

Effect of academic resilience on learning outcomes of undergraduate student mothers in public universities in Western Region, Kenya

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ABSTRACT

The academic achievement of undergraduate student mothers at public universities in the Western Region of Kenya is greatly impacted by academic resilience. Juggling motherhood and academic duties poses distinct challenges that can impede their capacity to perform on par with their peers. The aim of the research was to determine how academic resilience influences the learning results of undergraduate student mothers at public universities in Kenya's Western Region. Although there is research on student mothers, a gap persists in comprehending how psychosocial challenges and academic resilience influence their educational outcomes within public universities in Kenya's Western Region. The research was carried out with government-supported undergraduate student mothers at public universities in the Western Region of Kenya. It was based on the theory of academic resilience. A mixed-methods approach was utilized. The target population consists of one thousand three hundred thirteen (1313) participants. This includes one thousand two hundred seventy-three (1273) student mothers, four (4) Deans of Students, four (4) officers overseeing the gender and mainstreaming committee, four (4) Officers responsible for halls of residences, and four (4) Officers in charge of health facilities from each university, along with twenty-four (24) Department Chairs. A simple random sampling method was employed to choose 304 mothers who are students. Purposive sampling was employed to choose four (4) Deans of Students, four (4) individuals responsible for the gender and mainstreaming committee, four (4) officers overseeing halls of residence, and four (4) officers managing health facilities from every university, along with twenty-four (24) Department Chairs. Data were gathered using questionnaires, document analysis tools, and interview plans. The research instruments' validity and reliability were assessed via a pilot study. Analysis was conducted using descriptive statistics like means, frequencies, and percentages, along with inferential statistical methods such as multiple regression. The results of descriptive statistics and the data gathered from interviews indicated that academic resilience affects the performance of student mothers. The results showed that academic resilience had a positive and significant impact on learning outcomes, with regression coefficients of 2.031. The findings indicated that academic resilience reduces the negative impacts of psychosocial difficulties, leading to enhanced learning results. The research found that academic resilience can mitigate the adverse impacts of psychosocial difficulties. The research suggested that universities offer dedicated academic assistance for student mothers, such as tutoring, workshops on time management, and mental health counseling. The results of the study could guide focused intervention approaches to assist student mothers and may influence the development of educational policies in the Western Region, Kenya public universities.

Keywords: Academic Resilience, Kenya, Learning Outcomes, Public Universities in Western Region, Undergraduate Student Mothers

I. INTRODUCTION

University education is the pinnacle of academic pursuit as it fosters new knowledge through research, equips individuals especially young women with specialized skills for the workforce, and serves as a crucial self-marketing tool for job applications, selection, and career advancement (Andres, 2021). Universities provide leadership programs, mentorship opportunities, and networking platforms that empower young women to develop essential leadership skills and professional connections (Dasig, 2020). Women who lack access to education often face significant disadvantages, including limited career opportunities, lower earning potential, and economic dependence. The current global trends have made it imperative for women to pursue education to acquire the necessary skills, knowledge, and attitudes to participate effectively in the growing global economy (Olson & Rao, 2020).

Despite numerous efforts to increase the enrolment of girls in education at different levels over the years, female students continue to face significant barriers in accessing and completing higher education. Globally, 54% of the 72 million out-of-school children are girls (Psaki et al., 2021). While primary and secondary school enrolment rates have improved, gender disparities persist at the university level. An issue that disproportionately affects women's educational attainment is student motherhood. Around 21 million girls aged between 15 to 21 years old become pregnant each year, this year corresponds to the school going age for university students. In the Philippines, the cases of students who became parents in their teenage years continue to rise, with the majority of births (27.3 percent) being born to young moms aged 20 to. Twenty-three percent of these women give birth more than once. In the same data, five percent are young moms, aged 15-21 years old. In recent years, there has been an increase in individuals entering tertiary education, including a rising number of student-mothers (Bustillo et al., 2024).

Student motherhood poses distinct challenges that require outstanding time management and emotional academic strength. Studies indicate that student-mothers struggle to fulfill their personal needs due to their financial situation, which is significantly influenced by expenses related to education. Juggling the simultaneous responsibilities of being a mother and a student frequently leads to increased stress, rendering them susceptible to mental health challenges such as Postpartum Depression, which threatens the health of both mother and child (Musili, 2018).

In North America, particularly in the United States and Canada, the experiences of undergraduate student mothers are shaped by a complex interplay of institutional support, socioeconomic factors, and cultural expectations. Many universities in the U.S. offer on-campus childcare, parenting support groups, and financial aid targeted at student parents. However, despite these efforts, student mothers frequently encounter significant obstacles, including time poverty, high tuition costs, and limited access to mental health resources. In Canada, the situation is somewhat more favorable due to broader social safety nets and more inclusive policies, yet student mothers still report stress related to academic workload and inadequate institutional responsiveness to their specific needs (Ngumuo, 2019).

In Nigeria, the difficulties encountered by undergraduate student mothers are frequently exacerbated by inadequate institutional and societal support systems. Many public universities do not have formal policies or resources to support student mothers, including childcare options, adaptable learning programs, or counseling services designed for parenting students. Cultural standards and economic limitations intensify their challenges, as numerous student mothers face stigma, isolation, and monetary struggles. Despite these difficulties, certain Nigerian student mothers exhibit impressive academic perseverance, frequently depending on informal support networks like extended family and friends to manage their dual responsibilities. The situation in Nigeria highlights an urgent requirement for specific interventions and policy changes to aid this at-risk student group (Ikpeama & Okoye, 2024).

In Kenyan public universities, undergraduate student mothers represent a distinctive group of student mothers. They differ from the experienced entry student mothers who may possess enhanced parenting abilities as they are typically older and usually have a well-organized educational background along with family assistance (Sangawe, 2020). These undergraduate student mothers are additionally marginalized from the high school student mother group that is addressed by specific educational policies detailing their reentry, support, advancement, and graduation (Munyua et al., 2022, Dasig, 2020).

Despite adversities in tertiary education, student mothers demonstrate academic resilience by successfully navigating motherhood and studies (Matiba & Kisanga, 2021). Academic resilience, characterized by adapting, recovering, and thriving in adversity, equips student mothers with the mental and emotional tools to manage their demanding schedules and responsibilities effectively. Resilient student mothers are more likely to maintain their motivation and focus on their academic goals when faced with obstacles such as time constraints, stress, and lack of support. Despite setbacks, this ability to remain steadfast and optimistic allows them to approach problems with a solution-oriented mindset, ensuring they progress in their studies (Fang et al., 2020).

1.1 Statement of the Problem

The worldwide scene of higher education has experienced a significant rise in student mothers, as data from Canada and Kenya suggests this pattern. In Canada, 11% to 16% of students in post-secondary education were recognized as mothers, highlighting the prevalence of this matter (Webber, & Dismore, 2021). A report from the Center for Studies in Adolescence revealed a notable increase in teen mothers in Kenya, hitting 49% by age 19. Furthermore, initial data from the university registry in public institutions suggest a considerable population of around 19% of students who are mothers presently enrolled (Mwangi, 2022). This pattern persists in higher education, where 22% of female students in public universities in the Western Region of Kenya become mothers while studying (Ajayi et al., 2021).

Although the increasing number of student mothers on campuses is evident, the public university system in Kenya does not provide specialized support. In Kenya, policies concerning pregnancy and education that aim to support more students in primary and secondary institutions are perceived as discriminatory, frequently resulting in challenges for student mothers related to accommodation and their educational advancement (Kisanga & Matiba, 2023). Moreover,

current research primarily centers on postgraduate student mothers, resulting in a lack of insight into the challenges faced by undergraduate student mothers, particularly in public universities in Kenya.

