

# NAVIGATING THE COLLEGE EXPERIENCE: EXPLORING THE ROLES OF SENSE OF BELONGING, ACADEMIC STRESS, ACADEMIC MOTIVATION AND DEMOGRAPHICS AMONG COLLEGE STUDENTS

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## Abstract

The College of Education is a social institution where learning takes place. However, the transition of individual students from different secondary schools, to the college of Education may come with a lot of stress, little to no motivation consequently raising the need for belonging to survive and thrive. The aim of this study was to explore the roles of sense of belonging, academic stress, academic motivation and demographics among college students. The researcher adopted the quantitative approach. The study used Wesley College of Education students in Kumasi. The target population for this study included all students at Wesley College of Education, 181 students formed the sample of the study. Questionnaires were used to collect data. One-way and Two-way Multivariate Analysis of Variance were used in the analysis. The study revealed that there was no statistically significant difference between the demographics (Age, Gender, level of Edu. And First-generation status) of students and the academic stress, academic motivation and sense of belonging as all P-Values were greater than .05 ( $p > .05$ ). However, a statistically significant difference between males and females existed only for the dimensions of academic stress. It is recommended that since males were found to perceive academic stress slightly high as compared to females, then, males should be initiated into counselling seminars or stress coping workshops in order to be able to cope with academic stress.

## Background to the Study

Maslow's psychological hierarchy places the need for belonging below basic needs like food and safety but above the needs for knowledge, understanding, and esteem. Kitchen, Williams and Gallina (2015) assert that, "the importance of a sense of belonging for both psychological and physical well-being has been well established" (p. 363). Research in higher education indicates that a sense of belonging plays a role in academic and social outcomes (Davis, Hanzsek-Brill, Petzold & Robinson, 2019). Sense of belonging has been defined in the literature as the extent to which an individual feels socially connected, included, respected, accepted, and supported by others in different social contexts (O'Rourke & Sidani, 2017). A sense of belonging is a basic human need, as people want to be socially connected to other people, feel accepted, and be part of a group.

A widely accepted definition of school belonging is 'the extent to which students feel personally accepted, respected, included, and supported by others in the school social environment' (Roffey,

Boyle & Allen, 2019). Multiple studies conducted in the last decade have shown that having a sense of school belonging is positively related to student functioning such as students' school motivation (Korpershoek, Canrinus, Fokkens-Bruinsma, & de Boer, 2020), their social emotional functioning such as their self-esteem, their classroom behaviour, and their academic achievement but negatively related to school dropout (Hascher & Hagenauer, 2010). Kitchen et al. (2015) also point out that students who have active social relationships, which can help them feel connected and accepted, appear to be mentally and physically in better condition than persons who are isolated.

The need to belong, also known as belongingness, refers to a human emotional need to affiliate with and be accepted by members of a group (Baumeister & Leary, 2017). This may include the need to belong to a peer group at school, to be accepted by co-workers, to be part of an athletic team, or to be part of a religious group. A sense of belonging involves more than simply being acquainted with other people. It is centred on gaining acceptance, attention, and support from members of the group as well as providing the same attention to other members.

Researchers show that a strong sense of belonging is correlated with one's better social and psychological functioning, it is an important aspect of mental health and social well-being (Dávila & García, 2012). Fulfilment of the need for belonging enhances the development of basic psychological developmental processes, such as self-regulation, internalization and personal autonomy. It also results in higher self-esteem and self-efficacy, as well as helping to build a better self-image (Brown, Hoye & Nicholson, 2012). Fulfilment of the need for belonging may have positive impact on coping with stress. It may influence cognitive appraisal, which is a key factor in the process of coping with stressful events (Dávila & García, 2012). A strong sense of belonging may be treated as one of important resources used in the process of coping. The sense of belonging may stimulate the perception of difficult situation as a challenge, which is a much more constructive form of appraisal, in contrast to threat or harm/loss. In case of appraisal as challenge, the person estimates the situation as difficult, but is sure that using or gaining particular resources gives a real chance of meeting the situational requirements.

