence of DAS among tertiary students. Gleaning the literature, it is obvious that research on DAS have focused mainly on medical students and mostly concentrated in Europe, Asia and America.

Within the Ghanaian context, research has concentrated on stress and academic life, social support and DAS, anxiety and depression among college students, DAS among the general adult populace in Ghana (Ahorsu et al., 2021; Amu et al., 2021; Bettmann et al., 2019; Kugbey et al., 2015). In essence, there is dearth of research on DAS among tertiary students in Ghana. In terms of tertiary students, the few studies that have focused on DAS have been limited to the University of Ghana (see Edjah et al., 2020; Nontereh et al., 2015).

This study focuses on DAS among hospitality management students in the University of Energy and Natural Resources (UENR). UENR is a growing university within the middle belt of Ghana. The University offers a four-year degree and a two-year diploma programmes in Hospitality Management. The programme is blend of theory and practical and as such, students are hold practical sessions every week. These practical sessions are time consuming and tedious; sometimes, leaving little or no room for students to study the theoretical component of the programme.

The current study therefore aims at bridging this gap by investigating into these psychological challenges among degree and diploma students pursuing Hospitality Management at the University of Energy and Natural Resources, Sunyani, Ghana. Specifically, the study aims at: 1) identifying the incidence of examination induced DAS among final year hospitality students at UENR; 2) identifying students’ concerns about exit examination; and 3) ex-

ploring the differences between socio-demographics and incidence of DAS among final year hospitality students at UENR. The remaining session of the paper is presented as follows: a brief review of the incidence of DAS among university students; methodology; results, discussions, implications and recommendation

## 2. Incidence of depression, anxiety and stress among university students

Research on psychological challenges among university students point to a high incidence of the phenomenon. Accordingly, Keyes et al. (2013) as well as Lumau (2012) and Regehr (2013) indicated that almost half of students in tertiary institutions experience moderate DAS during their lifetime on university campuses. Collaborating this assertion, WHO (2017) observed that there have been significant increases in both symptoms and actual occurrence of mental health issues within the last decade. In fact, it is estimated that whilst over 300 million students are facing issues with depression, about 264 have challenges with anxiety (WHO, 2017).

In China, it is estimated that close to a quarter of the student population suffer from depression (Lui, Gao & Pin, 2019; Lui, Ping & Gao, 2019; Luo, 2018; Wei & Sang, 2017). A study conducted among college students in the Spain revealed that at least one in five students exhibit signs of anxiety, depression or stress (Hernández Rodríguez, 2020). A review of the incidence of DAS among tertiary students in the United States, Switzerland and England show that incidence of mental health challenges, especially, depression and anxiety has been on the increase (Mac-Ginty et al., 2021).

The above has led to the conduct of empirical research into the prevalence of DAS among university students. For instance, a study by Beite et al. (2015) show a high incidence of DAS among students at Franciscan University, Steubenville, Ohio which has resulted in about 231% increase in the yearly visits of students to the university's counselling centre. The study concluded that the high incidence of DAS is a major contributor to concerns related to students' academic performance, pressure to succeed and post-graduation plans. Another study by Panda et al. (2017) revealed high incidence of DAS among the studied population. Specifically, 77.1%, 75.2% and 45.1% of the studied population were experiencing DAS respectively. Similarly, depression (72.4%), anxiety (67.8%) and stress (40.2%) were recorded among students who were living outside the hostel. According to Kumar et al. (2019), the prevalence of psychological problems such as DAS is high among colleague students. In their study, they reported the mean scores for DAS to be  $18.00 \pm 11.5$ ,  $19.15 \pm 11.2$ , and  $20.92 \pm 11.2$  respectively. Additionally, the results show that 57.6%, 74% and 57.7% of the students reported moderate to extremely severe DAS respectively. Pressure of passing examinations and meeting family expectations

as well as fear of entering into the world of work were identified as the predisposing factors accounting for the high incidence of DAS among the studied population. In another study, Astukit et al. (2020) found that exactly a quarter (25%) of students in Banyuwangi, Indonesia experienced depression. The study further showed that a little over half (51.5%) exhibited signs of anxiety whilst 38.9% were found to have challenges with stress. Examinations have been found to correlate with the incidence of DAS. For instance, significance differences ( $r=0.79$ ) were found between examination stress and anxiety among university students (Kumari & Jain, 2014). Colleague students pursuing Arts related programmes (mean of 33.45) were found to have high level of examination stress as compared to those pursuing Science (mean of 31.05), and Commerce (means of 29.7) related programmes. Similarly, Arts students (mean of 29.7) exhibited higher signs of experiencing examination anxiety as compared to colleagues studying Science (mean of 26.6) and Commerce (mean of 26.1). Bashir et al. (2019) study concluded that there was a strong positive correlation between examination anxiety and depression ( $r = 0.752$ ;  $p = 0.000$ ).

