FACTORS ACCELERATING NURSING PROGRAM COMPLETION AMONG NURSE-STUDENTS: A CASE OF ST.CAMILLUS SCHOOL OF NURSING, TABAKA-KISII COUNTY

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DECLARATION

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the dissertation contains no material previously published or written by another person except where due reference is made in the dissertation itself.

Norah Anne M. Oyagi

Approval

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ABSTRACT

Training as a professional nurse is a very pertinent undertaking for any candidate considering a long-term career in nursing. It requires a combination of certain intrinsic and extrinsic factors to be able to sustain appropriate and satisfactory success and achievement throughout the training period to ensure a timely completion of the program whose absence could have direct impact on completion rates. This study assessed the factors accelerating the nursing program completion among student nurses: a case of St. Camillus School of Nursing, Tabaka. Specifically, it sought to: establish the demographic, determine the individual, the socio-economic and the learner's environmental factors associated with the nursing program completion. The study was guided by the self-determination theory (SDT). A descriptive, cross-sectional study design was utilized with a mixed method approach to data collection. A self-administered, structured questionnaire was used to obtain quantitative data while an open-ended interviewer-administered guide was used to collect qualitative data. A total of 166 students were recruited using stratified random sampling based on the year of study for quantitative data. For qualitative data, 15 participants were purposively sampled. Quantitative data was analyzed using SPSS, and qualitative data was managed using thematic analysis. The study established that majority of the nursing students at St. Camillus School of Nursing are aged between 18 to 24 years, with majority being female, single and whose parents' attained a tertiary education level. Additionally, majority of the students reside from school premises. Binary logistic regression confirmed that marital status, main reason for pursuing nursing studies and learning environment were associated with nursing program completion. The regression model was: Nursing program completion= Marital status, student's passion to care for the sick, learning environment. The study concluded that demographic, individual and learning environment are significantly associated with nursing program completion among the students at SCSN, Tabaka. The study recommended the St. Camillus School of Nursing to enhance the learning environment by providing enough learning resources like classrooms, clinical laboratories, adoption of technology, hire enough nursing instructors and provide adequate teaching materials to enable students complete their training as scheduled.

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ABBREVIATIONS AND ACRONYMS

IEBC **:** Independent Electoral and Boundaries Commission

KRCHN : Kenya Registered Community Health Nursing

KMTC : Kenya Medical Training College

NACOSTI : National Commission of Science and Technology

NCK : Nursing Council of Kenya

NCLEX-RN : National Council Licensure Examination-Registered Nursing

OECD : Organization for Economic Co-operation and Development

SCSN : Saint Camillus School of Nursing

SDG : Sustainable Development Goals

SDT : Social Determination Theory

SU-ISERC : Strathmore University/Institutional Ethics Review Committee

SPSS : Statistical Package for Social Science

WHO : World Health Organization

OPERATIONALIZATION OF KEY TERMS

Nursing Program Completion: In this study, this means a nurse student accomplishing their studies according to the laid out schedule.

Nurse-student: A learner who is undertaken the training programme of becoming a registered nurse.

School of Nursing: Training institution which has been approved by Ministry of Health, the Nursing Council of Kenya and the County Government of Kisii Ministry of Health to offer the prescribed curriculum for nurses' training according to the regulations of the Nursing Council of Kenya.

Registered Nurse: A qualified nurse who has undergone a prescribed training and certified examiners upon the completion of the nursing program.

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CHAPTER ONE: INTRODUCTION

1.0 Introduction

This chapter introduces the background to the research topic. It highlights and defines the problem this study aimed to address, the guiding objectives with corresponding study questions, its scope and significance.

1.1 Background

The completion of nursing programs is critical for addressing the global shortage of qualified nursing professionals, a concern which has been exacerbated by increasing healthcare demands in various regions of the world, changes in global demographic trends such as longer life expectancy with associated burden of chronic conditions, emerging and re-emerging of new infectious diseases such as the recent pandemic of Covid-19 among others. Many candidates interested in pursuing nursing, experience various factors that could play a role in their choice of the profession, sustain their motivation to perform well with the goal to of completing the course as scheduled. However, we recognize that not all who enroll into the nursing program complete as expected. Factors that accelerate the completion of nursing programs encompass a wide range of academic, personal or individual, and institutional determinants.

Academic preparedness, including prior education and relevant coursework, plays a significant role in determining how swiftly students can progress through nursing curricula. Additionally, the availability of financial support and scholarships alleviates the burden of tuition costs, allowing students to focus on their studies rather than engaging in part-time jobs to support their financial needs while in school. Learning environment, academic support services, such as tutoring, adequate support supervision/mentorship, learning materials, learning support systems such as internet connectivity and electronic gadgets, and academic/career counselling, further facilitate timely program completion by providing necessary guidance and resources.

Moreover, personal factors such as time management skills, study habits, family and peer support, and individual motivation and determination significantly impact the pace at which nursing students complete their programs. Effective time management allows students to balance coursework, clinical rotations, and personal responsibilities more efficiently. Additionally, family and peer support provide emotional and logistical assistance, helping students navigate the challenges of rigorous nursing

programs. Additionally, a high level of intrinsic motivation and clear career goals can drive students to maintain consistency and focus towards their rigorous studies. Together, these factors create an environment conducive to accelerating the completion of nursing programs, ultimately contributing to a robust and ready healthcare workforce.

1.2 Problem Statement

Despite the critical demand for qualified nurses, many nursing students face obstacles that delay the completion of their programs, impacting the timely entry of new professionals into the healthcare workforce. Identifying and addressing the factors that accelerate nursing program completion is essential to mitigate this issue. Academic challenges, financial constraints, and insufficient institutional support are significant barriers that nursing students encounter. Rigorous coursework, combined with demanding clinical rotations, often leads to academic stress and burnout, prolonging program duration. Financial burdens, including tuition and living expenses, compel many students to take on part-time jobs, further detracting from their focus on their studies. Inadequate support services, such as limited academic advising and mentorship opportunities, exacerbate these challenges, leaving students without essential resources to navigate and succeed in their programs efficiently.

Individual factors also play a critical role in influencing the completion rates of nursing programs. Effective time management, family support, and intrinsic motivation are crucial determinants of a student's ability to complete their program on time. Poor time management skills can hinder the balance between academic and personal responsibilities, leading to delays in program completion. Family obligations, particularly for students with dependents, add complexity to maintaining consistent study schedules and meeting program requirements. Additionally, varying levels of personal motivation and clarity in career goals can affect a student's persistence and commitment to their studies. Addressing these multifaceted issues requires a comprehensive strategy that includes enhanced academic environment support, financial assistance, and personalized student services to foster an environment conducive to timely program completion for nursing students.

1.3 Research Objectives

1.3.1 Broad Objective:

To assess factors accelerating program completion among nurse-students: a case of St. Camillus School of Nursing.

1.3.2 Specific Objectives

I. To evaluate demographic factors associated with program completion among nursing students.
II. To describe individual factors associated with program completion among nursing students.
III. To determine the socio-economic factors associated with program completion among nursing students.
IV. To assess the learning environmental factors associated with program completion among nursing students.

1.4 Research Questions

I. What are the demographic factors associated with accelerated program completion among nursing students?
II. What are the individual factors associated with program completion among nursing students?
III. What are the socio-economic factors associated with accelerated program completion among nursing students?
IV. What are the learning environment factors associated with accelerated program completion among nursing students?

1.5 Scope of Study

The study's aim was to investigate the factors accelerating nursing program completion so as to contribute towards the achievement of health for all as envisioned in the Sustainable Development Goals (SDG). According to the available literature, a lot has been done on factors associated with attrition among student nurses but limited on factors contributing to their completion from the program as stipulated by each nursing program. The primary limitation of this study was the fact that it was situated only in St. Camillus School of Nursing in Tabaka, Kisii County. This presents a limited focus on only one nursing school and limited the findings to the prevailing environmental and managerial factors accelerating the nursing program completion

among the nurse-students. This focus failed to recognize the differences that exist in various schools of nursing country-wide and the varied academic experiences of students in those schools. Nevertheless, it is important to note here that the SCSN attracts and offers equal chance to all qualified candidates interested in nursing regardless of their affiliation, socio-cultural and economic backgrounds.

1.6 Significance of Study

This study sought to find out those factors that that led to successful achievement and therefore play a role in accelerating nursing program completion against the backdrop of high demand in nursing courses.

At the policy and practice level, the findings will be utilized by the Ministry of Health under whose umbrella nursing schools fall, through the autonomous Nursing Council of Kenya in policy formulation on successful nurse recruitment and retention strategies in various education programs. Additionally, findings will guide in planning for human resource for health especially nursing education. The findings will contribute towards prevention and reduction of attrition rates among nurse students and improve domestic production of competent nurses, contribute towards reducing the shortage of nurses and to adequately meet population health needs. They will also inform decision making with an emphasis on the factors accelerating completion of nursing programs among students and have a positive economic impact by reducing extra education fees associated with pro-longed nurse training or sunk costs associated with dropping out from the nursing programs.

Furthermore, the findings will be practical to nurse-training institutions that are experiencing an upsurge of candidates so that they plan adequately for the students while focusing on the factors that accelerate successful completion of the nursing program and also employ evidence based strategies to eliminate academic demotivation and failure among nurse students. At the institutional level, the findings may serve to inform nursing faculty on the most appropriate strategies to help students develop self-determination and improve their performance both in the classroom and at clinical area setting where half of training takes place.

At the same time, the results from this study will benefit on-going students as they can apply evidence-based data to work towards achieving their goals of better study habits and self-directed learning. It will also guide future candidates of nursing on how they can utilize the identified critical factors in order to plan well for their studies with greater achievements.

At the theoretical level, the findings will contribute to a deeper comprehension and utilization dthe self-determination theory in nursing and nursing education. Lastly, the findings will help to minimize the methodological and contextual knowledge gaps related to success factors accelerating program completion among nursing students in Kenya.

1.7 Chapter Summary

Chapter one has outlined the introduction, background to the study concept that is, factors accelerating nursing program completion among student nurses with the aim to reduce attrition and contribute to the domestic production of more nurses for our local market and the global village. It also defines the problem statement, context, scope, research objectives and questions that form the guiding framework for the study.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

This chapter outlines the relevant literature review on the study topic; a theoretical foundation on which this study is anchored and an empirical review on the following study variables: independent variables that is, demographic factors, individual factors, socio-economic factors and learning environmental factors and how they relate with nursing program completion. Finally, a conceptual framework outlining the relationship between the independent and dependent variables of the study is presented.

2.1 Theoretical Framework

Self-Determination Theory (SDT) is a macro theory of human motivation that has been used to show how personal goals, time management and external support systems can impact student nurses' ability to complete their education programs. It can effectively be applied to understand and enhance factors that accelerate nursing program completion among student nurses by focusing on the three basic psychological needs: autonomy, competence, and relatedness.

The proponents of the Self Determination Theory (SDT), Deci and Ryan, postulate the following assumption regarding the human person and how a person engages with their environment throughout life to achieve their goals;

The inherent human need to grow and thrive, drives behaviour (Deci & Ryan, 1985).

In terms of autonomy, nursing programs can incorporate flexible learning methods and options in course study/exams and clinical placements. Encouraging self-directed learning and decision-making helps students feel more in control of their educational journey, thereby increasing their intrinsic motivation and engagement. Additionally, supportive teaching methods, such as allowing students to choose projects or clinical areas that interest them, can lead to greater satisfaction and persistence in the program. Addressing the need for competence, nursing programs can provide robust opportunities for skill development and mastery. This includes offering extensive hands-on clinical experiences, simulation labs, and workshops that build both theoretical knowledge and practical skills. Additionally, academic support services such as tutoring, mentoring, and feedback systems can help students overcome challenges and improve their performance.

Likewise, addressing the need for relatedness, fostering a supportive and inclusive learning environment is crucial. Creating mentorship programs, peer support groups, extra-curricular activities and collaborative learning opportunities help students build strong connections with faculty, peers, and the nursing community. These connections provide emotional and motivational support, reducing feelings of isolation and enhancing students' commitment to completing their nursing education. By fulfilling these psychological needs, SDT helps create a learning environment that promotes higher retention and timely completion of nursing programs.

Strengths and Weaknesses of SDT

One of the strengths of this theory is its' comprehensive approach in human motivation which has generated an ever-expanding variety of research findings (Ryan& Deci, 2019). It can be applied in many contexts or situations by researchers who are interested in gaining a deeper comprehension of human behaviour and their interaction with the environment and the motivation to satisfy their basic psychological needs leading to their optimal growth and performance (Ryan *et al*., 2019).

Although still useful in many fields, SDT has some weaknesses, namely: its many mini-theories, makes it complex to use and understand each of those sub-theories and their application especially for novices in psychology (Ryan & Deci, 2017).

2.2 Empirical Literature Review

This is a critical review of various available literature concerning the various study variables as discussed below.

2.2.1 Demographic factors associated with accelerated program completion among nursing students

The demographic factors can have an impact and influence one's academic performance. The constructs covered under this independent variable include gender, age, level of education of their parents, Religion, and place of residence.

Globally, studies have pointed out that demographic factors influence motivation and success of nursing students. For example, in Iran, Salari *et al*., (2018) noted that female students were more motivated to succeed than their male counterparts to pursue nursing course and those who resided with their parents were highly motivated to succeed compared to those residing in the school dormitory.

Regionally, a study by Noordien *et al*., (2020) noted that male gender pursuant of the nursing course was a way of making a societal change. However, the study ruled out gender as a determinant of nursing student motivation and success. Additionally,

another study carried out in South Africa noted that various demographic factors such as age and gender were among the determinants of success among students. Being female and of young age had an increased possibility of pursuing and succeeding in the nursing course (Dube & Mlotshwa, 2018). This was further vindicated by results from a study in Northern Tanzania by Gemuhay *et al*., (2019) where age was found to be a substantial factor in student success. Most mature students encountered difficulties in their academic performance and had a high attrition rate (Gemuhay *et al*., 2019). Equally, students with educated parents had high interest in nursing and academically performed better than students with low educated parents. This was further supported by a study carried out in Uganda which showed that parental involvement was associated with positive motivation and improved academic performance (Germaine, 2021).

The aforementioned studies have mainly focused on a few demographic factors. Most demographic factors such as religion, marital status, occupation among others have not been explicitly studied on their influence on success in nursing education journey. In Kenya there are limited studies published on the demographic factors associated with success among nursing students, hence the need to investigate the role of these factors in our context.

2.2.2. Individual factors associated with accelerated program completion among nursing students

The desire and passion to join the nursing school and persist in the program till its completion is dependent on a variety of individual factors. Sustained positive motivation results in academic success and consequently future performance in nursing care.

Globally, a study done in Australia, (Wilkes *et al*., 2014) established diverse individual characteristics that motivated students to pursue and succeed in the nursing program. Among the factors examined included: love of nursing, potential to join the tertiary education and having the ability to help and care for patients. The study pointed out grit as an intrinsic variable of motivation and academic success (Wilkes *et al*., 2014). In a recent study, grit was operationalized as a non-cognitive trait that sustained students on set tasks despite the presence of difficult circumstances in their academic journey (Terry & Peck, 2020). Other factors such as nursing being a caring profession, a humanitarian job and being proud as a nurse, motivated students in their nursing education. Another study in Sweden revealed that the desire of becoming a nurse was

the major inspiring factor for most students who were taking the course. Their average motivation was about 6.5 and was evenly distributed through their entire education (Nilsson & Stomberg, 2018). This was a contrast to findings by (Abdulrazzaq *et al*., 2017) who noted that academic motivation dwindled as one advanced from first year to senior classes.