A review of the educational literature on sense of belonging highlights a range of definitions and measures (Korpershoek et al., 2020). Widely agreed to be important, the construct of belonging is dynamic and multi-faceted. In most psychological studies 'belonging' in educational settings is conceptualized as an individual's subjective/internal perception of his/her connectedness to an institution and its social and environmental contexts. Furthermore, there are individual and cultural variations in how people perceive external cues and how they express and satisfy the need to belong (Baumeister & Leary, 2017).

Cooper (2009) also define 'sense of belonging to campus' as "the individual's view of whether he or she feels included in the college community" (p. 327). Cooper further define sense of belonging as "students' subjective feelings of connectedness or cohesion to the institution". Notably, sense of belonging is theorized to reflect students' integration into the college system. For instance, a feeling of belonging can mean being an accepted member of a family or a group of friends or by colleagues at work. The need to belong and to feel socially connected to others

can be so strong that it motivates people to strive to maintain relationships even during difficult times (such as a crisis) (O'Rourke & Sidani, 2017). In the past decades, increased attention has been given to the importance of fulfilling the 'need to belong' in educational contexts. Researchers emphasise the importance of a caring school environment that facilitates a sense of community and a sense of belongingness among students (Strayhorn, 2018). This sense of belongingness is often defined in the literature as a sense of school belonging.

In a study by Feldhammer-Kahr, Arendasy and Paechter (2022), it was found that sense of belonging had an association with academic stress and in a study by Tholen, Wouters, Ponnet, de Bruyn and Van Hal (2022), sense of belonging was found to play a mediating role on academic stress and other related variables. Deb, Strodl and Sun (2015) further suggest that lack of belonging can cause serious ill effects (e.g., depression). Other research emphasizes that, in a school setting, the feeling of belonging is fundamental to understanding student behaviour and performance (e.g., academic achievement) and it has a role to also play in the level of stress faced by students (Davis, Hanzsek-Brill, Petzold & Robinson, 2019).

Stress has been identified in research to impede concentration, problem solving, decision making, completion of work, and other abilities necessary for student learning (Martin, 2010). Academic stress is the most common emotional and mental state that students experience during their studies. Academic stress, according to Procentese, Capone, Caso, Donizzetti and Gatti (2020), refers to academic pressure the school poses to students. Academic related stress has included fear of falling behind the course work, finding motivation to study, time pressures and concern about academic ability. Nandamuri and Gowthami (2011) asserts that academic stress refers to students' perception of school as exerting great influence over their lives and feels that they live in a state of substantial powerlessness. Academic stress could also be informed of difficulty of achieving social intimacy due to excessive studies. If for this reason, students lack time and opportunity to develop interpersonal relationships, such students are said to be experiencing academic stress (Nandamuri & Gowthami, 2011). According to Muza and Muhammad (2020), academic stress refers to facing such tasks that produce tension such as preliminary exams semester system, fear of academic failure. Also, students' reaction to school challenges; for some College of Education is stressful because it is an abrupt change from secondary school. For others, separation from home is a source of stress.

Agolla and Ongori (2009) assert that most students in the higher institutions of learning are experiencing stress in their daily academic activities. Nakalema and Ssenyonga (2013) also assert that for many students, university life is a major transition because they are free to decide what to do without undue influence of their parents. They have a responsibility to struggle to meet the expectations of their parents which include expectations related to their academic performance.

Among various types of academic stress, the four components of academic stress usually identifiable in a student are academic frustration, academic conflicts, academic anxieties and academic pressures. Consistent with the transactional model of psychosocial stress proposed

by Lazarus in 1966, the level of perceived academic stress is determined not only by the number of academic stressors but also by how students interpret these stressors (Leung, Yeung & Wong, 2010). Therefore, Leung et al. (2010) defined academic stress as subjective psychological distress from multiple aspects of academic learning, rather than a sum of stressors. The sources of academic stress can be originated from the heavy burden of homework, negative attitudes toward learning, such as loss of interest and difficulties in learning, etc. Meanwhile, the academic expectations from students and significant others, like parents and teachers, have also been demonstrated to be important factors of academic stress (Leung et al., 2010). Academic stress occurs when academic demands exceed a student's perceived ability to cope with them (Panda, Mandal & Barman, 2015). As the burden of academic material varies within a semester, the academic stress may also change over time correspondingly (Panda et al., 2015).

