



## Effect of psychosocial experiences on the learning outcomes of student mothers in public universities in Western Region, Kenya

John Munyua Mwangi<sup>1\*</sup>

Rose Opiyo<sup>2</sup>

Manson B. Sichari<sup>3</sup>

<sup>1\*</sup>[johnmunyua29@gmail.com](mailto:johnmunyua29@gmail.com)

<sup>2</sup>[ropiyo@mmust.ac.ke](mailto:ropiyo@mmust.ac.ke)

<sup>3</sup>[msinchari@mmust.ac.ke](mailto:msinchari@mmust.ac.ke)

<sup>1</sup><https://orcid.org/0000-0002-7846-8733>

<sup>2</sup><https://orcid.org/0000-0001-6881-7859>

<sup>3</sup><https://orcid.org/0000-0001-9881-814X>

<sup>1,2,3</sup>Masinde Muliro University of Science and Technology, Kakamega, Kenya

<https://doi.org/10.51867/ajernet.7.4.8>

### ABSTRACT

The academic success of undergraduate student mothers in public universities in Western Region, Kenya is significantly influenced by their psychosocial experiences. Balancing motherhood and academic responsibilities present unique challenges that can hinder their ability to perform at the same level as their peers. The objective of the study was to establish the effect of psychosocial experiences on learning outcomes of undergraduate student mothers in public universities in Western Region, Kenya. Despite existing research on student mothers, there remains a gap in understanding how psychosocial challenges. This study sought to bridge that gap by offering a comprehensive analysis of these factors. The study was conducted among government-sponsored undergraduate student mothers in public universities in Western Region, Kenya. It was grounded in role conflict theory. A mixed-method research design was employed. The target population comprises one thousand three hundred and thirteen (1313) respondents. This consists of one thousand two hundred seventy-three (1273) student mothers, 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 and twenty-four (24) Chair of Departments. Simple random sampling was used to select 304 student mothers. Purposive sampling was used to select 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 and twenty-four (24) Chair of Departments. Data were collected through questionnaires, document analysis guides, and interview schedules. The validity and reliability of the research instruments were tested through a pilot study. Descriptive statistics such as means, frequencies, and percentages were used for analysis, alongside inferential statistical techniques, including multiple regression. The descriptive statistics findings and the information obtained during interview showed that psychosocial experiences influence the student motherhood performance. The findings indicated that psychosocial experiences negatively affect student mothers' learning outcomes, with a regression coefficient of -1.213. Conversely, academic resilience. The study concluded that psychosocial challenges hinder the academic performance of student mothers. It recommended that universities implement financial assistance programs such as scholarships and stipends, provide flexible academic schedules and online learning options. The study's findings may inform targeted intervention strategies to support student mothers and have implications for shaping educational policies within Western Region, Kenya public universities.

**Keywords:** Kenya, Learning Outcomes, Psychosocial Experiences, Public Universities in Western Region, Student Mothers

### I. INTRODUCTION

Education is a cornerstone of personal and societal advancement, providing the tools necessary for individuals to lead fulfilling lives and contribute to the betterment of the world. It is widely regarded as a gateway to success, opening numerous opportunities and paving the way for a promising career and fulfilling life (Alshalawi, 2020). One of the most powerful mediums for progress is education. The importance of education in fostering human, societal, and economic development is, thus, fundamental. Education is crucial for women as it has been a facilitating factor towards women's empowerment. Education is a transformative force, particularly for women as it facilitates empowerment and promotes gender equality (Crossouard & Dunne, 2021).

Strategic developmental priority is placed on women's education. Women with higher levels of education are more likely to be well-informed when it comes to nutrition and healthcare, which in turn leads to fewer children, later



marriages, and generally healthier offspring. Education is therefore a powerful weapon that fights and lifts people out of poverty as well as plays a role as a foundation for female development towards maturity (Sanborn et al., 2024)

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 (Ikpeama & Okoye, 2024). 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 24. 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 (Savage, 2023).

Student motherhood presents unique challenges that demand exceptional time management and emotional academic resilience. Research shows that student-mothers have limited capabilities to meet their personal needs due to their financial status which is greatly affected by school-related expenses (Savage, 2023). Balancing the dual role of motherhood and student life often results in heightened stress, making them vulnerable to mental health issues like Postpartum Depression endangering both maternal and child health (Matiba, & Kisanga, 2021).

In Europe, the experience of student mothers in higher education has received considerable attention, particularly in countries like the United Kingdom, Germany, and the Nordic nations. In these contexts, universities have implemented various policies aimed at supporting student parents, including flexible learning schedules, subsidized childcare services, and parental leave provisions. For example, in Sweden and Norway, strong welfare systems and family-friendly educational policies have enabled student mothers to pursue higher education with less disruption. However, challenges persist in balancing academic responsibilities and parenting, particularly for single mothers and those from immigrant backgrounds, who often face additional barriers such as limited social support and cultural integration issues (Burk et al., 2022).

In Nigeria, the challenges facing undergraduate student mothers are often more pronounced due to limited institutional and societal support structures. Most public universities lack formal policies or infrastructure to accommodate student mothers, such as childcare facilities, flexible learning programs, or counseling services tailored to parenting students. Cultural norms and economic constraints further exacerbate their difficulties, with many student mothers experiencing stigma, isolation, and financial hardships. Despite these challenges, some Nigerian student mothers demonstrate remarkable academic resilience, often relying on informal support systems such as extended family and peer networks to cope with their dual roles. The Nigerian context underscores a pressing need for targeted interventions and policy reforms to support this vulnerable student population (Ikpeama & Okoye, 2024).

In the Kenyan public universities, the undergraduate student mothers stand out as a unique category of student mothers. They are different from the mature entry student mothers who might have superior skills in parenting for they tend to be older and have often well-coordinated education experience and family support (Sangawe, 2020). These undergraduate student mothers are further excluded from the high school student mother category that is covered by distinct education policies that spell out their re-entry, accommodation, progression and completion (Munyua et al., 2022).

Despite recognizing student-mothers' challenges, a research gap persists in understanding the psychosocial experiences on learning outcomes of undergraduate students in public universities in Western Region, Kenya. Prior research has documented the numerous challenges student-mothers face that affect their ability to thrive academically. Studies have explored undergraduate student-mothers' experiences (Kensing & Minnick, 2018; Simon, 2020). However, research specific to the psychosocial experiences and academic resilience of student mothers in Western Region, Kenya public universities remains scarce.

### 1.1 Statement of the Problem

The global landscape of higher education has seen a notable increase in student mothers, with statistics from Canada and Kenya indicating this trend. In Canada, 11% to 16% of post-secondary students were identified as mothers, underlining the universality of this issue (Webber, & Dismore, 2021). A study by the Center for Studies in Adolescence reported a significant rise in Kenya teen mothers, reaching 49% at age 19. Additionally, preliminary data from the university registry in public universities indicate a high population of approximately 19% of student mothers currently in session (Mwangi, 2022). This trend extends to higher education, with 22% of female students in Western Region, Kenya public universities becoming mothers during their studies (Ajayi et al., 2021).

Despite the burgeoning statistics of student mothers in campus spaces, the Kenya public university system lacks tailored support. Policies regarding pregnancy and schooling in Kenya addressing more students in primary and secondary schools are seen as discriminatory, often leading to difficulties for student mothers in terms of housing and



academic progression (Kisanga & Matiba, 2023). Further, existing literature focuses mainly on postgraduate student mothers, leaving a gap in understanding the plight of undergraduate student mothers, especially within Kenya public universities.