In Iraq, Abdulrazzaq *et al*., (2017) established that having academic drive is pivotal in nursing education for any successful achievements that have overarching effects such as provision of high quality nursing care. Motivation therefore can be either intrinsic or extrinsic motivation (Morris *et al*., 2022). Intrinsic motivation involves the individual assessment and internal drive to pursue nursing education. Therefore, intrinsic motivation is the core of individual factors affecting success in any student (Morris *et al*., 2022). A study done in Iran whose objective was to analyze the reasons that motivate students and lead to their success during their academic years revealed that individual factors help students to pursue and excel in both nursing education and nursing practice (Shakurnia *et al*., 2015). Shakurnia and cohort revealed that most nursing students are motivated by their interest to pursue a medical course and their passion to care for the sick. Also, Salari *et al*., (2018) in Iran noted that the desire to further education was the main motivating factor to pursue and excel in the nursing course as well as being interested in nursing field was another driving factor to pursue and succeed in the nursing course. Moreover, in Pakistan individual factors such as self-exploratory and altruism enhanced the academic performance of nursing students (Dante & Palese, 2011).

Regionally, a study conducted in Ethiopia found out that certain undesired individual factors such as poor studying habits, not paying attention in class as well as class absenteeism led to result in low academic achievements and lack of motivation among the nursing candidates (Mahmoud *et al*., 2018). Additionally, Kanimba (2019) established that some nurses pursue post-graduate education for career diversity and to acquire advanced education as part of their intrinsic motivation.

2.2.3 Socio-economic factors associated with accelerated program completion among nursing students

Socio-economic factors such as funding, job security, work prospects, and family socio-economic background etc. heavily influence the satisfactory performance of the nursing students. Previous literature has pointed out that some of these factors have an

influence on motivation and academic success of the candidates.

Globally, a research done in Asia, Nepal by Shrestha & Sapkota, (2021) noted that most students were motivated by the increased opportunities to work abroad in future as well as novel career that can offer them an opportunity to acquire new technology with a better advancement. Another study carried out in Iran by Shakurnia *et al*., (2015) much earlier had established that job security was the most pivotal factor of motivation and success and the major influence of student selection of nursing as their course of study. As a result, increased unemployment rates, results in lack of motivation to career success and progression. This supported an earlier study in Iran where Hakim (2013) noted that a good proportion of students were not satisfied with their nursing course due to job insecurity. Job insecurity reduced the students' motivation to further their nursing education as well as negatively increased student nurses' attrition and a lack of success (Hakim, 2013). Furthermore, Asadzadeh *et al*., (2012) had earlier pointed out future employment and job position as factors affecting nursing program selection and successful completion at tertiary levels (Asadzadeh *et al*., 2012). In Rwanda, most nursing students were motivated to pursue and succeed in nursing education due to job security guarantee associated with the faculty (Kanimba, 2019). This was the same situation experienced in Australia (Wilkes *et al*., 2014), and Nepal (Shrestha, & Sapkota, 2021) where job security was the main motivation factor for students pursuing nursing education.

A study in Lebanon revealed that lack of adequate funds to pay tuition fee reduced the students' motivation and their academic success due to increased class absenteeism (Fawaz & Tassi, 2018). Again, the study showed that about 15% of the nurses failed to progress to post-graduate nursing education due to financial constraints and increased cost of the nursing programs (Fawaz & Tassi, 2018). Limited finance negatively impacts on the nursing program as it puts constraints on the class size and nursing tutor staff. Heightened tuition fee for students overall increases the cost of the program and consequently discourages those who wish to pursue the program (Dube & Mlotshwa, 2018). Again, increased nursing cost compel students to engage in side hustles resulting in increased stress and reduced success in their academic endeavors (Dante & Palese, 2011). Lack of adequate resources and incentives have often resulted in reduced motivation among nursing students in Nigeria and affected their successful completion (Lateef & Mhlongo, 2019). Mahmoud *et al*., (2018) in Saudi Arabia revealed that adequate funding resulted in increased retention of the nursing students

in the program and enhanced the students' academic performance. This was a contrast to a situation where lack of funds resulted in increased attrition of students from nursing program as well as reduced motivation among students towards their successful achievements in nursing education (Gemuhay *et al*., 2019).

Poverty may reduce nurse students' motivation and result in poor academic performance. A study done in South Africa showed that nursing students from poor family backgrounds had reduced motivation due to lack of finance to settle their tuition fee as well as purchase the learning materials (Dube, & Mlotshwa, 2018). This affirms findings from a study done in Italy which showed that academic failure was associated with lack of family commitment to the students' learning materials and environment (Dante & Palese, 2011). This was further supported by a study in Nepal where parental involvement was viewed as a source of inspiration and source of finance to cater for the students' tuition fee (Shrestha & Sapkota, 2021). However, no studies were found in Kenya that assessed socio-economic factors associated with nursing program completion. Hence, a background against which the present study found its basis.

2.2.4 Learning Environmental Factors Associated with Accelerated Program Completion Among Nursing Students

The learning environment constructs are extrinsic factors of motivation that could lead to success or failure. They incorporate the variables orchestrated by the teachers, the clinical placement area and the learning institution itself.

A study carried out by Fawaz and Tassi (2018) in Lebanon established that student motivation and academic performance is enhanced by the availability of well-trained nurse tutors, adequate capacity in the nursing school, and enhanced salaries of the tutors (Fawaz & Tassi, 2018). In Iraq, factors such as the availability of classroom computers, internet connectivity as well as support from the teaching staff have been shown to foster academic performance of the nursing students (Abdulrazzaq *et al*., 2017). In Malaysia, a study established that student nurse motivation was heavily premised on the nurse tutor job satisfaction which is a factor for extrinsic motivation. High satisfaction among nurse tutors translated to provision of quality nursing education as well as fostered positive student learning outcomes hence academic excellence (Hee *et al*., 2019). Students' success is also influenced by the teaching methods utilized, time management and student attendance in class (Asadzadeh *et al*., 2012).

Regional studies done in Northern Tanzania by Gemuhay *et al*., (2019) reported that

some learning environmental factors compel the nurse students to quit nursing and others affect their academic performance negatively. However, Appiagyi *et al*., (2014) indicated that availability of most of the enabling learning environmental factors results in enhanced motivation to start and complete the nursingcourse successfully (Appiagyi *et al*., 2014). Findings from a research carried out in South Africa showed that availability of sufficient learning facilities and teaching staffresulted in increased motivation and success among the nursing students (Dube & Mlotshwa, 2018). The study also singled out the student-teacher relationship, academic support service, language of instruction as well as the level of entry requirement as part of the primary factors that drive motivation and success of the nursing students (Dube & Mlotshwa, 2018).

Learning environmental factors can heavily influence learners' academic achievements. Some of the factors established by Dube Mlotshwa (2018) are: constant usage of English in teaching plus negative peer (Dube & Mlotshwa, 2018). Dante & Palese, (2011) established that better academic performance was also attributed to the institution's level of entry criteria for students pursuing the nursing course. In Nigeria, Lateef & Mhlongo, (2019) pointed out that inadequate teaching staff and misconception about the teaching practice resulted in reduced nurse student motivation and poor academic performance. Research findings from Northern Tanzania presented by Germuhay *et al*., (2019) established that majority of the students were satisfied by the clinical practice experience as it offered them an opportunity to advance their nursing skills, as well as enhance their self-confidence and in turn enhanced their motivation to continue pursuing the nursing course. Studies conducted in Kenya by Okanga and Ogur showed that there is enhanced motivation among nursing students in Kenya compared to their counterparts in other African countries (Okanga *et al*., 2017). This is evidenced by a low nursing student attrition rate of less than 10% following the enrollment of the nursing program and the reasonfor this is due to adequate nursing tutorial staff, utilization of modern teaching methods and the availability of clinical placement facilities to enhance their nursing skills and attitude (Okanga *et al*., 2017). However, this is a contrast to another study carried out by Gwama (2015) which established low motivation among the nursing students as a result of low teacher students' ratio, clinical nurses' lack of preparedness to support the nursing students and many nurse tutors with diploma education without any additional training. Understanding how the learning environment factors contribute to

the completion of nursing program among the nursing students in SCSN, Tabaka will help to compare with the existing knowledge and utilize the findings in enhancing successful completion of the nursing program.

2.3 Summary of Knowledge Gaps

The table below illustrates a summary of the knowledge gaps acknowledged from some of the literature reviewed.

Table 1: Summary of Knowledge Gaps

Author & Year	Type of Study	Methodology	Knowledge Gap
M'thimunye & Felicity, 2019	Evaluation of learning environment from students' perspective	Quantitative, cross sectional study	Methodological gap where study used only a quantitativeapproach
Teresa-Morales *et al*., 2023	Reasons for Choosing and completing Nursing studies in Spain	Qualitative design	Contextual and methodological gap
Lord & Sobuwa, 2019	A SDT perspective on student success in attaining an emergency Care Degree	Qualitative, descriptive	Conceptual gap as the study looked at factors hindering success
Dube & Mlotshwa, 2018	Factors influencing enrolled nursing students' academic Performance	Quantitative, descriptive, cross sectional	Methodology gap-study used only quantitative design
Gemuhay *et al.*, 2019	Factors affecting performance among nursing students	Mixed method approach	Conceptual gap, looked at only one part of training (clinical aspect)
Howard *et al*., 2021	Student Motivation and Associated outcomes from SDT Perspective	Meta-analysis	Methodological gap
Lateef & Mhlongo, 2019	Factors determining Nursing education and teaching Methods	Qualitative study, interviewed both students and tutors	Methodological gap
Okanga *et al*., 2017	Institutional Characteristics Influencing Student Performance	Mixed method, retrospective study	Methodology gap with narrow focus of the learning institution

2.4 Conceptual Framework

A conceptual framework is an arrangement which displays independent and dependent variables that a researcher operationalizes in order so as to meet objectives of the study (Mugenda, 2003). An investigator manipulates the independent variable to determine its impact on the dependent variable while the dependent variable on a flipside indicates the total influence arising from the manipulation of the independent variable (s) (Berkely, 2005).

In this study, the researcher proposed the following variables as being important for the study and their relationship with each other: Completion of Nursing program was the dependent variable while independent variables were factors that were manipulated by the researcher and they are: demographic factors, individual factors, socio-economic factors and learning environment variables as shown in the following figure.

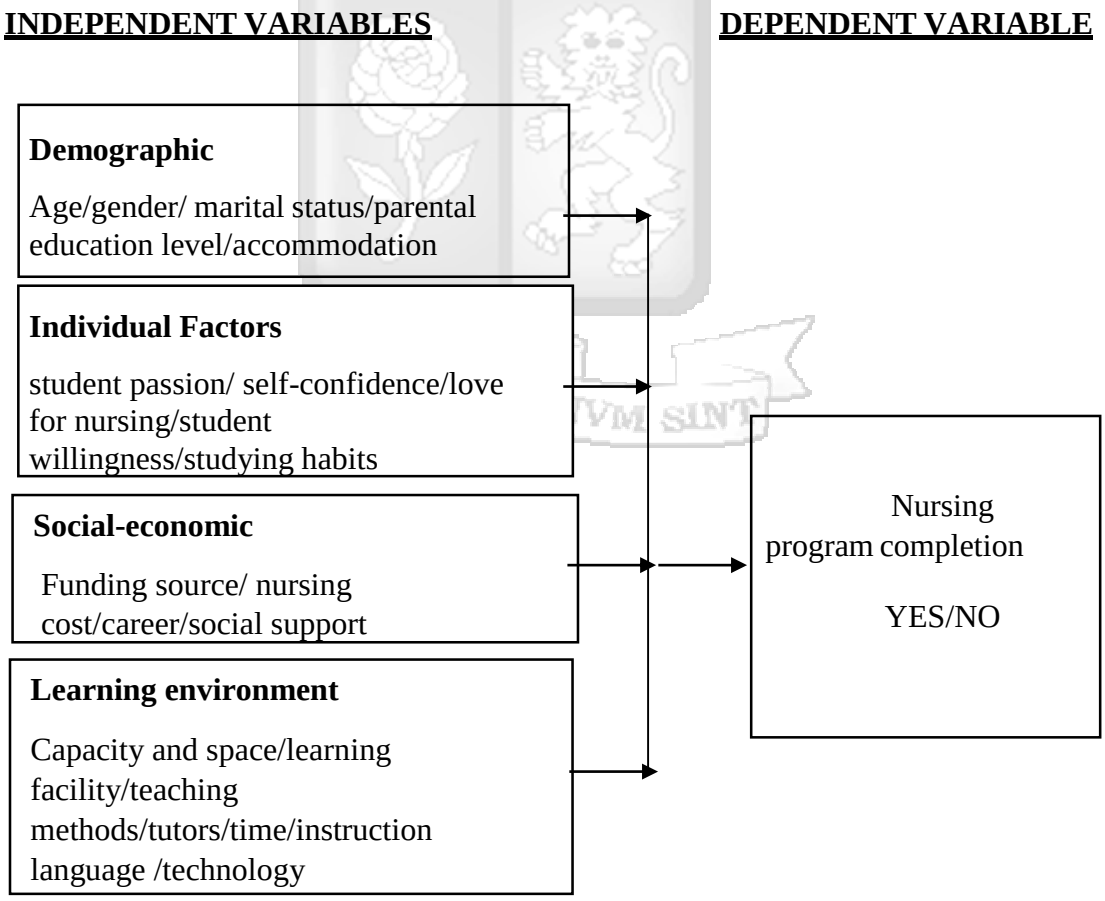

Figure 1: Conceptual Framework for the Study

2.5 Operationalization of the Study Variables

The table below highlights the study variables that were operationalized in this study.

Table 2: Operationalization of Study Variables

Variable	Construct	Operational Definition	Measurement	Source
Independent	Demographic	Age/gender/ marital status/Residence/religion/parental level of education	Ordinal	Gemuhay *et al*., 2018/Dube&Mlotshwa, 2018/Salari *et al*., 2018/Noordien *et al*., 2020
Independent	Individual factors	student passion/ self-confidence/love for nursing/student willingness/studying habits	Nominal	Teresa-Morales *et al*., 2023/Morris et al., 2022/Abdulrazzak et al., 2017/Shakurnia *et al.*, 2015
Independent	Socio-economic factors	Funding source/ nursing cost/career/family social and emotional support	Ordinal	Shretsha & Sakopta, 2021/Kanimba, 2019/Lateef&Mhlongo, 2019/Fawazi *et al*., 2018
Independent	Learning environment factors	Capacity and space/learning facility/teaching methods/tutors/time/ instruction language/entry requirements/technology	Ordinal	Lateef & Mhlongo, 2019/Hee *et al*., 2019/ Gemuhay *et al*., 2019/Fawazi *et al*., 2018
Dependent	Nursing program completion	Attain overall internal objectives/Pass in Licensure exams/finish within minimum time	Nominal/ Ordinal	York *et al*., 2015

2.6. Chapter Summary

Chapter two sought to elaborate the theoretical foundation, an in-depth literature review in accordance with the relevant study objectives, captured the operationalization of the study variables as informed by the conceptual framework.

CHAPTER THREE: RESEARCH METHODOLOGY

3.0 Introduction

This chapter explains the philosophical orientation, study design that was adopted to realize the laid-out objectives, the geographical study area, study population, sampling techniques, data collection tools and procedures, data analysis procedure and ethical considerations.

