INFLUENCE PARENTAL INCOME ON GIRL CHILD EDUCATION IN PUBLIC SECONDARY SCHOOLS IN TURKANA NORTH SUB COUNTY, TURKANA COUNTY, KENYA

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Abstract

Turkana County has more cases reported on girl child education being inevitable. The county continues to fall short when it comes to educating girls. In comparison to girls, boys predominate secondary education schooling. In addition, the county has few girl schools. Thus, the purpose of the study was to assess the influence parental income on girl child education in public secondary schools in Turkana North sub county, Turkana County, Kenya. It adopted a descriptive survey research design, with a target population of 348 persons, this comprised of 321 form four girls, 10 form four teachers, 5 form four principals, and 12 form four PTA parent members. The sample size of 186 persons was determined using the Krejcie & Morgan table (1970). The researcher collected data using questionnaires and interview guides. The instruments were validated by the supervisors. Reliability of the instruments was determined through a pilot study where Spearman's rank correlation coefficient (r) was analyzed for the two scores and found to be 0.78, thus, the instruments were reliable. Quantitative data was analyzed using descriptive and inferential statistics, and presented in tables, while, qualitative data was analyzed using the common themes, qualitative data extracted, organized, and then discussed under the main objective areas of the study. This was later presented by use of quotations. The study established that family factors like parental income, home tasks, family size and parental education influence girl child education in public secondary schools. The study recommended that head teachers, administration, policy makers and other stakeholders should consider family factors such as parental income as this will determine girl child education in public secondary schools. The information provided by this study will benefit policymakers, community members and academicians.

Keywords: *Influence parental income, girl child education*

INTRODUCTION

Studies by Hyde (2015) in Ghana and Cote d'Ivoire revealed a strong link between parental income, particularly that of mothers, and educational attainment. Parents' expectations for their children increase when they make more money and complete more schooling. According to Shultz (2018), when wealthier households enroll their children in school and have greater household earnings overall, the education gap between boys and girls narrows. Dropouts and repetition appear to be more common among students from low socioeconomic origins, are more common in rural than urban areas, and are significantly common amongst female students than male students, according to Psacharopoulos (2015). Todro (2017) cites John Sommons, an instructional researcher, who asserts that "on schooling, the poor swiftly realize, throughout most countries is indeed an escaping from poverty for just a few" (Todro, 2017). Due to their need to work, the poor are often the first to leave school. They are also the first to be expelled because, among other things due to malnutrition, they doze off in class. The hope that the construction of a school gave the parents in the village quickly dissipates. Additionally, they were never able to send their son to secondary school.

According to World Bank study conducted in 2016, disadvantaged families have a more difficult time providing their children with educational resources, and inequalities in parents' ability to pay for immediate educational expenditures have contributed to differences within learning materials. In a related World Bank research conducted in Peru in 2014, it was, shown that the impoverished children attended schools with few supplies. The survival rates are also impacted by parental income. According Alouch (2014) in elementary schools on the reasons of absenteeism, not paying for school led to absences, which had a negative impact on performance on national exams. According to Eshiwani (2015), the results of past studies support the notion that marginalized children from low-income households leave school earlier. According to Psacharopoulos (2015), a low social-economic background causes the issue of dropout and repetition. He further stated that this problem is particularly prevalent in countryside as well as among female pupils. The greater part of female dropouts is, believed to be between the ages of 17 and 19, and they commonly have pregnancies at a young age. Even worse, it was discovered that more than half of the fathers are young schoolchildren.

Most of these goals have to do with the opportunity costs of raising children. Students who are absent often and repeatedly become unprepared for life and future education. The socio-economic status of the family and their children's school engagement are favorably associated. According to Willgoose (2014), it causes major issues for the students academically and socially, and a child who consistently misses class falls behind in their schoolwork. Marbuah (2016) conducted a study on Influence of Parental Income and Educational Attainment on Children's Years of Schooling: Case of Ghana. Pearson correlation analysis showed a positive association between parental income, father's, and mother's educational attainment with the child's years of schooling. The positive correlation was further confirmed through multiple regression analysis which revealed a significant relationship between parental educational level and child's years of schooling. The resources of parents also influence the years of schooling of the children. Household size and place of residence were also shown to have significant influences on years of schooling. Larger household size meant shorter years of schooling for the child and smaller household size meant longer years of schooling, all things being equal. Children living in the rural areas have less years of schooling compared to children residing in urban areas. Turner (2014) emphasizes that persistent absence leads to dropout. Parental withdrawal is one of the absence kinds that Tyerman (2018) identified. Here, the parents keep the girls home from school to further their own interests.