In previous studies, academic stress is associated with negative psychological consequences such as unpleasant emotional states, depression, tearfulness, even self-harm, and suicidal feelings in some cases (Soares & Woods, 2020). Besides, students with a high level of stress also presented poor academic achievement, low self-efficacy, and low PE participation (O'Sullivan, 2011). Meanwhile, some researchers suggested that academic stress may not necessarily result in negative outcomes (Deb et al., 2015). Students' responses to stress differ by their abilities and beliefs. Therefore, if students view academic challenges as opportunities and exert effort to meet the challenges, the academic stress may result in a positive impact (Deb et al., 2015). Various studies have also found relationships between academic stress and academic motivation (Rubach & Bonanati, 2021).

Notably, the academic stress levels of students may also be influenced by their motivational factors. Hence, academic motivation is an important construct for one to succeed. Academic motivation is a student's desire (as reflected in his or her approach, persistence, and level of interest) regarding academic subjects when the student's competence is judged against a standard of performance or excellence (Hu & Luo, 2021). This concept will affect the deep processing of investment information. Additionally, it relates to self-efficacy, goal setting, and the generation of achievement expectations. Academic motivation is a broad term incorporating many concepts studied by scholars to include self-efficacy, determination, resilience, etc. (Petrelli, 2018; Altakhynch & Abumusa, 2020; Cayvaz, Akcay, & Kapici, 2020). Many studies deal with students' academic motivation regarding their learning aspirations and their psychological processes of learning (Lunenburg, 2011; Fan & Wolters, 2014). Academic motivation focuses exclusively on reasons why individuals decide for and continue with university studies.

Research has linked academic motivation with a number of desirable outcomes such as academic achievement, academic engagement, greater success coping with stress, better study skills, adoption of self-regulated learning strategies and persistence (Wu, 2019). Literature has also identified a corollary to academic motivation; Grit. Grit is an internal passion and persistence to accomplish long-term goals, and involves working strenuously toward challenges, maintaining effort and interest over years despite failure, adversity, and plateaus in progress (Wu, 2019).

Academic motivation can also be defined as a form of cognitive and emotional arousal that influence a learner's academic achievement (Petrelli, 2018). According to Hakan and Münire (2014), academic motivation is an internal state that activates, directs and maintains learning-related behaviours. Some reports provide researchers and instructors great understanding of academic motivation in teaching and learning setting, and valuable information regarding how students adjust to various learning environments. First, a learner's academic motivation is the result of interactions between classroom factors and the student's particular characteristics (Altakhneh & Abumusa, 2020). Thus, classroom goal structures, teacher reactions to student performance, and individual differences should be carefully designed or examined in the educational setting. Second, the student is an active processor and interpreter of the classroom setting, so student's academic motivation can be enhanced by engaging students in meaningful learning activities (Hakan & Münire, 2014). Third, students can reflect on and report their perceptions of academic motivation to others (Altakhneh & Abumusa, 2020), making it possible to collect students' motives and needs in forms of surveys. It is imperative to note that both sense of belonging and academic motivation have impacts on both first-generation students and vice-versa.