3.1 Research Philosophical Perspective

The researcher applied the philosophical paradigm of pragmatism throughout the study process. Pragmatic world view claims that knowledge is not obtained from a single unitary dimension, but rather from multiple sources in order to understand reality in a deeper way and solve problems within a given context (Creswell & Creswell, 2018). Pragmatism focuses on practical outcomes and real-world applications, emphasizing the importance of actionable knowledge and solutions to problems. In the context of this research, pragmatism aligns with the objective of identifying and implementing effective strategies that can enhance nursing education and improve completion rates by understanding the various factors such as demographic, individual, socio-economic and learning environment resources and their tangible impacts on program completion rates.

3.2 The Research Design

The researcher used a descriptive, cross-sectional design with a mixed method approach. A cross sectional study design enabled for data collection at a point in-time and following analysis, the results were utilized to make informed decisions and in this case, in healthcare management. Descriptive designs use an individual as a unit of analysis where the researcher uses findings to infer on the whole populations (Bowling, 2014).

A mixed-method approach was highly suitable for the study investigating factors accelerating nursing program completion among student nurses due to its ability to provide a comprehensive understanding of the multifaceted nature of nursing program completion. Quantitative data provided numerical insights into the prevalence and magnitude of these factors, allowing for statistical analysis and comparison. Meanwhile, qualitative data offered rich contextual information, providing nuanced insights into students' experiences, perceptions, and motivations. This approach enabled a holistic examination of the complex interplay of factors affecting program

completion. By triangulating findings from different data sources, the study ensured validity and reliability while informing the development of effective interventions and policies to support student nurses. Overall, the mixed-method approach ensures that the study can generate a comprehensive and nuanced understanding of the phenomenon, thereby informing the development of effective interventions and policies to support student nurses in completing their programs successfully.

3.3 Study Site

The study was carried out in St. Camillus School of Nursing, Tabaka among the nurse-students. Tabaka is in South Mugirango Constituency, Tabaka Ward, Tabaka Sub/Location in Kisii County about 13 kilometres from Kisii Town (see appendix 7). The school is owned by the Camillian Fathers, Servants of the Sick- a Catholic Missionary group. The School opened its doors to the first students in March 1997, offering training in Kenya Registered Community Health Nursing (KRCHN), a 3-year diploma programme in nursing.

3.4 Study Population

The study population was the nursing students of St. Camillus School of Nursing, Tabaka. It targeted student nurses who had been in training for at least one year. Upon successful completion of the program, the candidates sit for a certifying examination from the Nursing Council of Kenya which qualifies them and serve as certified and competent nurses and can serve anywhere in Kenya and outside Kenya offering promotional, preventive and curative health services to their clients. Currently, the School has a biannual enrolment in March and September and the current school population of student nurses stands at 288 students from first year to third year according to the school admission register as in at August 2023.

3.5 Inclusion and Exclusion Criteria

3.5.1 Inclusion Criteria

All consenting student nurses in 2nd and 3rd year at St. Camillus School of Nursing were legible to participate in the study.

3.5.2 Exclusion Criteria

All students who were on their annual leave, on external practical experiences and absent for any reason were excluded.

Students unwilling to take part in the research or unable to give informed consent were excluded as well on this basis.

Any student who had been in the school for less than 12 months (1st year).

3.6 Sampling Design

The student population stood at 315 students and among these, 288 were student nurses. The investigator utilized simple stratified random sampling to obtain a desired sample size of 166 participants.

The investigator determined a sample size using the formulae according to Fisher *et al.* 1998 (Mugenda & Mugenda, 2003);

$$n = \frac{z2(q)}{d^2}$$

z = is the Z value for the corresponding confidence level (i.e. 1.96 for 95% confidence);

d = is the margin of error (i.e., 0.05 = ± 5%) 95% confidence interval is preferred since it provides a sample representing the target population.

P= the expected proportion of nursing program completion among student nurses and in this case we use a proportion of 50% since no similar study has provided a prevalence around this area.

$$n = \frac{1.962p(1-p)}{d^2}$$

$$n = \frac{1.96x1.96x\ 0.5(1-0.5) = 384}{0.05x0.05}$$

For a population less than 10,000. Since the target population in St. Camillus School of Nursing is less than 10,000 as per the records in the school Registry, the following formula by Fisher *et al.,* (1998) is used;

$$nf = \frac{n}{1+ (n/N)}$$

Where *nf* represents desired sample of population, < 10,000

n is the sample when the total population is more than 10,000

N is the current number of student nurses (288) as per the school registry office.

nf = 384 / 1 + (384/288) = 166 students.

3.7 Data Collection Methods and Tools

Quantitative and qualitative data collection tools were utilized. For quantitative data collection, a structured questionnaire was self-administered to obtain quantitative data. The questionnaire consisted of questions arranged in series and sections which captured the variables under study (Mugenda & Mugenda, 2003). The questionnaire was designed into four sections, each section covering a specific research objective defined earlier:

Section A-Demographic factors

Section B- Individual factors

Section C- Socio-economic factors

Section D- Learning environmental factors (Appendix II).

The qualitative data was collected by an open-ended interviewer-administered guide. The interviews were digitally recorded and later transcribed with the consent of the participants. A minimum of 15 participants was purposively sampled based on their performance from year two to the final year of study. The aim of the qualitative data collection was to enable the participants to expound responses to the study questions for an in-depth understanding. Sampling continued until data saturation was achieved.

3.8 Pretest of the Instruments

A pretest study is a small-scale test conducted in advance of a larger investigation (Truong, 2017). The survey questionnaires were pretested to enhance validity and reliability (Mbugua & Omagwa, 2017). For interview guides, the study ensured correctness, ambiguity and incomplete or negatively worded sentences. However, to assure the accuracy of pretesting study, 10 % sample size was accepted. The study pre-tested the data collection tools St. Joseph's Medical Training College, Nyabondo, because, both colleges are Catholic operated and training characteristics are the same. Therefore, the study location was not selected for pretesting to avoid data duplication.

3.8.1 Instrument Validity

Validity refers to how well an instrument accomplishes "what it is supposed to measure" or "what it purports to measure," that is, how well the instrument can be applied to addressing the study's purpose(s) and research hypotheses (Mueller & Knapp, 2018). According to Grégis (2019), the test's validity is how well it actually measures the things it purports to be measuring, giving assurance that the measure is accomplishing its goals. In this inquiry, construct validity was applied. To enhance

construct validity, the questionnaire was structured into numerous sections (Kothari *et al.*, 2020). The questionnaire was thoroughly examined to ensure its validity in terms of content. The instrument was appropriately modified before the actual data collection activity based on the evaluation. The participant comments were examined to make sure that the validity of the information is increased.

3.8.2 Instrument Reliability

Reliability is the consistency of results that the same person would obtain if they took the test repeatedly, in different contexts, on other forms, for different items, or with different raters (Mueller & Knapp, 2019). Reliability promotes openness, lessens the possibility of prejudice, and has additional advantages to give neutrality and credibility (Mohajan, 2017). Internal consistency assesses correlations between items on the same test (or the same subscale on a bigger exam) and establishes whether scores from many questions that assess the same fundamental construct are similar (Kothari *et al*., 2020). The internal consistency of the continuous data (Likert scale questionnaire) was checked using Cronbach's Alpha coefficients. The scale value of the Cronbach's coefficient alpha (r) lies between -1 and +1. The study considered the Cronbach's Alpha equal or above 0.7 as dependable for statistical analysis.

3.9 Diagnostic Tests

Williams and Albers (2019) advocate for the utilization of diagnostics to help in assessing the violation of assumptions for statistical techniques. Before doing an inferential statistical analysis, diagnostic tests were done to make sure that no assumptions were broken. According to Arru (2020), the majority of inferential statistical techniques, including Chi-square tests for independence and binary logistic regression are impervious to assumptions that are broken. The study tested the following assumptions: Dependent variable coding distribution, sample size assumption, Multi-collinearity Tests, Linearity test for continuous data and Outliers of the residuals.

3.9.1 Sample size

As with logistic regression, the size and nature of the sample is integral (van Calster *et al.*, 2019). One of the issues concerns the number of cases a researcher has in their sample and the number of predictors (independent variables) they wish to include in their model. When there is a small sample with multivariate, the problem of the solution failing to converge arises (van Calster *et al*., 2019). This is particularly a

problem when a researcher has categorical predictors with limited cases in each category. The study conducted descriptive statistics on each of the predictor variables, and considered collapsing or deleting categories with very limited numbers.

3.9.2 Variables coding

In order to make sense of the results of binary logistic regression, it is important that the study set up the coding of responses to each of the variables carefully (Kirasich, Smith & Sadler, 2018). For the four dichotomous dependent variable (with two possible outcomes that are mutually exclusive and exhaustive), the categories are coded as 0 and 1. The value of 0 was assigned to whichever response indicated a lack or absence of the characteristic of interest (No answer). The value of 1 was used to indicate a Yes answer. A similar approach was used when coding the independent variables. For continuous independent variables, high values indicated more of the characteristic of interest.

3.9.3 Outliers

Logistic regression analysis has problem with the presence of outliers, or cases that are not well explained by the model. A case may be strongly predicted by the model to be one category but in reality, be classified in the other category. Outlying cases were identified by inspecting the residuals, particularly with the goodness of fit of the model.

3.9.4 Multi-collinearity Tests

Multi-collinearity refers to the interrelationships among independent variables. Multi-collinearity is a phenomenon that arises when the correlation coefficient among the independent variables equals or exceeds r= 0.7. In order to assess the presence of multi-collinearity among independent variables, the researcher utilized the Tolerance and Variance Inflation Factor (VIF) metrics. Tolerance is the proportion of unexplained variability of a given independent variable that is not accounted for by the other independent variables in the model. The computation was performed using Statistical Package for Social Sciences. The numerous correlations with other variables are significant if this value is low (below.10), which suggests that multi-collinearity is likely. On the other side, the Variance Inflation Factor (VIF) is simply the Tolerance Value's inverse (1 divided by Tolerance). If the VIF readings are larger than 10, suggests multi-collinearity among the predictor variables.

3.10 Quantitative and Qualitative Data Analysis

Data processing refers to summarizing data in questionnaires or interview guides in a

manageable and consumable manner through data handling, data manipulation, data processing, and interpretation (Meaza, 2019; Sharma, 2021). After data collection, the raw data was sorted, entered into the Statistical Program for Social Sciences (SPSS) version 25 for Windows for analysis. Firstly, the researcher screened and cleaned data for errors. The descriptive and inferential statistics were conducted in the analysis. Descriptive statistical measures such as frequency, percentages, mean, and standard deviation to summarize the data were applied. Inferential statistics; Chi-Square analysis and binary logistic regression analysis enabled the researcher to evaluate association between the variables to answer the research questions.

3.10.1 Testing for Association

The researcher needed to establish if any association existed between the independent variables and the dependent variable; nursing program completion in order to answer adequately the study objectives. The Chi-Square Test of association and binary logistic regression analysis were conducted to establish associations if any.

3.10.2 The Chi-Square Test of Association

The chi-square statistic, tests the association between two categorical variables. Chi-square was appropriate in this study for several reasons. Firstly, chi-square analysis is particularly useful when examining categorical data, such as program completion rates categorized by different factors like demographic, individual, socio-economic and learning environment resources. Since the study involved categorical variables such as program completion status (yes/no) and various factors influencing completion, chi-square analysis effectively tested for associations and differences between these variables.

The researcher conducted Pearson and continuity correction Chi-square of association based on cross-tabulation techniques. This classified cases according to the categories in each variable. The study tests the assumptions for Chi-square statistic that the lowest expected frequency in any cell should be 5 or more (Duke, Park & Ewing, 2020).

3.10.3 Logistic Regression Model

Logistic regression model is the mathematical equation used to determine if any relationship exists between a binary categorical dependent variable/outcome and a set of independent variables. Logistic regression combines a set of independent variables to estimate the probability that a particular event will occur. It assesses the independent variables associated with the dichotomous outcome. Further, it estimates the likelihood

of a subject being a member of the category of interest. It also gives information on how much an increment in a given independent variable affects the odds of the dependent variable. Logistic regression analysis was handy for this study because the researcher was able to measure associations, predict outcomes, and establish factors that were associated with nursing program completion.

The outcome was dichotomous/binary categorical variable, and the independent variables were both categorical and continuous variables. Dependent variable was: nursing program completion-a yes or no and the independent variables; demographic variable, individual variable, socio-economic factors and learning environment factors.

3.10.4 Odds Ratio

This is probability or a measure of the likelihood of an event happening in one group compared to the odds of the same event happening in another group. The researcher used Odds Ratio to evaluate the dependent variable further; to assess the likelihood of those students who perceive themselves as well placed to finish their course in time, how many among them will actually complete as scheduled. The odds ratio for binary logistic regression model was expressed as E(Y/X). Where Y was outcome variable (Nursing program completion) and X is independent variable (associated factors). Outcome response was measured on the presence of outcome (YES) and not completing the program as scheduled was the absence outcome (NO).

$$\text{Odds Ratio (OR)} = \frac{\text{Odds of event for nursing program completion (YES)}}{\text{Odds of event for nursing program non-completion (NO)}}$$

3.10.5 Interpretation of binary logistic regression

The logistic regression provided output in block 0 and block 1. Block 0, provided the results of the analysis without any of independent variables entered into the model, which served as a baseline model for comparing the model with predictor variables included (block 1). The overall percentage of correctly classified cases was interpreted to show cases that would not complete the nursing program as scheduled.

Further, to test the goodness fit of the model, the Omnibus Tests of Model Coefficients gave the overall indication of how well the model performs, over and above the results for percentage accuracy classified in Block 0. The model was regarded significant with P-value equal or less than 0.05. Additionally, the researcher analyzed Hosmer and Lemeshow's Goodness of fit Test to support the model as being worthwhile for

analysis of the data. For the Hosmer-Lemeshow's Goodness of Fit to test poor fit, the significance value should be less than 0.05. the study reported the chi-square value for the Hosmer-Lemeshow's Test with a significance level.

To explain the variance caused by dependent variable (the model), the pseudo-R square statistics, rather than true R-square statistics; Cox & Snell R Square and the Nagelkerke R Square values were analyzed and interpreted (from a minimum value of 0 to a maximum of approximately 1). The Wald Statistics, provided about the contribution or importance of each of independent variables. The variables that contributed significantly to the predictive ability of the model indicated a P-value less than 0.05 at 95% confidence interval.

The B values provided were used in creating the logistic regression equation with only independent variables that reached significant association with the dependent variable. B values are either positive or negative. This will tell about the direction of the relationship (which factors increase the likelihood of a yes answer and which factors decrease it). Negative B values indicated that an increase in the independent variable score would result in a decreased probability of the case recording presence outcome (Yes answer) while positive B values indicated that respondents saying they consider completing the program as scheduled, are more likely to answer yes.

An odds ratio of less than one meant that the event of interest was less likely to occur for those in outcome YES compared to those in outcome NO. Additionally, an odds ratio of more than one meant that the event of interest was more likely to occur for those in outcome YES compared to those in outcome NO while an odds ratio of one means that both outcomes had the same odds of the event of interest occurring.

Qualitative Data Analysis

Once the data was collected through digital recordings in English and Kiswahili, the audio recordings were transcribed, into word and cleaned to ensure completeness using MS word features. Other written documents/notes were saved and listed. This documentation proved to be critical because it helped the researcher essentially to keep track of the rapidly growing volume of notes and recordings. It provided a way of developing and outlining the analytic process; and it encouraged ongoing conceptualization and strategizing about the text. The transcripts were read severally in iterative and reflective manner while noting down common emerging themes. All the 14 transcripts were read and emerging themes recorded into a table (Stake, 1995). The researcher jotted down ideas about the meaning of the text and how it might relate

to other emerging issues from quantitative data. This process of reading through the data and interpreting them continued throughout the project. Some compelling quotes were selected to give more meaning to the quantitative data.