Existing studies have identified several challenges faced by single mothers in academia, including economic hardships, time constraints, and inadequate institutional support (Andres, 2021). Specifically, undergraduate student mothers in public universities in Western Region, Kenya experience significant struggles such as difficulties balancing academic demands with childcare responsibilities, a lack of psychosocial support services, financial instability, and social stigma. These challenges significantly affect their academic resilience, leading to low completion rates, with some studies showing dropout rates as high as 30% among student mothers in public universities in Kenya. Additionally, issues such as poor attendance to lectures (both in-person and virtual) are prevalent, with many student mothers missing classes due to childcare obligations and financial constraints. These challenges negatively affect their academic resilience, often leading to poor mental health and diminished learning outcomes. Without structured interventions, these issues perpetuate cycles of poverty, gender disparity in higher education, and reduced career prospects for these women.

This research seeks to bridge this gap by delving into the specific psychosocial challenges student mothers face pursuing higher education. It offers a nuanced understanding of how these challenges impact their learning outcomes and the role of academic resilience in mediating these effects. By addressing this gap in understanding, the research will contribute to developing informed policies and support mechanisms that can enhance the inclusivity and success of student mothers in higher education. This study holds significance for academic institutions, policymakers, and practitioners seeking to create a more supportive and equitable environment for student mothers.

1.2 Research Objective

To assess the effect of academic resilience on Learning Outcomes of Undergraduate Student Mothers in Public Universities in Western Region, Kenya

1.3 Research Hypothesis

H₀₁: Academic resilience has no significant effect on the Learning Outcomes of Undergraduate Student Mothers in Public Universities in Western Region, Kenya.

II. LITERATURE REVIEW

2.1 Theoretical Review

The study adopted Academic Resilience Theory, as conceptualized in psychology, highlights individuals' ability to respond positively to adversity through self-will and coping mechanisms (Gilgun, 1991). This theory has been applied in various contexts, including mental health and education, to explain how individuals overcome challenges and thrive despite hardships (Van Breda, 2001).

Garnezy's studies in mental health identified academic resilience as a key factor influencing recovery, where individuals facing significant adversity such as trauma, abuse, or loss exhibit strengths that aid in their perseverance. In this framework, academic resilience is viewed as an internal capability that enables individuals to endure difficulties and emerge stronger (Ungar, 2008).

Mahat et al., (2022) further argue that academic resilience is not merely about endurance but also about harnessing adversity as a transformative force for growth. The "Seven C's" model of academic resilience (competence, confidence, connection, character, contribution, coping, and control) illustrates the essential attributes that foster academic resilience. Although originally designed for younger learners, these principles can apply to student mothers, guiding them to develop inner strength, adaptability, and problem-solving skills.

This theory is applicable to this context of student mothers in Kenya. Student mothers in public universities in Kenya face unique psychosocial challenges, including balancing academic responsibilities with parenting, financial constraints, and potential stigma from peers and faculty. Academic resilience theory provides a framework for understanding how these students develop coping strategies through personal, social, and institutional support mechanisms. These may include time management, multitasking, external support systems (family, childcare services, flexible academic schedules), and financial aid programs tailored to their needs.

While academic resilience enables student mothers to navigate these adversities, it does not fully account for the structural and cultural barriers that exacerbate their challenges. Cultural norms and societal expectations may place additional burdens on student mothers, influencing their ability to persevere and succeed academically. Academic resilience alone does not address the broader systemic issues that create role conflicts.

Academic resilience theory, though useful in explaining how student mothers develop coping mechanisms, has limitations when analyzing the structural challenges they face. Role conflict theory offers a complementary perspective by examining the tensions that arise when individuals attempt to fulfill multiple, often incompatible, roles

such as being both a student and a mother. This framework explores how competing demands impact learning outcomes, personal well-being, and overall academic performance.

Academic Resilience Theory examines how students, particularly those facing adversity, are able to persist and succeed academically despite significant challenges. This theory is crucial in understanding the factors that contribute to student mothers' ability to overcome the psychosocial challenges they face, such as social stigma, financial difficulties, and the challenges of balancing academics with childcare. Academic resilience mediates the relationship between negative psychosocial experiences and positive academic outcomes by emphasizing adaptive coping strategies, resourcefulness, and support systems. By applying this theory, the study can explore how student mothers develop resilience in response to adversities, how resilience influences their academic performance, and how it can buffer the negative effects of psychosocial stressors on learning outcomes.

2.2 Empirical Review

Student mothers struggle to balance school and parenting. Time must be carefully balanced between classes, studying, and parenting (Oyoo, 2024). Time management issues might restrict study hours, making it hard to complete coursework and tasks. Poor time management can affect grades and academic performance (Ajayi, 2021). Student mothers struggle to balance academics and parenting due to time constraints. Ajayi's (2021) study examines how time allocation affects learning results for student mothers in Kenya public universities and the issues of poor time management.

At the University of Cape Coast in Ghana, Kensinger and Minnick (2018) found that most student mothers struggle with poor attendance, lack of concentration, difficulty understanding lectures, inadequate child care, and financial constraints. These obstacles make student mothers emotionally, physically, and psychologically unfit for lectures, continuous assessment tests, and end-semester exams, and some even suspend their studies (Kensinger & Minnick (2018). Kisanga (2022) claims mothering students must pick between lectures and post-natal clinics. For their babies' health, most student women choose the latter. Student moms skip classes and seminars due to inconvenient timing, irrelevant topics, and inability to absorb the material (Kosgeys, 2021). Kensinger and Minnick (2018) highlight Ghanaian student moms' attendance, childcare, and financial concerns that hinder their academic success. Maisela and Ross (2018) found that student mothers value post-natal clinics over courses. The study examines similar issues Kenya public university student mothers face in a different psychosocial context, affecting their learning outcomes.

Musili (2018) examined postgraduate student moms at the University of Nairobi. Many struggle to manage parenting and academics, which may concern university student mothers (Musili 2018). Extended hours for group discussions or make-up lessons might cause misunderstandings for married student mothers, leading to missing courses or diminished academic attention, according to Maluleke et al. (2023). Caring for a sick child can also precede academic duties, resulting in missing courses or inadequate exam preparation (Maluleke et al., 2023). Kanana et al. (2023) in *Coping Mechanisms and the Support Accorded to Student-moms in Academic Pursuit: A Case Study of Egerton University, Nakuru County*, may reflect undergraduate student mothers' struggles to juggle various roles. Maluleke et al. (2023) discuss how prolonged hours affect married student mothers' academic performance. The study investigates role conflicts and their effects on psychosocial experiences and learning outcomes in Kenya public colleges.

Kisanga and Matiba, (2023) found that single-student mothers confront several problems that can affect their academic performance. Time is the biggest issue for student mothers in balancing their roles. Lack of time, weariness, weakness, and loneliness are some factors. Some students miss courses, skip lectures, and fail the first opportunity exam despite family and friend support. Munyua et al. (2022) discovered similar findings and concluded that motherhood obligations make it difficult for moms to attend science lectures and practical lessons. Missing lectures and practical lessons significantly hinder student mothers' learning (Munyua et al., 2022). Kisanga and Matiba, (2023) describes single-student mothers' time constraints, which might affect academic progress. Munyua et al. (2022) also note that pregnancy affects class attendance. The study supports these findings but examines how Kenya public university peculiarities affect learning outcomes.

Torres et al. (2020) examined student-mothers' academic paths rarely shared. Motherhood is a difficult but beautiful adventure, according to study. This primary task becomes more challenging when moms work outside the home and support schooling. According to this study, most respondents struggled with time management while having a kid. The findings are similar to those of Levey et al. (2021), who studied the multiple roles of college student mothers. The study found that participants lacked time with their babies, had to skip classes, could not fulfil their responsibilities as wives to their husbands, had a hard time building a close relationship with their babies, and struggled to manage their dual roles as students and parents. Torres et al. (2020) depict parenthood as a challenging but incredible journey that affects academics. Student mothers experience time restrictions and role conflicts, according to Levey et al. (2021). The research focuses on the psychosocial and academic resilience aspects of Kenya public university student motherhood to correlate with these findings.