Despite evidence highlighting these difficulties, there remains a critical gap in understanding the psychosocial experiences of undergraduate student mothers and how academic resilience influences their success. Addressing the issue of low completion rates, poor class attendance, and lack of engagement in virtual learning platforms is crucial, as these factors are central to the academic success of student mothers. This issue is urgent because continued neglect could result in a growing population of struggling student mothers who are unable to complete their education, thereby limiting their economic mobility and overall well-being. This study, therefore, seeks to explore these challenges comprehensively, emphasizing the need for targeted policies and support systems that enhance student mothers' academic resilience and success in Western Region, Kenya's public universities (Sangawe, 2020).

The research aimed to bridge this gap by delving into the specific challenges faced by undergraduate student mothers, emphasizing psychosocial impacts on learning outcomes, and employing a mixed-methods approach for a comprehensive exploration. The danger lies in overlooking the unique challenges of undergraduate student mothers, such as poor completion rates, low attendance to lectures (both in-person and virtual), and time management struggles, potentially leading to inadequate support and negatively impacting their learning outcomes.

## 1.2 Research Objective

To determine the effect of psychosocial experiences on the learning outcomes of student mothers in public universities in Western Region, Kenya

## 1.3 Research Hypothesis

*H<sub>01</sub>*: Psychosocial experiences of student motherhood have no significant effect on learning outcomes at public universities in Western Region, Kenya.

# II. LITERATURE REVIEW

## 2.1 Theoretical Review

### 2.1.1 Role Conflict Theory

Role Conflict Theory explains the challenges that arise when individuals experience competing demands from multiple roles. According to Murphy and Rose (2012), role conflict occurs when the expectations and responsibilities of one role interfere with the performance of another. Adofo (2013) further emphasizes that positions guide individuals' activities, determining what must be done and at what level of performance. For student mothers, the conflict between academic and parenting responsibilities often stems from time constraints, stress, and competing obligations.

The theory, rooted in the contributions of scholars like Wolf, as cited in Adofo (2013) who classifies role conflict into intra-role conflict (incompatible expectations within the same role) and inter-role conflict (conflicting expectations between separate roles). For student mothers, intra-role conflict may arise from differing academic expectations, while inter-role conflict emerges when parenting responsibilities interfere with academic commitments.

Research shows that role conflict has both positive and negative consequences. However, the primary focus has been on the difficulties associated with managing multiple roles. Dierckx et al., (2019) identify role overload and role competition as key concepts within role theory. Role overload occurs when a person lacks the necessary time and resources to meet all their obligations, leading to role strain difficulty fulfilling role expectations. In university settings, student mothers experience role strain due to academic pressure, financial struggles, and childcare demands, all of which impact their academic performance and overall well-being. The study found that student mothers face significant psychosocial challenges, including stress, emotional exhaustion, and anxiety. Dierckx et al., (2019) further stated that many struggle to balance coursework with mothering duties, leading to frequent absenteeism, lower academic performance, and, in some cases, dropping out. Additionally, financial constraints force some student mothers to miss classes or exams in pursuit of income. The intersection of academic, financial, and domestic responsibilities increases their burden, often resulting in poor learning outcomes. To mitigate these challenges, universities must offer institutional support, such as counseling services, flexible learning schedules, and childcare facilities. Role Conflict Theory helps explain the struggles faced by student mothers and highlights the need for supportive interventions to reduce role strain.

The theory addresses the stress that arises when individuals are faced with conflicting expectations from multiple roles. For student mothers, this theory is particularly relevant as they navigate the dual roles of being both students and mothers, often experiencing conflicting demands from their academic responsibilities and childcare duties. The theory helps explain the psychosocial experiences of student mothers, including time pressures, emotional strain, and the difficulty of balancing academic commitments with caregiving responsibilities. These conflicts can significantly affect their mental health, academic performance, and overall learning outcomes. This theoretical lens enables the study

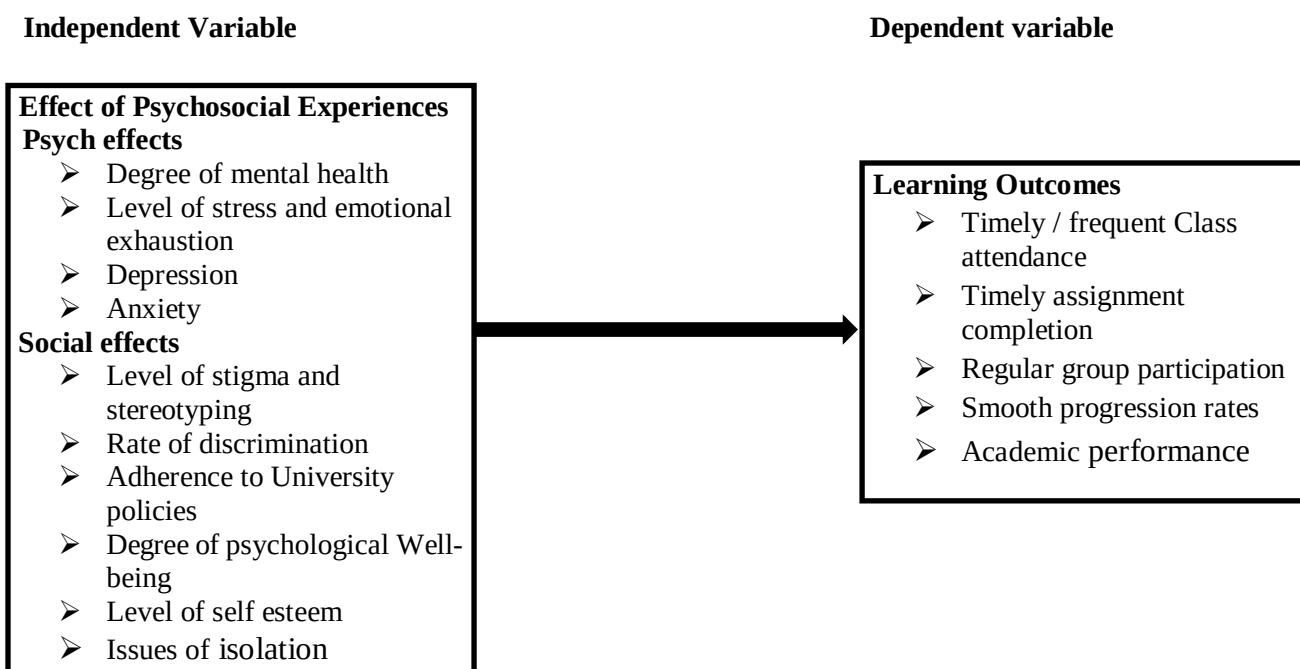
to explore how role conflict impacts student mothers' ability to thrive academically and cope with the stresses of both roles.

## 2.2 Empirical Review

Previous studies have established that psychosocial experiences associated with student motherhood can influence learning outcomes. Wladkowski and Mirick (2019) found that student mothers experienced difficulties balancing parenting and academic responsibilities, with social isolation, limited support and emotional demands affecting their academic engagement. Similarly, Sangawe (2020), in a study of undergraduate student mothers at the University of Dodoma, reported that stress and worry were associated with inadequate family and peer support, relationship challenges and limited assistance, which affected their ability to cope with academic responsibilities. Deng et al. (2022) further observed that stress and emotional difficulties among student mothers could interfere with their physical, psychological and emotional preparedness for learning, while Rana et al. (2022) reported that some student mothers discontinued their undergraduate studies while experiencing such challenges.