3.11 Ethical Considerations

Ethical clearance from the Strathmore Ethical Review Committee (SU-ISERC 1941/23) was obtained. The researcher then proceeded to obtain the study permit from the National Commission for Science, Technology and Innovation (NACOSTI/P/24/33066), before the commencement of data collection. In addition, the researcher obtained written permission from the Management (through the principal) of St. Camillus School of Nursing.

Informed consent was obtained from each study participant after explaining clearly the purpose of the study. Any participant who wished to withdraw from the study was allowed to do so at any stage of the study. Confidentiality regarding the study participants and their personal data was upheld throughout the study and data secured in a password protected computer. The notes and any questionnaires were securely locked in an office.

3.12 Result Dissemination

The study findings have been shared with management at St Camillus School of Nursing Tabaka for local interventions related to nursing program completion in order to positively impact the students' performance for triangulation and feedback. In addition, the findings will be disseminated via conferences, workshops, seminars and publication in a reputable journal. The study was availed to the Strathmore University repository.

3.13 Study Limitation and Delimitations

The primary limitations of this study were the fact that it was situated only in St. Camillus School of Nursing in Tabaka, Kisii County as well as its cross-sectional design. This presents a limited focus on only one nursing school and limit the findings to the prevailing environmental and managerial factors accelerating the nursing program completion among the nurse-students. However, the researcher is painfully aware of the differences that could exist in various schools of nursing country-wide and the varied academic experiences of students in those schools. Nevertheless, it is important to note here that the SCSN attracts and offers equal chance to all qualified candidates interested in nursing regardless of their affiliation, socio-cultural and economic backgrounds. The limitation of a cross-sectional design in data collection is

in its bias towards prevailing conditions which could change at any time and influence some of the variables. The researcher is aware of this fact relating to the timing of data collection.

3.14 Chapter Summary

This chapter sums up the research methodology which includes a pragmatic philosophical paradigm on which the study was underpinned as well as highlighting the study approach of a descriptive, cross-sectional mixed method design. It has described the proposed study population, study site, sampling design, data collection methods and analysis for the mixed methods study.

CHAPTER FOUR: PRESENTATION OF RESEARCH FINDINGS

4.0 Introduction

This chapter presents the findings in accordance with the study objectives. The chapter begins by presenting the response rate and reliability results of all constructs with interval data. Further, the chapter presents descriptive statistics; frequencies, percentages, mean and standard deviation results of the study variable and also inferential statistics. Diagnostic tests; dependent variable encoding, goodness of fit assumptions, multi-collinearity and residuals are provided prior to inferential statistics; Chi-square for independence (Pearson and Continuity correction techniques) was conducted to test for associations, and binary logistic regression was conducted to assess the associated factors with the dependent variable. The study findings were presented using tables and where relevant, quotes.

4.1 Response Rate

The rate of response is important in a quantitative study as it affects credibility, validity, dependability and reliability of study findings due to low levels of representativeness and choice of statistical techniques for analysis (Pandey & Pandey, 2021). A total of 166 (100%) structured questionnaires were self-administered to the respondents in St. Camillus college of Nursing, Tabaka. Out of these, 164 questionnaires were completed and submitted, representing 98.7% return response. The response rate for qualitative interviews was 93.3%. These response rates were regarded representation of the target population. A response rate above 70% is representative of the population (Wang & Cheng, 2020). Further, the sample size for a quantitative study should be at least 30 subjects (Mongan, Moy & Kahn, 2020; Story & Tait, 2019). Given that the study response was 164 respondents for quantitative data, and 14 for qualitative data collection, this was above the criterion, hence, adequate for statistical data analysis.

The high response rate could be attributed to the data collection procedures, in which the researcher pre-tested the tool. Further, the study used self-administration of questionnaires which allowed adequate time with respondents to participate. Informed consent and other ethical issues were adhered to which would have given the respondents the confidence to participate into the study.

4.2 Descriptive Statistics: Demographic Characteristics of Respondents

Descriptive statistics are provided for the independent variables. The frequencies,

percentages, mean, standard deviations are provided. The section also shows analysis of the chi square statistic test of relationship between each independent variable and Nursing program completion. Therefore, the section presents a descriptive analysis of the data on the variables with respect to students' percentages to considering to complete the training as scheduled (YES answer) and students' percentages to considering not to complete the training as scheduled (NO answer).

4.2.1 Age

The respondents were asked to record their age categories and the results presented in table 1.

Table 1: Age

Age category	Frequency(n)	Percent(%)
18 to 24	127	77.4
25 to 29	29	17.7
30 to 35	3	1.8
35 to 39	5	3.0
Total	164	100.0

Source: Field Data (2024)

The study established that majority of the nursing students at St. Camillus Nursing College are aged between 18 to 24 years (n=127, 77%) and very few reported 30 years and above; (30-35) =3 and (36-39) =5 respectively. This could imply that majority of the student nurses at SCSN are between 18-24 years.

Cross-tabulation: Age and nursing program completion

The study cross-tabulated the age of the respondents and the dependent variable (yes/no) to establish any association between the two variables.

Table 2: Age and nursing program completion

Variable			Nursing_Program_completion Yes	No	Total
Age	18 - 24	Count	118	9	127
		% within Age	92.9%	7.1%	100.0%
	25 - 29	Count	27	2	29
		% within Age	93.1%	6.9%	100.0%
	30 - 35	Count	3	0	3
		% within Age	100.0%	0.0%	100.0%
	35- 39	Count	5	0	5
		% within Age	100.0%	0.0%	100.0%
Total		Count	153	11	164
		% within Age	93.3%	6.7%	100.0%

The result shows that the majority of those who consider completing the nursing training program in three years as scheduled are in the age group 18 to 24 years (n=118; 93%). Still, it is with the age bracket; 18-24 years who reported not considering completing the program as scheduled (n=9; 7%). A Chi-square test for independence (with Pearson) was analyzed to assess if there is significant association between age and nursing program completion and the results provided in table 3.

Table 3: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.606a	3	.895
Likelihood Ratio	1.141	3	.767
Linear-by-Linear Association	.411	1	.521
N of Valid Cases	164		

a. 5 cells (62.5%) have expected count less than 5. The minimum expected count is 20.

The Pearson chi-square analysis indicated no significant association between the age variable and the dependent variable; nursing program completion, χ^2 **(3,** ***n*** **= 164) = .606,** ***p*** **= .895).**

4.2.2 Gender distribution of the respondents

The respondents were asked to indicate their gender group and the results presented in table 4.

Table 4: Gender

Category	Frequency(n)	Percent(%)
Male	62	37.8
Female	102	62.2
Total	164	100.0

Source: Field Data (2024)

Majority of the respondents are female (n=102; 62%) while male reported 38% (n=62). This implies that majority of the students at St. Camillus School of Nursing are female.

Cross-tabulation: Gender and Nursing program completion

The study cross-tabulated the gender of the respondents and the nursing program completion (yes/no) to establish any association between the two variables. A Chi-square test for independence (with Yate's Continuity Correction) was analyzed to assess if there is significant association between gender and nursing program completion and the results provided in table 5.

Table 5: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.010a	1	.919		
Continuity Correction	.000	1	1.000		
Likelihood Ratio	.010	1	.919		
Fisher's Exact Test				1.000	.595
Linear-by-Linear Association	.010	1	.919		
N of Valid Cases	164				

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 4.16.
b. Computed only for a 2x2 table

Source: Field Data (2024)

A Chi-square test for independence (with Yate's Continuity Correction) indicated no significant association between gender and nursing program completion, χ^2 (1, *n* = 164) = .000, p= 1.000).

4.2.3 Marital status

The respondents were asked to record their marital status. The results are presented in table 6

Table 6: Marital status

Categories	Frequency	Percent
Single	142	86.6
Married	18	11.0
Cohabiting	3	1.8
Divorced	1	.6
Total	164	100.0

Source: Field Data (2024)

The study determined that more than three-quarters of the respondents are single (n=142; 87%) followed with married students (n=18; 11%). Only 1 respondent recorded divorced, 0.6% of the respondents. The study findings regarding marital status implies that majority of the student nurses at SCSN, Tabaka are not married.

Cross-tabulation: Marital status and Nursing Program Completion

The study determined the association between the marital status of the students and Nursing Program Completion. Results provided in table 7.

Table 7: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.856a	1	.028		
Continuity Correction	3.303	1	.007		
Likelihood Ratio	3.877	1	.049		
Fisher's Exact Test				.044	.044
Linear-by-Linear Association	4.826	1	.028		
N of Valid Cases	164				

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 2.15.
b. Computed only for a 2x2 table

Source: Field Data (2024)

The Chi-square test for independence (*with Yate' continuity correction*)

analyzed indicated there is significant association between marital status and nursing program completion among the students, χ^2 **(2, *n* = 164) = 3.303,*p* = .007).** A study conducted by Thorigny *et al*., (2024) determined that nursing students' marital status is associated with increased odds of a nurse student witnessing dropout which is consistent with the findings of this study.

4.2.4 Religion

The respondents were asked to indicate their religion. Results are presented in table 8 below.

Table 8: Religion

Response	Frequency	Percent
Christian	161	98.2
Traditional African religion	2	1.2
Hindu	1	.6
Total	164	100.0

Source: Field Data (2024)

The study established that majority of the study participants are Christians (n=161; 98%).

Cross-tabulation: Religion and Nursing Program Completion

The study determined the association between the religion and Nursing Program Completion by cross-tabulating the variables.

Table 9: Religion and Nursing Program Completion

			Nursing Program Completion		
			Yes	No	Total
Religion	Christian	Count	150	11	161
		% within Religion	93.2%	6.8%	100.0%
	Traditional African religion	Count	2	0	2
		% within Religion	100.0%	0.0%	100.0%
	Hindu	Count	1	0	1
		% within Religion	100.0%	0.0%	100.0%
Total		Count	153	11	164
		% within Religion	93.3%	6.7%	100.0%

Source: Field Data (2024)

For Christians, 93% (n=150) considered completing the program as is scheduled while

7% (11) don't consider completing the program as scheduled. Further, Chi-square test for independence was analyzed to assess if there is significant association between religion and nursing program completion among the students. Results provided in table 10 below.

Table 10: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.220a	2	.896
Likelihood Ratio	.421	2	.810
Linear-by-Linear Association	.194	1	.660
N of Valid Cases	164		

a. 4 cells (66.7%) have expected count less than 5. The minimum expected count is .07.

Source: Field Data (2024)

The Pearson chi-square analysis indicated no significant association between the religion variable and the dependent variable; nursing program completion, χ^2 **(2,** ***n*** **= 164) = .220,*p* = .896).**

4.2.5 Education status of the students' parents

The students were asked to report the educational level of their parents. The findings indicated in table 11.

Table 11: Education Status of the Students' Parents

Option	Frequency	Percent
Primary	20	12.2
Secondary	37	22.6
Tertiary	107	65.2
Total	164	100.0

Source: Field Data (2024)

The study found that more than half of the parents to the students in nursing program at St. Camilla college have tertiary education (n=107; 65%).

Cross-tabulation: Education status of the parents and Nursing Program Completion

The study analyzed the association between the education status of the parents and

Nursing Program Completion. Chi-square test for independence was analyzed to assess if there is significant association between religion and nursing program completion among the students. Results are provided in table 12.

Table 12: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.022a	2	.221
Likelihood Ratio	2.560	2	.278
Linear-by-Linear Association	2.890	1	.089
N of Valid Cases	164		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 1.34.

Source: Field Data (2024)

The Pearson chi-square analysis indicated no significant association between the education level variable and the dependent variable; nursing program completion, χ^2 **(2,** n **= 164) = 3.022,** p **= .221).**

4.2.4 Students' Accommodation Status

Further, the students were asked to rate their accommodation status. Results are shown in table 13 below.

Table 13: Students' accommodation status

Response	Frequency (n)	Percent(%)
Boarding within the school premise	100	61.0
Outside school premise(rented)	64	39.0
Total	164	100.0

Source: Field Data (2024)

From the analysis, majority of the students reside in the school premises (n=100; 61%) while others reside from outside the school hostels (n=64; 39%).

From the interviews, for those who reside on campus, some found it convenient due to food and proximity and security. However, they reported challenges of overcrowding and noise.:

> *"I reside on campus. Generally, campus life is good because food and shelter are provided but the management should increase the space, make follow-ups on security(theft), allow students to enter the hostel at their own time and build more*

hostels to improve sanitation" (Respondent 4).

"I am accommodated on campus. I am okay with the security. There is no quietness because we share a room as six students and the food is offered" (Respondent 5).

"I am accommodated on campus. There are not lots of challenges because of the availability of water food and electricity. Also, the distance is short and the security is good" (Respondent 6).

The interviewees who sought accommodation outside the school premises complained of distractions and noise. However, distance and cost was not a concern for them.

"I am accommodated off campus. I don't stay far away which is convenient in terms of cost, and the security is good although it is not conducive for learning because of a lot of distractions which make me come to study in school." (Respondent 7).

"I am out of campus accommodated. There is security, clean, cost-effective, the distance is not bad and it is peaceful although there are disturbances such as loud music which affect the performance sometimes." (Respondent 10).

Cross-tabulation: Accommodation status and Nursing Program Completion

The study analyzed the association between the Accommodation status and Nursing Program Completion. Chi-square test for independence was analyzed to assess if there is significant association between the two variables. Results are shown in the table 14 below.

Table 14: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.684a	1	.408		
Continuity Correctionb	.257	1	.612		
Likelihood Ratio	.716	1	.398		
Fisher's Exact Test				.531	.313
Linear-by-Linear Association	.680	1	.410		
N of Valid Cases	164				

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 4.29.
b. Computed only for a 2x2 table

Source: Field Data (2024)

The Pearson chi-square analysis indicated no significant association between the Accommodation status and the dependent variable; nursing program completion,

χ^2 (1, *n* = 164) = .257; P=.612). The study findings disagreed with Ombasa (2019) study that accommodation challenges diminish chances of students' academic success.

4.2.5 Summary results of test association between the demographic factors and Nursing Program Completion by the students.

A summary of Chi-square test results of association between demographic factors (independent variable) and Nursing program completion; dependent variable.

Table 15: Summary Results of Test Association Between the Demographic Factors and Nursing Program Completion

Variable	Test association (χ^2 value)	Cases	df	Sig. value
Age	.61	164	3	.895
Gender	.000	164	1	1.000
Marital status	3.303	164	2	0.007
Religion	.220	164	2	.896
Education	3.022	164	2	.221
Accommodation	.257	164	1	.612

Source: Field Data (2024)

The results, in summary, establishes that all the variables under the demographic factors of the students did not reach statistically significant (P>0.05 at 95% confidence level) except the marital status (P< 0.05 at 95% confidence level). This implied that, marital status is associated with completion of the nursing program among the students. To test this relationship, binary logistic regression was conducted.

4.3 Descriptive Statistics: Individual factors and Nursing Program Completion

The individual factor was operationalized with student's passion, self-confidence, and studying habits.

4.3.1 Main Reason for Pursuing Nursing Studies

The study sought the main reason why the respondents chose to pursue the nursing studies.

