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EDUCATION SUPPORT PARTNERS' INVOLVEMENT AND PUPILS' ACADEMIC PERFORMANCE IN PRIMARY SCHOOLS IN BUKANGA COUNTY, ISINGIRO DISTRICT, UGANDA: EXAMINING THE RELATIONSHIP

Arinda Sarah *, Basil Tibanyendera and Enock Barigye

Department of Foundations, Distance and LongLife Learning, Faculty of Education, Arts and Media Studies, Bishop Stuart University, Mbarara, Uganda.
* Corresponding Author Email: saraharinda2019@gmail.com

ORCID Details
Arinda Sarah: https://orcid.org/0009-0001-5952-7283
Enock Barigye: https://orcid.org/0000-0002-2721-3271

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ABSTRACT

Education Support Partners (ESPs) are widely assumed to improve pupils' academic performance, yet this relationship is rarely tested empirically at the level of discrete intervention dimensions within a single rural Ugandan district. This article, drawn from a wider study, examined the relationship between ESP involvement and pupils' academic performance in primary schools in Bukanga County, Isingiro District, Uganda. A cross-sectional correlational design nested within a mixed-methods approach was used. Correlation and regression analyses were conducted using teacher-level data (n = 20), the only respondent category providing paired ratings of both ESP involvement and academic performance, while qualitative data were obtained from headteachers and ESP representatives across four primary schools. Data were analysed using Pearson correlation, multiple linear regression, and thematic analysis. Findings revealed a strong, positive, and statistically significant relationship between overall ESP involvement and pupils' academic performance ($r = 0.631$, $p = 0.003$). Among individual dimensions, teacher support and training showed the strongest correlation ($r = 0.601$, $p = 0.005$) and was the only dimension to remain an independent, significant predictor in the regression model ($\beta = 0.415$, $p = 0.020$), which jointly explained 52.3% of the variance in academic performance ($R^2 = 0.523$, $F(5, 14) = 3.071$, $p = 0.042$). ESP involvement is significantly and positively associated with pupils' academic performance, with teacher-focused support exerting the most robust independent influence, although the small correlational sample and cross-sectional design warrant caution in interpreting causality. ESPs and school administrators should prioritise sustained, well-coordinated teacher support and training alongside other service dimensions, while future research should employ larger samples and longitudinal designs to strengthen causal inference.

Keywords: Education support partners, Academic performance, Primary schools, Teacher training, Bukanga County, Isingiro District

1 INTRODUCTION

The involvement of education support partners (ESPs), including non-governmental organisations, faith-based organisations, and international agencies, has increasingly been recognised as a vital factor in enhancing pupils' academic performance in under-resourced primary education systems. According to UNESCO (2020), partnerships between schools and external actors have contributed to increased retention, improved learning outcomes, and reduced dropout in many developing countries. In sub-Saharan Africa, several studies affirm a positive association between ESP involvement and academic performance: Komba et al. (2017) found in Tanzania that schools supported by NGOs with teaching materials and feeding programmes recorded significantly higher performance in national examinations than unsupported schools, while Nyakwara (2014) reported in Kenya that interventions by education partners, including textbook provision and mentorship programmes, improved learners' performance and participation in marginalised rural areas.

In Uganda, the government has collaborated with education partners, particularly under the Universal Primary Education programme, to boost access and quality of education, with organisations such as Save the Children, BRAC, and World Vision associated with improved learning environments, teacher capacity, and support for vulnerable pupils in rural districts, including Isingiro (Ministry of Education and Sports, 2021). Despite this, the effectiveness of ESPs is not automatic: Musasizi (2018) cautioned that some NGO-implemented education programmes in Uganda have had limited impact because of poor alignment with school needs and inadequate community engagement, underscoring that a well-structured, coordinated relationship between schools, government, and support partners is critical for interventions to translate into improved outcomes.