In Kenya, Kosgeys (2021) found that undergraduate student mothers experienced financial difficulties related to university fees, childcare and family responsibilities, while stereotyping and exclusion from study groups affected lecture attendance and social relationships. Mwangi (2022), focusing on motherhood and learning among undergraduate student mothers in public universities in Western Kenya, found that the multiple family and community responsibilities of women created psychosocial challenges as they attempted to combine motherhood and academic work. Similarly, Simon (2020) observed that student mothers experienced role strain when attempting to balance childcare and academic responsibilities. These studies generally demonstrate that stress, inadequate social support, financial constraints, stigma and competing parenting responsibilities may affect student mothers' learning experiences. However, most previous studies examined individual challenges or broader experiences of student motherhood, while limited attention has been given to the combined effect of psychosocial experiences on learning outcomes among undergraduate student mothers in public universities in Western Region, Kenya. This study therefore addressed this gap by examining the effect of psychosocial experiences on their learning outcomes.

## 2.3 Conceptual Framework



**Figure 1**

*Conceptual framework*

**Source: Researcher 2025**

The psychosocial experiences of student mothers, which include stigma and stereotyping, mental health issues, discrimination due to policy, changes in intimacy and relationships, feelings of guilt, and stress, form the foundation of this study. These experiences are not uniform and necessitate specific measurement strategies to capture their nuances. Stigma and Stereotyping are to be measured through surveys and interviews to understand student mothers' perceptions regarding stigmatization and stereotyping within their academic environment. Mental Health Issues will be assessed



through standardized psychological assessment tools, such as the Beck Depression Inventory or the Generalized Anxiety Disorder 7-item scale. Discrimination Due to Policy will collect data on reported instances of discrimination experienced by student mothers, including any discriminatory university policies. Changes in Intimacy and Relationships will be explored through qualitative interviews to comprehend the dynamics and perceptions surrounding these changes. Feelings of Guilt will be measured using self-report questionnaires or interviews to gauge the intensity and frequency of guilt among student mothers. Lastly, Stress levels will be assessed using validated stress scales, such as the Perceived Stress Scale (PSS), to quantify the stress experienced by student mothers.

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-method research design. To better understand a research problem, a mixed-method research design is a process for gathering, analyzing, and "mixing" qualitative and quantitative data and methodologies in a single study. (Huntington-Klein, 2021). The aim was to combine quantitative methods' differing strengths and overlapping weaknesses with those of qualitative methods. Mixed research design provides a more complete understanding than quantitative or qualitative alone (Leavy, 2022).

#### 3.2 Study Area

The study was conducted in public universities located in the Western Region of Kenya. The region provided the geographical setting for examining the psychosocial experiences and learning outcomes of undergraduate student mothers within public university environments. The study covered four public universities in the region, where the participating respondents comprised undergraduate student mothers as the main study population, together with Deans of Students, gender and mainstreaming officers, officers responsible for halls of residence and health facilities, and Heads of Departments. These institutions provided the appropriate setting because they accommodate undergraduate student mothers who have to balance academic responsibilities with motherhood. The institutional setting also enabled the study to obtain complementary information through academic and administrative records, including class attendance and examination records, as well as views from university officers responsible for student welfare and academic administration. Thus, the study area was relevant for examining how psychosocial experiences within the university and motherhood context relate to the learning outcomes of undergraduate student mothers.

#### 3.3 Target Population

The target population of this research was undergraduate student mothers. The target population comprises one thousand three hundred and thirteen (1313) respondents. This consists of one thousand two hundred and seventy-three (1273) student mothers, 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 and twenty-four (24) Chair of Departments.

#### 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 choose 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

$N = 1273$

$e = 0.05$

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

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

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

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

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

Simple random sampling was used in this study to ensure that every undergraduate student mother in the public universities in Western Region, Kenya had an equal chance of being selected to participate in the research. This method was appropriate as it minimizes selection bias and provides a representative sample of the population. By randomly selecting 304 respondents from the four public universities using Yamane's sample formula, the study aimed to achieve unbiased results that could be generalized to the larger population of student mothers in these institutions. Simple random sampling ensures that the findings reflect the experiences and outcomes of the broader group of student mothers, making the study's conclusions more reliable and valid.

### 3.5 Data Collection Instruments

The study used questionnaires, in-depth interview schedules, observation checklists, and document analysis to collect data. Questionnaires with a five-point Likert scale were administered to undergraduate student mothers to obtain information on psychosocial experiences and learning outcomes. In-depth interviews were conducted with Deans of Students, gender and mainstreaming officers, residence officers, health facility officers, and Heads of Departments to obtain detailed information. Document analysis involved reviewing attendance registers and examination records to complement the primary data, while observation provided additional information on student mothers' experiences. The use of multiple instruments enabled triangulation of information from questionnaires, interviews, observations, and institutional records.

### 3.6 Document Analysis

Written documents have certain information regarding the current records of a particular subject under study; they involve field notes, diaries, journals, records, biographies, statistics, and archives (Morgan, 2022). On this record, the chairs of various departments in various educational schools have access to students' academic performance and class attendance records. Thus, the researcher reviewed these documents to obtain the percentage of lesson attendance of the sampled student mothers and students' academic performance from the departments. With the help of the department chair, the researcher will compare class attendance and student performance of student mothers and non-student mothers. Document analysis complements primary data by examining institutional policies, academic documents, and relevant literature. This method provides a contextual understanding of the support systems available for student mothers. It sheds light on how institutional frameworks influence psychosocial experiences and learning outcomes in Western Region, Kenya universities.

### 3.7 Validity of the Research Instruments

The degree to which a research instrument measures what it is intended to measure is determined by its validity. Supervisors and lecturers in the department of psychology were given questionnaires to proofread and identify offensive, irrelevant, confusing, or awkward questions, after which the questions were appropriately restructured. Experts primarily test the validity of the questions (Pearson et al., 2020).

Additionally, factor analysis was carried out to assess the construct validity of the questionnaire and confirm whether features are being validated by a study tool to collect data sufficiently and appropriately cover what is intended. To verify validity, the observed variables' dimensions were reduced. This study employed KMO and Bartlett's tests to



determine the efficacy of data collection and its eligibility for factor analysis. Bartlett's test over 0.05 and KMO value above 0.5 indicated appropriate factor analysis. The results are presented in Table 1.

**Table 1***KMO and Bartlett's Tests*

|                          | Items retained | KMO   | Bartlett's test |    |         |
|--------------------------|----------------|-------|-----------------|----|---------|
|                          |                |       | $\chi^2$        | df | p-value |
| Psychosocial experiences | 13             | 0.744 | 437.174         | 55 | 0.000   |
| Learning Outcomes        | 5              | 0.761 | 471.233         | 40 | 0.001   |

The results indicate that the research instruments employed to assess the various variables in the study are both valid and reliable, as demonstrated by the Kaiser-Meyer-Olkin (KMO) values and the Cronbach alpha scores. The KMO values for the various objectives are as follows: 0.744 for analyzing the impact of psychosocial experiences, 0.761 for online learning outcomes. The KMO values indicate that the data is appropriate for factor analysis, as all values exceed the threshold of 0.7, signifying satisfactory sampling adequacy. The results of Bartlett's test indicate significant p-values of 0.000 and 0.001, respectively, affirming that the correlations among variables are statistically significant and not attributable to random chance. These findings substantiate the validity of the research instruments employed in the study.

### 3.7.1 Reliability of the Research Instruments

The degree to which an instrument consistently yields findings after multiple trials is known as its reliability. An instrument's reliability can be increased by precisely identifying the data needed and regularly using it in field testing. Reliability was evaluated using Cronbach's alpha, a statistic whose values range from 0 to 1. Values between 0.7 and 1.00 indicated good reliability and were accepted, but values below 0.70 were viewed as less dependable and were not accepted (Pearson et al., 2020). The results are shown in Table 2.

