



# Synergistic Effects of Learner Support Systems on the Success of Reintegration Project for Adolescent Mothers in the Lower Eastern Region of Kenya

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## Abstract

Teenage motherhood has been found to frequently be a hindrance to young women's education, attributed to social stigma and inadequate institutional support systems, as they struggle to get reintegrated into the school system. This paper examines the synergistic effect of learner support systems on the performance of the reintegration project for adolescent mothers in secondary schools in Kenya. The study employed a descriptive cross-sectional research design anchored on the systems theory and ecological systems theory. The target population consisted of 21,524 individuals, including 18,079 teenage mothers, 1,370 teachers, and 2,055 student leaders from 685 girls and mixed-day and boarding secondary schools, as well as 20 education officers from the lower Eastern region of Kenya. A sample size of 384 respondents was further obtained. Data were collected through structured questionnaires and structured interview schedules and analysed using descriptive and inferential statistics. Results showed that learner support systems significantly influenced the performance of the reintegration project ( $R^2 = 0.621$ ). There was a strong positive correlation between the combined influence of learner support systems and the performance of the reintegration project for adolescent mothers ( $r = 0.788$ ,  $p = 0.01$ ). The findings underscore the need for integrated learner support frameworks combining institutional, community, and policy interventions.

## Introduction

Education remains a cornerstone of social and economic development, yet adolescent mothers in Kenya continue to face formidable barriers to re-entering and succeeding within the formal education system. Despite policy initiatives such as the re-entry guidelines, teenage pregnancy and related girl child dropouts remain prevalent, partly due to socio-cultural constraints, insufficient institutional support, and weak monitoring mechanisms (Odwe et al., 2021; Mutua et al., 2019). In response, this study sought to investigate the synergistic effects of learner support systems (LSS) on the success of the reintegration project for adolescent mothers in secondary schools. Learner support systems are essential in promoting inclusivity, retention, and completion rates among vulnerable learners (Chattopadhyay, 2014; Conway, 2017; Mutuku et al., 2025; Nsamba & Makoe, 2017).



Learner support systems are institutional and community-based interventions designed to enhance students' academic and psychosocial outcomes (Chatpakkarattana & Khlaisang, 2012). When effectively structured, these systems create an enabling learning environment that fosters resilience and academic persistence among students (Dlamini et al., 2021). Previous research underscores that successful reintegration extends beyond individual motivation and requires coordinated support from teachers, parents, administrators, and the broader community (Mohammadimehr & Mirmoghtadaie, 2021). Further, supportive relationships need to be cultivated through effective communication with all the stakeholders to build a strong student support in schools (The GRAD Partnership, 2024). In the Kenyan context, however, implementation gaps persist, with schools often lacking comprehensive frameworks for addressing adolescent mothers' material, emotional, and childcare needs (Kirema et al., 2024). Anchored on the systems theory as proposed by Von Bertalanffy (1945) and ecological systems theory by Bronfenbrenner (1974), this study conceptualises learner support systems as interrelated subsystems whose collective functioning determines adolescent mothers' reintegration success. By examining the synergistic interaction of these systems, this paper provides empirical insights into how educational institutions can strengthen re-entry mechanisms for adolescent mothers. The findings contribute to educational policy discourse by highlighting the importance of holistic learner support to sustain reintegration outcomes for young mothers in Kenyan secondary schools.

### **Literature Review**

Learner support systems (LSS) remain of great importance in meeting the educational needs of minority groups like adolescent mothers. Past studies have widely addressed learner support systems, but most were conducted in open and distance-learning (ODL) institutions of higher learning (Dlamini et al., 2021; Mohammadimehr and Mirmoghtadaie, 2021; Netanda et al., 2017; Roberts et al., 2015). This leaves contextual and conceptual gaps necessitating this study.