Psacharopoulos (2015) makes a compelling case that non-school variables as family background can have such a significant impact on academic success that they may even outweigh the impact of educational inputs. Kirima (2019) conducted a study on effects of parental income and support on students' participation in free day secondary education at public day secondary schools in Imenti North sub-county, Kenya. The aim of this study was to find out the effects of parental income and support on students' participation in free day secondary education at public day secondary schools in Imenti North sub-county, Kenya. The target population for the study was students and head teachers at the sub-county's public day secondary schools. A total of 220 students (113 boys and 107 girls) participated in the study. The researcher visited 11 public day secondary schools in the sub-county in which all the head teachers were included in the study. Questionnaires were used to collect data for the study. A questionnaire for head teachers and another for students were applied. Descriptive statistics were used to analyze data and the findings were presented in percentages and text. The study concludes that home conditions were unconducive for academic activities, parents had very low income to support education fully and consistently for their children and students lacked the necessary support educational materials to participate and fully benefit from free day secondary education offered by the Government at public day secondary schools in Imenti North sub-county, Kenya.

According to Mayer (2016), there are three ways to look at the link connecting parental income as well as children's results: the correlation, the causal impacts of family earnings on children's accomplishments, and the impact of policies undertaken to boost the income of low-income families. Despite the drawbacks, Mayer advises using them to examine the impact of certain policy changes and show variations over time and between nations in connection to parental income and children's outcomes. She highlights the investment hypothesis, which ties children's outcomes to parents' transfer of their cultural capital and amount of investment in their children's well-being (health, education, and favorable environment). The good parent theory links a parent's capacity for excellent parenting-which is impacted by the degree of cash available-to the results of their children. She examines "parents stress and the role model versions" in her idea. According to her analysis, which is consistent with both ideas, parental income has a favorable link with children's results. Due to credit restrictions, parental income partakes undesirable educational outcomes of children in the USA (Mayer 2016). Due to the

high average cost of a child's college education, parents with low incomes often cannot afford it. The class of children as well as their capacity toward advancing to higher levels are impacted by parents' decisions about the quality of the schools, which are influenced by increases in education spending (Mayer 2016). Her study also demonstrates that male children are, more influenced by parental income increases than female children are, and that family money matters more throughout adolescence than it does during childhood.

Muandu, Parsitau and Wambugu (2015) conducted a study on influence of Parents Economic Status on Girls' Academic Performance in Mixed Day Secondary Schools. Survey research design was used. Data was collected from 176 form four girls who were randomly selected from 10 mixed day secondary schools in Njoro Sub-County. In addition, 18 form four parents and 10 form four class teachers were purposively selected and involved in the study. Parents' questionnaire (PQ), form four girl's questionnaire (GQ) and class teachers' questionnaire (TQ) were used to collect data. Data was analyzed using percentages, frequencies, means, standard deviation and inferential statistics namely, Pearson product moment correlation. The findings of the study showed that parents' economic status influenced girls' academic performance in mixed day secondary schools. Chevalier, Harmon, Sullivan, Walker (2013) conducted a study on the impact of parental income and education on the schooling of their children. The study revealed that Parental income is potentially endogenous either because it is correlated with unobservable characteristics which are correlated with the child's educational attainment, or because the parental education effect is transmitted through income.

Instrumental variables employed towards determining the impact of parental incomes on children result in the lack of strong experimental support and due to concerns about the validity of research based on sibling outcomes. Shea (2018) measures parental income using union status (and occupation). The defining presumption is that fathers who are unionized are not "able" parents than fathers who are not unionized but who possess comparable apparent abilities. Mayer (2016) considers changes in income disparity as well as variations in family incomes brought on by government assistance restrictions, income resources, as well as money received prior to and after the child's educational years. Although both of this research make use of strong identification assumptions, they both arrive to the conclusion that variations in parental long-run income have relatively slight, and in some cases insignificant, effects on the children's human capital (Mayer, 2016). Schluter (2014) stands out as one of the few researchers that take equal income at different ages as well as education into account. Using a limited German dataset, they investigate the kind of school attended and discover that money obtained later in the educational process is more significant than income received earlier. However, compared to the impacts of education, income implications are minimal. However, the study takes parental education and exogenous income into account.