**Table 2***Cronbach's Alpha Reliability*

| Construct                | Number of Items | Cronbach alpha | Conclusion |
|--------------------------|-----------------|----------------|------------|
| Psychosocial experiences | 13              | 0.863          | Reliable   |
| Online learning          | 5               | 0.874          | Reliable   |

The results demonstrate robust internal consistency among the study's components, evidenced by Cronbach alpha values exceeding the widely acknowledged threshold of 0.7, indicating credible measurements. The Cronbach alpha for assessing the impact of psychosocial experiences was 0.863, signifying strong reliability in this aspect. Similarly, learning outcomes produced a Cronbach alpha of 0.874, reinforcing the reliability of the assessment scale.

### 3.8 Data Analysis

Data collection instruments were checked for accuracy and omissions. Quantitative data was cleaned and sorted, and impossible values and missing data were identified and managed, as well as outliers. Data was then coded and run through a statistical package and social science. The study also used diagnostic tests to test whether the regression model met its linear assumptions. Descriptive statistics comprised mean, standard error, standard deviation, minimum and maximum statistics. Inferential statistics also included correlation analysis and the Chi-Square Test of Independence. Correlation analysis examined the strength and direction of relationships between psychosocial experiences and learning outcomes. This statistical method allowed the researcher to determine if there is a significant linear relationship between these variables, providing insights into the extent to which they co-vary. The Chi-Square Test of Independence also assessed the association between categorical variables, such as motherhood status and academic achievement. This test helped determine if there is a significant relationship between these variables, aiding in understanding the impact of psychosocial experiences on learning outcomes among undergraduate students in Western Region, Kenya public universities.

In the study, qualitative data was analyzed through thematic analysis, where responses from open-ended questions or interviews were coded into themes or patterns that reflected the experiences of student mothers in relation to their psychosocial experiences and learning outcomes. This analysis helped provide a deeper understanding of the factors affecting their academic journey. To ensure the validity and comprehensiveness of the findings, the qualitative data was triangulated with quantitative data, which had been gathered through structured surveys and analyzed statistically. The triangulation process involved comparing the qualitative themes with quantitative results to see if they aligned or highlighted different perspectives. This combined approach allowed for a more robust interpretation of how

psychosocial experiences and academic resilience influenced learning outcomes, providing a holistic view of the student mothers' academic challenges and successes.

#### IV. FINDINGS & DISCUSSION

##### 4.1 Descriptive Statistics on the effect of Psychosocial Experiences on Learning Outcomes of Student Mothers

The objective of the study was to determine the effect of psychosocial experiences on the learning outcomes of student mothers in public universities in Western Region, Kenya. The objective was based on the null hypothesis that psychosocial experiences of student motherhood have no significant effect on learning outcomes at public universities in Western Region, Kenya. This objective was quantitatively measured using various scales where numbers were assigned to each scale. Interview schedule was analyzed through content analysis and triangulated with quantitative data. The results were presented in Table 3.

**Table 3**

*Effect of Psychosocial Experiences on Learning Outcomes of Student Mothers*

| No. | Statement                                                                                      | Percentages and frequencies |               |               |               |               | TOTAL |
|-----|------------------------------------------------------------------------------------------------|-----------------------------|---------------|---------------|---------------|---------------|-------|
|     |                                                                                                | 1 SD                        | 2 D           | 3 N           | 4 A           | 5 SA          |       |
| 1.  | I feel stressed about balancing my motherhood responsibilities with my academic goals          | 25<br>(9.6%)                | 29<br>(11.1%) | 17<br>(6.5%)  | 97<br>(37.25) | 93<br>(35.6%) | 261   |
| 2.  | I have adequate emotional support to balance motherhood and my studies                         | 79<br>(30.3%)               | 89<br>(34.1%) | 29<br>(11.1%) | 25<br>(9.6%)  | 39<br>(14.9%) | 261   |
| 3.  | My social interactions on campus positively affect my academic performance                     | 29<br>(11.1%)               | 38<br>(14.6%) | 16<br>(6.1%)  | 92<br>(35.2%) | 86<br>(33.0%) | 261   |
| 4.  | I find it challenging to keep up with my academic responsibilities due to my parenting role    | 31<br>(11.9%)               | 36<br>(13.8%) | 12<br>(4.6%)  | 84<br>(32.2%) | 98<br>(37.5%) | 261   |
| 5.  | The university provides adequate academic resources to help me succeed as a student mother     | 41<br>(15.7%)               | 45<br>(17.2%) | 21<br>(8.0%)  | 79<br>(30.3%) | 75<br>(28.7%) | 261   |
| 6.  | I can manage my finances well enough to support my education and child (ren).                  | 78<br>(29.9%)               | 74<br>(28.4%) | 18<br>(6.9%)  | 52<br>(19.9%) | 39<br>(14.9%) | 261   |
| 7.  | I am confident in my ability to perform well academically despite the challenges of motherhood | 44<br>(16.9%)               | 41<br>(15.7%) | 14<br>(5.4%)  | 81<br>(31.0%) | 81<br>(31.0%) | 261   |

The study intended to determine the respondents' opinions on whether they feel stressed about balancing their motherhood responsibilities with their academic goals. The findings showed that 9.6% strongly disagreed, 11.1% disagreed, 37.25% agreed, and 35.6% strongly agreed that they felt stressed about balancing their motherhood responsibilities with their academic goals. The findings show that most student mothers experience stress concerning their financial obligations and academic aspirations, which may significantly influence their performance. This implies that many students' mothers experience significant stress due to the pressure of balancing motherhood responsibilities with academic goals. These results were similar with the interview response from chairperson of gender mainstreaming committees (CGMC) when they were asked to state the critical challenges do undergraduate student mothers commonly face in balancing their academic pursuits with the responsibilities of motherhood within our university. CGMC1 16<sup>th</sup> April 2025 stated that;

*"Student mothers often experience financial strain as they balance their academic costs with child-rearing expenses. This can lead to food insecurity, limited access to learning resources, and poor housing conditions, which significantly affects their overall academic performance."*

The few respondents who disagreed with the statement do not perceive stress in managing these responsibilities. This may be associated with better academic performance since they probably have developed ways of handling stress or have support.

These results are corroborated by Role Conflict Theory, which posits that individuals frequently encounter stress when compelled to fulfil conflicting expectations from their roles. Student mothers manage the combined obligations of academia and motherhood, each accompanied by distinct expectations and requirements. The financial responsibilities associated with motherhood, including child support, may interfere with the academic requirements of fulfilling schoolwork, attending lectures, and attaining scholastic achievement.

Respondents were asked whether they have adequate emotional support to balance motherhood and their studies. The findings indicate that 64.4% of respondents disagreed, suggesting that most of these students struggle with emotional backing, which could hinder their ability to manage academic and maternal responsibilities effectively. The above findings concur with the results obtained from Chairperson of Gender Mainstreaming Committees during interview when they were asked to state how the university ensures that student mothers receive adequate emotional and social support to enhance their academic success. CGMC2 on 16<sup>th</sup> April 2025 stated that;

*"Our policies ensure equal opportunities for all students, and we have special programs focused on the needs of student mothers. These initiatives aim to foster an inclusive environment that acknowledges both academic challenges and their responsibilities at home."*

On the other hand, the 24.5% who agreed (9.6% agreed and 14.9% strongly agreed) show that a smaller proportion of student mothers receive sufficient emotional support, which may contribute positively to their academic resilience and learning outcomes.

The study sought to determine whether student mothers' social interactions on campus positively affect their academic performance. The results presented in Table 3 indicate that the majority of student mothers, 68.2% of those who responded, agree with the statement that their social interactions on campus have a positive impact on their performance; 35.2% agreed, and 33.0% strongly agreed. This implies that such interactions may help develop a supportive community, motivation, and emotional support essential for achievement. The above findings concur with the interview responses obtained from Chairperson of Gender Mainstreaming Committees. CGMC3 on 16<sup>th</sup> April 2025 stated that;

*"We prioritize the creation of supportive spaces for student mothers, ensuring they are included in academic and social activities. We also run awareness campaigns to ensure the campus community understands the unique pressures they face, fostering empathy."*

The results of this study also correspond with those of Kensinger and Minnick (2018), who similarly discovered that pleasant social contacts can substantially improve academic achievement. Their research emphasized that supportive relationships with classmates, teachers, and family enhance coping mechanisms and academic resilience, particularly for student mothers. This study in Western Region, Kenya demonstrates that social contacts enhance the learning outcomes of student moms, underscoring the significance of a supportive academic and social environment for their success.

