THE USE OF ENTRY GRADE TO PREDICT STUDENT'S ACADEMIC SUCCESS IN WARRI COLLEGE OF NURSING IN DELTA STATE

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Abstract
The study examined the use of entry grades to predict Warri College of Nursing students' academic success in Delta State. Two research questions and two hypotheses directed the investigation. The study adopted a correlational research method. A sample of 130 midwifery students was used from a population of 650 students in college of nursing, Warri Delta State. The instrument for data collection were SSSCE (WAEC, NECO) grades, entrance examination and nursing students cumulative grade point average (CGPA). The instrument did not under go any further validity and reliability as validation was already taken care of. The statistical method for data analysis was Pearson Product Moment Correlation Coefficient and linear regression in SPSS version 23. The PPMCC were used for the research questions while hypotheses were tested using Linear regression and Fisher-z statistics at 0.05 alpha level. The findings showed a weak positive and significant relationship between entry grades and academic success of Delta State college of nursing (midwifery) students in Warri. The finding also revealed a no significant relationship between entry grades and academic success of Delta State college of midwifery students in Warri for male and female students. It was recommended that nursing schools should adopt a holistic admission process like interviews since entry grades alone do not significantly predict student success, Society and relevant stakeholders should promote gender equity since male and female students were affected by the weak predictive power of entry grades. This includes addressing and encouraging male participation in a female-dominated profession.

Keywords: Entry grades, academic success, students, sex

Introduction

Colleges of Nursing are specialized higher education institutions dedicated to the training, development, and professional preparation of individuals in the field of nursing and related health sciences. Their establishment is rooted in the historical evolution of nursing from a vocational skill into a recognized academic and professional discipline. Historically, the formalization of nursing education began with Florence Nightingale's pioneering efforts in 1860, when she established the Nightingale Training School for Nurses at St. Thomas' Hospital in London, which became the blueprint for modern nursing education worldwide (Dossey, Beck & Selander, 2019). This initiative not only professionalized nursing but also demonstrated the importance of structured training, ethical standards, and scientific knowledge in the delivery of healthcare. Over the decades, the model of structured nursing education spread globally, leading to the creation of colleges of nursing within universities and independent institutions that combine theoretical instruction, clinical training, and research (Dossey et al, 2019).

Adeyemi (2021) stated the central goals of colleges of nursing are to equip students with the knowledge, skills, and values required to provide safe, evidence-based, and patient-centered care. Beyond preparing individuals for licensure and clinical practice, these colleges are charged with fostering leadership, critical thinking, and ethical reasoning among students to enable them to contribute meaningfully to the healthcare system. They function as hubs for academic excellence, research, and innovation in nursing science, bridging the gap between theory and practice while addressing the ever-changing demands of global healthcare. In doing so, they prepare graduates not only to function as competent practitioners but also as educators, researchers, administrators, and policymakers in the health sector. Colleges of nursing play a vital role in responding to national and international healthcare challenges. With the growing demand for skilled health professionals due to population growth, aging societies, and the rising prevalence of chronic diseases, colleges of nursing serve as a pipeline for producing competent nurses who form the backbone of healthcare delivery (World Health Organization [WHO], 2020). Moreover, these institutions contribute to knowledge generation through nursing research, promote inter professional collaboration, and advance public health initiatives. By aligning their curricula with contemporary health priorities, accreditation standards, and global best practices, colleges of nursing ensure that graduates are well-prepared to meet the complex health needs of diverse populations. Thus, colleges of nursing occupy a strategic position at the intersection of education and healthcare. They are not only academic institutions but also vital social actors that shape the quality of healthcare delivery, influence health policies, and advance the professional identity of nursing.