Methodology

The study utilized a descriptive survey research design. A descriptive survey is an approach of data collection that includes participant interviews as well as the distribution of questionnaires. It is used to measure people's approaches and thinking in any field of social science study or teaching (Kombo & Tromp, 2006). The descriptive survey research strategy was preferred by the researcher atop other research designs because it allowed for sample to population simplifications. This allowed for the conclusion of many population features (Orodho, 2003). Using this study design, the researcher was able to evaluate and characterize the association between family factors and education of girls in public secondary schools.

This study was carried out in Turkana North Sub- County, Turkana County, Kenya. Turkana County was the only county in North-Western Kenya that borders three nations: Ethiopia to the North-East, South Sudan to the North-West, and Uganda to the West. Turkana County is in North-Western Kenya. It shared boundaries with West Pokot as well as Baringo counties to the south, Marsabit County to the East, Samburu County to the Southeast, and Samburu County to The Northeast. The 2019 Population and Housing Census estimated that it had a total area of 68,232 km^2 and a population of 926,976. Pastoralism, which was characterized by cattle raising, was the primary economic activity. Sorghum and drought-resistant maize cultivation, trading, fishing, weaving, and tourism are other activities. Six sub-counties made up Turkana County: Turkana East, Turkana West, Turkana North, Turkana Central, Turkana South, and Loima. Due to leaders' outrage that many girls did not transit to secondary schools because of familial problems that affected them, Turkana North Sub County was, picked.

A comprehensive census of all the objects or persons in a researcher's study area was referred to as the target population, according to Mugenda & Mugenda (2003). All form four girls from five public secondary schools in Turkana North Sub-County were the study target group, along with parent's representatives and all form four class teachers and principals. The form four girls, class teachers, also form four parent representatives (PTA) were chosen for the study because they were thought to provide trustworthy information about the influence of family factors on girl child education. They had been attending school for the previous three years. There were 348 persons in total: 321 form four girls, 10 form four teachers, 5 form four principals, and 12 form four PTA parent members as shown in Table 1.

Table 1: Target population

Category	Target population
Principals	5
Class Teachers	10
PTA parent members	12
Form Four Girls	321
Total	348

Source: Turkana North Sub County Director of Education Office (2022)

A sample is a subset of a larger population chosen to take part in a survey, whilst sampling methodology is the process by which the researcher selects a subset of subjects or items from a study population that are representative of the entire world (Orodho & Kombo, 2006). For this study, two sample methods were used: a census for principals, class teachers, and parents, along with proportional to size sampling techniques (PSST) for girls in secondary schools. The selected schools served as the sample frame, and targeted respondents from various cadres functioned as the sampling units. Principals, classroom teachers, and parents' representatives were included. The study utilized Krejcie and Morgan's (1970) Table for determining sample sizes to build a sample (Appendix IX). This table shows how, as the population increases, the sample size increases more slowly until remaining practically constant at little over cases. According to the table, 186 is the ideal sample size for a population of 348. The sample used in the study consisted of 186 respondents. The probability proportional to size sampling approach was utilized towards calculating the sub-sample size for the remaining group of respondents (PPSST).

$S = pS/P$

Where;

s = Sub sample of cadre   p = Sub- population for each cadre

S= Total sample of study (186 Sampled schools) P = Total target population (348).

To determine the total number of females in all form four classes at each sampled school, form four class registers were utilized. Using such information, the researcher created a yes or a no on little pieces of paper. Twenty papers were accepted; the others were not. The papers were then folded and placed in a container. The form four girls were collected in one location, the goal of the research was discussed, and it was made clear that only those who select 'yes' filled out questionnaire. Those who chose 'yes' convened in a session and instructed how to complete the questionnaire once the ethical considerations were fully explained. In this way, the sub-sample proportion for the respondents is as shown in Table 2.

Table 2: Sample size

Categories	Target Population	sample size	Sampling techniques
Principals	5	5	Census
Class Teachers	10	10	Census
PTA parent members	12	12	Census
Form Four Girls	321	159	PSST
TOTAL	348	186	

Those who participated in the study during data collection were chosen using a simple random sample procedure. The study utilized questionnaires for teachers, parents as well as form four girls while interview schedules were prepared for principals as portrayed in the resulting sub-sections. Data coding was completed when field data had been cleaned up for any irregularities. The Statistical Package for Social Sciences (SPSS) version 28 was utilized for the analysis of the quantitative data. The outcomes of the studies were explained using descriptive statistics. For descriptive statistics, frequencies, percentages, and mean were used, while, for the inferential statistics, the researcher used Chi-square to establish the association. The quantitative statistical analysis was then presented on tables. On the other hand, qualitative data was analyzed using the common themes, qualitative data extracted, organized, and then discussed under the main objective areas of the study. This was later presented by use of quotations.