Musili, (2018) study on University of KwaZulu-Natal students' motherhood-student balance. According to studies, student mothers change drastically after having a kid. Some students said having a child gave them more responsibilities. Students said they now balance motherhood and school. Exams and childcare are the aims of each function. Students with children (LWC) said they spend more time being mothers than students.

The results match Evans and Grant (2020). The results showed that being a student and mother was challenging but manageable with planning in several sectors. This study found that social and financial issues prevented mothers from juggling motherhood and school. The biggest challenge to juggling motherhood and school was physical and mental strain. Motherhood and academics are challenging and stressful, negatively impacting schooling (Ngumuo, 2019).

According to Mwangi (2022), maternity affects learning among undergraduate student mothers in Western Kenya public universities. The study found that student motherhood strongly affects academic achievement. The psychological impacts of student motherhood on class academic achievement were examined using a correlation analysis. Student motherhood influenced academic achievement. Low-class attendance, missing CATS, and not completing class assignments and tests contribute to student moms' poor academic performance (Mwangi, 2022). Sangawe (2020) had comparable results. The study found that tiredness, low-income family support, time management, financial constraints, inability to balance studies and mothering, poor lecture and seminar attendance, maternal stress and anxiety, anger and loneliness, childcare difficulties, and low self-esteem overwhelmed student mothers. They couldn't reconcile parenting and school (Sangawe, 2020). Mwangi's (2022) study on student motherhood and academic performance supports Sangawe's (2020) findings on time management and low attendance. To align with these observations, the study examines how these difficulties affect learning outcomes in Kenya public universities.

In her research on motherhood in higher education, Juma (2024) highlights the difficulty of balancing motherhood and academics, suggesting a concern for undergraduate student moms. A nuanced discussion of these difficulties in Kenya public universities is lacking in the literature (Juma, 2024). To fill this gap, this study will examine Kenya public university undergraduate student moms' psychosocial experiences and learning outcomes.

Maluleke et al. (2023) found that married student mothers may struggle to balance academics and parenting due to lengthy group discussion hours. This finding supports the research on how time allocation and scheduling problems differentially affect Kenya public university student moms, improving our knowledge of their psychosocial experiences and learning results.

Literature suggests student mothers experience obstacles in both scenarios. The unique psychosocial elements affecting learning outcomes at Kenya public universities have not been fully explored. The research targeted this gap to provide insights that can influence specific programs, interventions, or policies to benefit female students.

The study will also use a theoretical framework that tackles psychological factors affecting learning outcomes, providing a new perspective. The chosen theoretical framework will guide data analysis and interpretation, helping us comprehend Kenya public university student mothers' complex issues.

2.3 Conceptual Framework

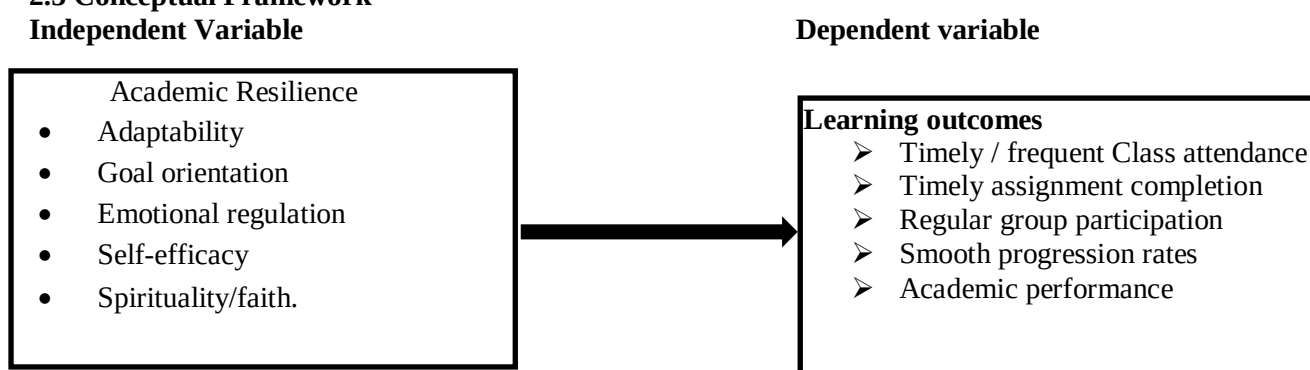


Figure 1
Conceptual Framework

Academic resilience as a variable will be measured using an Academic resilience Scale, Interviews, and Composite measures (a combination of quantitative and qualitative methods). Recognizing that the relationship between psychosocial experiences and learning outcomes is intricate, this research incorporates moderating variables to account for complexity. Three critical moderating factors include social support, academic resilience, and adaptation. These variables can either mitigate or exacerbate the influence of psychosocial experiences on learning outcomes. Social Support will be assessed through surveys that evaluate the availability and adequacy of support networks, including family, friends, and university resources. To gauge an individual's capacity to withstand adversity, academic resilience

will be measured using validated academic resilience scales, such as the Connor-Davidson Academic resilience Scale. Adaptation will be explored through qualitative interviews or surveys to understand how student mothers adapt to their new life circumstances, including academic strategies and routine changes,

Learning outcomes are the pivotal focus of this study, encompassing key indicators like graduation rates, progression rates, class attendance, and overall academic performance. Each of these outcomes will be measured distinctly. Graduation Rates will be calculated as the percentage of student mothers who successfully graduate within a specified time frame. Progression rates will be determined by the percentage of student mothers progressing from one academic level to the next. Class Attendance will be recorded through attendance records, providing concrete data on attendance patterns. Academic Performance will be quantified using academic transcripts or Grade Point Average (GPA) scores, offering a comprehensive evaluation of academic achievements.

III. METHODOLOGY

3.1 Research Design

This research employed a mixed-methods approach. A mixed-method research approach is a strategy for gathering, analyzing, and integrating qualitative and quantitative data and techniques within a single study to achieve a more profound understanding of a research issue (Huntington-Klein, 2021). The aim was to combine the different strengths and common weaknesses of quantitative approaches with those of qualitative approaches. A mixed research design provides a more comprehensive understanding than solely using quantitative or qualitative methods (Leavy, 2022).

3.2 Study Area

The study was conducted in four public universities located in the Western Region of Kenya, focusing on undergraduate student mothers and relevant university officials. The universities provided an appropriate institutional setting for examining academic resilience and learning outcomes because they accommodate undergraduate students who combine academic responsibilities with motherhood. The study involved student mothers from different departments within the participating universities, together with university officials responsible for student welfare, gender and mainstreaming, residence halls, health facilities, and academic departments. The Western Region context was relevant because the study sought to understand the academic experiences and resilience of student mothers within public university settings, including challenges associated with balancing motherhood and academic responsibilities. The participating institutions therefore provided the geographical and institutional context from which information on academic resilience and learning outcomes was obtained.

3.3 Target Population

The focus of this study was on undergraduate mothers who are students. The target group consists of one thousand three hundred and thirteen (1313) participants. This includes one thousand two hundred seventy-three (1273) student mothers, four (4) Deans of students, four (4) personnel overseeing the gender and mainstreaming committee, four (4) Officers in charge of residence halls, and four (4) Officers responsible for health facilities from each institution, along with twenty-four (24) Department Chairs.

3.4 Sampling Techniques and Sample Size

The study used the census sampling method to sample all four (4) Deans of students, four (4) officers in charge of the gender and mainstreaming committee, four (4) Officers in charge of halls of residences, and four (4) Officers in charge of health facilities from each university. Census sampling was most appropriate since there are few targeted respondents (Lakens, 2022).

The study also embraced a purposive sampling technique to select six departments from each university. The research chooses six department chairs to provide accurate and reliable information concerning the number of student mothers in their departments.