According to the study conducted by Dlamini et al. (2021), learner support systems constitute an environment that favours learning, introduces community activities and offers crucial services. The study by Dlamini et al. (2021) aimed to develop a sustainable student support services framework for a distance-learning institution, highlighting the role of student support systems in enhancing students' satisfaction and retention in college. Furthermore, one of the major causes of dropout from institutions of higher learning has been identified to be a lack of an established learner support system (Dlamini et al., 2021; Nyerere, 2016).

In Netanda et al.'s (2017) exploratory study in South Africa on student support interventions in a competitive higher education (ODL) institution, it was revealed that the support offered to students gave the institution a competitive advantage and enhanced student retention, thereby reducing student attrition. Netanda et al. (2017) demonstrate that a variety of student support, including emotional, financial, academic, and technological support, is essential for student survival in ODL. The study was based on Moore's Transactional Distance Theory, focusing solely on the University of South Africa (UNISA), which limited generalisation of the findings to other African countries. The study revealed that technological, emotional, academic and financial support significantly influence the success and retention of students in UNISA. Netanda et al. (2017) opined that learner support services are the pillar of institutional competitiveness. The study, however, was descriptive rather than the current study, which used both descriptive and inferential statistics.

A case study of an Australian university by Roberts et al. (2015) investigated the provision of student support services in higher education, and the findings revealed differing opinions among students and staff regarding these services. There were barriers to access, awareness levels, cost, and



institutional culture, which hindered their utilisation and, in turn, affected service effectiveness. The study was qualitative in nature, employing questionnaires, focus groups, and interviews, and took place at an international university in a developed country. The current study addressed contextual, methodological, and theoretical gaps by being quantitative in approach and targeting adolescent mothers in secondary schools. The current study was based on the ecological systems theory, which encompasses the multifaceted factors influencing the performance of the reintegration project for adolescent mothers, and the Systems theory, which shows how organisations work with different parts of the system, coordinating to create a harmonious relationship among its parts. Dorsah et al. (2024) carried out research on educational support systems for teenage mothers' schooling in Ghana. The study used a phenomenological research design, qualitative in nature and data were collected using semi-structured questionnaires. The findings indicated that school instructors and learners were willing to assist the re-admitted learners with learning materials, which facilitated their continued learning. The current research investigated the synergistic effects of learner support systems on the success of the reintegration project for adolescent mothers in secondary schools, using a positivist approach. Data were collected using structured questionnaires and structured interview schedules.

Research in an Iranian university blended online learner support system by Mohammadimehr and Mirmoghtadaie (2021) identified a need to establish learner support in both online and physical modes, revealing that learner support is necessary for all students. According to Mohammadimehr and Mirmoghtadaie's (2021) study, learner support systems are important in all educational institutions and should be adopted to assist in meeting a variety of students' needs. This was a qualitative study aimed at exploring the components of blended learning in medical science universities in Iran. However, this study differed from the current study in its context, methodology, and conceptual framework. The current study context is Kenya, a developing economy, which is different from Iran. The current study further targeted a group of adolescent mothers for the reintegration project in secondary schools, adopting a quantitative methodology.

### ***Theoretical Underpinning***

This study is grounded in Systems Theory, as developed by Von Bertalanffy (1945), and in ecological systems theory (Bronfenbrenner, 1979). These theories provided a framework for understanding how diverse learner support systems interact to influence the performance of the reintegration project for adolescent mothers in Kenyan secondary schools. The Systems Theory postulates that organisations and social entities function as interconnected systems composed of interdependent parts working towards a common goal. Each component of the system contributes to the functioning of the whole, and a disturbance in one part inevitably affects the entire system (Von Bertalanffy, 1968).

In this study, the reintegration project for adolescent mothers is viewed as a dynamic system comprising various inputs—such as student support services, stakeholder involvement, and socio-cultural factors—processed through school structures and community mechanisms to produce desired outcomes, such as re-enrolment, retention, and completion. The ecological systems theory views learners' behaviour as shaped by their interactions with the different layers of their environment: microsystem, mesosystem, exosystem, and macrosystem. The interaction of the learner with these layers, consisting of teachers, parents, peers, policies, social norms, home, school and community environments, shapes the learner's behaviour, eventually influencing their development.