A first-generation student is a student who is the first in their family, not including siblings, to attend a post-secondary institution, such as a college, university, or apprenticeship (Delgado, 2020). Although the exact definition of the term varies, first-generation students generally enroll and graduate at significantly lower rates than their peers. First-generation students are encouraged to apply to post-secondary institutions to gain knowledge and skills that employers need, as at least, future jobs will require some form of post-secondary education. Often, first-generation students are categorized simply as those who are the first in their family to attend college. Yet, this leads to questions about the postsecondary experiences of extended family members, older siblings, and even non-family adults who have important roles in the lives of students. Ultimately, the term "first-generation" implies the possibility that a student may lack the critical cultural capital necessary for college success because their parents did not attend college (Delgado, 2020). While first-generation students are often quite academically skilled and contribute in many ways to a campus community, navigating the tangled web of college policies, procedures, jargon, and expectations can be a challenge. This pervasive "hidden curriculum" can damage the confidence of first-generation students, lead to struggles in belonging, and result in departure (Delgado, 2020). This opens an opportunity for institutions to provide additional support for these students so they may be as competitive and successful as their peers.

Evidence also abounds that demographic factors have a relationship with academic motivation as well as sense of belonging (Hu & Luo, 2021). Overall, these factors make up over 20% of the difference in academic motivation and sense of belonging. This necessitated the present study to investigate into the relationship between sense of belonging, academic stress, academic motivation and demographics among students at the Wesley College of Education, Kumasi.

### **Significance of the Study**

The significance of this research can be looked at from the perspective of knowledge, policy and practice. The study outcome will provide insight into all aspects of stress, motivation and sense of belonging. First, the findings from this study would go a long way to assist students to better understand stress and how to minimise stress. Also, the findings from this study will enable educational administrators and tutors to identify magnitude of stress to students and how best they can reduce these stressors for the students. Furthermore, the findings from this study would assist students to understand appropriate coping strategies that they can use for a short period of time before seeking professional assistance so that stress will not overwhelm them.

Also, the results of this study are also intended to guide educators and administrators to organize workshops and conferences on the significance of both intrinsic and extrinsic motivation for students. The result of this study will also add to the knowledge of tutors on the importance of motivating their students. Thus, when students are motivated, they can perform to their optimum best.

In relation to importance to policy, the results of the study would provide policy-makers information that will help in understanding the experiences of students when it comes to sense of belonging. Thus, it will also serve as a medium for revising plans and approaches to ensure effective implementation of improved educational policies to enhance sense of belonging through quality curricula. In practice, this study would also provide credible information to stakeholders in education especially management of the College of Education in their quest to put measures in place to ensure low levels of stress, high motivational levels and quality sense of belonging among students.

### **Limitations of the study**

The study was limited to 181 responses. Also, the study was limited to the use of questionnaires as there is potential inability to capture detailed and nuanced insights from participants due to its limited depth of response elicited.

### **Method**

The researcher adopted the quantitative approach. This researcher adopted the correlational research design because of the aim to examine the relationship between the variables under study. The study was conducted using students at the Wesley College of Education, Kumasi. The target population for this study included all students at the Wesley College of Education, Kumasi. The accessible population for the study included 181 people. Thus, 181 students formed the sample of the study. Questionnaires were used to gather data. Psychological sense of school Membership scale by Goodenow (1993) was adapted to measure sense of belonging in this study. This unidimensional 18-item measures/ assesses sense of belonging. The Academic Motivation Scale (AMS) by Vallerand, Pelletier, Blais, Briere, Senecal, and Vallieres (1992) which measures extrinsic and intrinsic motivation toward education was also adopted to measure academic motivation of students. Data was analysed using the SPSS version 26 by adopting a two-way MANOVA to find out significant differences amongst the demographics of the

participants as well as the academic stress, academic motivation and sense of belonging of college students.