## 3. Materials and methods

### 3.1 Study area

The study was conducted in University of Energy and Natural Resources (UENR), Sunyani, Bono Region. The university is located on longitude  $7.3492^\circ$  N, and latitude  $2.3434^\circ$  W. UENR is a publicly financed university in Ghana that was founded on December 31, 2011 by Act 830 (2011). The student population of the university is estimated to be 12,461, comprising 7,780 males and 4,681 females. The university currently runs 39 academic programmes within 24 academic departments under eight different schools/faculties. The BSc. Hospitality Management Programme is run by the Department of Ecotourism, Recreation and Hospitality of the School of Natural Resources.

UENR is a growing university with many teething challenges that any growing university faces. Students numbers across all programmes have increased astronomically over the past few years of the university's existence. The university which started with 154 students admitted into two schools in 2012, can now boast of a student population of over 12,000 in eight different schools (UENR, 2021). Increases in students' numbers without corresponding increase in infrastructural developments put a lot of strain on students which can result in DAS. Again, the hospitality management programme which combines theoretical learning and practical exercises have the potential of causing DAS among these students; especially in the absence of adequate practical training infrastructure. In view of the, the hospitality management students at the UENR is deemed appropriate for the study.

**Participants** Participants for the study were drawn

from the UENR, Sunyani, Ghana. Inclusion criteria were: 1. the participant should be in the final year of study; 2. the participant should be preparing for his/her exit examination; and 3. participants should be pursuing either a degree or diploma programme in hospitality. In all, there were 400 final year students consisting of 195 students and 205 students pursuing degree and diploma

### 3.2 Sampling

The study adopted a census approach to data collection by involving all degree and diploma students at the time of the study. In view of this, a total of 400 questionnaires were distributed to all final year degree and diploma students. The study questionnaires were distributed to the students in the lecture halls. Permission was sought from the head of department who assigned the course tutors for both the degree and diploma final year students to assist the researchers. Prior to the administration of the questionnaires, the objectives of the study were explained to the students and they were assured of anonymity and confidentiality. 392 out of the 400 questionnaires were useful for analysis, giving a response rate of 98%.

### 3.3 Measures

For the study, the Depression Anxiety Stress Scale (DASS-21), created by Lovibond and Lavibond (1995), was employed. A self-reported, closed-ended instrument called the DASS-21 is used to measure DAS. There are three subscales and twenty-one elements on the scale. Seven questions make up each subscale. On a scale of 0 to 3, respondents had to provide a score to each item: 0 meant it did not relate to me at all; 1 meant it applied to me somewhat or occasionally; 2 meant it applied to me with some thought, or frequently; and 3 meant it applied to me heavily, or frequently. To provide an idea of how common each subscale is in the population under study, the scores for each subscale are added together and multiplied by two. The following ratings apply to depression: normal (0-9); mild (10-13); moderate (14-20); severe (21-27) extremely severe (28+). With respect to anxiety, scores fall into the following categories: 0-7 (normal); 8-9 (mild); 10-14 (moderate); 15-19 (severe); and 20+ (extremely severe). Finally, stress has the following scores: 0-14 (normal); 15-18 (mild); 19-25 (moderate); 26-33 (severe); and 34+ (extremely severe). The validity and reliability of the instrument have been confirmed by the finding that the Cronbach Alpha for all subscales of the instrument is greater than 0.75 (Arab et al., 2016). The questionnaire also elicited information on socio-demographic characteristics of respondents as well as factors influencing DAS.