The study used Yamane's Sample formula to determine the sample size of student mothers in public Universities in Kenya. The formula was developed by Yamane (1973).

$$n = \frac{N}{1+N(e)^2} \dots\dots\dots \text{Equation 3.1}$$

Where: n = required sample size

e = level of significance taken to be 0.05

N= the population size

1= constant

N = 1273

$$e = 0.05$$

$$n = \frac{1273}{1 + 1273 (0.05)^2} = 304 \text{ respondents}$$

The sample population of each category was calculated based on proportion, which was calculated by dividing category target respondents by the total target population and multiplying it by the total sample size. The respondents were then further chosen using simple random sampling.

$$\text{Institution code 001} = \frac{646}{1273} \times 304 = 154 \text{ respondents}$$

$$\text{Institution code 002} = \frac{392}{1273} \times 304 = 94 \text{ respondents}$$

$$\text{Institution code 003} = \frac{127}{1273} \times 304 = 30 \text{ respondents}$$

$$\text{Institution code 004} = \frac{108}{1273} \times 304 = 26 \text{ respondents}$$

In this study, simple random sampling was employed to guarantee that each undergraduate student mother from public universities in the Western Region of Kenya had an equal opportunity to be chosen for participation in the research. This approach was suitable since it reduces selection bias and yields a representative sample of the population. The research intended to obtain unbiased outcomes that could be applicable to the broader population of student mothers at these institutions by randomly choosing 304 participants from the four public universities through Yamane's sample formula. Simple random sampling guarantees that the results represent the experiences and outcomes of the larger group of student mothers, enhancing the reliability and validity of the study's conclusions.

3.5 Data Collection Instruments

The study used questionnaires, in-depth interview schedules, and document analysis to collect data. Questionnaires were administered to undergraduate student mothers to obtain information on academic resilience and learning outcomes. In-depth interviews were conducted with university officials, including Deans of Students, residence hall supervisors, department chairpersons, and health facility officials, to obtain detailed qualitative information. Document analysis involved reviewing students' attendance and academic performance records, as well as relevant institutional documents, to supplement the questionnaire and interview findings.

3.6 Instruments and Procedures

The researcher received authorization to gather data from the School of Graduate Studies at Masinde Muliro University of Science and Technology and secured consent from the National Council for Science Technology and Innovations (NACOSTI) to carry out the study in public universities in the western region. After obtaining consent, the researcher, along with research assistants, dispatched letters to all participants from whom data was to be gathered. The researcher subsequently toured the public universities in the Western Region of Kenya, engaged with the relevant deans of students, department chairs, and student mothers, updated them on the research, and provided them with closed-ended questionnaires utilizing a 5-point Likert scale. Participants were allotted two weeks to finish the questionnaires, and they were gathered afterward. The observation employed quantitative systematic methods, qualitative ethnographic note-taking, and full participation observation. Data was gathered over two months, averaging two days per week, with each day lasting six hours. Reviewed documents, such as the attendance log and the examination score sheet, across all departments. Semi-structured interviews were conducted with four (4) Deans of students, four (4) officers responsible for the gender and mainstreaming committee, four (4) Officers in charge of residence halls, and four (4) Officers overseeing health facilities from each university. Each interview session averaged around thirty minutes for each respondent. Data from questionnaires is cross-verified with insights gathered from interviews, document reviews, and observational checklists.

3.7 Validity of the Research Instruments

The extent to which a research tool assesses what it's designed to assess is defined by its validity. Questionnaires were provided to supervisors and lecturers in the psychology department to review and pinpoint any offensive, irrelevant, confusing, or awkward questions, which were then suitably revised. Professionals mainly assess the reliability of the inquiries (Pearson et al., 2020).

Furthermore, factor analysis was performed to evaluate the construct validity of the questionnaire and verify if the features are being validated by a research instrument to gather data effectively and adequately address the intended purpose. To confirm validity, the dimensions of the observed variables were minimized. This research utilized KMO and Bartlett's tests to assess the effectiveness of data gathering and its suitability for factor analysis. Bartlett's test greater than 0.05 and a KMO value exceeding 0.5 suggested suitable factor analysis. The results are presented in Table 1

Table 1*KMO and Bartlett's Tests*

	Items retained	KMO	Bartlett's test χ^2	df	p-value
Academic resilience	9	0.801	550.661	50	0.003
Learning Outcomes	5	0.753	447.371	35	0.000

The findings suggest that the research tools used to evaluate the different variables in the study are valid and reliable, as evidenced by the Kaiser-Meyer-Olkin (KMO) values along with the Cronbach alpha scores. The KMO values for the different goals are: 0.744 for assessing the effect of academic resilience, 0.753 for outcomes of online learning. The KMO values demonstrate that the data is suitable for factor analysis, with all values surpassing the 0.7 threshold, indicating adequate sampling quality. The findings from Bartlett's test show significant p-values of 0.003 and 0.000, confirming that the relationships between variables are statistically significant and not due to random occurrence. These results confirm the reliability of the research tools used in the study.

3.7.1 Reliability of the Research Instruments

The extent to which an instrument produces consistent results across various trials is referred to as its reliability. The reliability of an instrument can be enhanced by accurately determining the required data and consistently utilizing it during field testing.

Reliability assessment was conducted using Cronbach's alpha, a statistic with values that span from 0 to 1. Scores ranging from 0.7 to 1.00 signified strong reliability and were approved, whereas scores below 0.70 were considered less reliable and were rejected (Pearson et al., 2020). The findings are presented in Table 2.

Table 2*Cronbach's Alpha Reliability*

Construct	Number of Items	Cronbach alpha	Conclusion
Academic resilience	9	0.872	Reliable
Online learning	5	0.867	Reliable

The findings indicate strong internal consistency among the study's elements, as shown by Cronbach alpha values surpassing the generally accepted threshold of 0.7, signifying reliable measurements. The Cronbach alpha value for measuring the influence of Academic resilience was 0.872, indicating high reliability in this area. Likewise, the learning outcomes yielded a Cronbach alpha of 0.867, further supporting the reliability of the assessment tool.

3.9 Data Analysis

Data gathering tools were verified for precision and missing elements. Quantitative data was organized and refined, with impossible values and missing information identified and addressed, along with outliers. The data was subsequently coded and analyzed using a statistical software and social science methods. The research additionally employed diagnostic assessments to evaluate if the regression model satisfied its linear assumptions. Descriptive statistics included mean, standard error, standard deviation, minimum, and maximum values. Inferential statistics also encompassed correlation analysis and the Chi-Square Test for Independence. Correlation analysis investigated the strength and direction of associations between psychosocial experiences and educational results. This statistical approach enabled the researcher to assess whether a significant linear relationship exists between these variables, offering insights into how much they vary together. The Chi-Square Test of Independence also evaluated the relationship between categorical factors, like motherhood status and academic performance. This assessment assisted in determining if a notable connection exists between these factors, facilitating the comprehension of how academic resilience influences learning outcomes for undergraduate students in public universities of Western Region, Kenya.

Qualitative data in the study was examined using thematic analysis, coding answers from open-ended questions or interviews into themes or patterns that represented the experiences of student mothers concerning their academic resilience and educational outcomes. This examination offered a greater insight into the elements influencing their educational experience. To guarantee the reliability and thoroughness of the results, the qualitative data was cross-verified with quantitative data, which had been collected via structured surveys and statistically analyzed. The triangulation process included contrasting the qualitative themes with quantitative outcomes to determine whether they corresponded or revealed distinct viewpoints. This integrated method facilitated a stronger understanding of how psychosocial factors and academic resilience affected learning results, offering a comprehensive perspective on the educational challenges and achievements faced by student mothers.

Quantitative information is displayed through tables, charts, and graphs. Qualitative data was examined using content analysis. Content analysis revealed the patterns that arise from the text by categorizing content into words, ideas,

and themes. Content analysis assisted in measuring the connection among the categorized content. The triangulation approach was ultimately employed to analyze the findings, reinforcing quantitative data with qualitative data.

IV. FINDINGS & DISCUSSION

4.1 Descriptive Statistics on the effect of Academic Resilience on Learning Outcomes of Undergraduate Student Mothers

The objective of the study was to assess the effect of academic resilience on Learning Outcomes of Undergraduate Student Mothers in Public Universities in Western Region, Kenya. This was based on the null hypothesis that academic resilience has no significant effect on the Learning Outcomes of Undergraduate Student Mothers in Public Universities in Western Region, Kenya. Quantitatively, different Likert scales were used to measure and rate this objective. Interview guide was analyzed through content analysis that was later triangulated with quantitative data. The results were presented in Table 3.