However, 20.7% of the respondents (11.1% strongly disagreed and 14.6% disagreed) believe that their social relations are not beneficial to their performance. This may suggest social exclusion or negative social interactions that interfere with learning and academic achievement.

Respondents were asked whether they find it challenging to keep up with their academic responsibilities due to my parenting role. The results indicate that most of the student mothers, 69.7%, agreed with the statement that they struggle to balance their academic work because of their parenting role, 32.2% agreed, and 37.5% strongly agreed. This means that most student mothers are likely to experience a lot of pressure in balancing their studies and parenting, which may hurt their performance, time management, course involvement, and success. The above findings were similar to the responses from the interview guide, in which dean of students (DOS) were asked to elaborate on psychosocial challenges that student mothers encounter. DOS1 on 17<sup>th</sup> April 2025 stated that;

*"One of the major challenges student mothers face is time management. Balancing academic commitments and childcare often leaves them overwhelmed. They struggle to meet deadlines, attend lectures, and take care of their children, leading to high levels of stress that impact their learning outcomes."*

Finally, the ones who dissented (15.7%) argue that some student mothers do not consider their parenting role a barrier to their studies. This minority may encounter fewer academic difficulties attributed to appropriate support mechanisms or individual hardiness.

The respondents' opinions were sought on whether the university provides adequate academic resources to help them succeed as student mothers. The results indicate that most of the student mothers, 30.3%, agreed, and 28.7% strongly agreed that their university offers sufficient academic resources to enable them to succeed. From this point of view, these respondents are confident and encouraged in their academic endeavors, which may improve their academic performance. On the other hand, 25% of the respondents (17.2% disagreed and 15.7% strongly disagreed) believe that the resources are inadequate, meaning that there is a possibility of a group of students who may underperform due to lack of resources.

Respondents were asked whether they could manage their finances well enough to support their education and child (ren). From the results presented, it can be seen that 34.8% of the student mothers responded either 'agree' or 'strongly agree' to the statement that they can handle their finances to cater to their needs as students and their children. This means that these mothers may have less financial pressure, which can improve their academic performance by freeing them up to study and be active participants in university life. On the other hand, a significant majority, 58.3% of the respondents who disagreed or strongly disagreed, expressed that they had difficulties managing their finances.

This great number may experience high levels of stress and distractions that affect their academic performance as they struggle to balance education and financial issues. The above findings were similar to the responses obtained from chairperson of gender mainstreaming committee when they were asked on the challenges faced by student mothers. CGMC4 on 16<sup>th</sup> April 2025 stated that;

*"Student mothers often experience financial strain as they balance their academic costs with child-rearing expenses. This can lead to food insecurity, limited access to learning resources, and poor housing conditions, which significantly affects their overall academic performance."*

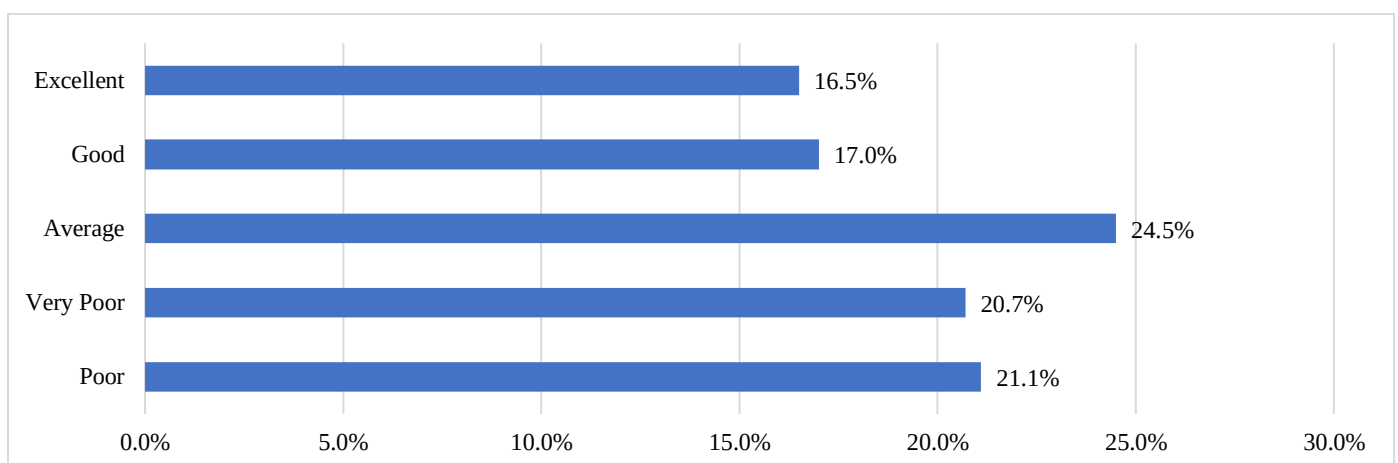
The challenges numerous student women encounter in balancing their money while supporting their education and children can be elucidated through Role Conflict Theory. This idea emphasizes the conflict when individuals must fulfil the obligations of several roles that vie for their time, energy, and resources. Student mothers face substantial financial commitments in their academic role, encompassing tuition fees, textbooks, and other educational expenditures. In contrast, their parental role incurs further financial responsibilities, such as childcare, healthcare, and daily living expenses for their children.

Respondents were asked whether they were confident in their ability to perform well academically despite the challenges of motherhood. Table 4 presents the results, which indicate that 62.0% of student mothers either agree or strongly agree with the statement that they are confident about their academic performance despite the challenges of motherhood. This means these mothers have high academic self-efficacy, which probably increases their commitment and concentration, improving their performance. Also, 32.6% of the respondents disagreed or strongly disagreed with the statement, which shows their lack of confidence in their academic performance while handling responsibilities. This great number may develop anxiety and stress, which may affect their performance since doubt in their abilities may affect their motivation and concentration.

The confidence exhibited by numerous student moms in their academic performance, despite the hardships of parenthood, can be substantiated by Role Conflict Theory. According to Role Conflict Theory, individuals are more likely to succeed when they possess a sense of competence, believe in their talents and capacities to confront obstacles and act autonomously, making choices corresponding to their values and objectives. Student mothers' confidence likely arises from a profound sense of competence cultivated through managing the intricacies of academic and parental obligations.