Adebayo and Olatunji (2023) noted that academic success among college of nursing students has become a subject of significant scholarly interest and practical concern in recent decades, given the complex nature of nursing education which combines theoretical knowledge acquisition with extensive clinical practice, critical thinking, and professional competence. The researchers further iterated that nursing as a discipline demands not only intellectual capacity but also emotional resilience, clinical dexterity, ethical sensitivity, and the ability to work under pressure, and thus, the measurement and understanding of academic success cannot be limited to grade point averages or classroom examinations alone but must extend to holistic measures of students' performance across cognitive, affective, and psychomotor domains. Researchers such as Kahu and Nelson (2018) emphasize that academic success in nursing education is shaped by an interplay of personal, institutional, and socio-environmental factors, suggesting that the student's individual attributes, the quality of educational delivery, and the broader social support networks all converge to influence outcomes. For example, intrinsic motivation, self-efficacy, and time management skills are often critical predictors of academic achievement among nursing students, while extrinsic factors such as faculty mentorship, access to resources, and clinical placement opportunities also determine how successfully students adapt to the rigor of the program (Kahu & Nelson, 2018). The transition from secondary school to the highly demanding environment of

nursing education requires resilience and adaptive coping mechanisms; many first-year students struggle with the shock of workload, exposure to patient suffering, and the pressure of professional expectations, which in turn influences their academic trajectory (Pryjmachuk, Easton & Littlewood, 2019).

The role of personal characteristics in determining academic success among nursing students cannot be underestimated. Pryjmachuk et al (2019 opined that attributes such as self-discipline, perseverance, emotional intelligence, and adaptability have been consistently linked to high academic performance. For instance, students with high levels of emotional intelligence are better able to manage stress, interact with patients, and engage effectively in collaborative learning, which enhances both academic and clinical performance (Görgens-Ekermans& Brand, 2012). Additionally, self-regulated learning strategies, such as goal setting, self-monitoring, and reflective practices, contribute significantly to success by enabling students to take responsibility for their learning (Zimmerman &Schunk, 2011). Gender, age, and prior educational background also interact to shape academic performance; observation have shown that mature students often perform better due to higher levels of motivation and life experience, while those with strong backgrounds in science subjects enter nursing programs with an academic advantage (Salamonson et al., 2016). However, these individual differences are moderated by institutional practices and support systems, which highlights the importance of equitable and inclusive academic policies (Shapiro et al., 2017).

Academic success in nursing schools has become a critical issue because the healthcare system requires well-trained nurses who can meet global health challenges. According to Adeyemi (2022), entry grades remain strong predictors of students' cognitive ability and subsequent performance in professional programmes. In Delta State, the Warri School of Nursing admits candidates based on minimum entry requirements, but there is limited empirical evidence on whether these entry grades can predict their eventual academic success in nursing programmes.

Globally, entry to higher education institutions - particularly college of nursing is predominantly based on prior attainment of good grades of institutions (Vidal & Zanini, 2015; Shehry & Youssif, 2017; Wikström & Wikström, 2017). As a result, candidates admitted to the college of nursing must have attained certain minimum requirements for specific academic programmes, but should have also favourably ranked among the applicants since everyone is admitted on the basis of his/her grade in an institutions (Wambugu & Emeke, 2013; Aidoo-Buameh & Ayagre, 2013; Chathuranga, 2016). According to Richardson, Abraham and Bond (2012), college of nursing often base their students' admission on secondary certificates academic performance because they strongly believe that it will determine how the students will academically perform while at the institution. Unfortunately, even though Delta State have routinely used such an admission criterion to admit their students to college of nursing, its use as the primary criterion for admission to undergraduate programmes has been a subject of criticism for many reasons. First, there is lack of sufficient understanding of its effectiveness in determining student academic performance while at college of nursing level (Danilowicz-Gösele, Lerche, Meya & Schwager, 2017); that is, not everyone agrees that a good grade for a student will automatically result into a better academic performance while at college of nursing. Despite the use of entry grades as the primary admission criterion into nursing schools, cases of academic failure, withdrawals, and poor performance are still recorded in nursing institutions. In Warri School of Nursing, some students with high entry grades end up struggling academically, while others with marginal grades excel. This inconsistency raises concerns about the validity of entry grades as predictors of nursing students' success. Aspelmeier et al. (2012) reported that the academic performance of a student at college of nursing may be influenced by several different factors including sex, location, parents' educational background, family size, type of high school attended, and the socio-economic status of the student. This study focused on sex as moderator of entry grades and academic success of Delta State college of nursing, Warri.