Table 16: The student's Main Reason to Pursue Nursing

Responses	Frequency(n)	Percent(%)
I have a passion to care for the sick	93	56.7
I have a personal interest in pursuing a health-related course of study	38	23.2
I want to achieve financial independence	18	11.0
I have a future ambition to work overseas	7	4.3
I followed the advice from my parents	7	4.3
I want to secure a job in nursing	1	.6
Total	164	100.0

Source: Field Data (2024)

The results showed that majority of the students pursued nursing studies because of the passion to take care for the sick (n=93, 56%) while 23% had personal interest in health related course. Nonetheless, less than 1% of the students want to secure job with nursing (n=1; 0.6%). Further, the study established if the students' passion or reason for pursuing nursing is associated with nursing program completion.

Table 17: Main reason and Nursing Program Completion Cross-tabulation

				Nursing_Program_completion		
Main Reason				Yes	No	Total
Main reason	I have a passion to care for the sick	Count		83	10	93
		% within reason	Main	89.2%	10.8%	100.0%
	I have a personal interest in pursuing a health-related course of study	Count		37	1	38
		% within reason	Main	97.4%	2.6%	100.0%
	I want to achieve financial independence	Count		18	0	18
		% within reason	Main	100.0%	0.0%	100.0%
	I have a future ambition to work overseas	Count		7	0	7
		% within reason	Main	100.0%	0.0%	100.0%

	I followed the advice from my parents	Count	7	0	7
		% within Main reason	100.0%	0.0%	100.0%
	I want to secure a job in nursing	Count	1	0	1
		% within Main reason	100.0%	0.0%	100.0%
Total		Count	153	11	164
		% within Main reason	93.3%	6.7%	100.0%

Source: Field Data (2024)

Among the respondents who had a passion to care for the sick, 11% considered not to complete the nursing studies as scheduled (n=83).

Table 18: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	5.814a	5	.325
Likelihood Ratio	7.956	5	.159
Linear-by-Linear Association	4.350	1	.037
N of Valid Cases	164		

a. 6 cells (50.0%) have expected count less than 5. The minimum expected count is .07.

Source: Field Data (2024)

Nevertheless, the chi-square of independence revealed that the main reason that made the student to pursue nursing is not statistically significantly associated with the acceleration to completing the program as scheduled. The probability value is greater than conventional value of 0.05 at 95% confidence level, χ^2 (5, n = 164) = 5.814; P=.325).

From the interviews, various explanations were given regarding why the respondents chose nursing: Most mentioned passion, childhood dream and family influence.

> "*Nursing as a faculty has been my passion since childhood" (Respondent 2).*
>
> *"I have wanted to pursue nursing all my life which means that I did nursing to chase my dreams" (Respondent 3).*
>
> *"I had a cousin who studied here and through him, I was motivated to*

join. Also in 2017, my mother was sick and this motivated me to study a course that could help me understand her condition." (Respondent 5).

Some respondents selected nursing out of failure to secure their dream course choices, advise from funders/sponsors and marketability:

"I wanted to become a doctor at first during my earlier studies (Respondent 6).

"I had a vision of becoming a doctor but I didn't score well enough and decided to remain in the medical field by pursuing nursing" (Respondent 9).

"I graduated with a bachelor of commerce and CPA and realized I wanted to change my career path with an interest in psychiatry. My funders felt psychiatry was limiting and I ended up choosing nursing" (Respondent 10).

"I joined nursing through motivation by a family friend who thought the course I was doing was not marketable" *(Respondent 14).*

Subsequently, the researcher sought to inquire how the participants prepare for their classes/study.

4.3.2 Class preparations

The study established how the respondents prepare for classes. The variable was measured on an interval data scale with five agreement scores.

Table 19: Class preparations

Statements	Always	Often	Sometimes	Rarely	Never	Mean	S. D
Have a personal study timetable that guides me	42.1%	18.9%	31.1%	6.1%	1.8%	2.07	1.069
I study with others in a group	28.7%	31.1%	34.1%	5.5%	0.6%	2.18	.935
I combine personal study and group discussion	51.8%	18.3%	23.2%	3.7%	3.0%	2.88	1.078
I do not have a timetable	9.1%	11.0%	31.1%	27.4%	21.3%	3.41	1.202
I am not a member of any group study]	11.6%	9.8%	26.2%	25.6%	26.8%	3.46	1.298
Overall score						3.0	.627

Source: Researcher (2024)

The study determined that majority of the nursing students always prepare for classes (Mean=3.0; S. D = 0.627). This was confirmed with the mean value equal to 3.0 and standard deviation of less than one. A mean overall score of 3.0 and above indicate agreement and standard deviation of less than 1 means low discrepancies from the responses.

Further, the study determined whether class preparation is associated with the dependent variable; nursing program completion among the respondents. Omnibus's Test was conducted to specifically test the goodness of fit on how well the continuous variable (class preparation computed) explained the probabilities of the respondents considering completing the program as scheduled. The results are presented in table 20 below.

Table 20: Omnibus Tests

		Chi-square	df	Sig.
Step 1	Step	.179	1	.672
	Block	.179	1	.672
	Model	.179	1	.672

Source: Researcher (2024)

The results shown in the table headed Omnibus's Test however did not support any association between the class preparation and program completion as a whole. For Omnibus's Test for Goodness of Fit Test, poor fit is indicated by a significance value greater than .05. This value is larger than .05 (P=.672) therefore indicating non-significant association, χ^2 (1, n = 164) = .179; P=.672).

4.3.3 Respondents' Performance Rating

The study rated performance of the respondent. Three constructs were measured and the results shown in table 21 below.

Table 21: Respondent performance rating

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
My study habit contributed to my level of performance	0.0%	0.0%	12.2%	29.9%	57.9%	4.46	.704
My class attendance contributed to my level of performance	1.8%	4.3%	11.6%	24.4%	57.9%	4.32	.965
My participation in class and clinical areas contributed to my level of performance	1.8%	0.0%	11.0%	32.9%	54.3%	4.38	.824
Overall score						4.39	.638

Source: Researcher (2024)

The study determined that all the variables strongly agreed with the majority of the students that study habits, class attendance and participation in class and clinical areas contributed to overall performance (Mean=4.39; S. D=0.638). A mean overall score of 3.0 and above indicate agreement and standard deviation of less than 1 means low discrepancies from the responses (Taat & Francis, 2020; Oketch *et al*., 2020).

However, the association between the student's performance rating; study habits, class attendance and participation in class and clinical areas and program completion was non-significant as indicated from Omnibus Test of association presented in table 22.

Table 22: Omnibus' Tests

		Chi-square	df	Sig.
Step 1	Step	.044	1	.834
	Block	.044	1	.834
	Model	.044	1	.834

Source: Researcher (2024)

The results showed that the p value is greater than 0.05, indication association between the variables, χ^2 (1, n = 164) = .044; P=.834).

From the interviews, the researcher gathered the following regarding their academic performance: first to rate their academic performance and what they perceived as factors contributing to their above average performance:

Respondents reported that they had improved since joining the nursing course and enjoyed both theory and practicals. The improvement was linked to group discussions, support from parents, nurses and teachers,

> *"On performance, I came in weak and am increasingly becoming stronger in theory work (rating from 4 to 7). I feel that the factors increasing my performance are quality group discussion (smaller and more productive interaction with nurses and patients, inspiration from my mother and the need to get good grades in my performance*" (*Respondent 1).*

> *"I enjoy the theory part more than the practical because it helps me find out more about different conditions. My performance is balanced between theory and practicals. Studying with my colleagues, and making use of the teachers and nurses has made my performance better" (Respondent 5.*

4.3.4 Missing classes

The study sought the respondents who missed class and considered completing the program as scheduled.

Table 23: The Cross-tabulation: Missed class and Nursing Program Completion

			Nursing Program completion		
			Yes	No	Total
Missing classes	Yes	Count	64	4	68
		% within missing classes	94.1%	5.9%	100.0%
	No	Count	89	7	96
		% within missing classes	92.7%	7.3%	100.0%
Total		Count	153	11	164
		% within missing classes	93.3%	6.7%	100.0%

Source: Researcher (2024)

The analysis established that likelihood of not completing the program as scheduled is recorded to those respondents who never missed classes (7.3%) as compared to those missed classes. Nevertheless, majority of the students who missed classes considered completing the program as scheduled (94.1%).

Further, the study conducted the Pearson Chi-square to establish any association between the variables.

Table 24: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.126a	1	.722		
Continuity Correction	.001	1	.969		
Likelihood Ratio	.128	1	.721		
Fisher's Exact Test				1.000	.491
Linear-by-Linear Association	.126	1	.723		
N of Valid Cases	164				

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 4.56.

b. Computed only for a 2x2 table

Source: Researcher (2024)

From the Chi-square analysis results with *Yate's continuity correction* (applied in 2 by 2 table to compensate for overestimation), missing classes and completing nursing program as scheduled are not associated, χ^2 (1, n = 164) = .001; P=.969).

4.4 Socio-Economic Factors and Nursing program completion

Socio-economic factors were operationalized on source of funds, grants, timing of fee payment and consequences of late fees payment.

4.4.1 Source of school fees

The study established the main sources of fees by the respondents. The results are shown in table 25 below.

Table 25: Source of school fees

Categories	Frequency	Percent
Parents	150	91.5
Scholarship	6	3.7
Self	8	4.9
Total	164	100.0

Source: Researcher (2024)

Majority of the respondent revealed that, their school fee is paid by the parents (n=150; 91.5%) while scholarship and self-payment was 3.7% and 4.9% respectively. The study sought whether the source of funds is significantly associated with program completion.

Table 26: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.861a	2	.650
Likelihood Ratio	1.181	2	.554
Linear-by-Linear Association	.125	1	.724
N of Valid Cases	164		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is .40.

Source: Researcher (2024)

From the Pearson Chi-quire results, the source of funds and nursing program

completion among the students is not significantly associated, χ^2 (2, n = 164) = .861; P=.650).

From the interviews, most of the respondents affirmed this reality of most parents/guardians/family member such as parents and spouse paying their tuition fees while fewer (n=2) respondents have their fees paid by a combined effort of self and some form of sponsorship:

> *" The person who funds my studies is my mum and dad" (Respondent 1).*
>
> *"My academics are being funded by my husband who is a businessman" (Respondent 2).*
>
> *"My mother supports my learning although I had saved some of the money having worked as an administrator" (Respondent 7).*
>
> *My sponsor partly funds my studies and my parents who are domestic farmers also fund it" (Respondent 4).*

4.4.2 Study grants

The study determined if the respondents received study grant and results shown in table 27 below.

Table 27: Study Grants

Response	Frequency	Percent
Yes	51	31.1
No	113	68.9
Total	164	100.0

Source: Field Data (2024)

More than half of the students never received study grants (n=113; 68.9%). The study further established if there is association between receiving the study grants and nursing program completion by the respondents.

Table 28: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.081a	1	.777		
Continuity Correction	.000	1	1.000		
Likelihood Ratio	.082	1	.774		
Fisher's Exact Test				1.000	.536
Linear-by-Linear Association	.080	1	.777		
N of Valid Cases	164				

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 3.42.
b. Computed only for a 2x2 table

Source: Field Data (2024)

From the Chi-square analysis results with *Yate's continuity correction*, study grants and completing nursing program as scheduled are not associated, χ^2 (1, n = 164) = .000; P=.1.000).

4.4.3 Timely Fee payment

Additionally, the study established time the students make their school fee. The results are shown in table 29.

Table 29: Timely Fee payment

Options	Frequency	Percent
Yes	86	52.4
No	78	47.6
Total	164	100.0

Source: Field Data (2024)

The study established that more than half (52.4%) of the respondents pay their school fee in time while 47.6% (n=78) pay their fees late.

Table 30: Chi-Square Tests: Fee Payment and Completing the Nursing Studies

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.231a	1	.631		
Continuity Correction	.028	1	.867		
Likelihood Ratio	.230	1	.631		
Fisher's Exact Test				.758	.432
Linear-by-Linear Association	.229	1	.632		
N of Valid Cases	164				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.23.
b. Computed only for a 2x2 table

Source: Field Data (2024)

From the Chi-square analysis results with *Yate's continuity correction*, study grants and completing nursing program as scheduled are not associated, χ^2 (1, n = 164) = .028; P=.867).

4.5 Descriptive statistics: Learning environment and Nursing program completion

The study established the resources needful in learning environment by the respondents.

Table 31: Opinions on the Learning Environment

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. D
Learning equipment are adequate	4.9%	11.1%	27.2%	25.9%	30.9%	3.67	1.169
We have enough learning space in your institution	12.9%	22.1%	25.2%	19.0%	20.9%	3.13	1.325
Support technology is available for Online lectures	12.3%	16.6%	35.0%	20.9%	15.3%	3.10	1.215
Support technology is available for Online assignments	16.6%	14.1%	24.5%	25.2%	19.6%	3.17	1.350
Support technology is available for Online quizzes	15.3%	12.9%	23.3%	29.4%	19.0%	3.24	1.323
Support technology is available for internet connectivity	36.2%	16.6%	22.7%	9.2%	15.3%	2.51	1.446
Overall score						3.14	1.018

Source: Field Data (2024)

The results indicated that majority of the respondents agreed with high discrepancies (S.D is greater than 1) that learning environment determines their nursing studies completion (Mean=3.14; S. D =1.018). The study conducted Omnibus test to establish if there was any relationship between the variables.

Table 32: Omnibus Tests: Learning Environment and Nursing Program Completion

		Chi-square	df	Sig.
Step 1	Step	5.556	1	.018
	Block	5.556	1	.018
	Model	5.556	1	.018

Source: Field Data (2024)

The results shown in the table headed Omnibus's Test supported presence of a strong association between the learning environment and nursing program completion among students at St. Camillus college of nursing. For Omnibus's Test for Goodness of Fit Test good fit is indicated by a significance value less than .05. This value is less than

.05 (P=.018) therefore indicating significant association, $\chi 2$ (1, n = 164) = 5.556; P=.018).

From the interviews conducted, majority of the students agreed on the areas they considered important to their learning and needed to be enhanced in order to accommodate a growing population and provide a conducive learning environment. First, majority agreed on the inadequate classroom and library space.

> *"We have a scarcity of classrooms and the ventilations are not okay making it not conducive for learning. Technology is not sufficient including the projectors which are less/faulty with the large population. I recommend that the school should do better in providing internet Wi-Fi for students*" *(Respondent 2).*

> *"The classrooms are too small, too hot, with leaking roofs for students who are more than 500 with only two classrooms to do personal study which affects the student performance" (Respondent 4).*

> *"The classrooms are insufficient and not conducive to students learning. Some are very hot, and when it rains there is water. The library is not meeting the expectation because of its location, and small in terms of space. The opening hours are also a challenge and is closed by 6 pm which is limiting" (Respondent 6).*

In addition, some respondents mentioned lack of Public Address System as well as non-embracing of Internet Technology for the students.

> *"There is no public address for classes to help students at the back to hear what the teacher says. Also, there is no Wi-Fi and a reliable portal" (Respondent 6).*

The researcher further investigated from respondents to recommend areas needing priority attention in terms of improving the learning environment. Majority of the respondents identified: class routine, library, internet, and tutor numbers.

> *"Improve on technology such as having dummies during practicals. In the internet space, we should be provided with WIFI to surf for educational materials. The computer lab is always closed.*
> *The class routines should be adjusted to accommodate those who are living outside the school" (Respondent 1).*

> *"I did not have money to buy books and went to the library only to find that books were not up to date and some were few or unavailable. For instance, there is only one pharmacology book. I lost interest in going to the library because of time limits, especially in the evening. The librarian is okay. Going into the future, the library should be in a quiet place with adjusted times of operation and ensure learning materials are up to date." (Respondent 2).*

"About the rating of the tutors, we don't have enough tutors to teach all the blocks. They are easily exhausted leading to poor delivery" (Respondent 7).