#### 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 mothers. The results were presented in Figure 2.



**Figure 2**

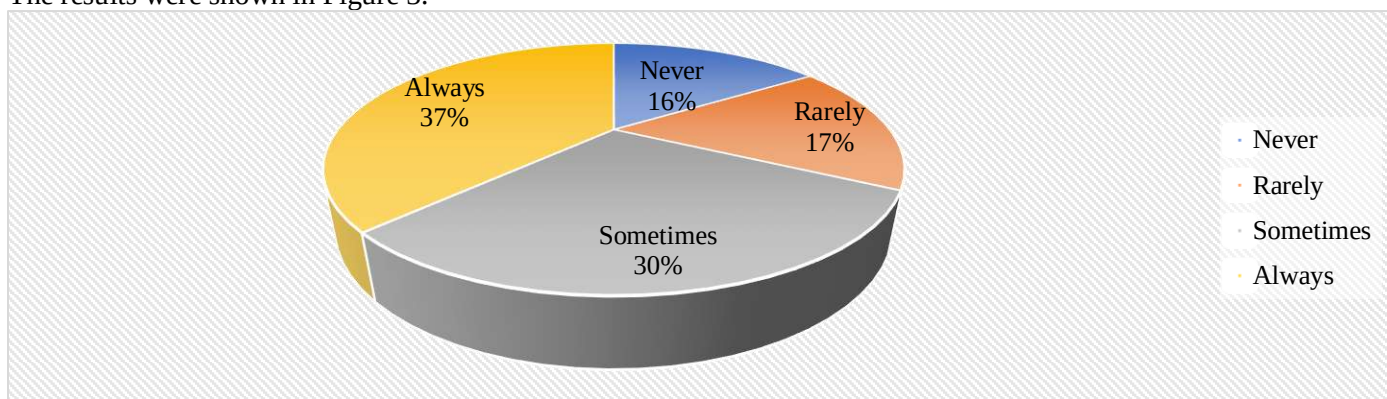
*Overall academic performance of an undergraduate student mother*

According to the above results, a significant number of moms enrolled in undergraduate programs at public universities in Western Region, Kenya struggle to perform at their best academically. Many student moms find it difficult to balance their academic obligations with their parental responsibilities. The above findings were supported by the findings obtained from dean of students when they were asked to assess the overall academic performance of student mothers at the university. DOS7 on 17<sup>th</sup> April 2025 stated that;

*"Student mothers tend to face unique challenges, but many manage to perform well academically despite these obstacles. While some struggle with time management, others are highly motivated to succeed. We see a mixture of outcomes, with some excelling and others needing more academic and personal support."*

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 shown in Figure 3.



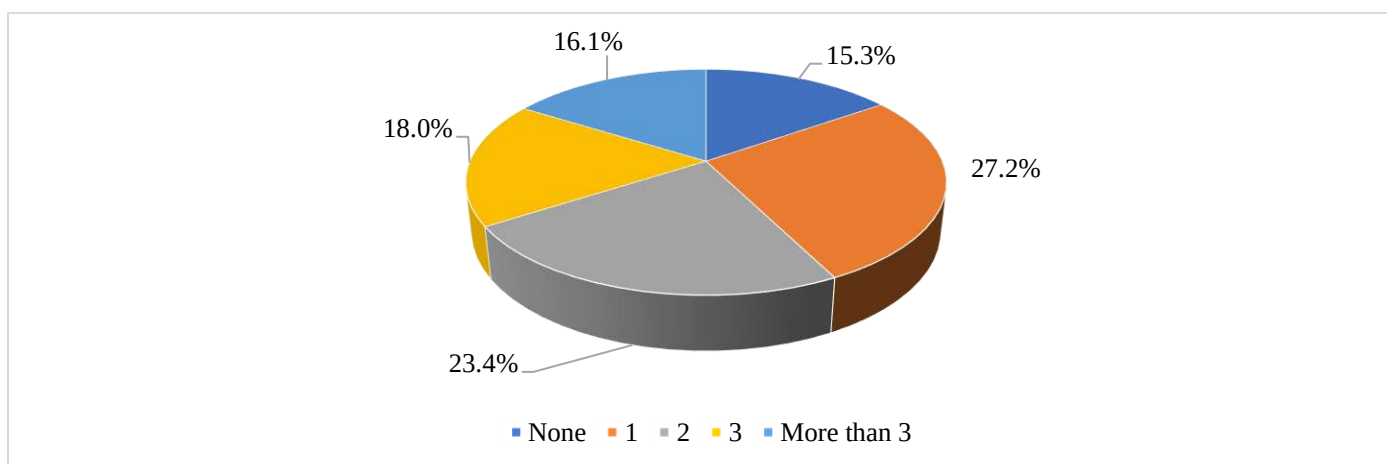
**Figure 3**

*Frequency of challenging to balance academic responsibilities and responsibilities as a mother*

The findings mentioned above suggest that most undergraduate moms attending public universities in Western Region, Kenya struggle to strike a balance between their roles as mothers and their academic obligations. Given that 29.9% of respondents said they occasionally find it difficult and 37.5% said they always find it difficult, it is evident that the obligations of both parenting and school provide significant challenges for the majority of student mothers. Just 15.7% of respondents say they never find it difficult, indicating that juggling motherhood and school obligations is a typical challenge. The above responses were supported with the response obtained from chair of department when they were asked to state how student mothers in their department manage the balance between academic work and their responsibilities as mothers. HOD1 on 18<sup>th</sup> April 2025 stated that;

*"Student mothers in our department often find it challenging to balance their academic work with motherhood. While some manage by adjusting their course load or utilizing university resources, others struggle due to the demands of both roles. Flexibility in deadlines and the availability of support from faculty are essential."*

Respondents were asked to state the number of units they failed in the last semester. The results were presented in Figure 4.



**Figure 4**

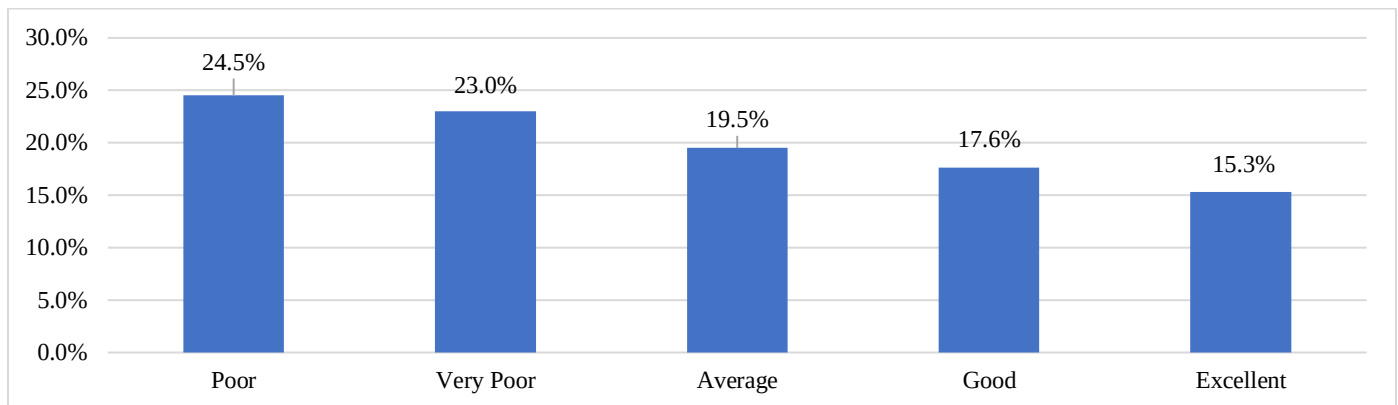
*Number of units failed*

The above findings imply that a significant proportion of undergraduate student mothers in public universities in Western Region, Kenya experience academic setbacks, with 27.2% failing one unit and 23.4% failing two units in the last semester. Furthermore, 18.0% of respondents failed three units, and 16.1% failed more than three units, indicating that academic failure is a prevalent issue among this group. This suggests that the combined pressures of motherhood and academic responsibilities may negatively impact their academic performance, highlighting the need for better support systems to help student mothers navigate these challenges. Despite these setbacks, 15.3% of respondents did not fail any units, implying that some student mothers are able to manage these dual responsibilities effectively,

potentially due to higher levels of academic resilience or support systems. The results obtained above were in agreement with the interview response obtained from heads of department when they were asked on whether student mothers in their department face a higher risk of failing courses due to their caregiving responsibilities. HOD2 on 18<sup>th</sup> April 2025 stated that;

*"Yes, some student mothers do face a higher risk of academic struggles due to their caregiving roles. The lack of time for studying, coupled with stress from balancing both responsibilities, can lead to challenges. However, students who seek support or adjustments often manage to improve their performance."*

The study sought to find how respondents rate their ability to concentrate during exam considering their duties as a mother. The findings were shown in Figure 5.