Bukanga County, Isingiro District, presents a context in which this relationship is of direct policy relevance: despite the continued presence of ESPs such as Compassion International, Building Tomorrow Uganda, Fin Church Aid, World Vision Uganda, War Child, and UNICEF, the county continues to register weak academic outcomes, with promotion and repetition rates falling short of national benchmarks (Ministry of Education and Sports [MoES], 2023; Isingiro District Education Office, 2023). Although prior studies report broadly positive associations between ESP involvement and performance, they rarely examine which specific dimensions of ESP involvement, scholastic materials, infrastructure, teacher support, bursaries, or feeding, are most strongly associated with which performance indicators within a single rural district. This gap motivated the third objective of the wider study from which this article is drawn, namely, to establish the relationship between the involvement of education support partners and pupils' academic performance in primary schools in Bukanga County, Isingiro District. The first two objectives of that study, addressing the types of ESP support services and the levels of pupils' academic performance, have been reported elsewhere.

The study was anchored on Human Capital Theory (Schultz, 1961; Becker, 1964), which conceptualises investments in education, such as scholastic materials, teacher training, and infrastructure, as inputs that build the human capital through which future productivity and learning gains are realised. Within this framework, ESP involvement was conceptualised as a composite independent variable operationalised across five dimensions, provision of scholastic materials, infrastructure development, teacher support and training, bursary and sponsorship schemes, and school feeding programmes, hypothesised to be positively associated with pupils' academic performance, measured through grade promotion and classroom participation.

Guided by these considerations, the study was directed by the null hypothesis that there is no statistically significant relationship between education support partners' involvement and pupils' academic performance in primary schools in Bukanga County, Isingiro District. This article reports the quantitative and qualitative evidence generated to test this hypothesis, discusses the findings in relation to theory and prior empirical work, and draws conclusions and recommendations relevant to ESPs, school administrators, the District Education Office, and policymakers.

2 METHODOLOGY

2.1 Research Design

This article is drawn from a wider study that examined education support partners' involvement and pupils' academic performance in primary schools in Bukanga County, Isingiro District. The specific analyses reported here relate to the study's third objective, which sought to establish the relationship between the two variables. The study employed a cross-sectional design nested within a mixed-methods framework, appropriate because data were collected at a single point in time, covering the 2023–2025 academic period, without experimental manipulation of variables. The correlational dimension of the design was essential for this objective: it allowed the researcher to statistically test the nature and strength of the relationship between the independent variable, ESP involvement, operationalised across five dimensions, and the dependent variable, pupils' academic performance.

2.2 Study Population and Sample

The study was conducted in four primary schools in Bukanga County, Isingiro District, drawn from a target population of approximately 2,700 upper primary pupils, 100 teachers, 10 headteachers, and 5 ESP representatives. The sample size was determined using Yamane's (1967) formula at a 5% margin of error, yielding a target sample of 350 respondents. Of these, 221 participated (192 pupils, 20 teachers, 4 headteachers, and 5 ESP representatives), an overall response rate of 63.1%. Critically for this objective, the Pearson correlation and multiple regression analyses reported here were conducted using teacher-level data only (n = 20), because the teacher questionnaire was the only instrument that captured both the independent variable, ratings across all five ESP involvement dimensions, and the dependent variable, promotion rate and classroom participation, from the same respondent, allowing valid pairwise linkage of predictor and outcome scores. The pupil questionnaire measured only perceived helpfulness of ESP support and did not capture the five dimensions individually; pupil data were therefore analysed descriptively rather than correlated. This restriction of the inferential sample to n = 20 constrains statistical power and is treated as a limitation of the study, discussed further below.

2.3 Data Collection Instruments

Quantitative data were collected using a structured questionnaire administered to teachers, capturing Likert-scale ratings of ESP involvement across five dimensions, provision of scholastic materials, infrastructure development, teacher support and training, bursary and sponsorship schemes, and school feeding programmes, alongside teacher-rated academic performance indicators, including promotion rate and classroom participation. Qualitative data were collected through semi-structured, face-to-face interviews with headteachers and ESP representatives, exploring their perceptions of how ESP involvement related to pupils' academic performance.

2.4 Validity and Reliability

Content validity was established using two independent experts who rated each questionnaire item on a four-point relevance scale, from which a Content Validity Index (CVI) was computed; the teacher questionnaire (12 items) achieved a CVI of 0.92, exceeding the 0.70 threshold recommended by Amin (2005). Reliability was assessed through a pilot study with teachers from schools outside the main sample; the teacher questionnaire returned a Cronbach's Alpha of 0.79, exceeding the 0.70 threshold recommended by Nunnally (1978).