Table 3

Effect of Academic Resilience on Learning Outcomes of Undergraduate Student Mothers

No.	Statement	Percentages and frequencies					TOTAL
		1 SD	2 D	3 N	4 A	5 SA	
1.	I can maintain a positive outlook on my education despite the pressure of being a student mother	23 (12.6%)	42 (16.1%)	18 (6.9%)	89 (34.1%)	79 (30.3%)	261
2.	I remain motivated to succeed academically despite the emotional challenges of being a student mother	34 (13.0%)	40 (15.3%)	16 (6.1%)	88 (33.7%)	83 (31.8%)	261
3.	I actively seek support from friends or family to help manage my responsibilities as a student mother	41 (15.7%)	32 (12.3%)	15 (5.7%)	89 (34.1%)	84 (32.2%)	261
4.	I can stay focused on my academic goals despite the demands of being a mother	36 (13.8%)	39 (14.9%)	21 (8.0%)	83 (31.8%)	82 (31.4%)	261
5.	I use effective time management strategies to balance my studies and parenting responsibilities	35 (13.4%)	46 (17.6%)	20 (7.7%)	79 (30.3%)	81 (31.1%)	261
6.	I actively seek financial aid or part-time work opportunities to support both my education and my child(ren)	33 (12.6%)	39 (14.9%)	17 (6.5%)	89 (34.1%)	83 (31.8%)	261
7.	I am confident in my ability to overcome academic challenges and succeed despite my responsibilities as a mother	42 (16.1%)	44 (16.9%)	17 (6.5%)	82 (31.4%)	76 (29.1%)	261

Respondents were asked whether they can maintain a positive outlook on their education despite the pressure of being a student mother. The results in Table 4 reveal that 67.4% of the respondents, including those who agreed (34.1% agreed and 30.3% strongly agreed), have a positive attitude towards their education despite the challenges of being a student mother. This means that most student mothers have a measure of academic resilience, which should improve their learning outcomes by increasing their motivation and determination to succeed in their academic endeavours. These findings were similar with the interview responses obtained from the dean of students when they were asked to state types of support programs or services that the university offer to help student mothers stay focused and maintain positive outlook on their academic goals despite the demands of motherhood. DOS3 on 17th April 2025 stated that;

“The university offers several programs, including counselling and mentorship initiatives to help student mothers stay focused on their academic goals. These services are designed to alleviate the stress of balancing academic and parenting responsibilities, enabling better focus on studies.”

The study's findings also correspond with the concepts of Academic resilience Theory, which highlights an individual's capacity to adjust favourably in response to adversity and stress. This hypothesis posits that academic resilience is the ability to sustain or recover academic excellence in overcoming obstacles, including the pressures associated with student motherhood. Despite considerable challenges, most respondents exhibit a positive perspective on their education, indicating academic resilience through coping strategies, sustained motivation, and reliance on internal and external resources to surmount obstacles. Academic resilience theory emphasizes that positive adaptations allow students to withstand challenging situations while promoting growth and success, demonstrating that these student mothers possess the traits of resilient learners capable of excelling academically despite adversity.

On the other hand, 12.6% of the respondents strongly disagreed, and 16.1% disagreed with the statement that they had positive feelings about maintaining a positive attitude. This implies that these persons may be more adversely affected by their performance due to feeling overwhelmed or discouraged, and may negatively affect their learning outcomes.

The study sought to determine whether respondents remained motivated to succeed academically despite the emotional challenges of being a student mother. The results reveals that most of the student mothers, 65.5% of whom agreed and strongly agreed, affirmed that they were motivated to succeed academically despite the emotional stress they experienced. This significant proportion indicates that academic resilience is a critical factor in their learning achievements; thus, those who have this academic resilience are likely to overcome the adversities of motherhood and achieve their educational pursuits effectively. The outcomes were similar to the interview responses obtained from in charge of University Health Facilities (IUHF) when they were asked to show hoe the university health service support student mothers in managing their physical and emotional health, and how does this impact their academic resilience and success. IUHF1 on 17th April 2025 stated that;

“We offer specialized counselling to student mothers to address both emotional and physical challenges. This support contributes to their academic resilience by helping them maintain good health and focus on their educational goals.”

The results correspond with Academic resilience Theory, emphasizing the capacity to sustain motivation and adjust favourably in adversity. Student mothers often face considerable emotional stress; their persistent academic motivation exemplifies perseverance. Academic resilience Theory underscores the capacity of individuals to utilize inner motivation, coping mechanisms, and external assistance to endure. Most responders exhibit motivation despite emotional problems, indicating their use of resilient skills to maintain focus on academic objectives and achieve success.

On the other hand, 21.3% of the respondents disagreed and strongly disagreed with maintaining motivation, stating that they struggle to cope with the emotional demands of being student mothers. This implies that if they lack academic resilience, their academic performance may be affected, and their learning achievements may be poor.

Respondents were asked whether they actively seek support from friends or family to help manage their responsibilities as student mothers. The indicate that 66.3% (34.1% agreed and 32.2% strongly agreed) of most student mothers seek assistance from friends or family to help them with their responsibilities. This suggests that they heavily rely on social networks, which probably improves their academic stability and learning performance by offering them emotional and practical support, thus decreasing their stress levels and increasing their concentration on their academic work. The results were also supported with the information obtained during interview when chairperson of gender mainstreaming committee was asked to state how the university encourage student mothers to seek support from their peers, family, or university resources to manage both their academic responsibilities and parenting duties. CGMC5 on 18th April 2025 stated that;

“We encourage student mothers to seek help from both their families and on-campus resources. This includes family counselling services and academic mentorship programs aimed at providing the emotional and social support that student mothers need to succeed.”

The results of this study also correspond with those of Kensinger and Minnick (2018) at the University of Cape Coast in Ghana, which also emphasized that undergraduate student moms proactively seek assistance from family and friends to navigate their dual responsibilities. The research indicated that these support networks were essential for assisting student moms in managing academic and personal obligations, improving their academic resilience and overall educational results. This underscores the significance of social support systems in promoting academic achievement for student mothers.

On the other hand, only 18% (12.3% disagreed and 15.7% strongly disagreed) of the respondents do not look for support, which may mean they feel lonely or do not want assistance. This could have a detrimental impact on their academic performance since the student mothers may find it challenging to manage their responsibilities with the aid of others.

Respondents were asked whether they could stay focused on their academic goals despite the demands of being a mother. The results indicate that the majority of the student mothers, 63.2%, supported (including those who supported and strongly supported) the statement that they can maintain focus on their academic objectives while being mothers. This high percentage suggests that academic resilience plays a part in improving their learning achievements as these respondents would have the desire and coping mechanisms needed to balance both roles.

On the other hand, 22.7% of the respondents disagreed (disagreed and strongly disagreed) with this statement, meaning that many student mothers have difficulties concentrating on their studies because of maternal duties. This struggle may negatively affect their learning, resulting in poor performance and high dropout rates.

The study sought to determine whether respondents use effective time management strategies to balance their studies and parenting responsibilities. The results presented indicate that the majority of the student mothers, 61.4% (from those who agreed and strongly agreed), reported using time management strategies to balance their study and

parenting roles. This percentage suggests that these respondents may have an excellent academic hardcore to cope with their dual responsibilities. This efficient time utilization can improve their learning achievements by providing more time for academic activities and better study results. The above discussion was supported with the interview information obtained from in charge of Halls of Residence (IHR) where they were asked to state how the university ensure that student mothers are able to effectively manage their time and balance academic work with parenting responsibilities while living in the university residence halls. IHR1 on 18th April 2025 stated that;

“Our role is to make sure student mothers have access to safe and supportive environments within the residence halls. We work with them to plan study time and create schedules that allow them to balance their academic and maternal responsibilities.”