Sex is a set of characteristics of being a male or female particularly, in the case of man and

woman which, depending on the context, may vary from sex to social role and to gender identity (Bland in Okagbare, Ossai & Osadebe, 2023). Nevertheless, Chang and Tzou (2018) in their study reported that although there is a downward gap in gender difference in students' performance in physics (sciences) and other subjects, female portion in subjects involving calculation like sciences is on the low in comparison with their male counterparts. Considering socio-cultural background, Oludipe (2013) observed that in Nigeria, certain positive vocations and line of work/profession have traditionally been assigned as men's and others as women's career. Some of these vocations are Medicine, engineering, architecture and nursing, catering, typing respectively. Historically, nursing has been dominated by women, both in training and in practice, and although men are increasingly joining the profession, they remain underrepresented, especially in Nigerian colleges of nursing (Okeke & Nwafor, 2021). This imbalance raises the important question of whether the academic pathways of male and female students differ, and specifically whether sex moderates the predictive power of entry grades on academic success. Research has consistently demonstrated that academic advising, mentoring, and psychosocial counseling enhance academic outcomes among nursing students, but these supports may benefit male and female students differently (Holland, Daiger & Power., 2020). Perna (2015) opines that female students often take greater advantage of peer mentoring and support services, thereby strengthening the link between entry grades and subsequent success, while male students may underutilize these resources, thereby weakening the link unless faculty actively intervene. Additionally, financial support structures may interact with sex and entry grades in shaping outcomes, as female students from low-income households may be disproportionately affected by financial hardship, which undermines the predictive strength of their high entry grades (Perna, 2015). Male students, often under familial or societal pressure to succeed as breadwinners, may demonstrate resilience that offsets weaker entry grades, leading to comparable or even superior academic success in some cases. This means that female students often translate higher

entry grades into sustained academic success in theory-based components due to persistence, peer collaboration, and coping strategies, while male students may leverage non-cognitive skills, institutional attention, and clinical assertiveness to achieve success despite lower entry grades.

Alfifi and Abed (2017) whose results showed that female students perform better than their male counterparts do. They argued that student's gender strongly affects performance at university with girls performing better than boys do. On the contrary, some studies have shown that male students obtain higher mean scores than females (Larose, Bernier, & Tarabulsy, 2015), while in other studies, it was discovered that gender is not a significant predictor of academic performance at universities (Aderi, Jdaitawi, Ishak, & Jdaitawi, 2013). According to Emaikwu (2012), the academic achievement of male students is usually higher than that of their female counterparts irrespective of the mode of admission into the university. This work affirms the earlier report by Wikström and Wikström (2017) who asserted that boys are academically ahead of girls, especially in sciences. Scholars who have advocated for affirmative action scheme in admitting students to university based on gender such as Alfifi and Abed (2017) have often argued that female students admitted under the same criteria often perform better than their male counter-parts. Therefore, even when female students with lower pre-university grades are admitted to university, they will perform as well as their male counter-parts. This argument has however been challenged by several other scholars who opined that male students generally perform better than their female counterparts do. In a study conducted by Emaikwu (2012) for instance, it was reported that the academic achievement of male students was higher than that of their female counterparts, especially in sciences irrespective of the entry grades to university. The above results showed that gender has some significant impact on student performance at university level. Some other scholars, however, have had a neutral view about the relationship between gender, entry grades and the academic performance of university students. In studies conducted by Aderi, Jdaitawi, Ishak and Jdaitawi (2013) and Wikström and Wikström (2017), for examples, it was reported that gender is not a significant

predictor of academic performance at universities. This argument was later supported by some aspects of a study done by Wikström and Wikström (2017) who also discovered that gender does not strongly influence university performance.