Regarding the inquiry about adequacy of tutoring, practical skills instruction and supportive supervision and the tutors' capacity in the learning environment, majority of the respondents remarked that tutors were well prepared to teach, although more were needed in terms of numbers and also in the clinical instruction department:

"Guiding instructors should do more in instructing the students because they are not showing up much. Teachers are nice and are geared towards the betterment of the students while tutors are supportive and helpful although evaluation papers should be used to check the tutors" (Respondent 2).

"Most of the tutors are knowledgeable and friendly but they are less compared to what the students need. I suggest that in the future, more tutors will be employed" (Respondent 5).

4.6 Results on Diagnostic Tests

Diagnostic tests were conducted to ensure that appropriate statistical test was applied in the analysis to avoid inaccurate estimations. The tests included dependent variable coding distribution, sample size, Multi-collinearity Tests, Linearity and Outliers of the residuals.

4.6.1 Dependent variable coding distribution

For binary logistic regression, dependent Variable should be dichotomous; 0/1. Dependent variable should be mutually exclusive and exhaustive which should not be violated.

Table 33: Dependent Variable Encoding

Original Value	Internal Value
NO	0
YES	1

Source: Field Data (2024)

The analysis provides how SPSS dealt with the coding of the dependent variable (in this case, whether student consider to completing the nursing program as scheduled). The study ensured the presence outcome was coded to the highest value (Yes=1) and absence outcome was coded

to the lowest value (No=0). Therefore, the dependent variable was mutually exclusive and exhaustive coded, hence, dependent variable encoding was not violated.

4.6.2 Sample size

Binary logistic regression requires sample data larger than 30 items (n>30).

Table 34: Case Processing Summary

Unweighted Cases		(n)	Percent(%)
Selected Cases	Included in Analysis	164	100.0
	Missing Cases	0	.0
	Total	164	100.0
Unselected Cases		0	.0
Total		164	100.0

a. If weight is in effect, see classification table for the total number of cases.

Source: Field Data (2024)

4.6.3 Multi-collinearity Tests

Logistic regression does not make assumptions concerning the distribution of scores for the predictor variables; however, it is sensitive to high correlations among the predictor variables (multi-collinearity). Therefore, multi-collinearity test was conducted to determine the level of interrelationship among the independent variables. Tolerance and Variance Inflation Factor (VIF) tests were analyzed and interpreted. The results are shown in Table 35.

Table 35: Multi-collinearity tests

Coefficients							
		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.783	.338		2.313	.022		
	Age groups simplified	-.050	.065	-.071	-.775	.439	.713	1.403
	Gender recoded	-.023	.052	-.037	-.437	.663	.828	1.208
	Religion recoded	-.291	.204	-.131	-1.427	.156	.706	1.417
	Marital status	-.199	.081	-.228	-2.458	.015	.695	1.440
	Education recoded	.074	.050	.119	1.484	.140	.927	1.079
	Accommodation	.000	.052	.000	-.004	.997	.822	1.217
	Main reason	-.016	.036	-.035	-.436	.664	.926	1.080
	Class preparation score	-.001	.008	-.014	-.171	.865	.847	1.180
	Performance rating	.009	.013	.057	.675	.501	.853	1.172
	Missed classes	.053	.047	.088	1.126	.262	.980	1.021
	Source funds	.117	.100	.110	1.165	.246	.670	1.492
	Received grants	.051	.052	.079	.975	.331	.916	1.092
	Timely fee payment	.016	.049	.026	.323	.747	.894	1.118
	Learning environment	.009	.004	.174	2.091	.038	.861	1.162
	Areas needing more space	.029	.042	.055	.681	.497	.909	1.100

a. Dependent Variable: NURSING PROGRAM COMPLETION

Source: Field data (2024)

From collinearity statistics column, all tolerance values of all predictor variables are greater than 0.10 and less than 1.0 and VIF values are less than 10 or greater than 1.0. This indicated there was no violation of assumptions of multi-collinearity between the independent variables; factors associated with nursing program completion.

4.6.4 Linearity

Linearity of scores was tested using normal P-P plots of Regression Standardized

residuals. The criterion was that the points should be about the same distance from the best fit line for null hypothesis of constant variance of error term to be accepted. The variance of the residuals about predicted scores should be the same for all predicted scores test for the researcher to conclude no problem with linearity about the continuous data. The graph of Normal Q-Q plots below demonstrates the distribution of scores on the dependent variable.

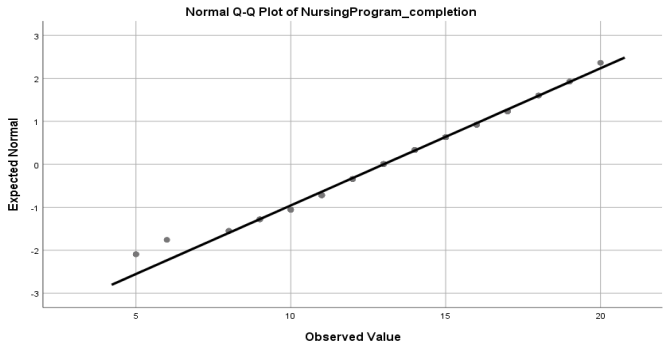

Figure 2: Normal Q-Q Plots

Source: Researcher (2024)

An inspection of the normal probability plots (Normal P-P plots) demonstrates no violation of assumption of linearity.

4.6.5 Outliers

Binary logistic regression assumes the residuals have no outliers. The outliers are scores following above or below the expected. Boxplot was used to test the outliers of residuals.

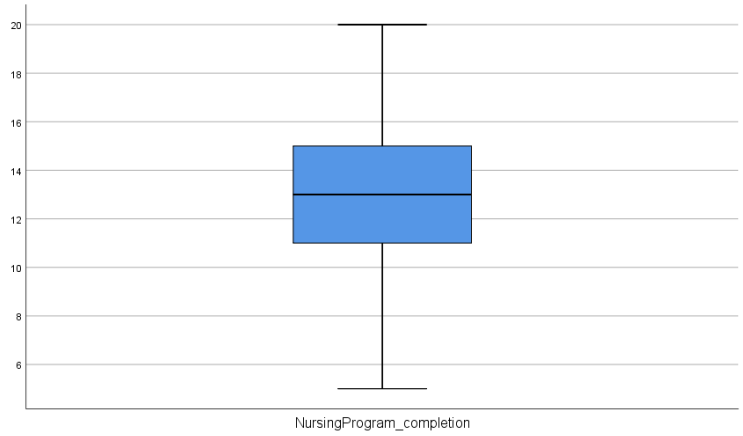

Figure 3:Boxplot for Residuals

Source: Field data (2024)

From the analysis output in figure 2 output, there is no value represented with empty circle, hence no outlier on dependent variable. the study did not violate the outlier's assumption.

4.7 Logistic Regression Analysis

The study conducted the binary logistic regression to establish factors associated with nursing program completion among the nursing students. Binary logistic regression is appropriate with dependent variable which is dichotomous (yes/no). The dependent variable was recoded to assume the binary code 0/1. That is, yes answer recoded to positive probabilities, value 1 while no answer was recorded to assume absence of the outcome, value 0. Additionally, independent variables were recoded such that highest or presence measure take the highest value and vice vasa. The goodness of fit of the model as worthwhile was determined, the significant of the model and the unique contribution of each independent variable was assessed through odds ratios**.**

Block 0

The results headed classification table in Block 0, is the results of the analysis without any of the independent variables used in the model. This output served as a baseline for comparing the model with the predictor variables when included.

Table 36: Classification Table

			Predicted Nursing Program Completion		
	Observed		NO	YES	Percentage Correct
Step 0	Nursing_Program_completion	NO	0	16	.0
		YES	0	148	100.0
	Overall Percentage				90.2

a. Constant is included in the model.

b. The cut value is .500

Source: Field Data (2024)

The overall Percentage Accuracy Classification (PAC) when no predictor variables were entered was 90.2%.

Table 37: Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	25.444	17	.085
	Block	25.444	17	.085
	Model	25.444	17	.085

Source: Field Data (2024)

Omnibus Test of the model coefficient provided the overall indication of how well the model performs, over and above the results obtained for Block 0, with none of the predictors was entered into the model. The sig. value was greater than 0.05 indicating that, the model was non-significant (with set of variables used as predictors), $\chi 2$ (17, n = 164) = 25.444; P=.085).

Goodness of fit Model Summary

The Model Summary describes pseudo-R square statistics; the Cox & Snell R Square and the Nagelkerke R Square values that provide an indication of the amount of variation in the dependent variable explained by the model (from a minimum value of 0 to a maximum of approximately 1).

Table 38: Goodness of fit Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	79.415a	.144	.304

a. Estimation terminated at iteration number 20 because maximum iterations has been reached. Final solution cannot be found.

Source: Field Data (2024)

The results showed that the model is able to predict a variance in dependent variable between the Cox & Snell R2 = 0.144 and Nagelkerke R2 = .304 with -2 Log likelihood. This implied that the model explained between 14.4% and 30.4% of the total variance on dependent variable.

To determine if the variance reached was statistically significant, Hosmer-Lemeshow's Goodness of Fit Test was analyzed.

Hosmer-Lemeshow's Goodness of Fit Test

The study analyzed Hosmer-Lemeshow's Goodness of Fit Test to further test if the overall model was significant or not.

Table 39: Hosmer-Lemeshow's Goodness of Fit Test

Step	Chi-square	df	Sig.
1	23.361	8	.003

Source: Field Data (2024)

For the Hosmer-Lemeshow's Goodness of Fit Test poor fit is indicated by a significance value less than .05, so to support our model we actually want a value less than .05. The chi-square value for the Hosmer-Lemeshow's Test 23.361 with a significance level of .003, therefore indicating the model is not significant. We therefore reject the null hypothesis which states that "There is NO significant difference between the null model (model in block 0) and the model containing predictor variables (model in block 1), at 95% confidence level". Therefore, we concluded that, there are predictor variables that are associated with nursing program completion.

To establish the factors associated with the nursing program completion, **Wald statistics** with odds ratios were analyzed and interpreted as shown in table 40 below.

Table 40: Binary Logistic Regression Results

Variable		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B) Lower	Upper
Step 1a	Age	-.576	.964	.358	1	.550	.562	.085	3.716
	Gender	-.587	.711	.682	1	.409	.556	.138	2.241
	Religion	-19.109	22994.875	.000	1	.999	.000	.000	.
	Maritals	-2.378	.944	6.340	1	.012	.093	.015	.590
	Education	.868	.647	1.799	1	.180	2.382	.670	8.467
	Accommodation	-.040	.772	.003	1	.958	.961	.211	4.366

Main reason			5.843	2	.054			
Main reason (1)	-2.837	1.413	4.030	1	.045	.059	.004	.935
Main reason (2)	-.931	1.528	.371	1	.542	.394	.020	7.873
Class preparation score	-.099	.107	.849	1	.357	.906	.734	1.118
Performance rating	.104	.171	.374	1	.541	1.110	.795	1.550
Missed classes	.168	.661	.064	1	.800	1.183	.324	4.322
Source of funds	.825	.969	.726	1	.394	2.283	.342	15.245
Study grants	.338	.739	.209	1	.647	1.402	.329	5.970
Timely fee payment	.175	.676	.067	1	.795	1.192	.317	4.484
Learning environment	.154	.065	5.627	1	.018	1.167	1.027	1.325
Resources			1.388	2	.500			
Areas needing resources	.822	1.300	.400	1	.527	2.275	.178	29.084
Constant	19.511	22994.876	.000	1	.999	297381467.202		

Source: Field Data (2024)

From the binary logistic regression, in the column labelled sig. only three variables indicated significantly associated with nursing program completion: marital status (Wald Statistics=6.340, P=0.012), main reason for pursuing the nursing studies (Wald Statistics=4.030, P=0.045), and learning environments (Wald Statistics=5.627, P=0.018). Further, the results column B indicates the Coefficients of each independent variable. These are the values that were used in an equation to calculate the probability of a case falling into a specific category. B values are either positive or negative and will tell you about the direction of the association (which factors among the ones significantly associated with dependent variable increase the likelihood of a yes answer and which factors decrease the odds of yes answer).

The B values for marital status and main reason were negative (-2.378; -2.837)

respectively. This implied that increase in marital status and passion to care for the sick among the respondents will result in a decreased probability of the case recording a score of 1 in the dependent variable (indicating the likelihood of considering completing the program as scheduled). The learning environment had positive B values (B= .154). For positive B values, suggests that respondents considering completion of the program as scheduled are more likely to answer yes to the question by increased learning environment. This means that, the more learning environment is made conducive by providing resources, the more the student is likely to complete the nursing program as scheduled.

Exp(B) column shows the odds ratios for each independent variable. Significant column indicates the P- Values for the coefficients of the independent variables. Among the three associated factors with program completion, only learning had odds ratios greater than 1 (Exp(B) = 1.167) while marital status and main reason for pursuing the course had odds ratios less than 1 (0.093; 0.059) respectively.

Therefore, the odds of students answering Yes, they consider completing the program as scheduled is 1.167 times (C.I: 1.027;1.325) higher for students reporting conducive learning environment. Further, for marital status with odds of 0.093 (C.I: 0.015; 0.590), implies that the more married one gets, less likely to complete the program as scheduled. Finally, participants' passion showed likelihood (OR) of 0.059 (CI: .004-.935). This implied that, the odds of a student completing nursing program is 5.9% higher to a participant who reports passion to take care for the sick.

CHAPTER FIVE: DISCUSSION, CONCLUSION AND RECOMMENDATION

5.0 Introduction

The chapter presents the summary of the study, conclusions drawn from the study key findings, recommendations, implication for policy and practice and further scope of research.

5.1 Discussion

5.1.1 Demographic factors and Nursing Program Completion among nursing students

The first objective assessed demographic factors associated with program completion among nursing students. The demographic variable was operationalized with age, gender, marital status, parental education level and student accommodation. This study established that age was not statistically significant in association with program completion. This is in contrast with earlier studies that found out that Being female and of young age had an increased possibility of pursuing and succeeding in the nursing course (Dube & Mlotshwa, 2018). This was further vindicated by results from a study in Northern Tanzania by Gemuhay *et al*., (2019) where age was found to be a substantial factor in student success. Nevertheless, this study finding is in agreement with the study findings by Robert (2018) on predictors of program completion and NCLEX-RN success in an associate degree nursing program, the study established no statistically significant relationship between age of the respondents and program completion. Additionally, Dries (2020), admitted that nursing students who were 33 years or older had decreased odds of completing the program by 1.44% for each year of age.

This study found out that marital status was significantly associated with nursing program completion. Majority were not married and the likelihood of not completing program on time was noted amongst those married. This finding echoes earlier findings by Mugoh & Kamau, (2020) on Influence of nursing students' attitude in the clinical areas on student's learning in Mathare Teaching and Referral Hospital, Nairobi. The study found out that majority 76.9 % of the college student are not married and that marital status was associated with non-program completion.