### Results

Hypothesis one: *There is no statistically significant difference in the relationship between the demographics of students (Gender, Age, Level of education, First-generation status) and sense of belonging, academic stress and academic motivation.*

**Table 1: Demographics and (Academic stress, Academic motivation and Sense of belonging)**

| Source                  | Dependent Variable  | df | Mean square | F        | Sig. | Partial Eta Squared |
|-------------------------|---------------------|----|-------------|----------|------|---------------------|
| Corrected Model         | Sense of belonging  | 11 | 86.165      | 1.166    | .314 | .070                |
|                         | Academic motivation | 11 | 112.794     | 1.382    | .185 | .082                |
|                         | Academic stress     | 11 | 86.326      | 1.403    | .175 | .083                |
| Intercept               | Sense of belonging  | 1  | 316737.180  | 4285.474 | .000 | .962                |
|                         | Academic motivation | 1  | 207486.452  | 2543.027 | .000 | .937                |
|                         | Academic stress     | 1  | 326158.363  | 5301.706 | .000 | .969                |
| Gender                  | Sense of belonging  | 1  | 155.403     | 2.103    | .149 | .012                |
|                         | Academic motivation | 1  | 17.729      | .217     | .642 | .001                |
|                         | Academic stress     | 1  | 1.355       | .022     | .882 | .000                |
| Level of education      | Sense of belonging  | 2  | 33.827      | .521     | .631 | .006                |
|                         | Academic motivation | 2  | 55.702      | .789     | .357 | .014                |
|                         | Academic stress     | 2  | 31.868      | .124     | .626 | .008                |
| Age                     | Sense of belonging  | 2  | 31.827      | .431     | .651 | .005                |
|                         | Academic motivation | 2  | 75.702      | .928     | .397 | .011                |
|                         | Academic stress     | 2  | 29.868      | .486     | .616 | .006                |
| First generation status | Sense of belonging  | 1  | 274.292     | 3.711    | .089 | .021                |
|                         | Academic motivation | 1  | 4.530       | .056     | .814 | .000                |
|                         | Academic stress     | 1  | 179.004     | 2.910    | .090 | .017                |
| Gender*                 | Sense of belonging  | 1  | .586        | .008     | .929 | .000                |
| Level of education      | Academic motivation | 1  | 14.284      | .175     | .676 | .001                |
|                         | Academic stress     | 1  | 22.539      | .366     | .546 | .002                |
| Level of education*     | Sense of belonging  | 2  | 2.885       | .039     | .962 | .000                |
|                         | Academic motivation | 2  | 107.004     | 1.311    | .572 | .015                |
| First generation status | Academic stress     | 2  | 16.203      | .263     | .769 | .003                |
| Gender*                 | Sense of belonging  | 2  | 13.502      | .183     | .833 | .002                |
| Level of education*     | Academic motivation | 2  | 111.916     | 1.372    | .656 | .016                |
| First generation        | Academic stress     | 2  | 118.725     | 1.930    | .148 | .022                |

|            |                     |     |         |       |      |      |
|------------|---------------------|-----|---------|-------|------|------|
| status     |                     |     |         |       |      |      |
| Gender*    | Sense of belonging  | 2   | 13.502  | .183  | .833 | .002 |
| Age* Level | Academic motivation | 2   | 111.916 | 1.372 | .756 | .016 |
| of         | Academic stress     | 2   | 118.725 | 1.930 | .148 | .022 |
| education* |                     |     |         |       |      |      |
| First      |                     |     |         |       |      |      |
| generation |                     |     |         |       |      |      |
| status     |                     |     |         |       |      |      |
| Error      | Sense of belonging  | 171 | 73.909  |       |      |      |
|            | Academic motivation | 171 | 81.590  |       |      |      |
|            | Academic stress     | 171 | 61.520  |       |      |      |
| Total      | Sense of belonging  | 183 |         |       |      |      |
|            | Academic motivation | 183 |         |       |      |      |
|            | Academic stress     | 183 |         |       |      |      |

Bonferroni=  $p. < 017$

A two-way between groups Multivariate Analysis of Variance was performed to investigate if there was a statistically significant differences in scores between demographic variables such as (Gender, Age, Level of Education and First-Generation Status) and variables such as academic stress, academic motivation and sense of belonging. Three dependent variables were used: academic stress, academic motivation and sense of belonging. The independent variables were Gender, Age, Level of Education and First-Generation Status. Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity, with no serious violations noted. The results revealed that there was no statistically significant difference between the demographics of students (Gender, Age, Level of Education and First-Generation status) and the dependent variables (academic stress, academic motivation and sense of belonging) as all p-values were greater than .05 ( $p > .05$ ). This required no further post hoc analysis.

