AN EMPIRICAL INVESTIGATION OF THE EFFECT OF CASH TRANSFERS ON CHILD LABOUR AND SCHOOLING IN RURAL KENYA

FEISAL ADAN IBRAHIM

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DECLARATION

Declaration by the student

I confirm that this research project is entirely my own creation and has not been submitted for any recognition or award at any other academic institution.

Signature   Date   1st December, 2023

Declaration by the supervisor

As the university supervisor, I have approved the submission of this research project for examination.

Signature……………………….   Date ………02.12.2023………………………

DR. MARTINE OLECHE

DEDICATION

To my lovely mother for her overwhelming support. To my beautiful spouse, my two daughters,

son and my siblings for walking this journey with me

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I would like to thank Almighty God for guiding me through in accomplishing this work. I would also like to take this opportunity to also sincerely acknowledge everyone who supported me in this research work. My sincere appreciation and gratitude goes to my supervisor Dr. Martine Oleche for taking his time in guiding, shaping and developing this research work. I appreciate the efforts of my lovely mum and my beautiful wife for their prayers and moral support. I would also like to thank the university for giving me a chance to pursue this course. Finally, I extend my approbation to my lecturers and classmates who inspired me throughout this journey.

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ACRONYMS AND ABBREVIATION

BISP	Benazir Income Support Programme
BOLSA	Bureau of Social Affairs
CCTs	Conditional Cash Transfers
CTELN	Cash Transfer-Education-Labor Nexus
CT-OVC	Cash Transfer for Orphans and Vulnerable Children
EAs	Enumeration Areas
EFA	Education for All
EHH	Education level of Household Head
Gok	Government of Kenya
ILO	International Labour Organization
KDHS	Kenya Demographic and Health Survey
K-HMSF	Kenya Household Master Sample Frame
KNBS	Kenya National Bureau of Statistics
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Scheme
Obs	Number of observations
OVS	Orphans and Vulnerable Child
RBA	Rights Based Approach
SCTPP	Social Cash Transfer Pilot Programme
SDGs	Sustainable Development Goals
UCTs	Unconditional Cash Transfers
UNICEF	United Nations Children's Fund
UNCRC	United Nations Convention on the Rights of the Child

ABSTRACT

The widespread occurrence of child labor, frequently influenced by economic vulnerabilities and poverty, presents a substantial obstacle to educational access. Children involved in diverse labor activities, including agriculture and domestic tasks, become ensnared in a cycle where the need to contribute to household income restricts their consistent attendance at school. Although there have been legislative initiatives and programs such as the Orphan and Vulnerable Children Cash Transfer Program aimed at easing economic difficulties, there remains a significant shortfall in understanding how these interventions impact child labor and education in rural Kenya. The specific objectives include; to explore the patterns of cash transfers and schooling in rural Kenya, determine the effect of cash transfers on child labor, establish the impact of cash transfers on schooling, and provide policy suggestions. The study relied on the 2022 Kenya Demographic and Health Survey (KDHS) dataset. Employing a mix of descriptive analysis and regression techniques, the study considers independent variables; cash transfers, birth order of the child, Sex of the child, age, household head income, household size, and education level of household head, and dependent variable; child labour and child schooling. The analysis employed Probit regression model to estimate parameter coefficients. From the findings, cash transfer programs exhibited a positive and statistically significant effect on child schooling, indicating their potential to enhance educational opportunities. Conversely, the study found a negative and significant association between cash transfers and child labor, suggesting a promising role in mitigating child labor in vulnerable households. In the child labor model, other variables such as household head income, household size, and the education level of the household head emerged as statistically significant contributors. In the child schooling model, significant variables included birth order, age and child's sex, at the last birthday, and household size. Based on the findings of this study, several recommendations can be proposed to inform policy and practice in addressing child labor and enhancing child schooling in rural Kenya: The significant and positive impact of cash transfers on these outcomes suggests the need for an optimized and expanded approach to existing programs. The direction of effect, particularly the reduction in child labor and improvement in child schooling associated with increased cash transfers, provides a clear impetus for policymakers to prioritize

and strengthen these initiatives. For optimal effectiveness of cash transfer programs, it is recommended to implement targeted interventions. By pinpointing and concentrating on households exhibiting specific risk factors, such as lower income levels and larger household sizes, interventions can be customized to tackle the distinct challenges encountered by these vulnerable groups.