These theories underscore the necessity of a coordinated approach among schools, families, policymakers, and communities to achieve optimal reintegration outcomes. The performance of the reintegration project is therefore dependent on the synergy and balance among these interconnected subsystems and the system's multifaceted layers.



The study hypothesis stated that:

Ho: Learner Support Systems have no significant relationship with the performance of the reintegration project for adolescent mothers in secondary schools.

## **Methods**

This study adopted a positivist research philosophy, which emphasises objectivity and empirical measurement of observable phenomena (Saunders et al., 2016). The approach was appropriate for examining the relationships between learner support systems (LSS) and the performance of the reintegration project for adolescent mothers using quantifiable data (Creswell, 2014). Guided by this paradigm, the study employed a descriptive cross-sectional survey design, suitable for assessing relationships among variables measured at a single point in time (Cummings, 2021).

Stratified random sampling was used to ensure equal representation of the schools in the four counties: Kitui, Makueni, Machakos and Taita Taveta. Systematic random sampling was used to select 60 secondary schools to form a representative sample of the target population of 685 girls and mixed-day and boarding secondary schools. The Krejcie and Morgan table (1970) was utilised to determine the desired sample size of 384 participants from a total population of 21,524, comprising 2,055 student leaders, 1,370 teachers, 18,079 adolescent mothers, and 20 education officers. A total of 120 teachers (two from each school) and 180 student leaders (three from each school) were purposively sampled for the research study. Purposive and snowball sampling techniques were used to obtain a sample of 80 adolescent mothers who had been re-admitted to the public secondary schools. In addition, four education officers, one from each county, selected through purposive sampling, were interviewed through a structured interview schedule as key informants on learner support systems put in place in schools to foster the performance of the reintegration project for adolescent mothers.

Data were collected using structured questionnaires for teachers, student leaders, and adolescent mothers, and a structured interview schedule for education officers, who served as key informants. Ethical considerations were observed by ensuring voluntary participation, anonymity, and confidentiality throughout data collection (Mirza et al., 2023). Instrument validity was established through expert review and alignment with literature to ensure face, content, and construct validity (Mugenda & Mugenda, 2019). Reliability was tested through a pilot study involving 38 respondents (10% of the sample) across six schools that would not form part of the actual study. Cronbach's Alpha coefficients ranged from 0.702 to 0.929, exceeding the 0.7 threshold recommended for social research (Kothari, 2004).

Quantitative data were coded and analysed using the Statistical Package for Social Sciences (SPSS). Descriptive statistics (means, standard deviations, and frequencies) were used to summarise data, while inferential analyses, including Pearson's correlation and linear regression, tested the relationships among LSS and reintegration performance (Cooksey, 2020). Diagnostic tests were performed to assess the validity of regression assumptions, and the results were presented in tables and figures for interpretation.

## **Results**

### ***Descriptive Analysis***

The objective of this study was to establish the influence of learner support systems on the performance of the reintegration project for adolescent mothers in secondary schools. Learner support systems in this study constituted a combination of three variables: student support services, social and



cultural norms and stakeholder involvement, which were computed to form the independent variable in this study.

Perceptions of the reintegration project for adolescent mothers were obtained from teachers, student leaders, and education officers, who were key informants for this school project. The results are displayed in Table 1.

*Table 1: Teachers', Students' and Education Officers' Responses on the Performance of the Reintegration Project for Adolescent Mothers in Secondary Schools*

Variable	Teachers' Response			Students' Response			Education Officers' Response		
	Mean	Std. Deviation	CV	Mean	Std. Deviation	CV	Mean	Std. Deviation	CV
Re-enrolment of adolescent mothers has improved	3.71	1.024	0.2760	2.91	1.362	0.4680	2	0	0
Adolescent mothers' satisfaction level with the re-entry project	2.93	0.945	0.3225	2.81	1.357	0.4829	2.25	0.957	0.4253
Adolescent mothers' school completion rates have improved	3.48	0.869	0.2497	3.18	1.197	0.3764	2.25	0.500	0.2222