**Figure 5**

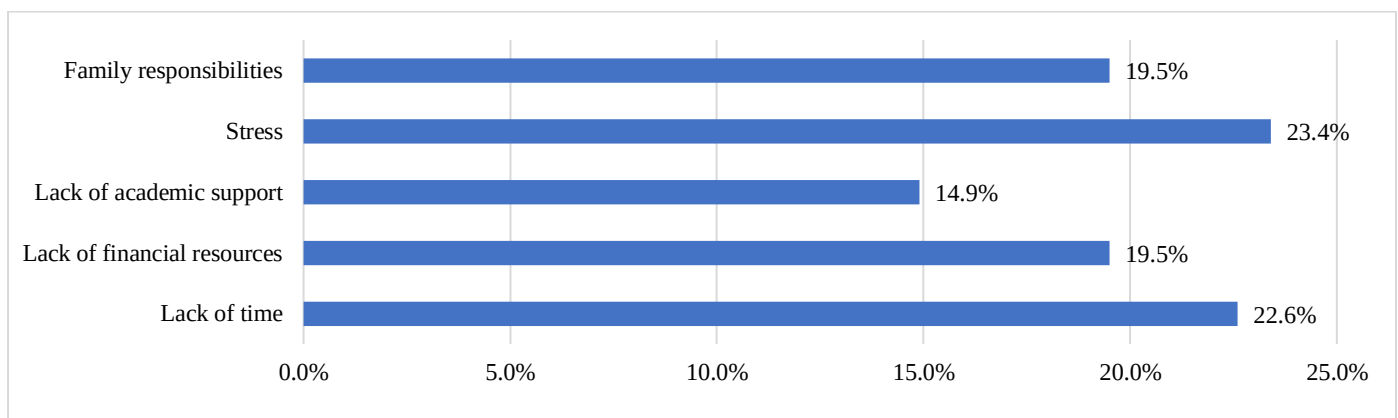
*Ability to concentrate during exams*

The aforesaid statistics show that a considerable number of undergraduate student moms in public universities in Western Region, Kenya struggle with concentration during exams due to the demands of motherhood. With 47.5% of respondents reporting poor or very poor concentration, research shows that juggling academic commitments with maternal duties severely effects their capacity to focus during tests. This suggests that some student mothers are able to handle their responsibilities more successfully, perhaps as a result of stronger academic resilience or support networks, as 19.5% of respondents rated their concentration as average and 32.9% as good or excellent. Given the strong correlation between student moms' learning outcomes and academic achievement and their capacity to focus, these findings highlight the significance of addressing the psychosocial difficulties they encounter.

The responses above were in agreement with the findings obtained from heads of department during interview when they were asked on whether student mothers in their department face difficulties in concentrating during exams due to their caregiving duties. HOD3 on 18<sup>th</sup> April 2025 stated that;

*"Yes, some student mothers face challenges focusing during exams, often due to stress or exhaustion from their caregiving duties. We try to accommodate them by offering exam flexibility or extra support, such as providing additional study resources or allowing for breaks during long exams."*

Respondents were asked to give the main reason they believe impacts their academic success as a student mother. The results were shown in Figure 6.



**Figure 6**

*Reasons that Impact Success as a Student Mother*



The above data show that undergraduate student mothers in public universities in Western Region, Kenya encounter a variety of problems that significantly impair their academic progress. The biggest obstacles are stress (23.4%) and time constraints (22.6%), which are probably related to the difficulties of juggling maternal and academic obligations. Furthermore, 19.5% of respondents said that their academic performance was hampered by a lack of financial resources and family duties, suggesting that these factors are also quite important. In addition, 14.9% of respondents cited a lack of academic support as a barrier, indicating that their difficulties are made worse by a lack 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 psychosocial experiences and learning outcomes among student mothers. Chi Square test of independence for psychosocial experiences and learning outcomes. The results for Chi Square test of independence for psychosocial experiences and learning outcomes were presented in Table 4.

**Table 4**

*Chi Square Test of Independence for Psychosocial Experiences and Learning Outcomes*

|                              | Value               | df | Asymp. Sig. (2-sided) |
|------------------------------|---------------------|----|-----------------------|
| Pearson Chi-Square           | 51.167 <sup>a</sup> | 13 | .000                  |
| Likelihood Ratio             | 53.564              | 13 | .001                  |
| Linear-by-Linear Association | 7.321               | 13 | .000                  |
| N of Valid Cases             | 260                 |    |                       |

These results indicate that there is a statistically significant relationship between psychosocial experiences and learning outcomes for student mothers in public universities in Western Region, Kenya. Since the Chi-square values are greater than 5.99 and the p-values are less than 0.05, we can reject the null hypothesis, confirming that psychosocial experiences have a meaningful impact on the learning outcomes of these students. This suggests that the psychosocial factors influencing student mothers are crucial in determining their academic success.

#### 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 academic resilience. The model summary results were shown in Table 5.

**Table 5**

*Model Summary<sup>b</sup> for Psychosocial Experiences and Learning Outcomes*

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1     | .761 <sup>a</sup> | .579     | .552              | .439                       |

The results indicate an R-value of 0.761 and an R square of 0.579, signifying a robust and significant correlation between psychosocial events and learning outcomes. An R-value of 0.761 indicates a strong correlation. Still, an R-square value of 0.579 means that approximately 58% of the variance in learning outcomes is attributable to the psychosocial stressors encountered by student mothers. The residual variation in learning outcomes, totaling 42.1%, was attributable to variables outside the model.

#### 4.5 ANOVA<sup>a</sup> for Psychosocial Experiences and Learning Outcomes

ANOVA was employed to ascertain whether statistically significant variations exist between psychosocial experiences 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. The ANOVA findings were shown in Table 6.

**Table 6***ANOVA<sup>a</sup> for Psychosocial Experiences and Learning Outcomes*

| Model |            | Sum of Squares | df  | Mean Square | F     | Sig.              |
|-------|------------|----------------|-----|-------------|-------|-------------------|
| 1     | Regression | 69.214         | 1   | 69.214      | 38.71 | .003 <sup>b</sup> |
|       | Residual   | 463.116        | 259 | 1.79        |       |                   |
|       | Total      | 532.330        | 260 |             |       |                   |

The results indicate an F value of 38.71, significantly beyond the crucial F value of 3.87, with a significance value of 0.003, below the p-value of 0.05. This signifies that the disparities in learning outcomes attributable to psychosocial events are statistically significant. Consequently, we can ascertain that psychosocial experiences significantly influence the academic performance of student mothers in public institutions in Western Region, Kenya, and these experiences lead to disparities in their learning results.

#### 4.6 Regression Analysis

Regression analysis examined the relationship between psychosocial experiences and student mothers' learning outcomes in Western Region, Kenya's public universities. The results were shown in Table 7.

**Table 7***Regression Coefficients for Psychosocial Experiences and Learning Outcomes*

| Model |            | Unstandardized Coefficients |            | t      | Sig. |
|-------|------------|-----------------------------|------------|--------|------|
|       |            | B                           | Std. Error |        |      |
| 1     | (Constant) | 2.127                       | 0.913      | 2.331  | .000 |
|       | PE         | -1.213                      | 0.231      | -5.251 | .003 |

The data above suggest a constant value of 2.127, signifying that in the absence of psychosocial experiences, the learning outcome for student moms in public institutions in Western Region, Kenya is 2.127. The constant is statistically significant because the t-value of 2.331 exceeded the crucial value of 1.649. This was further supported by a significance value of 0.00, less than 0.05.