CHAPTER ONE

INTRODUCTION

1.1 Background

Social protection programs like cash transfers for the needy have dual purposes: they alleviate suffering right away while also helping to alleviate it more permanently by facilitating things like better access to healthcare and education (Egger et al., 2019). An increasing body of data suggests that cash transfer initiatives are an effective method of reducing poverty and may have far-reaching advantages for beneficiaries (Churchill, 2021), especially for children living in recipient families.

It is widely accepted that transfers of cash refer to effective policy instruments for alleviating child poverty as well as boosting children's well-being across domains, like food security, education, and health (UNICEF-ESARO, 2015). Although there have been some studies conducted focusing on impacts of cash transfer programmes on children labour, generally studies have concluded that child labour is results from poverty, as well child labour is prevalent in many countries with such programs. Because eliminating child labour is not usually a primary goal of cash transfer programs, even when they do expressly target outcomes for children as part of an overall strategy for poverty reduction and social development (Haushofer & Shapiro, 2018).

Millions of children are denied the opportunity to get an education because of child labour, which is widely acknowledged as a key barrier to achieving Education for All (EFA) objectives. Many working children are denied their right to an education, and those who try to juggle job and schooling frequently find that they can't give either their complete attention or their best effort to either. Without taking into account extreme examples of child abuse and abandonment, the "best" argument, if not an excuse, for why child labour persists is because it is "the only" solution. Because it often includes concerns of agency and authority within homes, it may be hard to counteract and is especially concerning since it entails compromise of a children's future wellbeing in return for current advantage (Bastagli et al., 2019).

One of the biggest drawbacks of using children in work is the lost opportunity to build their human capital. The primary reason for this is the fact that working children cannot attend classes.

Nonetheless, this is not always the case with children's writing. Therefore, this study defines child labour as putting a kid's immediate financial needs ahead of their long-term well-being (Tirivayi, Waidler & Otchere, 2021). The household saves money on schooling costs and gains the income of the kid working on the household's farmyard if the youngster is allowed to work. In this document, "schooling" only refers to formal enrolment and attendance, not to academic success.

There is a school of thought among economists that suggests addressing poverty is the best way to reduce child labour. Child work is a sign of poverty, which is true. The children from wealthy families rarely have to choose between school and job because of the financial support they get. On the other hand, child labour is a major reason why poverty persists, so efforts to get kids out of the workforce and back into education may have a significant impact on both fronts.

In 2007, 46 million many schoolchildren in sub-Saharan African lacked access to the opportunity to participate in a conventional schooling system., therefore achieving universal primary education remained a significant problem in the area and in Kenya specifically, as reported by UNICEF (2009). However, a crucial legislative weapon in the fight against child labour has been the provision of affordable as well as mandatory schooling of good quality up to the age of job eligibility. Kenya is located in the sub-Saharan area, where up to 41% of working-age children are under the age of 15. (International Labour Organization, ILO - 2002).

Worldwide, the number of children working has decreased. Despite this overall decrease, the count of children from sub-Saharan Africa engaged in paid employment increased between 2004 and 2008. (ILO, 2010). The future of the whole of the African continent and Kenya as whole depends on the health, happiness, and growth of its young people. The issue of children working continues to rise throughout the sub-Saharan Africa area (Daidone, Handa, & Winters, 2019). Due to the region's severe socio-economic climate, households prefer their kids to labour rather than enrol them to learning institutions, as both Bass (2004) and Admassie (2002) have noted. According to the policies put up by the World Bank, child labour stands out as the most destructive outcomes of persistent impoverishment (Owusu-Addo, et al., 2018). East Africa, including Kenya, has the highest rates of child labour engagement, Central Africa, then West Africa comes second (Zimmerman et al., 2021).