### 3.4 Data analysis

The data was entered into the IBM SPSS (version 22) for processing. As a measure of checking the reliability of the instrument, Cronbach alpha was computed for the

entire scale as well as the three subscales (DAS). Overall Cronbach alpha was 0.953, that of depression was 0.865, anxiety (0.859) and stress (0.884); an indication of the suitability of the scale for the current study (Hair et al., 2012; Kline, 2005). The Cronbach alpha is imputed by using:  $\alpha = \frac{n-1}{n} \left( \frac{\sigma^2 - \sum \sigma_i^2}{\sigma^2} \right)$ ; where  $n$  is the number of items,  $\sigma^2$  is the total test score variance, and  $\sigma_i^2$  is the item variance. Descriptive statistics was employed for the socio-demographic characteristics of the respondent. However, the Chi-square statistic was employed to test the relationship between socio-demographics and pre-disposed factors of dispersion, anxiety and stress. The chi-square values were arrived at using this formula:  $X^2 = \sum (O_i - E_i)^2 / E_i$ , where  $O_i$  = observed value (actual value) and  $E_i$  = expected value.

## 4. Results

### 4.1 Socio-demographics

In all, a total of 392 final year students were involved in the study. There were more females (73.7%;  $n=289$ ) than males (26.3%;  $n=103$ ). The mean age of the respondents was 24 years. Those who were single constituted 358 (91.3%) whilst 34 (8.7%) were married. 200 (51%) and 192 (49%) were pursuing degree and diploma programmes respectively (Table 1).

### 4.2 Incidence of depression, anxiety and stress among final year students

Results from the study shows that more final year students (41.8%) were “severely stressed” than those who were “severely anxious” (35.2%) and “severely depressed” (17.9%). However, 35.5%, 32.8% and 23.5% were normally depressed, normally stressed and normally anxious respectively. More than two-thirds (67.9%) reported experiencing moderate to extremely severe anxiety. 76.6% experienced moderate to extremely severe stress whilst 64.3% indicated that they were moderate to extremely severe depressed (see Table 2). This is an indication of at least more than half of the study population exhibiting moderately to extremely severe symptoms on all three constructs on the DAS scale. The total mean score for the three constructs were  $1.74 \pm 1.22$  (depression),  $1.33 \pm 0.83$  (anxiety) and  $1.41 \pm 0.95$  (stress).

**Table 1.** Socio-demographics of respondents

Variable	Frequency (N=392)	Percentage (%)
Sex		
Male	103	26.3
Female	289	73.7
Age (Mean Age: 24years)		
16-20	54	13.8
21-25	245	62.5
>25	93	23.7
Marital status		
Married	34	8.7
Single	358	91.3
Type of Programme		
Degree	192	49.0
Diploma	200	51.0

**Table 2.** Incidence of depression, anxiety and stress

Severity	Depression		Anxiety		Stress	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Normal	139	35.5	72	18.4	102	26.0
Mild	42	10.7	20	5.1	38	9.7
Moderate	89	22.7	99	25.3	49	12.5
Severe	70	17.9	154	39.3	173	44.1
Extremely severe	52	13.3	47	12.0	30	7.7

**4.3 Concerns about exit examination**

Further, the study revealed that the students has a number of concerns regarding their exit examinations (Table 3). More than half the students were concerned about failing any of the examinations (54.8%) and completing school in good time (55.6%).

**4.4 Incidence of depression, anxiety and stress across socio-demographics**

Chi square shows association between variables. Hence it should be written as Chi-square statistic was employed to examine the association between demographic characteristics such as sex, marital status, type of programme and DAS (Table 4). The results indicate a significant relationship between gender and depression ( $X^2=0.005$ ). An examination of the results indicates that more females (54.3%) than males (52.5%) experienced moderate to extremely severe depression. To further establish to extent of relationship between sex and depression, Cramer’s V analysis was employed. The analysis should a strong association (Cramer’s V/phi = .732; p=0.005) between the two variables.

Again, there was significant relationship between programme of study and anxiety ( $X^2=0.005$ ). Specifically, respondents who were pursuing diploma programme (75.5%) experienced moderate to extremely severe anxiety than their degree counterparts (59.9%). Cramer’s V analysis revealed a strong association (Cramer’s V/phi = .809;

**Table 3.** Concerns about exit examinations

Concerns	Level of Agreement		
	Agree	Neutral	Disagree
I am worried about failing any of my examination papers	215 (54.8%)	93 (23.7%)	84 (21.4%)
I fear I will not be able to graduate this year	192 (49.0%)	104 (26.5%)	96 (24.5%)
I am worried about my national service	150 (38.3%)	110 (28.1%)	132 (37.7%)
I fear I will not be able to complete school in good time	218 (55.6%)	99 (25.3%)	75 (19.1%)
I am worried about what my parents and peers will say if I fail my exit examination	128 (32.7%)	103 (26.3%)	161 (41.1%)
I am afraid to fail examination due to self-image/self-esteem	115 (29.3%)	110 (28.1%)	167 (42.6%)

p=0.005) between programme of study and anxiety. However, the chi-square statistic did not show any significant relationship between sex and anxiety ( $X^2=0.026$ ), sex and stress ( $X^2=0.346$ ), programme of study and depression ( $X^2=0.035$ ) and programme of study and stress ( $X^2=0.020$ ). Finally, there were no significant relationship between marital status and depression ( $X^2=0.287$ ), anxiety ( $X^2=0.690$ ) and stress ( $X^2=0.165$ ).