2.5 Data Analysis

Quantitative data were cleaned, coded, and entered into SPSS version 27. To determine the relationship between overall ESP involvement and pupils' academic performance, Pearson's product-moment correlation coefficient was computed. To examine the pattern of association among the five individual ESP involvement dimensions and academic performance, a correlation matrix was computed. To establish the combined predictive contribution of the five dimensions to academic performance, multiple linear regression analysis was conducted, supplemented with Analysis of Variance (ANOVA) to test the overall statistical significance of the regression model. Qualitative data from interviews were transcribed verbatim and analysed using thematic content analysis, involving coding of the data into themes relating to the perceived relationship between ESP involvement and academic performance.

2.6 Ethical Considerations

Ethical clearance was obtained from the Bishop Stuart University Research Ethics Committee, and permission was subsequently obtained from the Isingiro District Education Officer and school headteachers prior to data collection. Informed consent was obtained from adult participants, while age-appropriate assent was obtained from pupils in addition to headteacher permission. Confidentiality was maintained by assigning codes rather than names, and headteachers and ESP representatives are identified only by school and organisation in this article.

3 FINDINGS

Of the 350 respondents targeted, 221 participated, giving an overall response rate of 63.1%. Teachers' overall mean rating of pupils' general academic performance was 2.95 out of 5 (SD = 0.83), falling within the average range on a five-point scale, while the three-year mean promotion rate across the four schools was 77.5%, indicating that approximately one in four pupils was not promoted each year. This section presents findings on the relationship between ESP involvement and pupils' academic performance.

3.1 Correlation between ESP Involvement and Academic Performance

A Pearson correlation coefficient was computed to establish whether a statistically significant relationship existed between overall ESP involvement and pupils' academic performance, using teacher-level data (n = 20). The results are presented in Table 1.

Table 1: Correlation between ESP Involvement and Pupils' Academic Performance (n = 20)

		ESP Involvement	Academic Performance
ESP Involvement	Pearson Correlation	1	0.631**
	Sig. (2-tailed)		0.003
	N	20	20
Academic Performance	Pearson Correlation	0.631**	1
	Sig. (2-tailed)	0.003	
	N	20	20

Note. **Correlation is significant at the 0.01 level (2-tailed). Academic performance is a composite of grade promotion and classroom participation. Source: Primary Data (2026).

As shown in Table 1, the results revealed a strong, positive, and statistically significant relationship between ESP involvement and pupils' academic performance ($r = .631$, $p = .003$, $N = 20$). Because the significance value fell below the conventional threshold of .01, the null hypothesis stating that there is no statistically significant relationship between the two variables was rejected, and the alternative hypothesis, H1, was accepted.

3.2 Correlation among ESP Involvement Dimensions and Academic Performance

To examine which specific dimensions of ESP involvement were most strongly associated with academic performance, a correlation matrix was computed across the five ESP involvement dimensions and academic performance. The results are presented in Table 2.

Table 2: Correlation Matrix of ESP Involvement Dimensions and Academic Performance (n = 20)

Dimension	Scholastic Materials	Infrastructure	Teacher Support	Bursary/Sponsorship	Feeding Programmes	Academic Performance
Scholastic materials	1	0.450*	0.380	0.300	0.520*	0.542*
Infrastructure development	0.450*	1	0.330	0.280	0.410	0.398
Teacher support and training	0.380	0.330	1	0.350	0.440	0.601**
Bursary/sponsorship schemes	0.300	0.280	0.350	1	0.390	0.455*
School feeding programmes	0.520*	0.410	0.440	0.390	1	0.587**
Academic performance	0.542*	0.398	0.601**	0.455*	0.587**	1

Note. *p < .05, **p < .01 (2-tailed). Source: Primary Data (2026).

As shown in Table 2, all five ESP involvement dimensions were positively correlated with academic performance, though with varying strength. Teacher support and training showed the strongest correlation with academic performance ($r = 0.601$, $p = 0.005$), followed by school feeding programmes ($r = 0.587$, $p = 0.007$), scholastic materials ($r = 0.542$, $p = 0.014$), and bursary and sponsorship schemes ($r = 0.455$, $p = 0.044$), all statistically significant. Infrastructure development showed a weaker, non-significant correlation with academic performance ($r = 0.398$, $p = 0.082$), although it correlated significantly with scholastic materials provision ($r = 0.450$, $p = 0.047$), suggesting these two dimensions may be jointly delivered by the same partners.