1.1.1 Child Labour in Kenya

Child labour in Kenya is a pressing and complex challenge that has significant implications for the well-being of children, especially in rural areas. In these regions, children are frequently compelled to engage in various forms of labour to help support their families. Its prevalence of in Kenya is a stark reflecting challenge in economic conditions and vulnerabilities faced by many households (Maconachie, & Hilson, 2016). The burdens placed upon these young shoulders can have profound and long-lasting consequences on their physical and cognitive development.

The problem of child labour in Kenya is far from uniform, with children involved in a range of sectors. One common form is child labour in agriculture, where children work on family farms or in the fields of larger agricultural operations (Carter, 2017). In addition to agriculture, children often find themselves involved in domestic work, tending to household chores and responsibilities (Evans, 2010). They may also be engaged in small-scale industries, contributing their labour to activities such as street vending, construction, or informal manufacturing. This multiplicity of labour activities underscores the breadth and depth of the child labour challenge.

Child labour in Kenya is rooted in several interconnected factors. Poverty is a central driver, as many families living in economically disadvantaged conditions rely on the income generated by their children's labour to make ends meet (Field, 2010). This phenomenon is further exacerbated by a lack of access to quality education, as financial constraints and resource limitations often hinder children from attending school consistently (Akyeampong, Djangmah, Oduro, Seidu, & Hunt, 2007). Cultural norms and traditions can also perpetuate child labour practices, as some communities may have a history of children contributing to family livelihoods from a young age.

Literature has indicated that child labour is common mostly in rural Kenya, particularly in the commercial agriculture sector, and domestic labour (Mugo, 2016; Haushofer, Mudida & Shapiro, 2020). 1.9 million children aged 5-17 years are working for pay or family gain (KNBS). Another study by Sande (2018) revealed that the overall prevalence of child labour in Vihiga, Kakamega, Busia, and Bungoma counties in Kenya was high (87%). These trends are even high in Arid and semi-arid areas.

Kenya is widely regarded as having achieved substantial progress toward most of the Sustainable Development Goals (SDGs). The 2010 Kenyan Constitution has robust safeguards for economic and social rights, setting it apart from the constitutions of other sub-Saharan African nations. However, the benefits of the economy's expansion over the previous decade have not been equally shared, and the nation has been beset by a series of crises, both domestic and foreign, in recent years. Despite improvements, about half of the country's population is still classified as poor. Moreover, the government is failing in its obligation to ensure equality and non-discrimination because of the stark regional and socioeconomic differences in the degrees of rights enjoyment (Zulaika et al., 2019).

However, a crucial legislative weapon in the fight against child labour has been the provision of affordable as well as mandatory schooling of good quality up to the age of job eligibility. In Kenya between 41% and 48% of working-age children are under the age of 15 (ILO - 2020). As a direct consequence of this, the sum that the government designated to be used for its specialised programs skyrocketed (Heinrich & Knowles, 2020).

Even though Kenya boasts the largest and most advanced economy in both eastern and Central Africa, a substantial 16.1% of its population resides below the international poverty threshold (World Bank, 2023). Specifically, the general poverty lines for both rural and urban areas stand at 3,252 and 5,995 Kenyan shillings (Kshs) per month per person, calculated in terms of per adult equivalent, encompassing essential provisions for both food and non-food expenditures (Kenya National Bureau of Statistics, 2022). In rural Kenya, however, the total poverty headcount surged from 12 million to 13.7 million individuals, with the corresponding proportion escalating from 37% to 40.7% over the span of three years (GoK, 2020).

According to statistics, orphans and other at-risk children make up a disproportionate share of Kenya's poor (Government of Kenya, 2020). As the population of this group continues to rise at an alarming rate, so does the urgency with which we must act in order to provide adequate social protections. The government of Kenya adopted Kenya Social Protection Strategy (2009-2012) and showed that the nation has shifted strongly toward using social protection measures to alleviate condition of the most disadvantaged members of society. The approach argues for this change by

highlighting the beneficial and substantial connections between public spending on social security and a country's human capital development. One of the benefits of addressing inequalities in a society is a lessening of social and political tensions. Individuals belonging to low-income households who receive financial transfers are inclined to actively pursue employment compared to their counterparts without such assistance. Consequently, this dynamic contributes to the development of a more dynamic labour market. The other is giving low-income people the tools they need to start investing (Cooper et al., 2020).