Statement of the Problem

Academic success at all level particularly college of nursing has indeed gain attention of health stakeholders in Delta State. Entry grade obtained prior to admission reflect the cognitive ability, preparedness, and potential of nursing students to cope with academic challenge. However, while entry grades have been institutionalized as the principal criterion for admission decisions, there is a growing alarm in academic outcomes among students. It is expected that student who perform well in a standardized tests without malpractice is expected do well in their academic pursuits but this is not so, with the grades of As, Bs, obtained from standardized tests most students performance below expectations in the first year. Nursing students are observed to be battling with academic results that have led to drop out and withdrawal. In Delta, where the health sector faces equipment deficits, the reliability of entry grades as predictors of success remains under debate. The Unified Tertiary Matriculation Examination (UTME), Nursing Examination, West African Senior School Certificate Examination (WASSCE), and other entry-level assessments are widely used to rank candidates. Observation from argue stated that UTME and WASSCE results moderately predict student GPA in Nigerian universities and colleges. It is against this argument that necessitated the researchers to determine the use of entry grade to predict student's academic success in Warri College of nursing in Delta State. Therefore, the problem of this study is: What is the relationship between entry grades and academic success of nursing students in Warri College of nursing in Delta State?

Research Questions

1. What is the relationship between entry grades and student's academic success in Warri College of nursing in Delta State?
2. What is the relationship between entry grades and student's academic success in Warri College of nursing in Delta State on sex?

Hypotheses

1. There is no significant relationship between entry grades and student's academic success in Warri College of nursing in Delta State
2. There is no significant relationship between entry grades and student's academic success in Warri College of nursing in Delta State base on sex

Methodology

The study adopted a correlational research method. The population of the study comprised of 650 year1-3 nursing students in college of nursing, Warri Delta State in 2023/2024 academic session. The sample size of study was 130 nursing (midwifery) students in college of nursing Warri which constitute 20% of the entire population. Stratified sampling method was used to select the sample size. The stratification was based on sex (male and female nursing students). The participants were group into strata of male and female then Simple random techniques was used to select 40 male nursing students and 90 female nursing students to make up the sample size. The proforma for data collection was west African Senior Secondary certificates examination (WASSCE)/senior secondary school certificate examination (SSSCE) grades, entrance examination and nursing students cumulative grade point average (CGPA) that were obtained from exams and records unit of the college. The instrument did not under go any further validity and reliability as validation was assumed to be taken care of by the examination bodies. This was because WASSCE/SSSCE are reputable examination bodies in West African and Nigeria. The statistical method for data analysis was Pearson Product Moment Correlation Coefficient and linear regression in SPSS version 23. The PPMCC was used for the research questions while hypotheses were tested using Linear regression and Fisher-z statistics at 0.05 alpha level.

Results

Research Question 1: What is the relationship between entry grades and student's academic success in Warri College of nursing in Delta State?

Table 1: Multiple Correlation Coefficient of relationship between entry grades and student's academic success in Warri College of nursing in Delta State

Variables	N	r	R^2	Adjusted R Square	Remark
SSSCE Entrance Exam CGPA	130	0.113	0.013	0.011	Weak positive relationship

Table 1 shows the multiple correlation coefficients (r) of entry grades and student's academic success in Warri College of nursing (midwifery) in Delta State. 0.113 which indicate that there exists a weak positive relationship between entry grades and academic success of Delta State college of nursing (midwifery) students in Warri. From the analysis, the coefficient of determination (R^2) 0.013 and adjusted R square of 0.011 implies that 0.13 percent of the total variations in the CGPA was explained by the variation in the SSSCE and entrance examination.

Research Question 2: What is the relationship between entry grades and student's academic success in Warri College of nursing in Delta State on sex?

Table 1: Multiple Correlation Coefficient of relationship between entry grades and student's academic success in Warri College of nursing in Delta State on sex

Sex	Variables	N	R	R^2	$R^2\%$	Remark
Male	SSSCE Entrance Exam CGPA	40	0.74	0.55	54.4	Positive Relationship
Female	SSSCE Entrance Exam CGPA	90	0.73	0.53	52.8	Positive Relationship

Table 2 shows the result of a multiple correlation analysis which was used to examine the relationship between entry grades and student's academic success in Warri College of nursing in Delta State for male and female. The result revealed that $R = 0.74$, $R^2 = 0.55$, and $R^2\% = 54.4$ for male midwifery nursing students and $R = 0.73$, $R^2 = 0.53$, and $R^2\% = 52.8$ for female nursing midwifery students. The result showed a positive relationship between entry grades and academic success of Delta State college of nursing (midwifery) students in Warri for male. The result also showed a positive relationship between entry grades and academic success of Delta State college of nursing (midwifery) students in Warri for female. It implied that SSSCE and entrance examination contributed 54.4% to the variability in CGPA for male and 52.8% for female midwifery students with very slight success for male in Delta State college of nursing.