3.3 Regression Analysis

To determine the combined predictive strength of the five ESP involvement dimensions on academic performance, a multiple linear regression analysis was conducted. The model summary is presented in Table 3, the ANOVA results in Table 4, and the regression coefficients in Table 5.

Table 3: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.723[a]	0.523	0.353	0.4183

Note. a. Predictors: (Constant), Scholastic materials, Infrastructure development, Teacher support and training, Bursary and sponsorship schemes, and School feeding programmes. Source: Primary Data (2026).

The results in Table 3 show a strong positive relationship between the five ESP involvement dimensions, taken together, and academic performance (R = 0.723). The coefficient of determination (R^2 = 0.523) indicates that 52.3% of the variance in academic performance was explained by the five predictors, while the remaining 47.7% was attributable to factors outside the model. The relatively larger gap between R^2 (0.523) and the adjusted R^2 (0.353) reflects the small sample size (n = 20) relative to the number of predictors (5), and is treated as a caution on the stability of the model, discussed further below.

Table 4: ANOVA Results for the Regression Model

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	2.687	5	0.537	3.071	0.042[b]
Residual	2.451	14	0.175		
Total	5.138	19			

Note. a. Dependent Variable: Academic Performance. b. Predictors: (Constant), Scholastic materials, Infrastructure development, Teacher support and training, Bursary and sponsorship schemes, and School feeding programmes. Source: Primary Data (2026).

The ANOVA results confirmed that the regression model was statistically significant, $F(5, 14) = 3.071$, $p = 0.042$. Because $p < 0.05$, the null hypothesis that the five ESP involvement dimensions have no significant combined effect on academic performance was rejected, confirming that, taken together, the predictors significantly explain variation in pupils' academic performance.

Table 5: Regression Coefficients for Predictors of Academic Performance

Model	B	Std. Error	Beta	T	Sig.
Constant	0.512	0.612		0.836	0.417
Scholastic materials	0.312	0.168	0.298	1.857	0.085
Infrastructure development	0.104	0.145	0.112	0.717	0.485
Teacher support and training	0.398	0.152	0.415	2.618	0.020
Bursary and sponsorship schemes	0.187	0.171	0.176	1.094	0.292
School feeding programmes	0.276	0.163	0.259	1.693	0.113

Note. Dependent Variable: Academic Performance. Source: Primary Data (2026).

As shown in Table 5, teacher support and training was the only dimension to remain a statistically significant independent predictor of academic performance once all five dimensions were entered jointly (B = 0.398, β = 0.415, p = 0.020). Scholastic materials approached significance (B = 0.312, β = 0s.298, p = .085), while infrastructure development, bursary and sponsorship schemes, and school feeding programmes did not reach statistical significance independently, despite feeding programmes and scholastic materials showing significant bivariate correlations with performance in Table 2. This pattern suggests that teacher-focused ESP support exerts the most robust and consistent independent influence on academic performance among the five dimensions studied, while the influence of the other dimensions may be partly mediated through, or overlapping with, teacher support.

3.4 School-Level Evidence

Table 6 presents mean ESP involvement and academic performance scores by school, providing an additional, descriptive layer of evidence on the relationship.

Table 6: Mean ESP Involvement and Academic Performance Scores by School (2023–2025)

School	Mean ESP Involvement (of 5)	Mean Teacher-Rated Performance (of 5)	Mean Promotion Rate (%)	Classroom Participation (of 5)
School A	3.42	2.80	76.8	3.10
School B	3.89	3.40	83.9	3.61
School C	3.11	2.80	73.8	2.90
School D	3.26	2.80	75.6	3.05
Overall Mean	3.42	2.95	77.5	3.17

Note. Source: Field Data (2026).

Table 6 reveals a consistent pattern: School B, which recorded the highest ESP involvement score (3.89), outperformed all other schools across every academic performance indicator, with the highest mean promotion rate (83.9%) and the highest teacher-rated performance score (3.40). Conversely, School C, with the lowest ESP involvement score (3.11), recorded the weakest performance on all indicators, including the lowest mean promotion rate (73.8%) and classroom participation score (2.90). This school-level pattern provides additional, corroborating evidence of a positive relationship between ESP involvement and academic outcomes, consistent with the teacher-level correlation and regression results.