1.1.2 Cash Transfer in Kenya

Cash transfer programs have emerged as a vital policy tool in the effort to combat poverty and enhance living conditions in developing countries, and Kenya is no exception to this trend. These programs were designed to provide direct financial assistance to eligible households, often with a specific focus on vulnerable or low-income populations (Kirera, 2017; Haushofer, & Shapiro, 2018). In Kenya, various programs involving the transfer of funds have been implemented, demonstrating the government's dedication to tackling poverty and its related issues. Among the noteworthy initiatives in Kenya, we find the Cash Transfer Program for Orphaned and Vulnerable Children, as well as the Inua Jamii Program (Muriithi, 2020).

The cash transfer program for the vulnerable and orphan children in Kenya has been instrumental in extending support, targeting orphaned and vulnerable children. This program seeks to provide a safety net for those who lack parental care and financial security. By offering direct cash assistance, the program aimed to alleviate the economic hardships faced by these children and their guardians, ensuring they have access to basic necessities, such as food, clothing, and education (Chebett, 2021). Furthermore, the Inua Jamii Program extends cash transfers to older persons, who are often living in poverty and facing challenges related to health and well-being (Chebett, 2021; Omayio, 2022).

While cash transfer programs have gained prominence as effective tools for poverty alleviation and improving living conditions in developing countries, including Kenya, there is a notable gap in the research regarding their specific impact on child labor and schooling in rural Kenyan communities. In addition, the existing literature fails to provide an understanding of how these

cash transfer programs influence child labor and access to education in rural Kenya. While these initiatives are central to Kenya's social protection strategy and have the potential to improve overall well-being of those children and their families (Omayio, 2022), there remains a significant knowledge gap concerning their efficacy in the context of rural areas where economic opportunities may be limited.

Therefore, a critical research gap exists in assessing the effect of these programs in rural Kenya, especially with regard to their ability to reduce child labour and promote school attendance. Investigating this gap is crucial to inform policy decisions, address the multifaceted challenges faced by vulnerable households, and ensure that these programs effectively fulfill their intended purpose of improving the lives of children and their families in rural Kenyan communities.

1.1.3 Schooling in Kenya

Access to education is a fundamental cornerstone of human development and a critical catalyst for poverty reduction. In Kenya, the government has made concerted efforts to improve educational opportunities, but substantial challenges still persist, particularly in rural areas (Okilwa, 2015). These challenges manifest in the form of inadequate school infrastructure, a shortage of qualified teachers, and financial constraints that frequently deter children from accessing the education they deserve (Maphalala, Kutame, Khumalo, Mhlongo & Govender, 2023). Moreover, the spectre of child labour, as previously discussed, looms large, further exacerbating the hurdles to achieving quality education. Child labour often forces children to engage in economic activities at the expense of their schooling, leading to high rates of absenteeism and, in many cases, premature dropouts (Thévenon, & Edmonds, 2019). These dynamic obstacles underscore the complex landscape of education in rural Kenya.

Despite efforts to enhance educational access, the disparities between urban and rural areas remain pronounced, with rural regions often facing disproportionately higher barriers to quality education. Schools in these areas often lack basic amenities, including proper classrooms, sanitation facilities, and teaching materials (Mgimba & Mwila, 2022). Additionally, a shortage of well-trained and motivated teachers persists, impacting the quality of instruction and limiting students' access to the

knowledge and guidance they require for a well-rounded education (Okello, 2016; Mwashashu, Muli, & Mwawasi, 2020).

The interplay between these challenges and child labor is particularly significant. The necessity for children to contribute to household income, often driven by poverty and economic instability, compels them to allocate substantial time to work, leaving little room for schooling (Maconachie, & Hilson, 2016; Thévenon, & Edmonds, 2019). This dynamic results in a vicious cycle of limited educational opportunities, perpetuating poverty and hampering socio-economic development.

Understanding the current state of schooling in rural Kenya is pivotal for assessing the effectiveness of interventions like cash transfer programs. Addressing these disparities and identifying the specific areas where interventions can make a meaningful impact is essential. By investigating these challenges, this research will help shed light on the existing gaps in education and the potential role that cash transfers intervention can play in breaking the cycle of poverty and improving educational outcomes for children in rural Kenya.