On the other hand, 31.0% of respondents disagreed (disagreed and strongly disagreed) with the statement that they manage time effectively, which implies that many student mothers have time management issues. This struggle can increase stress and academic challenges, resulting in poor learning outcomes.

Respondents were asked whether they actively seek financial aid or part-time work opportunities to support both. The results indicate that the majority of the student mothers, 65.9% (including those who responded ‘agree’ and ‘strongly agree’), actively look for financial assistance or part-time employment to support their education and their child(ren). This high percentage suggests that these respondents are academically resilient, as they are taking measures to reduce their financial pressures, which can help them perform better in their studies since they are not stressed about their financial situation.

The findings of this study align with Musili (2018), which investigated postgraduate student mothers at the University of Nairobi, revealing that numerous student mothers actively pursue financial assistance or partake in part-time employment to reconcile their academic and parenting duties. Musili’s research emphasized the essential function of financial autonomy in empowering student mothers to navigate their education while supporting their children. This further accentuates the necessity for financial support systems to bolster the academic achievements of student mothers.

However, 27.5% of the respondents disagreed (using the disagree and strongly disagree options) with the idea of applying for financial assistance or job opportunities, which suggests that many of the student mothers may not be coping well with their financial situations. This lack of proactive engagement could increase stress and distractions, leading to poor academic performance and learning outcomes.

Respondents were asked whether they were confident in their ability to overcome academic challenges and succeed despite their responsibilities as mothers. The results indicate that most student mothers (60.5% of those who agreed and strongly agreed) feel confident in their ability to overcome academic difficulties and succeed as mothers. This large percentage suggests that these respondents have an excellent academic self-compass, which will help them improve their learning by having a positive attitude and coping with the demands of the two roles.

However, 33.0% of the respondents disagreed (disagree and strongly disagree) with the statement, meaning that several student mothers may lack self-efficacy and feel overwhelmed by their responsibilities. This lack of confidence can also impact their academic performance, resulting in low motivation and poor learning.

4.2 Descriptive Statistics on Learning Outcomes of Student Mothers

The study sought to find out how respondents would rate their overall academic performance as an undergraduate student mother. The results were presented in Figure 1.

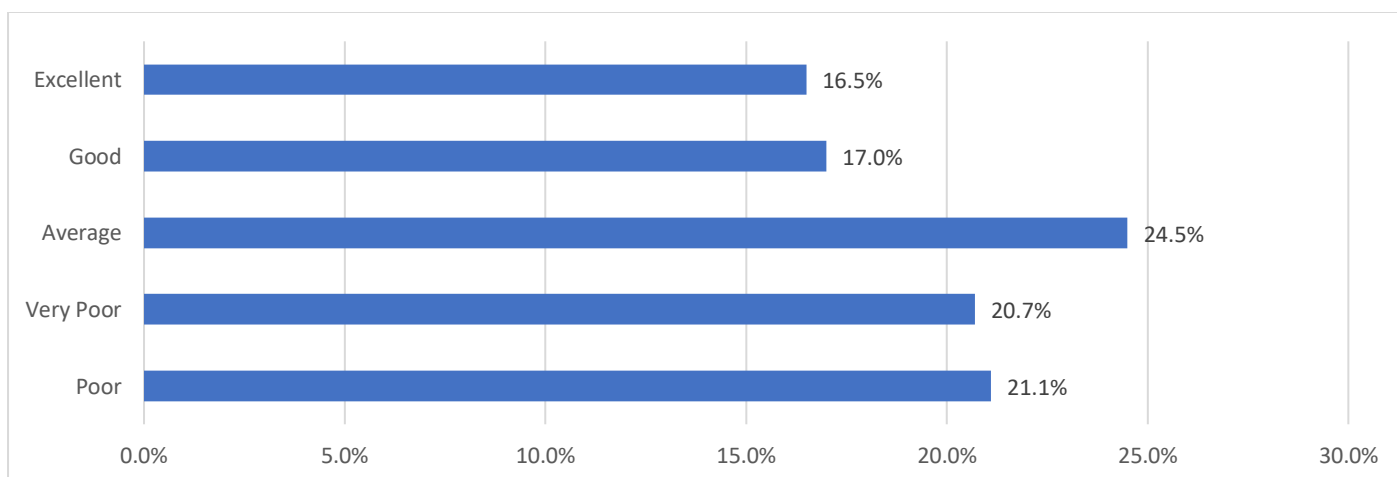


Figure 2
Overall Academic Performance of an Undergraduate Student Mother

As per the above findings, there are many mothers enrolled in public universities in Western Region, Kenya that are not performing optimally in their studies. Student moms often struggle to balance parenting with academics. The above findings were confirmed by the findings derived from the dean of students when they were asked to rate the overall academic performance of student mothers of the university. On 17th April 2025, DOS7 said that;

"Student mothers often have specific problems, but there are many who do well in their studies despite such difficulties. Some people have a problem with time management, others are very motivated to achieve success. A range of outcomes are observed, some excel, others require further academic and/or personal assistance.."

Respondents were also asked to state how often they find it challenging to balance their academic responsibilities with their responsibility as a mother. The results were presented as shown in Figure 3

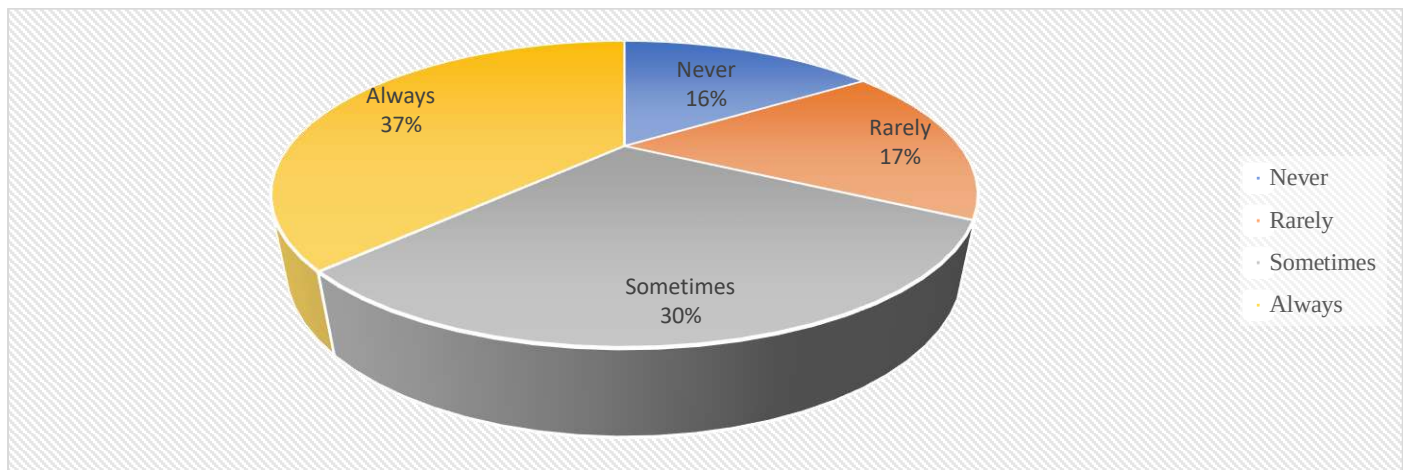


Figure 3

Frequency of Challenging to Balance Academic Responsibilities and Responsibilities as a Mother

The results highlighted above indicate that most of the undergraduate mothers attending public universities in Western Region, Kenya have trouble balancing their academic commitments and mothers' responsibilities. It is clear from the above that the roles of parenting and school are very challenging for the majority of the student mothers, as 29.9% of respondents said sometimes they find difficulty in both roles and 37.5% said always in both roles. Only 15.7% of respondents report that it is never difficult to balance motherhood and school duties, suggesting that balancing motherhood and school duties is a common challenge. The above responses were substantiated by the response received from the chair of department when asked to say how student mothers balance their academic work with their role as mothers in their department. On 18th April 2025, HOD1 said that;

"Student mothers in our department are sometimes faced with some difficulties to balance their academic work with motherhood. Some are able to do this by altering their curriculum or by receiving support from the university, others may find themselves in a situation where the demands of both occupations are too arduous. Deadlines and support from faculty need to be flexible."