### 5. Discussion

The literature posits prevalence of DAS among college students, particularly in relation to examinations (Kumar et al., 2019; Manisha et al., 2019; Ramteke & Ansari, 2016). The current study was set out to examine the incidence of examination induced DAS among final year students pursuing degree and diploma in hospitality management. The study found the incidence of DAS higher than previous studies (Amu et al., 2021; Lee et al., 2021, Kumar et al., 2019; Verma et al., 2021). For instance, whilst Lee et al., (2021) found students to be moderate to extremely severe in terms of depression (36%), anxiety (45%) and stress (63%), results of this study showed moderate to extremely severe depression among the final year students to be 67.9%. Moderate to extremely severe anxiety among final year students was 76.6% and that of stress was 64.3%. Within the Ghanaian context, Kugbey et al. (2015) reported that whilst 43% of the students were mildly to severely depressed, 16.4% and 50.9% were mildly to extremely severe anxious and stressed respectively. Again, results from the study of Amu et al. (2021) in Ghana indicate that 53.3%, 25.2% and 9.7% experienced DAS respectively.

The plausible reason that can be adduced for the seemingly high incidence of DAS could be related to the fact that exit examinations have the potential of inducing DAS on students. Collaborating this findings, Kumar et al (2017) observed that the pressure of passing examinations is the most cited factor predisposing both public and private college students to psychological menace such as depression, anger and stress. In fact, the fear of failing any paper(s) in the final examinations and not being able to graduate will have devastating effects on the student. Such situation will mean the student would have to wait for the opportunity to re-sit for the failed paper(s) before being allowed to graduate, meaning at least, a year behind colleagues who will manage to graduate. This clearly played out as “fear of not able to complete school in good time”, “worry about failing exit examination” and “fear of delayed graduation as the three most” were cited as predisposing factors influencing the incidence of DAS among final year hospitality students.

Further, the study found that four (inability to complete school in good time, worry about exit examinations, fear of delayed graduation and worry about national service) out of the six concerns students’ has about exit

Table 4. Incidence of depression, anxiety and stress across socio-demographics

Profile	Depression				Anxiety				Stress				$X^2$			
	Normal (%)	Mild (%)	Moderate (%)	Severe (%)	Extremely Severe (%)	Normal (%)	Mild (%)	Moderate (%)	Severe (%)	Extremely Severe (%)	Normal (%)	Mild (%)		Moderate (%)	Severe (%)	Extremely Severe (%)
Sex																
Male	28.2%	19.4%	27.2%	13.6%	11.7%	33.0	8.7	19.4	24.3	14.6	35.9	9.7	11.7	36.9	5.8	3.46
Female	38.1	7.6	21.1	19.4	13.8	20.1	8.7	21.1	39.1	11.1	31.1	10.4	6.6	43.6	8.3	
Programme																
Degree	36.5	10.9	28.1	14.1	10.4	27.6	12.5	17.7	29.2	13.0	39.6	7.3	6.8	40.6	5.7	0.20
Diploma	34.5	10.5	17.5	21.5	16.0	19.5	5.0	23.5	41.0	11.0	25.5	13.0	9.0	43.0	9.5	
Marital status																
Single	36.0	11.2	21.8	18.4%	12.6	24.0	8.7	21.2	34.4	11.7	32.4	10.1	8.4	42.5	6.7	
Married	29.4	5.9	32.4	11.8	20.6	17.6	8.8	14.7	44.1	14.7	32.4	11.8	2.9	35.3	17.6	0.165

examinations related to students' personal academic success factors. The finding concurs with that of Beiter et al. (2014) which indicate that concerns such as successful academic life and post-graduation plans have a role to play in terms of the prevalence of DAS among university/college students. In fact, the key reason for attending university/college is to "ultimately become educated, find a job after graduation and feel some level of personal success" (Beiter et al., 2014; p. 93). In essence, issues such as failing exit examination with likely implication for delayed graduation and inability to complete school on time will adversely affect the key reason for attending university/college, at least, from the student's perspective. Such scenarios have the potential of inducing high levels of DAS as found in the study. Self-image and parental/peer influences accounted for the remaining predisposing factors; an indication of the role of self-image as well as parental and peer influences in concerns of students during examination. As found in other studies (Hurst et al., 2013; Kumaraswamy, 2013), social pressures such as family and peer relationships go a long way in inducing DAS. It becomes worse when the family and peer relationships relate to examination expectation of students.