3.5 Qualitative Findings

Interviews with headteachers and ESP representatives reinforced the quantitative findings. The headteacher of School B, whose school recorded the highest ESP involvement and performance scores, attributed superior outcomes to the breadth of multi-partner engagement: "supporting the school with teachers so as to meet the teacher-pupil ratio, continuous trainings to support teachers to perform their duties, giving psychological support to teachers and learners – all these have contributed to better performance." A teacher at the same school confirmed that "we have many partners here – they support us with teachers, materials, and health services. That is why our results are better than other schools around us." By contrast, the headteacher of School C, whose school recorded the lowest scores on both ESP involvement and performance indicators, attributed the gap to a mismatch between support and enrolment scale: "the support is inadequate because the enrolment is high. We need more partners and more consistent support to see real improvement in our pupils' results."

Consistent with the regression finding that teacher support and training was the strongest independent predictor of performance, several respondents specifically linked teacher-focused ESP interventions to improved classroom outcomes. Where language bridging facilitators, science kits, and teacher mentoring had been provided, teachers reported measurable subject-level gains in English, science, literacy, and numeracy. Conversely, in schools where ESP support was described as inconsistent or narrowing following partner phase-outs, headteachers and teachers linked this directly to persistent structural barriers, overcrowding, food insecurity, and long distances to school, that they felt ESP support alone could not fully offset.

4 DISCUSSION

The third objective of this study sought to establish the relationship between the involvement of education support partners and pupils' academic performance in primary schools in Bukanga County, Isingiro District. The correlation, correlation-matrix, and regression findings jointly demonstrate that this relationship is positive and statistically significant, providing empirical support for rejecting the null hypothesis and accepting H1.

This finding is consistent with Human Capital Theory (Schultz, 1961; Becker, 1964), which conceptualises educational investments as inputs that generate future productivity and learning gains. In the present study, schools and teachers reporting higher levels of ESP involvement, operationalised across scholastic materials, infrastructure, teacher support, bursaries, and feeding, also reported stronger academic performance, lending contextual support to the theory's central proposition within a Ugandan rural primary education setting. The finding is also consistent with prior empirical literature: Komba et al. (2017) found in Tanzania that schools supported by NGOs with teaching materials and feeding programmes recorded significantly higher performance in national examinations than unsupported schools, while Nyakwara (2014) reported comparable associations in Kenya. The school-level evidence in Table 6, showing School B's simultaneous lead in ESP involvement and every performance indicator, mirrors this broader regional pattern and adds a locally grounded illustration of it.

The correlation-matrix and regression findings provide additional nuance regarding which dimensions of ESP involvement matter most. Teacher support and training emerged as the strongest bivariate correlate of academic performance and the only dimension to remain independently significant once all five dimensions were entered jointly in the regression model. This finding is consistent with the World Bank (2020), which noted that when education systems are adequately supported with resources, personnel, and infrastructure, significant improvement in both access to and quality of education follows, and specifically underscores the centrality of the human resource, teachers, in translating broader ESP investment into classroom-level learning gains. That scholastic materials and feeding programmes showed strong bivariate correlations with performance but did not retain independent significance in the regression model suggests that their influence may operate partly through, or in tandem with, teacher-focused support, consistent with Bruns et al. (2011), who demonstrated that material provision significantly enhances pupil participation and learning outcomes primarily where it is embedded within a supportive instructional environment.

This finding should, however, be interpreted with caution. The correlation and regression analyses were based on teacher-level data (n = 20), a small sample that limits statistical power and constrains the generalisability of the inferential results beyond the four study schools; this is treated as a key limitation of the study. In addition, the cross-sectional design used to test this relationship cannot rule out reverse causation, the possibility that schools which are already better-performing, better-resourced, or better-managed are more able to attract, retain, and coordinate ESP support, rather than ESP involvement alone driving performance. The consistency of this quantitative pattern with the qualitative accounts of headteachers and teachers across all four schools, particularly the alignment between School B's high involvement and high performance and School C's low involvement and low performance, nonetheless strengthens confidence that the relationship, while not proof of one-directional causation, reflects a genuine and meaningful association rather than a statistical artefact.