Participants were asked how many units did they not complete in the previous semester? The data are shown in Figure 4.

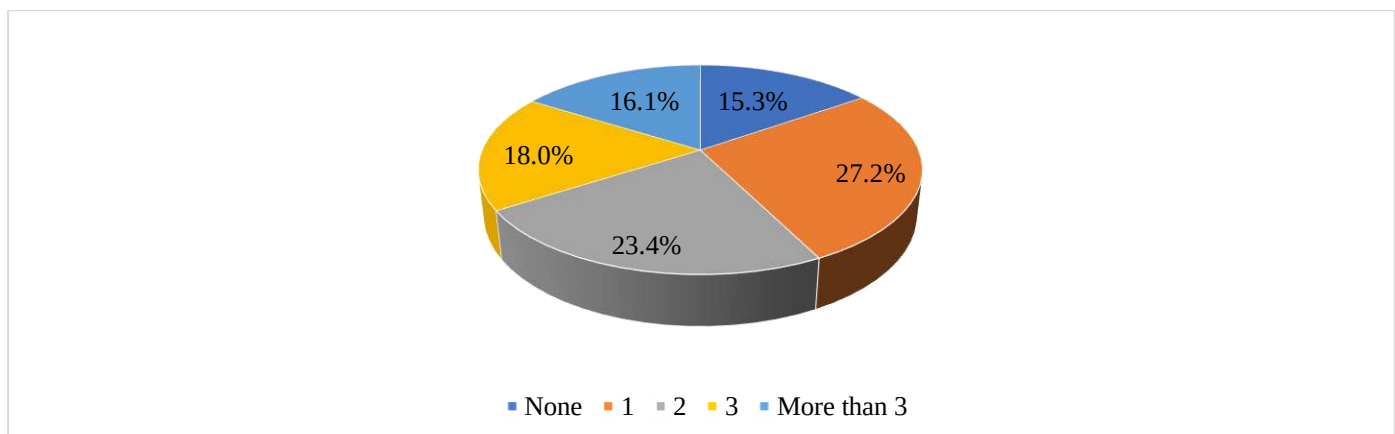


Figure 4

Number of Units Failed

The above finding suggests a high percentage (27.2%) of undergraduate student mothers in public universities in Western Region, Kenya suffer setbacks in one unit while 23.4% suffer setbacks in two units during the final semester of their studies. In addition thereto, the respondents who failed three units and more than three units was 18.0% and 16.1% respectively, which shows that academic failure is a problem among them. This indicates that student mothers' academic achievement might be affected by these two roles, and thus, it is crucial to provide them with appropriate support systems in order to overcome these difficulties. Nevertheless, 15.3% failed none of the units, suggesting that certain student mothers are able to handle these two responsibilities effectively, whether due to improved academic resilience and/or support provided. The findings above concurred with what was found in the interview result with the heads of department when asked if their students' mothers are at greater risk of failing courses because of their motherhood. On 18th April 2025, HOD2 said that;

" Yes, there are more academic challenges that student mothers might experience because of their parenting responsibilities, as well as because of limited time to study and stress of balancing both roles, but many students who seek support or accommodations are successful in improving their academic performance.."

The study aimed to identify the rating of the respondents in relation to their ability to concentrate during exam and their responsibilities as a mother. The results are presented in Figure 5

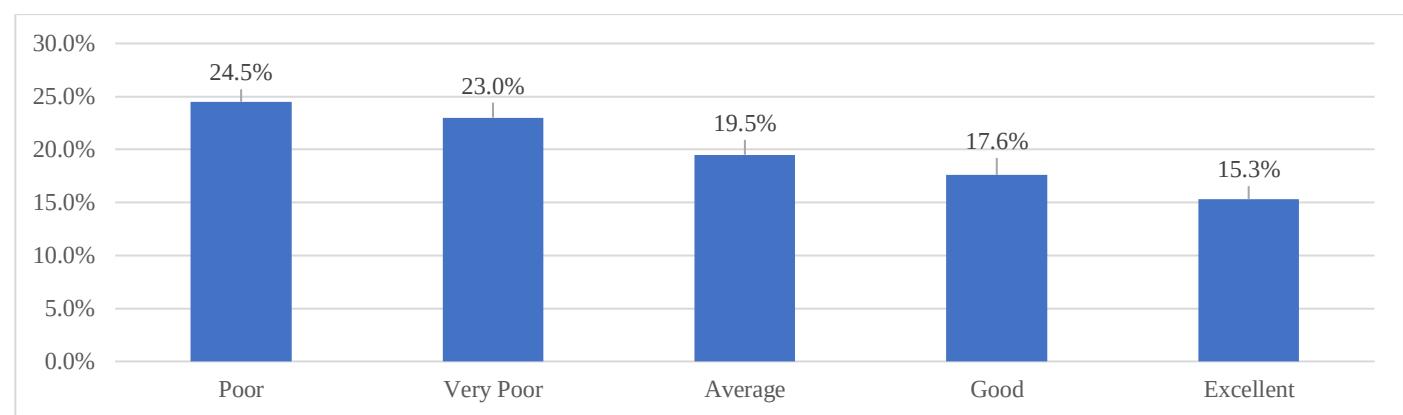


Figure 5

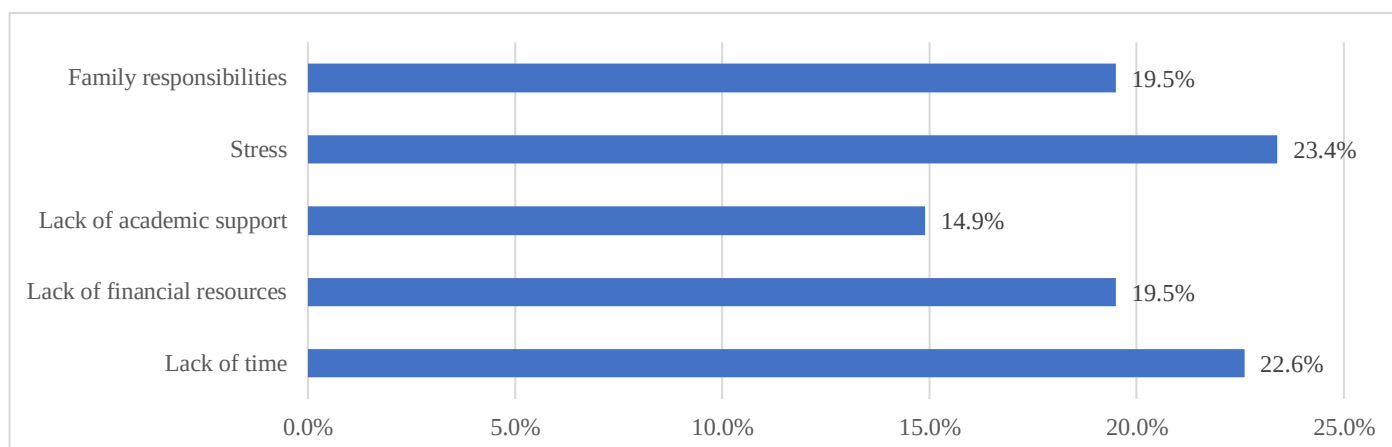
Ability to concentrate during exams

The above statistics reveal that many of the undergraduate student mothers in public universities in Western Region, Kenya find it difficult to focus on exams because of their responsibilities as mothers. Research indicates that the impact of the competing demands of schoolwork and motherhood is significant in terms of their ability to concentrate in examinations (47.5% indicated poor or very poor concentration). This implies that some student mothers are better able to cope with their responsibilities, likely due to their greater academic resilience or social support, since 19.5% of the respondents rated their concentration as average and 32.9% as good or excellent. The results indicate significant links between student moms' learning outcomes and academic performance and their ability to concentrate, underscoring the importance of addressing the psychosocial challenges faced by student moms.