The current study found significant relationship between sex and depression as well as between programme of study and anxiety. The study found females to be more likely to be depressed, anxious and stressed than males, contradicting the findings of studies where there were no significant differences between sex and psychological variables (Alim et al., 2015; Beiter et al., 2015; Kulsoom & Afsar, 2015; Kumari et al., 2019; Lovell et al., 2015; Shamsuddin et al., 2013) or males were more likely to experience DAS than females (Kugbey et al., 2015). However, Kumar et al. (2017) averred in their study that females were more depressed, anxious and stressed than males. Further to this, Amu et al. (2021) found females to be more likely to be stressed than males in their study. The plausible reason for the trend in the current study could be attributed in parts, to the fact that females tend to be more emotional than males (Kring & Gordon, 1998), hence, are more prone to psychological challenges such as DAS.

Most diploma students pursuing either the Higher National Diploma (HND) or other kinds of diploma programmes have the opportunity to continue their education with either a two-year or three-year top up to obtain a degree in the same area of specialization upon graduating from the diploma programme. In essence, any unforeseeable circumstance that delays their graduation has the impetus of causing DAS. The study findings that diploma final year students tend to be more prone to psychological tantrums than degree final year students could be explained from this perspective. In most cases, what degree final year students look up to is to start their

national service and either find a job or continue their education, a situation which might not strain them as compared to diploma students.

## 6. Conclusion and implications

The study has highlighted the prevalence of DAS among final year hospitality students who were preparing to write the final (second semester) examinations. Again, the predisposing factors as well as gender and programme of study on influencing the three psychological constructs were revealed. The incidence of DAS was found to be high in the study population. Females were found to be more anxious than their male counterparts. The findings of the study have implications for theory and practice.

Incidence of DAS is relatively unexplored among final year hospitality students. Previous studies have mostly focused on either the general populace (e.g. Huang & Zhao, 2020; Wang et al., 2020) or medical students (see Al-Sahman et al., 2019; Cao et al., 2020; Wahed & Hassan, 2017). In light of this, the study contributes significantly to existing literature regarding the incidence of DAS among hospitality students. Findings from the current study could therefore serve as baseline for further studies. Also, the application of the DAS21 scale to examine DAS among hospitality students is novel and further making a theoretical contribution to the adoption of the DAS21 scale in assessing these psychological constructs among hospitality students. High incidence of DAS among tertiary students could have damming consequences for students who are faced with these psychological challenges. Again, students' concerns, particularly, fear of failing examinations can have negative influences on the students. In essence, a combination of high incidence of DAS and fear of examinations are potential sources of suicidal tendencies, lowering students' academic performance, causing high dropout rates or reducing the quality of life of students. In line with this, universities should take practical steps in resolving these issues. To deal with the high incidence of DAS and fear of failing examinations, universities should make maximum use of their social support systems such as counselling unit and academic tutorship to offer the needed counselling and social support for students, particularly before examination periods. Seminars on mental health and examinations could be organised for students in the bid to providing support for students. Mental health awareness week could also be instituted in order to promote mental health education among students. These measures, if properly planned and instituted, will go a long way in easing the incidence of these psychological tantrums on students, particularly during examinations and emergencies (Bai et al., 2005; Chen et al., 2020; Thompson et al., 2016). With these measures in place, the high incidence DAS as well as fear of exit examination, would be reduced to the barest minimum, if not fully curtailed.

## 7. Limitations and recommendations for further studies

The study was conducted among final year students pursuing diploma and degree in hospitality management; placing a limitation in terms of sample population. In view of this, care should be taken when generalising the findings of the study. In view of this, it is recommended that further studies take into account other student populations other than students pursuing hospitality management. Other studies could also widen the sample to include year groups, particularly, first year students. Such students are new to the university environment and are likely to be prone to DAS. Results from such studies will not only bring to the fore, an early detection of the incidence of DAS but also afford the opportunity proffer solutions in the bid to resolve such challenges in the earliest possible stage

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