Number of Teachers = 120  
 Number of Students = 160  
 Number of Education Officers = 4

The teachers had a mean of 3.71 on re-enrolment, 3.48 on completion, and 2.93 on learner satisfaction as performance indicators, with a low coefficient of variation indicating low variability among the teachers' responses. This shows a moderate perception of the reintegration initiatives targeting adolescent mothers; hence, the general observation is that there are improvements in re-enrolment and retention of adolescent mothers in schools, implying some success in the reintegration project in secondary schools. The lowest mean among the students was 2.81 for learner satisfaction with the reintegration project and M=3.18 for completion rates, showing moderate performance of the reintegration project. The views of the key informants had a low mean of 2.0 to 2.25 across all three indicators, indicating a low perception of the reintegration project's performance. The majority of respondents agreed that there was an improvement in the re-enrolment of adolescent mothers in schools, indicating good progress for this project. However, not all adolescent mothers who re-enrolled completed their studies and their level of satisfaction with the reintegration project was low.

With regard to adolescent mothers' views on the performance of reintegration project for adolescent mothers, they were asked to give their opinions on the items of the Likert-type questions in the questionnaire. The questions were on a scale of 1 to 5, ranging from the smallest to the highest; Strongly Disagree (SD)=1, Disagree(D)=2, Neutral(N)=3, Agree (A)=4, Strongly Agree (SA)=5. After which their means and standard deviation were calculated to ascertain the level of agreement with the statement and the composite mean and standard deviation obtained helped to gauge the



adolescent mothers' level of agreement with the performance of reintegration project for adolescent mothers in secondary schools. The results are as illustrated in Table 2.

Table 2: Analysis of Performance of Reintegration Project for Adolescent Mothers (Adolescent mothers)

Statement	SD	D	N	A	SA	M	Standard Deviation
The reintegration project has encouraged other adolescent mothers in my community to re-enrol in school.	4 (5.2%)	16 (20.8%)	24 (31.2%)	23 (29.9%)	10 (13.0%)	3.25	1.090
The support provided to me by my teachers has helped to improve my academic performance.	2 (2.6%)	17 (22.1%)	28 (36.4%)	19 (24.7%)	11 (14.3%)	3.26	1.044
I am satisfied with the school reintegration project because of the resources and support offered to us by the school	7 (9.1%)	12 (15.6%)	27 (35.1%)	23 (29.9%)	8 (10.4%)	3.17	1.105
The re-entry requirement of adolescent mothers to school has encouraged many to remain in school	6 (7.8%)	10 (13.0%)	23 (29.9%)	31 (40.3%)	7 (9.1%)	3.30	1.065
My grades have improved since re-enrolling in school.	2 (2.6%)	16 (20.8%)	28 (36.4%)	21 (27.3%)	10 (13.0%)	3.27	1.021
<b>Composite Mean</b>						<b>3.25</b>	<b>1.065</b>

The study assessed how the reintegration project has performed and whether it has been effective in encouraging adolescent mothers to return to and remain in school. Overall, 42.9% of the adolescent mothers agreed that the reintegration project has encouraged other adolescent mothers in their community to return to school, with 29.9% agreeing and 13% strongly agreeing. Meanwhile, 32.2% were neutral, and 20.8% disagreed with the statement. This item had a mean of 3.25 and a standard deviation of 1.090, implying a neutral stance on the statement. This may imply that some adolescent mothers have returned to school, while others have not yet done so. The statement concerning satisfaction with the support offered under the adolescent mothers' reintegration project, 41.6% of the adolescent mothers expressed satisfaction, and 35.1% were divided in opinion. However, 24.7% felt the reintegration project was not performing as expected and were dissatisfied with the support provided by the school in terms of school supplies, textbooks, and fees. This statement had a mean of 3.17 and a standard deviation of 1.105, which were below the composite mean, indicating that satisfaction was below average.