Results

The study adopted descriptive and inferential statistical analysis. This helped to establish the influence of parental income on girl child education in public secondary schools in Turkana North sub county, Turkana County, Kenya. For analysis, descriptive statistics (frequency, percentage, and mean distribution) for the level of agreement on a five-point Likert scale of the variable, parental income was established and summarized in Table 3.

Table 3: Descriptive statistics for parental income on girl child education in public secondary schools

Statements		SD	D	U	A	SA	MEAN
Adequate education materials improve girl child education in secondary schools.	F	16	11	13	55	53	3.80
	%	10.8	7.4	8.8	37.2	35.8	
Good accommodation for girls at home enhance girl child education in secondary schools	F	2	30	11	61	44	3.78
	%	1.4	20.3	7.4	41.2	29.7	
Availability of basic needs like food and clothing for girls improve girl child education in secondary schools	F	4	3	32	43	66	4.11
	%	2.7	2.0	21.6	29.1	44.6	
Conducive environment at home for girls improved girl child education in secondary schools	F	3	20	6	48	69	4.10
	%	3.4	13.5	4.1	32.4	46.6	

Source (Researcher, 2023)

Table 3 shows that 55(37.2%) of respondents agreed with the statement that adequate education materials improved girl child education in secondary schools, 53(35.8%) strongly agreed, 16(10.8%) strongly disagreed, 13(8.8%) undecided and 11(7.4%) disagreed with the statement. The study findings suggested that the respondents tended to agree (Mean=3.80) that adequate education materials improved girl child education in secondary schools. This was supported by an interviewee who had the following to say;

"... Girls' confidence, excitement and school's focus are greatly determined by possession of the required learning materials. Low-income families indicate poorer educational outcome of children. When families have high income, they can afford to buy extra textbooks, stationery, provide extra tutoring to improve children's academic performance and hence ensure their children attain higher levels of education..." Female Participant, 45 years, Class Teacher.

This implies that when parents have high income that they can use to acquire education materials for the girls, girls' education in secondary schools improves. This is in line with the findings of Kirima (2019) that parents had very low income to support education fully and consistently for their children and students lacked the necessary support educational materials to participate, hence, low performance.

Similarly, 61(41.2%) of the respondents agreed with the statement that good accommodation for girls at home enhanced girl child education in secondary schools, 44(29.7%) strongly agreed, 30(20.3%) disagreed, 11(7.4%) were undecided and 2(1.4%) strongly disagreed with the statement. It emerged from the study that respondents tended to agree (Mean=3.78) that good accommodation for girls at home enhanced girl child education in secondary schools. This implies that when parents have high income to afford good accommodation for girls at home, girls' education in secondary schools is enhanced. This supports findings of Marbuah (2016) that household size and place of residence were also shown to have significant influences on years of schooling.

Additionally, 66(44.6%) of the respondents strongly agreed with the statement that availability of basic needs like food and clothing for girls improved girl child education in secondary schools, 43(29.1%) agreed, 32(21.6%) were undecided, 4(2.7%) disagreed and another 3(2.0%) strongly disagreed with the statement. The study findings shows that the respondents agreed (Mean=4.11) that availability of basic needs like food and clothing for girls improved girl child education in secondary schools. This was supported by an interviewee who had the following to say;

"..Increase in education expenditure influences parents' decision on the quality of school, which affects the grade of the children and their ability to progress to a higher level. A low-income resourced family may be constrained in even meeting the necessities in life like food, unhealthy diet, and clothing, hence, lowers girls' self-esteem in schools..." Male Participant, 54 years, School Principal.

This implies that when parents have high income to afford girls' basic needs like food and clothing, they can easily get motivated, hence, enhanced girls education achievement. This is in line with Mayer (2016) that parental income has a favorable link with children's results, as availability of basic needs improve child education.

Lastly, 69(46.6%) of the respondents strongly agreed with the statement that conducive environment at home for girls improved girl child education in secondary schools, 48(32.4%) agreed, 20(13.5%) disagreed, 6(4.1%) undecided and 3(3.4%) strongly disagreed with the statement. It emerged from the study that the respondents agreed (Mean=4.10) that conducive environment at home improved girl child education in secondary schools. This was supported by an interviewee who had the following to say;

"…Parents who are stressed about money and employment working unsocial hours in more than one job, are likely to have less time to provide their children with an environment conducive for good educational outcomes"... Female Participant, 49 years, PTA Parent Member.