Hypothesis two: *There is no statistically significant difference in the relationship between the demographics of students (Gender) and the dimensions of academic stress.*

**Table 2: Gender and Dimensions of Academic stress**

| Source          | Dependent Variable        | df | Mean square | F        | Sig. | Partial Eta Squared |
|-----------------|---------------------------|----|-------------|----------|------|---------------------|
| Corrected Model | academic expectations     | 1  | 57.924      | 5.868    | .016 | .031                |
|                 | workload and examinations | 1  | 11.750      | .478     | .490 | .003                |
|                 | academic self-perceptions | 1  | 12.766      | .717     | .398 | .004                |
| Intercept       | academic expectations     | 1  | 20551.388   | 2081.966 | .000 | .920                |
|                 | workload and examinations | 1  | 102814.154  | 4185.468 | .000 | .959                |
|                 | academic self-perceptions | 1  | 60062.209   | 3373.386 | .000 | .949                |
| Gender          | academic expectations     | 1  | 57.924      | 5.868    | .016 | .031                |
|                 | workload and examinations | 1  | 11.750      | .478     | .490 | .003                |

|       |                           |     |        |      |      |      |
|-------|---------------------------|-----|--------|------|------|------|
|       | academic self-perceptions | 1   | 12.766 | .717 | .398 | .004 |
| Error | academic expectations     | 181 | 9.871  |      |      |      |
|       | workload and examinations | 181 | 24.565 |      |      |      |
|       | academic self-perceptions | 181 | 17.805 |      |      |      |
| Total | academic expectations     | 183 |        |      |      |      |
|       | workload and examinations | 183 |        |      |      |      |
|       | academic self-perceptions | 183 |        |      |      |      |

**Bonferroni= p. < 017**

A one-way between-groups multivariate analysis of variance was performed to investigate gender differences in academic stress. Three dependent variables were used: academic expectations, workload and examinations and academic self-perceptions. The independent variable was gender. Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity, with no serious violations noted. There was a statistically significant difference between males and females on the combined dependent variables,  $F(3, 179) = 2.68$ ,  $p = .039$ ; Wilks' Lambda = .98; partial eta squared = .02. When the results for the dependent variables were considered separately, the only difference to reach statistical significance, using a Bonferroni adjusted alpha level of .017, was academic expectations,  $F(1, 181) = 5.86$ ,  $p = .016$ , partial eta squared = .03. An inspection of the mean scores indicated that males reported slightly higher levels of academic expectations in academic stress ( $M = 12.30$ ,  $SD = 3.54$ ) than females ( $M = 11.06$ ,  $SD = 2.96$ ).

Hypothesis three: *There is no statistically significant difference in the relationship between the demographics of students (Gender) and the dimensions of academic motivation.*

**Table 3: Gender and Dimensions of Academic Motivation**

| Source          | Dependent Variable   | df  | Mean square | F        | Sig. | Partial Eta Squared |
|-----------------|----------------------|-----|-------------|----------|------|---------------------|
| Corrected Model | Intrinsic motivation | 1   | 2.533       | .102     | .750 | .001                |
|                 | Extrinsic motivation | 1   | .135        | .013     | .911 | .000                |
|                 | Amotivation          | 1   | 1.225       | .289     | .592 | .002                |
| Intercept       | Intrinsic motivation | 1   | 66310.926   | 2671.005 | .000 | .937                |
|                 | Extrinsic motivation | 1   | 31492.331   | 2960.909 | .000 | .942                |
|                 | Amotivation          | 1   | 7229.816    | 1702.596 | .000 | .904                |
| Gender          | Intrinsic motivation | 1   | 2.533       | .102     | .750 | .001                |
|                 | Extrinsic motivation | 1   | .135        | .013     | .911 | .000                |
|                 | Amotivation          | 1   | 1.225       | .289     | .592 | .002                |
| Error           | Intrinsic motivation | 181 | 24.826      |          |      |                     |
|                 | Extrinsic motivation | 181 | 10.636      |          |      |                     |
|                 | Amotivation          | 181 | 4.246       |          |      |                     |
| Total           | Intrinsic motivation | 183 |             |          |      |                     |

|                      |     |
|----------------------|-----|
| Extrinsic motivation | 183 |
| Amotivation          | 183 |