Also, the response to the support provided to adolescent mothers by teachers was moderate, with a mean item score of 3.26, slightly higher than the composite mean of 3.25, indicating that, on average, limited support has been offered to help adolescent mothers in school improve their academic performance. A total of 39.4% of adolescents acknowledged the existence of academic support towards them, while a good number of adolescent mothers 61.1% were either unsure or disagreed with the kind of support received from teachers

The statement "My grades have improved since re-enrolment" had 40.3% of the adolescent mothers agree that their grades had improved since their re-enrolment in school, while 59.8% were not in



agreement or were neutral with this statement on improved academic performance. The mean for this item was 3.27, indicating moderate agreement among the adolescent mothers regarding academic improvement.

Furthermore, the adolescent mothers agreed that the re-entry requirement had assisted them in continuing their education (49.4%), while 20.8% disagreed with this statement. A few adolescent mothers had divided opinions (29.9%). These results indicated poor academic performance among adolescent mothers on their re-entry and consequent reintegration into school. The calculated mean of means indicates a moderate level of performance for the reintegration project, with a mean of 3.25 and a standard deviation of 1.065.

**Linear Regression Analysis**

To investigate the combined influence of learner support systems on the performance of the reintegration project for adolescent mothers in secondary schools, and to test the research hypothesis, a multiple linear regression analysis was performed

**Ho:** Learner Support Systems have no significant relationship with the performance of the reintegration project for adolescent mothers in secondary schools.

The model summary is shown in Table 3

*Table 3: Correlation of Learner Support Systems on the Performance of the Reintegration Project for Adolescent Mothers*

Model	R	R-Square	Adjusted R-Square	Std. Error of the Estimate	Change Statistics				
					R-Square Change	F Change	df1	df2	Sig. F Change
1	.788 <sup>a</sup>	.621	.605	.53500	.621	39.799	3	73	.000

a. Predictors: (Constant), Stakeholder Involvement, Social Cultural Norms, Student Support Services

A Pearson correlation coefficient of  $r = 0.788$ , which shows the combined strength and direction of the linear relationship, implying a strong positive correlation between learner support systems and the performance of the reintegration project for adolescent mothers. This indicates that as learner support systems increase, the performance of the reintegration project for adolescent mothers also increases. The coefficient of determination (R-Square) of 0.621 was obtained, indicating that 62.1% of the variability in the performance of the reintegration project for adolescent mothers can be explained by learner support systems, reflecting the combined effect of the three predictors: student support services, stakeholder involvement, and social and cultural norms. The remaining 37.9% can be attributed to other variables outside the scope of this model. The p-value ( $p = 0.000$ ,  $p < 0.001$ ) shows that the three predictors jointly significantly explain the variability in performance of the reintegration project for adolescent mothers. The results confirm that the multiple regression model is a good fit for the data. Table 4 demonstrates the coefficient of learner support systems.



*Table 4: Coefficient of Learner Support Systems*

Model	Unstandardised Coefficients		Standardised Coefficients Beta	T	Sig.	95.0% Confidence Interval for B	
	B	Std. Error				Lower Bound	Upper Bound
(Constant)	.777	.453		1.715	.091	-.126	1.681
1 Student Support Services	.467	.074	.498	6.325	.000	.320	.614
Social Cultural Norms	-.200	.085	-.180	-2.356	.021	-.369	-.031
Stakeholder Involvement	.489	.091	.402	5.388	.000	.308	.670