Hypothesis 1: There is no significant relationship between entry grades and student's academic success in Warri College of nursing in Delta State.

Table 3: Summary of Regression analysis of entry grades and student's academic success in Warri College of nursing in Delta State

Model	Unstandardized Coefficiens		Standardized Coefficiens	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.984	0.067		29.594	0.000
SSSCE	0.064	0.029	0.113	1.193	0.029
Entrance Exam	0.121.	0.025		2.354	0.047

From the result, SSSCE had a beta weight of 0.064 and standardized beta of 1.19 while entrance examination had a beta weight of 0.12 and standardized beta of 2.35. The results showed that SSSCE and entrance examination is significant at alpha level of 0.05. Therefore, the null hypothesis is rejected. This implies that there is a significant relationship between entry grades and academic success of Delta State college of midwifery students in Warri

Hypothesis 2: There is no significant relationship between entry grades and student's academic success in Warri College of nursing in Delta State base on sex

Table 4: Fisher's Z statistics of the entry grades and student's academic success in Warri College of nursing in Delta State base on sex

Sex	Variables	N	R	Fisher-z	Remark
Male	SSSCE Entrance Exam CGPA	40	0.74		
				0.29	Not Significant
Female	SSSCE Entrance Exam CGPA	90	0.73		

Table 4 shows the result of a Fisher's Z statistics of the entry grades and academic success of Delta State college of midwifery students in Warri base on sex. The result shows that male midwifery students had a coefficient (R) of 0.74 while male midwifery students had a coefficient (R) of 0.73. The fisher-z (z_{obs}) is 0.29, which is less than 1.96, the correlation coefficients are therefore not statistically significantly different. Hence, the null hypothesis is accepted, which implies that no significant relationship between entry grades and academic success of Delta State college of midwifery students in Warri base on sex

Discussion of Findings

The first finding that relate to the research question showed a weak positive relationship between entry grades and academic success of Delta State college of nursing (midwifery) students in Warri. The finding also revealed a significant relationship between entry grades and academic success of Delta State college of midwifery students in Warri. This weak finding suggests that entry grades explain only a small portion of students' performance in the midwifery programme. While entry grades have some predictive value they likely capture basic academic skills and prior preparation they are not sufficient as a lone admissions filter. The study's finding agreed with Alothman, Aljohani, and Alzahrani (2021) who found that these criteria had only minimal predictive power for success in basic science courses. Their findings reinforce that entry grades provide only a partial picture of future achievement.

The second finding that relate to the research question showed a positive and no significant relationship between entry grades and academic success of Delta State college of nursing (midwifery) students in Warri for male and female. This finding suggests that while grades at admission may show a slight upward trend with later performance, they are not reliable predictors of who will excel in the programme. This finding agreed with Aderi, (2013) in a study reported and discovered that gender is not a significant predictor of academic performance at universities. Importantly, the Warri finding that this pattern holds for both males and females reinforces the broader evidence that gender does not meaningfully alter the weak predictive value of entry grades, and that in-programme factors such as motivation, clinical exposure, and learning support remain far more critical to student success.

Conclusion

From the above findings, it is therefore concluded that positive relationship between entry grades and academic success of Delta State college of nursing (midwifery) students in Warri exists. However, the magnitude of relationship of entry grades to academic success of Delta State college of nursing is weak and not significant.

Recommendations

1. Nursing schools should adopt a holistic admission process like interviews since entry grades alone do not significantly predict student success.
2. Society and relevant stakeholders should promote gender equity since male and female students were affected by the weak predictive power of entry grades. This includes addressing and encouraging male participation in a female-dominated profession.

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