This implies that when parents have high income, they can afford to create a conducive environment, hence enhanced girls' education achievement. This agrees with the findings of Muandu, Parsitau and Wambugu (2015) that poor study environment at home significantly correlated with the girls' academic performance.

These descriptive statistics of objective one was followed by a Chi-square test of association. The Chi-square test at $p \leq 0.05$ significance level illustrating statistically significant association between parental income and girl child education in public secondary schools in Turkana North sub county, Turkana County, Kenya is as summarized in Table 4. To achieve this, the hypothesis below was tested.

H$_{01}$: *There is no significant association between parental income and girl child education in public secondary schools in Turkana North sub county, Turkana County, Kenya.*

Table 4: Chi-square test of association between parental income on girl child education in public secondary schools

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	533.464[a]	132	.000
Likelihood Ratio	275.085	132	.000
Linear-by-Linear Association	94.806	1	.000
N of Valid Cases	148		

a. 152 cells (97.4%) have expected count less than 5. The minimum expected count is .01.

Table 6 shows that the p value (p=0.000) for parental income was less than 0.05. Therefore, the hypothesis, "there is no significant association between parental income and girl child education in public secondary schools in Turkana North sub county, Turkana County, Kenya" was rejected. This implies that there is statistically significant association between parental income and girl child education in public secondary schools in Turkana North sub county, Turkana County, Kenya.

Conclusion

The study findings suggested that the respondents tended to agree that adequate education materials improved girl child education in secondary schools. Similarly, it emerged from the study that the respondents tended to agree that good accommodation for girls at home enhanced girl child education in secondary schools. Additionally, the study findings suggested that the respondents agreed that availability of basic needs like food and clothing for girls improved girl child education in secondary schools. Lastly, it emerged from the study that the respondents agreed that conducive environment at home for girls improved girl child education in secondary schools. Chi-square test of association revealed that there is statistically significant association between parental income and girl child education in public secondary schools in Turkana North sub county, Turkana County, Kenya.

From the findings, the study concludes that family factors like parental income, home tasks, family size and parental education influence girl child education in public secondary schools. It is concluded that there is a statistically significant association between parental income and girl child education in public secondary schools. Hence, when girls have adequate educational materials, good accommodation, availability of basic needs like food and clothing and conducive environment at home their education in secondary schools improves.

References

[1]. Kirima, N. (2019). Effects of parental income and support on students' participation in free day secondary education at public day secondary schools in Imenti North sub-county, Kenya. *Academia Journal of Educational Research, 7*(7), 228-234.

[2]. Kombo, & Tromp. (2006). Writing a thesis and a proposal. Africa's Pauline's Publication, Nairobi.

[3]. Kombo, D. K. (2015). Social science of education. Ad Print, Nairobi.

[4]. Krejcie, R.V. and Morgan, D.W. (1970) Choosing the Right Sampling Size for Your Research Project. 30, 607–610, Educational and Psychological Measurement.

[5]. Marbuah, D. (2016). Influence of Parental Income and Educational Attainment on Children's Years of Schooling: Case of Ghana. *Master's thesis in Sociology of Education*.

[6]. Mayer, S. E. (2016). Impacts of parental wealth on child performance. Ministry of Social Development, Knowledge Management Group, Wellington, New Zealand.

[7]. Muandu, J., Parsitau, D., & Wambugu, P. (2015). Influence of Parents Economic Status on Girls' Academic Performance in Mixed Day Secondary Schools. *American Journal of Educational Research, 3*(11), 1359-1363.

[8]. Mugenda, O. M & Mugenda, A. G. (2003). Research Techniques Using both quantitative and qualitative methods. Nairobi: Acts Press.

[9]. Orodho, A.J. (2003). The Basics of social sciences and educational research approaches. Nairobi's Mazola Publishers

[10]. Psacharopoulos, George. (2017). Some Latin American data on the relationship between child labor and educational attainment. Journal of Population Economics, Vol. 10, No. 4, pp. 377-86.

[11]. Shea J (2018). How important is parental wealth. 155–184 J Public Econ 77(2)

[12]. Tyerman (2018). Credit output and educational progress: A postsecondary transcript study of first-year students at four-year institutions. U.S. Department of Education, Washington, D.C.