**Bonferroni= p. < 017**

A one-way between-groups multivariate analysis of variance was performed to investigate gender differences in academic motivation. Three dependent variables were used: Intrinsic motivation, Extrinsic motivation and A motivation. The independent variable was gender. Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity, with no serious violations noted. There was no statistically significant difference between males and females on the combined dependent variables,  $F(3, 179) = .102, p = .959$ ; Wilks' Lambda = .99; partial eta squared = .002. Further, when the results for the dependent variables were considered separately, there was no statistically significant difference, using a Bonferroni adjusted alpha level of .017 and as such there was no need for a post hoc analysis.

Hypothesis four: *There is no statistically significant difference in the relationship between the demographics of students (Age) and the dimensions of academic stress.*

**Table 4: Age and Dimensions of Academic Stress**

| Source          | Dependent Variable        | df  | Mean square | F        | Sig. | Partial Eta Squared |
|-----------------|---------------------------|-----|-------------|----------|------|---------------------|
| Corrected Model | academic expectations     | 2   | 24.185      | 2.424    | .091 | .026                |
|                 | workload and examinations | 2   | 16.708      | .680     | .508 | .007                |
|                 | academic self-perceptions | 2   | 14.524      | .815     | .444 | .009                |
| Intercept       | academic expectations     | 1   | 13859.665   | 1388.875 | .000 | .885                |
|                 | workload and examinations | 1   | 77328.743   | 3145.918 | .000 | .946                |
|                 | academic self-perceptions | 1   | 44562.961   | 2501.685 | .000 | .933                |
| Age             | academic expectations     | 2   | 24.185      | 2.424    | .091 | .026                |
|                 | workload and examinations | 2   | 16.708      | .680     | .508 | .007                |
|                 | academic self-perceptions | 2   | 14.524      | .815     | .444 | .009                |
| Error           | academic expectations     | 180 | 9.979       |          |      |                     |
|                 | workload and examinations | 180 | 24.581      |          |      |                     |
|                 | academic self-perceptions | 180 | 17.813      |          |      |                     |
| Total           | academic expectations     | 183 |             |          |      |                     |
|                 | workload and examinations | 183 |             |          |      |                     |
|                 | academic self-perceptions | 183 |             |          |      |                     |

**Bonferroni= p. < 017**

A one-way between-groups multivariate analysis of variance was performed to investigate age differences in academic stress. Three dependent variables were used: academic expectations, workload and examinations and academic self-perceptions. The independent variable was gender. Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity, with no serious violations noted. There was no statistically significant

difference between males and females on the combined dependent variables,  $F(6, 356) = 1.127$ ,  $p = .346$ ; Wilks' Lambda = .963; partial eta squared = .019. Further, when the results for the dependent variables were considered separately, there was no statistically significant difference, using a Bonferroni adjusted alpha level of .017 and as such there was no need for a post hoc analysis.