From the chi-square analysis, the study found that all the indicators under investigation were not significantly associated (P>0.05) except marital status (n=164;

P=0.007). further, the study determined that, the B values for marital status was negative (-2.378). This implied that increase in marital status among the respondents will result in a decreased probability of the case recording a score of 1 in the dependent variable (indicating the likelihood of considering completing the program as scheduled). Additionally, marital status had odds of 0.093 (C.I: 0.015; 0.590), implies that for unit increase in marital status of the respondent, a student nurse is 9.3%, less likely to complete the program as scheduled. This finding is consistent with a study conducted by Thorigny *et al*., (2024) which determined that nursing students' marital status is associated with increased odds of witnessing a dropout which is consistent with the findings of this study.

5.1.2 Individual and Nursing Program Completion among nursing students

The second study objective assessed individual factors associated with program completion among nursing students. The individual factors variable was operationalized with student passion, self-confidence and studying habits. The study established that majority of the students pursued nursing studies because of the passion to take care for the sick (n=93, 56%) and always prepare for classes (Mean=3.0; S. D = 0.627). The study determined that all the variables strongly agreed with the majority of the students that study habits, class attendance and participation in class and clinical areas contributed to overall performance (Mean=4.39; S. D=0.638). Nevertheless, majority of the students who missed classes considered completing the program as scheduled (94.1%). This was in contrast with earlier findings in Ethiopia by Mahmoud *et al*., 2018) which noted that absenteeism contributed negatively to students' performance.

From the binary logistic regression, main reason for pursuing the nursing studies; to take care for the sick provided statistically significant association with nursing program completion (Wald Statistics=4.030, P=0.045). From the unstandardized weights, B values, student passion was negative (-2.837). This implied that increase in student passion among the respondents will result in a decreased probability of the case recording a score of 1 in the dependent variable (indicating the likelihood of considering completing the program as scheduled). Furthermore, student's passion showed OR of .059 (CI: .004-.935). This implied that, the odds of a student to completing nursing programs as scheduled is 5.9% higher for a student who reports passion to take care of the sick. The findings from a study done by Shakurnia *et al*. (2015) showed that most nursing students are motivated by their interest to pursue a

medical course and their passion to care for the sick. Conversely, this study finding was in conflict with findings from a study by Cilar, Spevan, Trifkovič & Štiglic (2020), who investigated reasons which motivate students to enter nursing program. The most important reasons to enter nursing studies were noted to be: interest in the subject and good employment possibilities. Students from both studies agreed that the biggest reason is the ease of finding a job after graduation with nursing.

5.1.3 Socio-economic Factors and Nursing Program Completion among nursing students

The third study objective assessed socio-economic factors associated with accelerated nursing program completion among nursing students at SCSN. The socio-economic factors were operationalized with funding source, nursing cost and parent involvement. The study established that majority of the nursing students' school fee at SCSN, Tabaka is paid by their parents (n=150; 91.5%) while majority of the students never received study grants (n=113; 68.9%). Nonetheless, more than half of the students (52.4%) pay their school fee in time. This finding although not significantly associated with nursing program completion is consistent with previous studies that have noted that nursing students relied on financial aid, personal savings, and majority on parental support to finance their education (Mazelis & Kuperberg, 2022). Additionally, Mazelis and Kuperberg discovered that, students who rely on parents for financial aid, pay their fees in time than those students took out bank personal savings for studies (Mazelis & Kuperberg, 2022). In Australia, after the Government introduced full school fee payment by the students, today many students and parents are under significant psycho-social stress due to sourcing of school fees. Therefore, this study found that socio-economic factors are not significantly associated with acceleration of nursing program completion among nursing students.

In Rwanda, most nursing students were motivated to pursue and succeed in nursing education due to job security guarantee associated with the faculty (Kanimba, 2019). This was the same situation experienced in Nepal (Shrestha, & Sapkota, 2021) where job security was the main motivating factor for students pursuing nursing education.

5.1.4 Learning Environment Factors and Nursing Program Completion among nursing students

The fourth study objective was to establish learning environment factors associated with accelerated nursing program completion among nursing students at SCSN, Tabaka. The learning environment factors were measured on capacity and space,

learning facility, teaching methods, tutors, time, instruction language and technology. The study determined that learning environment is strongly associated with the nursing program completion (Mean=3.14; S. D =1.018). Further, Omnibus's Test supported strong association between the learning environment and nursing program completion among students at SCSN, χ^2 (1, n = 164) = 5.556; P=.018).

The learning environment had positive B values (B= .154), suggesting that respondents considering completion of the program as scheduled are more likely to answer yes with learning environment. Additionally, learning environment had odds ratios greater than 1, Exp(B) = 1.167) implying that, the odds of students answering Yes, (they consider completing the program as scheduled) is 1.167 times (C.I: 1.027;1.325) higher for students reporting conducive learning environment. This finding is in agreement with those of Fawaz and Tassi (2018) in Lebanon and Dube & Mlotshwa, (2018) in South Africa who established that student motivation and academic performance is enhanced by the availability of well-trained nurse tutors and adequate capacity in the nursing school. In addition, later in 2020, Kavili's study concluded that nursing students experience challenges in accessing important aspects of learning like lectures, group discussion and skills laboratories, which in turn influence the program completion, citing presence of a conducive learning environment as an important aspect of nursing program completion as per schedule (Kavili, 2020).

5.1.5 Summary of the Study

The study assessed factors associated with acceleration of nursing program completion among students of SCSN, Tabaka. The study established four independent variables; demographic factors, individual-related factors, socio-economic factors and learning environment factors. The dependent variable: nursing program completion was measured mutually exclusive and exhaustive with dichotomous outcome (YES/NO). The study collected quantitative data that was analyzed statistically; descriptive statistics (frequency counts and percentages) and inferential statistics (Chi-square of association and binary Logistic Regression). The study had a 98.7% (n=164) return response rate. For continuous variable with interval data, the reliability analysis was determined to check the internal consistency of the constructs making up the scale.

Additionally, the study established that majority of the nursing students at SCSN, Tabaka are aged between 18 to 24 years (n=127, 77%) with majority being female (n=102; 62%) and single (n=142; 87%). Further the study found that majority of the

study participants are Christians (n=161; 98%) whose parents' education level is at tertiary level (n=107; 65%). Additionally, majority of the students reside from school premises (n=100; 61%).

Prior to inferential statistics analysis, diagnostic tests; dependent variable encoding, goodness of fit assumptions, multi-collinearity and residuals were conducted and confirmed no violation of assumptions. From the Chi-square analysis, only marital status, students' passion to pursue nursing and learning environment reached statistical significant association with nursing program completion. This was confirmed with binary logistic regression; marital status (Wald Statistics=6.340, P=0.012), main reason for pursuing the nursing studies (Wald Statistics=4.030, P=0.045), and learning environments (Wald Statistics=5.627, P=0.018). Further, the regression model was:

Nursing program completion (19.511) = -2.378 Marital status - 2.837 student's passion to care for the sick + 0.154 learning environment.

Therefore, the Nursing program completion rate would be 19.511 when all the independent variables (marital status, students' passion to pursue nursing and learning environment) are constantly controlled at zero value. In addition, Among the three associated factors with program completion, only learning had odds ratios greater than 1 Exp(B) = 1.167: CI 1.127-1.325) while marital status odds ratio was less than 1(0.093:CI 0.015-0.590) and the main reason for pursuing the course had odds ratio of less than 1(0.059: CI .004-935).

5.2 Conclusions

Conclusions are drawn from the study findings in relation to each study objective. Generally, the study concluded that demographic factors, individual factors and learning environment are significantly associated with nursing program completion among the student at SCSN, Tabaka.

5.2.1 Demographic factors and Nursing program completion among the student at SCSN

The study concluded that demographic factors and marital status in particular are significantly associated with Nursing program completion among the student at St. Camillus college of nursing. The study further concluded that the student reporting demographic factors had odds 9.3% to considering not to completing the nursing program as scheduled.

5.2.2 Individual factors and Nursing program completion among the student at SCSN

The study concluded that individual factors are associated with Nursing program completion among the student at SCSN. Student reporting individual factors was 5.9% higher to considering not to completing the nursing program as scheduled.

5.2.3 Socio-economic factors and Nursing program completion among the student at SCSN

The study concluded that socio-economic factors are not significantly associated nursing program completion among the student at SCSN.

5.2.4 Learning environment factors and Nursing program completion among the student at SCSN

The study concluded that learning environment factors are associated with nursing program completion among the student at SCSN. Further, the study concluded that respondents considering completion of the program as scheduled are more likely to answer yes to the question by increased learning environment. Therefore, the odds of students answering Yes, they consider completing the program as scheduled is 1.167 times (C.I: 1.027;1.325), 116.7% higher for students reporting conducive learning environment.

5.3 Recommendations

5.3.1 Demographic factors and Nursing program completion among the student at SCSN

The study recommends the SCSN, Tabaka to consider advising on marital status of the student during admission of candidates because it is associated with program completion. The study suggest that the college should not consider age, gender, religion, education of the parents and accommodation as the primary factors when determining policies and practices for program completion. Similarly, nursing student should observe their marital status when considering completion of the nursing program.

5.3.2 Individual factors and Nursing program completion among the student at SCSN

The study recommends student to consider their personal passion when aiming to complete the nursing training within the stipulated time. They should be aware that passion to take care for the sick can determine their probabilities of completing the

program as scheduled. The college should inform the joining and first year student that the passion to pursuing nursing studies determines the acceleration to completing the program as scheduled.

5.3.3 Socio-Economic Factors and Nursing Program Completion Among the Students at SCSN

The study recommends the students and the college management that their socio-economic factors like source of funds, fee payment and parent involvement in their study cannot significantly influence the timely completion of their programs.

5.3.4 Learning Environment factors and Nursing program completion among the student at SCSN

The study recommends the SCSN, Tabaka to provide conducive environment for the student to complete their nursing training program in three years as schedule, else, they will delay to completion. That is, the college to provide enough learning resources like classrooms, clinical laboratories, adoption of technology, hire enough nursing instructors and provide adequate teaching materials.

5.4. Implications of the Findings on Theories, Practices and Policies

These findings support the theories and past work on nursing training completion globally, regionally and nationally. The study results agreed and disagreed with past works hence, indicating room for theoretical considerations that could implicate on significant contributions towards policy formulation and practices in the field of nursing training. Regarding policy, this study suggests that the college management and the stakeholders to collaborate in developing regulations that allow nurses to pursue education as scheduled because demographic factors, individual factors and learning environment are all the factors that are associated with nursing program completion among the college students. This will help alleviate the shortage of nurses in the country and across the globe.

Further, in terms of practice, the study informs the nursing colleges' management to supports students to complete their studies as scheduled by providing necessary learning environment. Further, students considering marriage are encouraged to consider delaying the marital status and follow their passion to complete their studies as per schedule.

5.5 Recommendations for further Studies

The study makes the following recommendation for further studies;

Given the significant impact of marital status, passion for nursing, and learning environment on nursing program completion at SCSN, Tabaka, further research should explore in greater depth the underlying reasons why marital status and students' passion for nursing negatively impact program completion rates.

Additionally, longitudinal studies could provide insights into how these factors evolve over time and their long-term effects on educational outcomes. Investigating the specific elements of the learning environment that most significantly contribute to program completion can also inform targeted improvements.

Expanding the research to include diverse nursing schools and broader demographic profiles would enhance the generalizability of the findings and provide a more comprehensive understanding of the factors influencing nursing education success.

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APPENDICES

Appendix 1: Consent Form

Title of study	Success Factors Accelerating Nursing Program Completion Among Nurse-Students: A Case Study of St. Camillus School of Nursing, Tabaka-Kisii County
Description ofstudy	You are being invited to participate in this study carried out by Sr. Norah Oyagi, an MBA/HCM student at Strathmore University. Your participation is purely on avoluntary basis and you can withdraw any time. The study seeks to collect data regarding the factors accelerating program completion and success amongst nursing students. The findings will be used to inform decision makers of the institution and others like St. Camillus on how to meet the needs of students towards their success.
Data collectiontool	A structured, self-administered questionnaire for quantitative data will be provided to all participants and will take about 10 minutes to fill. An open-ended interviewer administered guide for qualitative data will be done face to face and will take between 30-45 minutes
Risks posed by study	The risk involved in obtaining information from the participant is minimal. The researcher assures the participant of keeping your information confident.
Perceived benefits	The participants may enjoy sharing their experiences as part of the community at St Camillus School of Nursing Tabaka. Findings will improve the learners' environment for maximum success.

Confidentiality	All participants' information will be kept confidential with the primary data being stored in a lockable safe and a password protected device once the processing begins. No identifiable data such as names, phone numbers or emails will be obtained or asked for from the participants.
Voluntary participation	Participation in this study is voluntary. You have the right to withdraw consent anytime during the study and your withdrawal will not be used against you in any waywhatsoever.
Dissemination and utilization of study outcome	Findings from this study will be shared with you in appropriate academic conferences such as continuous medical education from research findings here at school. You are welcome to incorporate the study results in your academic journey for a successful completion as appropriate.
Appreciation	Thank you for your time. The researcher will share the progress and results of the study through a school academic conference with authority from the School Management.
Researcher's Contact information	Contact the researcher if you have any questions on: Sr. Norah Oyagi Institute of Healthcare Management Strathmore University Business School: 0722473738 Norah.oyagi@strathmore.edu
Consent	The participant shall verbally communicate consent to the researcher/ assistant. Name: _____ Sign: _____ Date: _____ Witness: Name & sign_____ Date_____

Appendix 2: Research Instrument(s)

STRUCTURED QUESTIONNAIRE

A. DEMOGRAPHIC DATA

1. What is your age in years_____?
2. What is your gender

Male _____ Female_____

3. What is your marital status? (please tick one)

Single_____

Married_____

Cohabiting_____

Widowed_____

Divorced/separated_____

4. What is your religion?

Christian_____

Muslim_____

Hindu_____

Traditional African Religion_____

Others (specify)_____

5. What is the educational level of your parents? (please tick one)

Primary_____

Secondary_____

Tertiary_____

None_____

6. Where are you accommodated? (tick one)

Boarding (within the school premises) _____

Outside school premises (rented)_____

B. INDIVIDUAL CHARACTERISTICS (critical factors)

(Now I would like to find out the factors that led you to choosing nursing and now that you are

here, which factors will enhance your studies to enable you complete successfully)

1. What is the main reason why you chose to pursue nursing studies? (choose all that apply)

Passion to care for the sick_____

Advice from parents_____

Personal interest in pursuing health-related course of study_____

My future ambition to work oversees_____

For financial independence_____

Job security in nursing_____

Others (specify)_____

2. How do you prepare for your classes and practicals? (Please tick one)

I have a personal study timetable that guides me_____

I Study with others in a group_____

Personal study and group discussion_____

No timetable_____

Not a member of group study_____

Others (specify)_____

Let us now look at your performance and motivation to succeed.

3. a). Do you think there is a driving force pushing you to work hard in your nursing studies and complete as scheduled?

Yes_____

No_____

_____

4. In a scale of 1-10, where 1 –lowest and 10-highest performance, where do you rate your performance? _____

1-2 poor performance

3-4 inadequate performance

5-6 average performance

7-9 adequate

8-10 excellent performance

5. What do you think contributed to your level of performance you stated above? Tick all that apply

Study habits_____

Class attendance_____

Participation in class and clinical areas_____

Others (specify) _____

_____

6. Have you ever missed classes since you started training?

Yes_____

No_____

7. If Yes, in a block of study, how many days of class have you missed on average?

_____

days

C. SOCIO-ECONOMIC FACTORS

1. Who funds your nursing education?

Parents_____

Self_____

Scholarship_____

2. If self-paid, what is the source of your income?

_____

_____

3. Do you receive any grants/bursaries to support your education?

Yes_____

No_____

4. Are your education fees always paid on time?

Yes_____

No_____

5. If no, how does this affect your academic performance?

Miss classes_____

Lower grades_____

Miss clinical area practice_____

Others (specify)_____

6. How do you perceive the cost of your nursing training?

Affordable_____

Expensive_____

I don't know_____

7. How do you rate your family involvement in your studies?

Adequate involvement_____

Limited involvement_____

Inadequate_____

Not at all_____

D. LEARNERS' ENVIRONMENTAL FACTORS

1. Does your institution have adequate and appropriate learning materials?

Yes_____

No_____

2. Do you think the school has enough space for learning?

Yes_____

No_____

3. If no, which areas feel inadequate?

_____

_____

_____

_____

If no, highlight any missing materials that could be helpful

_____

_____

_____

_____

Do you think your learning is supported by technology?