a. Dependent Variable: Performance

The results from the model show a betta value,  $\beta_0 = 0.777$ , indicating that when all predictor variables are zero, the performance of the reintegration project for adolescent mothers will be 0.777. Examining the influence of each variable on the model, it is observed that for every unit of student support services, performance is expected to increase by 0.467 units, and for every unit of stakeholder involvement, performance is expected to increase by 0.489 units. However, social cultural norms have a negative effect on the performance of the reintegration project for adolescent mothers, in that a one unit increase in unfavourable social cultural norms, performance decreases by -0.200 when all the other variables are constant. Student support services are the most influential predictor with a beta value of 0.498, and have a highly significant influence on the performance of the reintegration project for adolescent mothers ( $t=6.325$ ,  $p=0.000$ ). Stakeholder involvement is the second most influential predictor, with  $\beta_0 = 0.402$ , which is highly significant ( $t = 5.388$ ,  $p = 0.000$ ). Socio-cultural norms have a statistically significant negative impact,  $\beta_0 = -0.180$ , and less influence than the other predictors. However, this influence is statistically significant ( $t = 0.2356$ ,  $p = 0.021$ ). Owing to the above results that show that all the independent variables in learner support systems comprising: student support services, stakeholder involvement and social cultural norms, have a significant influence on the performance of the adolescent mothers’ reintegration project, the research hypothesis (Ho) stating there is no significant relationship between learner support systems and performance of reintegration project for adolescent mothers was rejected and the alternative hypothesis accepted. The alternative hypothesis stated that learner support systems have a significant relationship with the performance of the reintegration project for adolescent mothers in secondary schools. The three predictor variables were found to have a significant influence on performance outcomes in the adolescent mothers’ reintegration project, confirming their synergistic effects on reintegration.

The multiple regression equation derived is as shown;

$$\text{Model 4: } Y = 0.777 + 0.467X_1 - 0.200X_2 + 0.4889X_3 + \epsilon$$

Where:

Y = Performance of the reintegration project for adolescent mothers

$X_1$  = Student Support Services

$X_2$  = Social Cultural Norms

$X_3$  = Stakeholder Involvement

$\epsilon$  = Random error term

The multiple regression model shows that learner support systems with the three predictors, student support services, stakeholder involvement and social and cultural norms are significant predictors of performance since 62.1% of the variance in performance can be explained by the combined predictors.



The study concluded that the combined learner support systems enhance the performance outcome of the reintegration project for adolescent mothers in secondary schools.

### **Discussion**

The study aimed at examining the synergistic effects of learner support systems on the success of the reintegration project for adolescent mothers in Kenyan secondary schools. The findings revealed the existence of perceived barriers such as stigma, unconducive environments at school and weak support mechanisms to the reintegration of adolescent mothers in some contexts. In contrast to the study findings, Dorsah et al.'s (2024) study on educational support systems for teenage mothers' schooling, findings indicated that school instructors and peers assisted the learners with material supplies, which facilitated their continuity with learning.

The descriptive results on the performance of the reintegration project for adolescent mothers reveal a low level of satisfaction among the adolescent mothers, indicating a moderate support from the school to the adolescent mothers geared at improving the performance of the reintegration project; hence, more resources need to be set aside to support the reintegration project for adolescent mothers. For instance, the study findings revealed that the level of support accorded to adolescent mothers by teachers in their reintegration to school was not as required in most schools, which made it difficult for the adolescent mothers to study comfortably. The study found a need for more commitment on the part of the teachers as stakeholders to improve the performance of the reintegration project for adolescent mothers in schools by either initiating extra classes for the adolescent mothers or a flexible timetable to cater for those who may miss class due to the sickness of the baby or lack of a caregiver. Hence, the results imply that more intervention measures to support this initiative of reintegration to school ought to be implemented in schools.

The descriptive results are in line with Koech et al.'s (2019) study findings, which showed that adolescent mothers' dual responsibility leads to poor academic performance, preoccupation in class, and repeated school absences. Also, Miriti and Mutua's (2019) research findings in Kitui indicated that young mothers consequently drop out of school or display persistent low performance in school, hence require support intervention measures. The study by Mbugua (2013) revealed that when learners received support from the school, there was an increase in the enrolment of teenage mothers.