At the same time, the correlation coefficient of .631, while strong, and the regression R^2 of .523, while substantial, indicate that ESP involvement does not explain all variation in academic performance. The qualitative accounts of overcrowding, food insecurity, teacher shortages, language barriers, and long distances to school as persistent structural barriers, raised by teachers and headteachers even in relatively well-supported schools, indicate that ESP involvement operates alongside, rather than as a substitute for, broader structural conditions shaping pupils' academic performance. This is consistent with the caution raised by Musasizi (2018) that the effectiveness of externally provided education support is conditional on alignment with school needs and depends on factors beyond the partners' direct control.

5 CONCLUSION

Based on the correlation, regression, and thematic findings, the study concludes that there is a statistically significant positive relationship between the involvement of Education Support Partners and pupils' academic performance in primary schools in Bukanga County, Isingiro District, leading to rejection of the null hypothesis of no significant relationship. The relationship indicates that while ESP involvement meaningfully contributes to academic outcomes, its effect is conditional upon the consistency, breadth, and coordination of interventions, and specifically upon the strength of teacher-focused support, which emerged as the only ESP involvement dimension to remain a statistically significant independent predictor of academic performance once all five dimensions were considered jointly. Structural barriers, including overcrowding, food insecurity, teacher shortages, language barriers, and long distances to school, moderate the strength of this relationship and limit the full translation of ESP investments into improved promotion rates and classroom participation. The study further concludes that, given the small correlational sample (n = 20) and the cross-sectional design employed, the relationship documented here should be understood as a robust and theoretically consistent association rather than definitive proof of a one-directional causal effect of ESP involvement on academic performance.

Recommendations

Based on the findings and conclusions, the following recommendations are made to Education Support Partners, school administrators, the District Education Office, and policymakers:

ESPs should prioritise and sustain teacher support and training as a core component of their programming, given that it emerged as the strongest and only independently significant predictor of academic performance among the five ESP involvement dimensions examined, while ensuring that other dimensions, particularly scholastic materials and feeding programmes, continue to be delivered in a coordinated and complementary manner rather than in isolation.

Headteachers should actively advocate for expanded and sustained ESP engagement by maintaining detailed records of academic performance trends alongside the specific ESP services received, enabling more precise identification of which interventions are associated with observed improvements and strengthening the evidence base for future partner engagement.

School administrators should strengthen mechanisms for community and parental engagement as a complement to ESP support, since qualitative evidence indicated that structural barriers such as food insecurity, long distances to school, and limited parental involvement continue to constrain academic performance even in schools with relatively strong ESP presence.

The District Education Office should commission regular monitoring and evaluation of ESP interventions, with a specific focus on assessing which combinations of services are most strongly associated with improved promotion rates and classroom participation across schools, to inform more targeted coordination of future ESP engagement in the county.

The Ministry of Education and Sports should develop a national framework for the regulation, coordination, and accountability of ESPs, informed by evidence such as that generated in this study, to ensure that the demonstrated benefits of teacher-focused and other forms of ESP support are consistently realised across districts rather than concentrated in a small number of well-supported schools.

Future researchers should investigate the specific dimensions of ESP involvement using larger correlational samples and longitudinal research designs capable of tracking how changes in ESP involvement, particularly teacher support and training, translate into changes in pupils' academic performance over time, thereby addressing the causal-inference limitations inherent in the present cross-sectional, small-sample analysis.

STATEMENTS ON COMPLIANCE WITH ETHICAL STANDARDS

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Disclosure of conflict of interest

The authors declare no competing interests.

Statement of ethical approval

Ethical clearance was obtained from the Bishop Stuart University Research Ethics Committee (BSU-REC-2025-713) prior to data collection involving human participants.

Statement of informed consent

Informed consent was obtained from all adult participants, while age-appropriate assent was obtained from pupils with headteacher permission.

Consent for Publication

All authors consented and approved the manuscript to be submitted for publication.

Availability of Data and Materials

The data supporting the findings of this article are available from the corresponding author upon reasonable request.

Authors' Contributions

Arinda Sarah conceptualised the study, collected and analysed the data, and prepared the original draft of the manuscript. Basil Tibanyendera and Enock Barigye supervised the study and reviewed and edited the manuscript. All authors read and approved the final manuscript.

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