Hypothesis five: *There is no statistically significant difference in the relationship between the demographics of students (Age) and the dimensions of academic motivation.*

**Table 5: Age and Dimensions of Academic Motivation**

| Source          | Dependent Variable   | df  | Mean square | F        | Sig. | Partial Eta Squared |
|-----------------|----------------------|-----|-------------|----------|------|---------------------|
| Corrected Model | Intrinsic motivation | 2   | 2.944       | .118     | .889 | .001                |
|                 | Extrinsic motivation | 2   | 16.392      | 1.559    | .213 | .017                |
|                 | A motivation         | 2   | 7.432       | 1.772    | .173 | .019                |
| Intercept       | Intrinsic motivation | 1   | 48323.421   | 1937.160 | .000 | .915                |
|                 | Extrinsic motivation | 1   | 22725.952   | 2161.548 | .000 | .923                |
|                 | A motivation         | 1   | 5376.879    | 1281.989 | .000 | .877                |
| Age             | Intrinsic motivation | 1   | 2.944       | .118     | .889 | .001                |
|                 | Extrinsic motivation | 1   | 16.392      | 1.559    | .213 | .017                |
|                 | A motivation         | 1   | 7.432       | 1.772    | .173 | .019                |
| Error           | Intrinsic motivation | 180 | 24.945      |          |      |                     |
|                 | Extrinsic motivation | 180 | 10.514      |          |      |                     |
|                 | A motivation         | 180 | 4.194       |          |      |                     |
| Total           | Intrinsic motivation | 183 |             |          |      |                     |
|                 | Extrinsic motivation | 183 |             |          |      |                     |
|                 | A motivation         | 183 |             |          |      |                     |

**Bonferroni= p. < 017**

A one-way between-groups multivariate analysis of variance was performed to investigate age differences in academic motivation. Three dependent variables were used: Intrinsic motivation, Extrinsic motivation and a motivation. The independent variable was gender. Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity, with no serious violations noted. There was no statistically significant difference between males and females on the combined dependent variables,  $F(6, 356) = 1.094$ ,  $p = .365$ ; Wilks' Lambda = .964; partial eta squared = .018. Further, when the results for the dependent variables were considered separately, there was no statistically significant difference, using a Bonferroni adjusted alpha level of .017 and as such there was no need for a post hoc analysis.

**Discussion**

Taking a look at the results of the analysis, First, no significant difference was found in the relationship between students' demographics (gender, age, level of education, first-generation status) and sense of belonging, academic stress and academic motivation. This means that regardless of your demographic features as a student, academic stress, academic motivation and sense of belonging as variables do not vary in means across any demographic trait. Hence, this is corroboration in findings with literature such as (Davis, Hanzsek-Brill, Petzold & Robinson, 2019; Rubach & Bonanati, 2021; Feldhammer-Kahr, Arendasy & Paechter, 2022). Again, in establishing the relationship between the significant differences between gender as well as age in conjunction with the dimensions of academic stress and academic motivation revealed that there is only a statistically significant difference between males and females when it comes to academic stress. Further post hoc analysis revealed that males had higher means in terms of academic expectations in comparison to their counterparts who are females. This reflects that males perceived academic stress in the form of academic expectation slightly higher as compared to the females in the study. This finding is similar to literature such as (Tholen, Wouters, Ponnet, de Bruyn & Van Hal, 2022; Nandamuri & Gowthami, 2011; Muza & Muhammad, 2020)

**Conclusion**

It can be concluded that Colleges are social institutions where learning takes place. However, the transition of individual students from different secondary schools, to the College of Education may come with a lot of anxiety, stress and difficulties. Students from the College of Education face challenges in terms of academic motivation and expectation from tutors, personal academic interaction with new colleagues, method of teaching, new academic institution, security challenges and many others that can create excessive pressure which may in turn have effect on student academic motivation. In addition, sitting for examination is stressful because of the pressure to review all the learned materials within a given period of time which leads students to feel unfamiliar situations and most of the students find it difficult to achieve a balance between continuous assessment test and examination. With or without motivation and the needed sense of belonging may contribute towards these stressful moments (Soria & Stebleton, 2012).

**Recommendation**

It is recommended that since males were found to perceive academic stress slightly higher as compared to females, then males should be initiated into counselling seminars or stress coping workshops in order to be able to cope with academic stress. Again, academic stress, academic motivation and sense of belonging are important constructs which need to be well noticed at the Colleges for students to excel academically.

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