The majority of respondents agreed that there was an improvement in the re-enrolment of adolescent mothers in schools, indicating good progress for this project. In line with Netanda et al.'s (2017) study findings, which showed that support offered to the students enhanced student retention and success, hence reducing student attrition. However, not all adolescent mothers who re-enrolled completed their studies and their level of satisfaction with the reintegration project was low. These findings align with Staffin's (2018) research, which examined how the community support system assisted young adults in reintegration into community life after a period of separation from their families and found low levels of satisfaction among this vulnerable group. Dlamini et al.'s (2021) study findings emphasised the role of student support systems in enhancing students' satisfaction and retention in college. The research findings were in line with existing research that, for instance, in the United States of America (USA), Cone et al. (2021) found that teenage mothers' graduation rate was at the 50% mark, while their dropout rate was relatively high (65%). According to a Huisman and Smits (2015) study, in 30 countries across the American, Asian, and African continents, a large proportion of girls were underrepresented at lower levels of education than at higher levels, indicating a higher dropout rate among girls as they grow older.



The study findings revealed moderate agreement among the adolescent mothers on academic improvement. These results imply that more intervention measures to support this initiative of reintegration to school ought to be implemented in schools. Measures such as extra-tuition classes and time for recovery from missed work can help improve adolescent mothers' academic performance. Hence, there was a need to strengthen teacher support for adolescent mothers' learning, enhance the learner support system through greater stakeholder engagement, and increase resources for student support, to improve the success of the reintegration project for adolescent mothers in secondary schools. The study's findings align with Asamoah's (2019) research on the institutional support system and peer support provided to postgraduate students, which revealed a need for family, peer, and institutional support to help students achieve their goals in the university. The research findings demonstrated a positive impact on university students' learning activities despite the difficulties they encountered.

The inferential analysis showed that learner support systems have a significant influence on the adolescent mothers' reintegration project's success, thereby serving as an important determinant of its success. The study concluded that the combined learner support systems, comprising stakeholder involvement, student support services, and favourable social and cultural norms, enhance the performance outcomes of the reintegration project for adolescent mothers in secondary schools. These findings align with Nyerere's (2016) research, which revealed a strong relationship between learner support systems and students' graduation and completion rates in the university's ODL programme. The study highlighted that a weak learner support system compromises students' ability to complete their course. Additionally, the study identified a lack of support for the weak groups in the population. The research by Ahmady et al. (2023) revealed that a robust learner support system had a significant impact on student retention and progress in a virtual university in Iran, suggesting that learning institutions should provide facilities to support learners. In agreement with the current study, Ahmady et al. (2023) opined that the learner support system should be considered as a whole, including all components at the micro, meso, and macrosystemic levels.

### **Conclusion**

This study examined the synergistic effects of learner support systems (LSS) comprising student support services, stakeholder involvement, and socio-cultural norms on the performance of the reintegration project for adolescent mothers in Kenyan secondary schools. Grounded in Systems Theory and the ecological systems theory, the study established that effective learner support systems significantly enhance the reintegration and academic persistence of adolescent mothers. Learner support systems encompassing student support services, social and cultural norms and stakeholder involvement acted as subsystems. The theory's emphasis on the system's interaction with the environment, resources, and cultures, and on how the environment shapes human behaviour, is relevant to the reintegration of adolescent mothers into school. The interaction between the different aspects of the learner support system shapes learning and influences the learner and the overall reintegration project performance.

The results demonstrated that student support services exerted the strongest positive influence on project performance, followed by stakeholder involvement, while socio-cultural norms exerted a negative yet significant effect. The findings reaffirm that reintegration success depends on the coordinated functioning of multiple systems, including schools, families, communities, and policy institutions. When these systems interact synergistically, they create an enabling environment for adolescent mothers to return to and thrive within the education system. Conversely, fragmented support, cultural stigmatisation, and weak monitoring mechanisms undermine the sustainability of



reintegration initiatives. Thus, addressing the reintegration challenge requires a holistic, system-wide approach that integrates psychosocial, institutional, and community-level interventions. This study focused only on adolescent mothers in school and did not include those who had not returned to school or those whose parents or guardians were not involved, which could be a focus of future research.

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