Yes_____

No_____

4. If yes, how

5. Do you think the skills laboratory has adequate and appropriate equipment and materials for learning/training nursing skills?

Yes_____

No_____

Appendix 3: Qualitative Data Collection Tool

Instruction:

I would like to know a little about you, your family, the decision to join nursing and particularly St Camillus, the learning environment here, your experience so far, the things you like and don't like about the course as well as the institution.

Let's start:

My name is Sister Norah, I am a lecturer here, but I am also a student doing my MBA at Strathmore University, Nairobi. This research is part of my school work but also to help us enhance student experience here at St Camillus.

Over to you--- could you please tell me about yourself?

1. Probe for age, religion, parental care (if has parents/guardian), what parents dofor a living etc.
2. I would like to know why you decided to join the Nursing profession. Pleasewalk me through your journey to coming here.
3. You are now in yearof study, tell me, how it has been?

- How is your performance?
- Which part of the program do you enjoy? Which part of the Nursing program do you perform best, say above the passmark?
- What do you think enhances that performance?

4. Tell me about the learning environment?

- Probe for teachers (knowledgeability as well as numbers, friendliness,support),
- books (up to date, availability, sufficient),
- library (opening hours, availability of books, librarian, location, etc.),
- space (classroom space), accommodation (noise, distance, cleanliness,security, cost), friends (peer support),
- study hours etc.
- What are some of the things you long for and would like to see availed in theschool?

5. How has your experience at SCSN been as a student?

   Do you have any suggestions or recommendations regarding this experience?

Appendix 3.1: Translation of Qualitative Tool into Swahili:

Maelekezo kwa Mshiriki:

Ningependa kujua kidogo juu yako, uamuzi wa kujiunga na uuguzi na haswa St Camillus, mazingira ya kujifunza hapa, uzoefu wako hadi sasa, vitu unavyopenda na usivyovipendavyo kuhusu kosi na taasisi ya uuguzi.

Hebu tuanze:

Jina langu ni Sister Norah, mimi ni mwalimu hapa, lakini pia ni mwanafunzi anayefanya MBA yangu katika Chuo Kikuu cha Strathmore, Nairobi. Utafiti huu ni sehemu ya kazi yangu ya shule kabla ya kuhitimu masomo yangu, lakini pia ili kutusaidia kuimarisha maisha na masomo ya wanafunzi hapa St Camillus.

Sasa ni zamu yako — tafadhali niambie kukuhusu wewe?

1. Uko na umri gani sasa? dini yako, wazazi/walezi hufanya kazi ipi?
2. Ningependa kujua kwa nini uliamua kujiunga na taaluma ya Uuguzi. Uko kiwango kipi cha masomo? Tafadhali zungumzia safari yako ya elimu hadi ukafika kiwango hapa.
3. Sasa uko mwaka wa ngapi wa masomo? Matokeo yako ya elimu yamekuwa vipi? Unaweza kuongelea kuhusu masomo na matokeo yako kwenye maeneo ya Kliniki na utaalamu?
4. Sehemu gani ya programu unafurahia zaidi? Sehemu gani ya programu ya Uuguzi unafanya vyema, sema juu ya alama ya kufaulu? Nini kinachoimarisha utendaji huo?
5. Niambie juu ya mazingira ya kusomea na kujifunza? Tafadhali zungumzia kuhusu walimu (ujuzi pamoja na idadi, urafiki, msaada wao kwa masomo), vitabu (upatikanaji, vya kutosha), maktaba (saa za ufunguzi, upatikanaji wa vitabu, kuhusu upatikanaji wa mtandao kwa ajili ya masomo, nk), nafasi (nafasi inayotosha ya darasa), malazi (kelele, umbali, usafi, usalama, gharama), marafiki (msaada wa wenzako), masaa ya kujifunza.

   Ni vitu gani unavyovitamani na ungependa kuona vikipatikana shuleni?

6. Uzoefu wako katika SCSN umekuwaje kama mwanafunzi?

   Je! Una mapendekezo yapi kuhusu elimu yako huku?

Appendix 3.2 Declaration Form for The Swahili Translation

I, Norah Oyagi, Principal Investigator, declare that the Swahili translation of the Interviewer guided questions in Appendix 3 above have been translated (appendix 3.1), edited and reviewed to remain faithful to the English version.

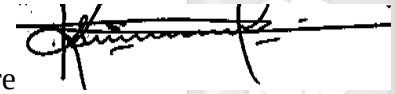
Signature……  ….....

Date……20/12/2023…….....

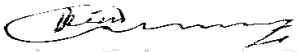
Principal Investigator

I, certify that I have reviewed the translation and confirm that it is a true translation of the English version of the qualitative tool.

Name: Dr. Fr. Lawrence Mandere Morumbwa

Signature  Date: 26/01/2024

Name: Mr. Nicholas Mokaya

Signature:  Date: 26/01/2024

Appendix 4: Authorizations

Appendix 4.1: SU-ISERC Study Approval

Strathmore UNIVERSITY

2nd February 2024

Ms Oyagi Norah,
norah.oyagi@strathmore.edu

Dear Ms Oyagi,

RE: Factors Accelerating Nursing Program Completion among Nurse-Students: A Case Study of St. Camillus School of Nursing, Tabaka-Kisii County

This is to inform you that SU-ISERC has reviewed and **approved** your above **SU-masters** research proposal. Your application reference number is **SU-ISERC1941/23.** The approval period is from **2nd February 2024 to 1st February 2025.**
This approval is subject to compliance with the following requirements:

i. Only approved documents including (informed consents, study instruments, MTA) will be used.
ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SU-ISERC.
iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SU-ISERC within 72 hours of notification.
iv. Any changes anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to SU-ISERC within 72 hours.
v. Clearance for the export of biological specimens must be obtained from relevant institutions.
vi. Submission of a request for renewal of approval at least 60 days prior to the expiry of the approval period. Attach a comprehensive progress report to support the renewal.
vii. Submission of an executive summary report within 90 days of completion of the study to SU-ISERC.

Before commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology, and Innovation (NACOSTI) https://research-portal.nacosti.go.ke/ and obtain other clearances needed.

Yours sincerely,

Mr Ambrose Rachier,
Chairperson; SU-ISERC

STRATHMORE UNIVERSITY INSTITUTIONAL SCIENTIFIC AND ETHICAL REVIEW COMMITTEE
(SU-ISERC)
02-Feb-2024
Email:ethicsreview@strathmore.edu
P.O BOX 59857-00200
NAIROBI-KENYA

Appendix 4.2 NACOSTI Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **385496**

Date of Issue: **15/February/2024**

RESEARCH LICENSE

This is to Certify that Sr.. NORAH Anne OYAGI of Strathmore University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Kisii on the topic: FACTORS ACCELERATING NURSING PROGRAM COMPLETION AMONG NURSE-STUDENTS: A CASE STUDY OF ST. CAMILLUS SCHOOL OF NURSING, TABAKA-KISII COUNTY for the period ending : 15/February/2025.

License No: **NACOSTI/P/24/33066**

385496

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

See overleaf for conditions

Appendix 4.3 Approval from St. Camillus Teaching Hospital

NORAH ANNE MOGUTE OYAGI
STRATHMORE UNIVERSITY
OLE SANGALE ROAD, MADARAKA
P.O BOX, 59857-00200
NAIROBI KENYA.

TO:
THE HOSPITAL DIRECTOR
TABAKA MISSION HOSPITAL
THRO,
THE PRINCIPAL
SCSN, TABAKA
P.O BOX 6, TABAKA

Dear Rev. Brother,

RE: REQUEST FOR AUTHORIZATION TO CARRY OUT RESEARCH AT ST CAMILLUS SCHOOL OF NURSING, TABAKA, KISII COUNTY

I am a final year student at the Strathmore University pursuing Masters in Business Administration in Healthcare Management. To fulfil the partial requirement for the award of Master of Business Administration/Healthcare Management, I have developed a proposal to carry out a research project on: **"Factors accelerating nursing program completion among nurse-students: a case study of St.Camillus School of Nursing, Tabaka-Kisii County"**. I have obtained approval from Strathmore Ethics Commission **(SU-ISERC 1941/23)** and a permit from the National Commission for Science and Technology and Innovation (NACOSTI) License Number: **NACOSTI/P/24/33066**. Subsequently, I write to request your authorization to conduct this study at your institution (St. Camillus School of Nursing) for a period of one month beginning March 1st 2024.

I assure you that the research will be conducted in accordance with the highest ethical standards, and all necessary measures will be taken to ensure the confidentiality and anonymity of participants, as well as the integrity of the research process. Additionally, I am willing to comply with any institutional policies or guidelines regarding research conduct and access to facilities.

I am confident that the findings of this research will contribute valuable insights to the field of nursing education and recruitment of human resource for health and I am committed to sharing the results with management of the Nursing School and the broader Nursing Academic community through publications and presentations.

Please do not hesitate to contact me for any clarifications or additional information regarding this.

I look forward to hearing from you.

Yours Sincerely,

Norah Anne M. Oyagi (Sr.)
Cell Number: 0722473738
Email: annenorah@yahoo.com

Appendix 5: Similarity Index Report

148623 MBAHCM NORAH THESIS .docx

ORIGINALITY REPORT

22%	21%	13%	0%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

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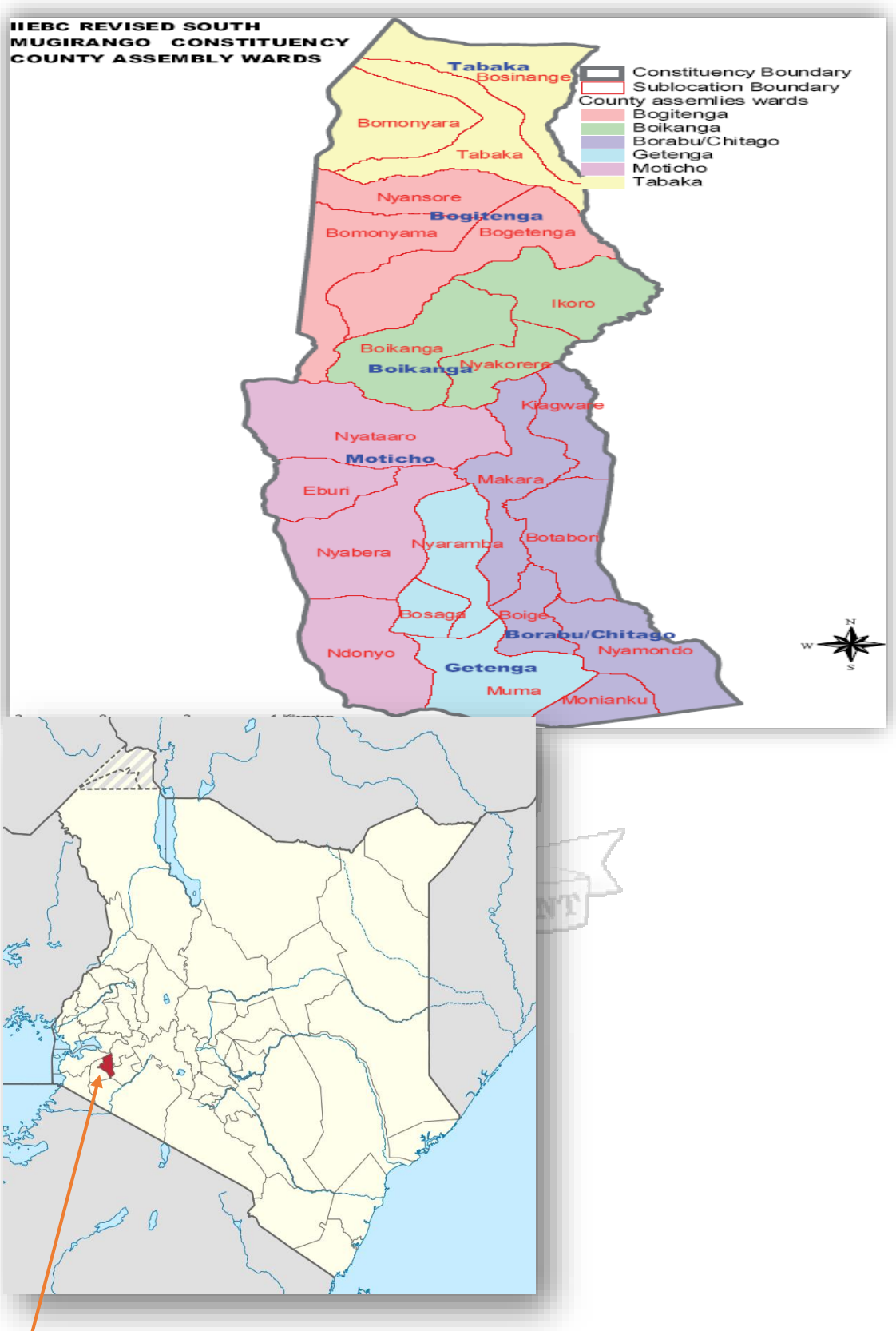
Appendix 6: Timeline of activities

Date	July, 2022	Nov. –Dec. 2022	Mar.- June 2023	Aug- Nov. 2023	Nov.- Dec 2023	Jan – Mar 2024	Mar-May 2024	June 2024
Chapter 1	Submission /corrections							
Chapter 2		Submission /corrections						
Chapter 3		Submission /correction s						
			Instruments Submission & corrections					
			Proposal submission	Virtual Defense & Corrections				
Authorization Seeking					Obtain relevant permits	Data Collection & Analysis		
Chapter 4 & 5						Data Analysis	Discussion and report writing	
							Submission &/Defense	
							Submission /corrections	
Final Copy								Final copy presentation

Appendix 7: Tentative Budget

ITEM	DESCRIPTION	COST (Kshs)
Ethical approvals	Fee for ethical clearance and permit	**5,000**
Research assistant	Compensation for one assistant to do data transcription, cleaning and analysis	**15,000**
Transport	Fee for movement to and from the study area throughout the study period.	**25,000**
Data analysis	Acquisition of data collection tools for analysis (SPSS, MAXQDA) and statistician fee	**75,000**
Participant compensation	A little appreciation to the participants by giving data bundles for the quantitative questionnaire and soft drink for participants involved in qualitative interview.	**5000**
Data bundles and phone calls	Purchase of data bundles and making phone calls throughout the whole study period	**10,000**
Stationery	For printing and photocopy of proposal defense and data collection tool	**10,000**
Binding	Printing and binding of final dissertation copies	**10,000**
Publication	Fee for the publication of the study project with in a peer journal	**15,000**
Contingency	10% of the budget to cater for any miscellaneous expenses	**15,000**
Total		**185, 000**

Appendix 8: (I) Map of Tabaka in South Mugirango Constituency, Kisii County



Source: Vector/3087791