The regression coefficient for psychosocial experiences was -1.213, with a t value of -5.251, below the crucial t value of -1.649, and a significance value of 0.003, less than 0.05. This indicates a statistically significant and negative effect of psychosocial experiences on the academic performance of student mothers. The study rejects the null hypothesis, which posited that psychosocial experiences do not significantly influence learning results. A unit increase in psychosocial experience results in a decrease of 1.213 units in the learning outcomes of student mothers. This illustrates that psychosocial factor, including stress, stigma, and insufficient social support, might diminish the academic performance of student mothers by impacting their mental health, concentration, and motivation. Such adverse experiences may result in academic disengagement, reduced self-esteem, and heightened challenges in reconciling parenting with academic obligations.

## V. CONCLUSION & RECOMMENDATIONS

### 5.1 Conclusion

The results from descriptive statistics showed that most respondents agreed that psychosocial experiences affected the learning outcomes of student mothers in public universities in Western Region, Kenya. This is due to various factors, such as most student mothers feeling stressed about balancing their financial responsibilities and academic goals. Also, most student mothers struggle to keep up with their academic duties due to their parenting role. The regression analysis results also show that psychosocial experiences affected student mothers' learning outcomes in Western Region, Kenya's public universities. Thus, the study rejected the null hypothesis that psychosocial experiences of student motherhood have no significant effect on learning outcomes at public universities in Western Region, Kenya. Therefore, the study concluded that psychosocial experiences significantly affected student mothers' learning outcomes in Western Region, Kenya's public universities.

### 5.2 Recommendations

The results from descriptive statistics showed that most respondents feel stressed about balancing their motherhood responsibilities with their academic goals. Therefore, universities in Western Region, Kenya should implement targeted support services for student mothers, such as flexible class schedules, on campus-childcare facilities, and academic counselling. This would help student mothers better balance their academic and parenting responsibilities, ultimately improving their learning outcomes and reducing stress.



Due to the parenting role, most respondents struggle to keep up with their academic responsibilities. Therefore, it is recommended that universities provide financial assistance programs specifically for student mothers, such as scholarships or stipends. Financial support would alleviate stress associated with balancing academic goals and motherhood responsibilities, helping student mothers stay focused and succeed in their studies.

Most respondents stated that most universities do not provide adequate academic resources to help them succeed as student mothers. Therefore, universities should create a supportive community for student mothers by establishing peer networks or mentorship programs. Access to other student mothers who share similar experiences would provide emotional support and practical advice, fostering a sense of belonging and increasing overall academic persistence.

### 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.

### Funding Declaration

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

## REFERENCES

- Adofo. (2013). *Challenges and coping strategies of student nursing mothers in tertiary institutions in the Greater Accra Region of Ghana* [Doctoral dissertation, University of Ghana].
- Ajayi, K. V., Ma, P., & Akinlotan, M. (2021). Commentary: COVID-19 and the vulnerability of single mothers in institutions of higher education. *Family & Community Health*, 44(4), 235.
- Alshalawi, A. (2020). A review of women and higher education in Saudi Arabia. *Journal of Contemporary Scientific Research*, 4(3), 116–130.
- Burk, B. N., Mausolf, A. P., & Oakleaf, L. (2022). Pandemic motherhood and the academy: A critical examination of the leisure-work dichotomy. In *Leisure in the time of coronavirus* (pp. 24–30).
- Crossouard, B., & Dunne, M. (2021). Gender and education in postcolonial contexts. In *Oxford Research Encyclopedia of Education*.
- Deng, Y., Cherian, J., Khan, N. U. N., Kumari, K., Sial, M. S., Comite, U., & Popp, J. (2022). Family and academic stress and their impact on students' depression level and academic performance. *Frontiers in Psychiatry*, 13, 869337.
- Dierckx, M., Mortelmans, D., & Motmans, J. (2019). Role ambiguity and role conflict among partners of trans people. *Journal of Family Issues*, 40(1), 85–110.
- Huntington-Klein, N. (2021). *The effect: An introduction to research design and causality*. Chapman & Hall/CRC.
- Ikpeama, C. R., & Okoye, U. O. (2024). Perceived importance of social support on undergraduates' academic resilience in a Nigerian university: Where do social workers come in? *Journal of Social Work in Developing Societies*, 6(1), 74–90.
- Kensinger, C., & Minnick, D. J. (2018). The invisible village: An exploration of undergraduate student mothers' experiences. *Journal of Family and Economic Issues*, 39, 132–144.
- Kisanga, S. E., & Matiba, F. M. (2023). Coping strategies student-mothers employ in pursuing higher education studies in Tanzania: A qualitative study. *Current Psychology*, 42(5), 4143–4154.
- Kosgeys, K. M. (2021). *Lived experiences of undergraduate student mothers in a public university in Kenya* [Unpublished doctoral dissertation, Moi University].
- Lakens, D. (2022). Sample size justification. *Collabra: Psychology*, 8(1), 33267.
- Leavy, P. (2022). *Research design: Quantitative, qualitative, mixed methods, arts-based, and community-based participatory research approaches*. Guilford Publications.
- Matiba, F. M., & Kisanga, S. E. (2021). Student-mothers' experiences in Tanzania's higher education institutions: Motivational factors and challenges. *Journal of Humanities & Social Science (JHSS)*, 10(2).
- Morgan, H. (2022). Conducting a qualitative document analysis. *The Qualitative Report*, 27(1), 64–77.
- Munyua, M. J., Were, D., & Amunga, J. (2022). Influence of student motherhood on academic performance in public universities in Western Kenya. *East African Journal of Arts and Social Sciences*, 5(2), 108–117.
- Murphy, W. M., & Rose, M. (2012). Balancing caregiving and work: Role conflict and role strain dynamics. *Journal of Family Issues*, 33(5), 662–689.
- Mwangi, J. M. (2022). *Motherhood and its influence on learning among undergraduate student mothers in public universities in Western Kenya* [Doctoral dissertation, Kaimosi Friends University].



- Pearson, N., Naylor, P. J., Ashe, M. C., Fernandez, M., Yoong, S. L., & Wolfenden, L. (2020). Guidance for conducting feasibility and pilot studies for implementation trials. *Pilot and Feasibility Studies*, 6, 1–12.
- Rana, M., Osuna, E., Huffaker, H., & Banerjee, M. (2022). Academic resilience among student parents in college: Voices of Latina student mothers. *Research in Human Development*, 19(3–4), 75–100.
- Sanborn, J., Manze, M., & Watnick, D. (2024). Parenting students and indicators of financial stability, health, and academic success: Findings from a population-based sample of public urban university students. *Journal of Urban Health*, 101(2), 371–382.
- Sangawe, I. S. (2020). *The experiences of undergraduate student mothers in balancing between studies and mothering: A case of the University of Dodoma* [Doctoral dissertation, The University of Dodoma].
- Savage, S. (2023). The experience of mothers as university students and pre-service teachers during COVID-19: Recommendations for ongoing support. *Studies in Continuing Education*, 45(1), 71–85.
- Simon, C. R. (2020). *A phenomenology examining the lived experiences of student mothers at community college* [Doctoral dissertation, Liberty University].
- Tamminen, K. A., & Poucher, Z. A. (2020). Research philosophies. In *The Routledge international encyclopedia of sport and exercise psychology* (pp. 535–549). Routledge.
- Webber, L., & Dismore, H. (2021). Mothers and higher education: Balancing time, study and space. *Journal of Further and Higher Education*, 45(6), 803–817.
- Wladkowski, S. P., & Mirick, R. G. (2019). Mentorship in doctoral education for pregnant and newly parenting doctoral students. *Journal of Women and Gender in Higher Education*, 12(3), 299–318.
- Yamane, T. (1973). *Statistics: An introductory analysis*. Harper & Row.