The feedback given above was consistent with the findings gathered from the heads of department during the interviews when they were asked about the problem of student mothers in their department from which they are unable to focus their attention during examinations because of the responsibility of their childrearing. On 18th April 2025, HOD3 said that;

"Yes, there can be difficulties with concentration when taking exams for some student mothers, sometimes because of stress or fatigue as a result of childcare responsibilities, and we have tried to make the exam more flexible for them or provide other forms of support, such as making more study materials available to them or giving them a break during a long exam."

Respondents were asked to indicate the main reason they believe affects their academic success as a student mother. The results were depicted in Figure 6

**Figure 6**

Reasons that impacts success as a student mother

The above statistics depict that the undergraduate student mothers in public universities in Western Region, Kenya face numerous challenges which significantly hinder their academic progression. The greatest barriers were identified as stress (23.4%) and time constraints (22.6%) which is most likely caused by difficulties encountered in balancing motherhood and studies. In addition, 19.5% of the respondents indicated that their academic performance was impeded by lack of financial resources and family duties which implies that these matters are rather significant. Moreover, 14.9% of the respondents identified lack of academic support as a barrier which suggests that their challenges are aggravated by absence of institutional or social support.

4.3 Chi Square Test of Independence

The Chi-square test of independence was used in this study to examine the relationship between academic resilience and learning outcomes among student mothers. Chi Square test of independence for Academic resilience and Learning Outcomes. The results of the Chi-square test of independence for Academic resilience and Learning Outcomes were shown in Table 4.

Table 4

Chi Square Test of independence for Academic resilience and Learning Outcomes

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	50.672 ^a	9	.001
Likelihood Ratio	49.643	9	.001
Linear-by-Linear Association	7.114	9	.002
N of Valid Cases	260		

The results indicate a significant relationship between academic resilience and the learning outcomes of undergraduate student mothers in public universities in Western Region, Kenya. Since all the Chi-square values are greater than 5.99 and the p-values are less than 0.05, we can conclude that academic resilience plays a critical role in influencing the academic success of student mothers. This suggests that higher levels of resilience are associated with better learning outcomes, highlighting the importance of fostering resilience among these students.

4.4 Model Summary

The model summary elucidates the relationship between academic resilience on learning outcomes of undergraduate student mothers in public universities in Western Region, Kenya. R, denoting the multiple correlation, signifies a robust positive association between the two variables. The R square, or coefficient of determination, indicates a substantial proportion of the variation in learning outcomes that may be attributed to psychosocial experiences and academic resilience. The results are shown in Table 5.

Table 5

Model Summary^b for Academic Resilience and Learning Outcomes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.786 ^a	.617	.583	.391

The results above show an R of 0.786 and an R square of 0.617, indicating a strong and positive relationship between academic resilience and learning outcomes. The R-value of 0.786 suggests a high correlation, meaning that learning outcomes improve as academic resilience increases. The R square value of 0.617 implies that approximately 61.7% of the variance in learning outcomes can be explained by academic resilience, highlighting its substantial impact on the academic success of student mothers in public universities. The remaining 38.3% variation in learning outcomes was caused by other variables, not within this model.

4.5 ANOVA^a

ANOVA was employed to ascertain whether statistically significant variations exist between academic resilience on learning outcomes of undergraduate student mothers in public universities in Western Region, Kenya. The investigation evaluates whether variances in these experiences result in substantial differences in academic achievement, offering insights into the influence of psychosocial factors on learning outcomes. Table 6 presents the results.

Table 6

ANOVA^a for Academic Resilience and Learning Outcomes

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	59.817	1	59.817	32.79	.009 ^b
	Residual	472.513	259	1.82		
	Total	532.330	260			

The above findings show an F value of 32.79, much greater than the critical F value of 3.87, and a significance value of 0.009, less than the p-value of 0.05. This indicates that the differences in learning outcomes based on academic resilience are statistically significant. Therefore, we can conclude that academic resilience has a meaningful effect on the academic performance of undergraduate student mothers in public universities in Western Region, Kenya, contributing to variations in their learning outcomes.

4.6 Regression Analysis

Regression analysis examined the relationship between academic resilience and student mothers' learning outcomes in Western Region, Kenya's public universities. The results are presented in Table 7.

Table 7

Regression Coefficients for Academic Resilience and Learning Outcomes

Model		Unstandardized Coefficients		t	Sig.
		B	Std. Error		
1	(Constant)	2.031	0.807	2.517	.003
	AR	1.814	0.197	9.208	.002

The above findings show a constant value of 2.031. The Constant value is statistically significant since the T value of 2.517 was more than the t critical value of 1.649. This was also complemented with a significance value of 0.003, less than the p-value of 0.05. This implies that even when there is an absence of academic resilience, the learning outcomes of student mothers still stand at 2.031.

Academic resilience had a regression coefficient of 1.814 with a t-value of 9.208 and a significance value of 0.002. The regression coefficient is statistically significant since the t value was more than the t critical value of 1.649. This was also supplemented with a significance value less than the p-value of 0.05. Therefore, the null hypothesis that academic resilience has no significant effect on the Learning Outcomes of Undergraduate Student Mothers in Public Universities in Western Region, Kenya was rejected. Thus, a unit increase in academic resilience leads to an increase in learning outcomes by 1.814 units. This implies that academic resilience enhances the learning outcomes of student mothers by helping them persevere through academic challenges, manage stress, and maintain focus despite external pressures. This academic resilience enables them to stay committed to their studies, adapt to difficulties, and improve their academic performance and success.

The aforementioned results were consistent with those of Ajayi (2021), who discovered that academic resilience is essential for assisting student moms in overcoming obstacles in the classroom and improving learning outcomes. According to Ajayi's research, resilient students are better able to handle stress, remain motivated, and stay focused in spite of the conflicting demands of both family and school. This was further supported by Kensinger and Minnick (2018), who emphasized that academic resilience helps student mothers to persevere in the face of hardship, hence enhancing their academic achievement. The findings of both studies support the idea that academic resilience improves student mothers' learning outcomes by encouraging tenacity and stress management.

V. CONCLUSION & RECOMMENDATIONS

5.1 Conclusion

Descriptive statistics showed that academic resilience affected the Learning Outcomes of Undergraduate Student Mothers in Public Universities in Western Region, Kenya. This was evidenced by most student mothers who missed classes due to their responsibilities as mothers. Most student mothers cannot maintain a positive outlook on their education despite the pressure of being a mother. The results from the regression analysis showed that academic resilience affected the learning Outcomes of Undergraduate Student Mothers in Public Universities in Western Region, Kenya. Thus, the study rejected the null hypothesis that academic resilience has no significant effect on the Learning Outcomes of Undergraduate Student Mothers in Public Universities in Western Region, Kenya. Therefore, the study concluded that academic resilience positively and significantly affected the learning Outcomes of Undergraduate Student Mothers in Public Universities in Western Region, Kenya.

5.2 Recommendations

The outcomes from the descriptive statistics showed that respondents could not stay focused on their academic goals despite the demands of being a mother. Therefore, universities in Western Region, Kenya should offer flexible academic schedules and online learning options for student mothers. This would allow them to balance their academic responsibilities with motherhood duties, improving their ability to stay focused and engaged in their studies.

Most of the respondents were not satisfied with the academic performance they attain while managing motherhood responsibilities. Therefore, the study recommended that universities provide specialized academic support for student mothers, including tutoring, time management workshops, and mental health counselling. These resources would help enhance academic resilience, increase satisfaction with their academic performance, and reduce the stress associated with balancing multiple roles.

Most respondents miss classes due to their responsibilities as mothers. Therefore, universities should establish a supportive network for student mothers, such as peer groups or mentorship programs. Such initiatives would foster a sense of community, helping student mothers navigate academic challenges while managing their responsibilities and ultimately improving their learning outcomes.

Declaration of Interest

The authors declare that they do not have any known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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