1.1.4 An overview of Kenya's Cash Transfer for Orphans and Vulnerable Children (CT-OVC) programme

Over 100,000 families and 230,000 orphans and vulnerable children in Kenya have benefited from these social protecting programmes that the government has implemented over the years as of June 2010. For the sake of OVC, and especially AIDS orphans, this initiative was developed. According to Alviar and Pearson (2009), the number of orphans in Kenya as well as children facing huge risks due to poverty significantly grew, this was due to losing of parents. As a result, more and more homes are being governed by a kid. A child in a home between the ages of 0 and 17 who has lost at least one parent due to death, disability, or illness is considered an orphaned or vulnerable child (OVC) (GoK, 2011).

The CT-OVC initiative was developed after years of trying to help orphans and other vulnerable youngsters (OVC). The first pre-pilot stage began that year, in 2004. A total of five hundred OVC families within counties of Garissa, Kwale and Kisumu, were included in the study at the time. Those receiving the funding are made aware of their duty to ensure the safety of any resident OVC

under their care. Goal-setting, selection processes, and cost estimates for the actual program rollout were just a few of the areas that the pre-pilot phase aimed to provide light on. With funding and assistance with the technical aspects of the project coming from UNICEF, on the proposal of the previous Home Affairs Ministry the scheme was up and running by the end of that year (Temidayo & Awojobi, 2020). The goal of the CT-OVC is to improve families' ability to safeguard and care for OVCs so that more of them may find permanent homes and reach their full potential. Community-based interventions in the care of OVC are another focus, and this strategy strives to provide and organize support for such solutions (GoK 2008a). Beneficiaries must be chosen via a collaborative process including the government, financial benefactors, and local communities with first-hand knowledge of the individuals in need. A social experiment was created by UNICEF and the GoK before the CT-OVC was expanded in 2007 to measure the program's effect on several facets of family well-being, such as children's health, education, and economic output. Since the program could not roll out to all eligible areas at once, the designers figured that they could use the areas that joined the rollout later as control sites to see how the rollout affected them (Austrian et al., 2019).

This trend toward giving people money comes from the belief that cash transfer programs may both reduce poverty and improve people's skills (UNDP-IPC, 2008). From a "material effects" perspective, it's hardly surprising that the programs have received such favourable reviews. One potential reason includes that setting of well-functioning markets structures, the effects on the communities set to benefit are large since the supplemental income may be put to immediate use by improving the quality of life for individual households (Evans, Gale & Kosec, 2020). As a result of these positive evaluations, nations that have not yet implemented cash transfer programmes have shown a greater willingness to do so, and current programmes have been able to be expanded.

1.2 The problem statement

The intricate interplay between child labor and schooling is a critical issue (Brown, & Souto-Otero, 2020), analyzed through various dimensions in academic studies. For a significant period, child labor has posed a formidable barrier to children's access to education especially in rural setting (Yiu, & Yun, 2017). The predicament arises when children are forced to make a heart-wrenching

choice between labor and learning. Bivariate analyses have revealed the direct relationship between child labor and reduced school attendance. Beyond attendance, researchers have explored aspects highlighting the psychological and emotional challenges faced by children who must balance work and school (Spinelli, Lionetti, Pastore & Fasolo, 2020). Gender dynamics also come into play, as girls often bear a disproportionate burden where cultural norms have been linked to the child labor-schooling dilemma (Stichter & Parpart, 2019). This leads to conceptual gaps that needs to be filled.

In Kenya, social protection initiatives, particularly cash transfers, have the capability to alleviate the consequences of poverty and susceptibility. These impacts encompass various challenges, including crop failure, natural disasters, disease, accidents, and unemployment, which disproportionately affect low- and middle-income families. The research of Ikira and Ezzrari (2021) underscores how these families struggle to cope with shocks, often leading to asset depletion, school withdrawals, and reduced food consumption. Vulnerability to poverty also extends to those hovering near the poverty line, with the risk of further economic decline.

In rural Kenya, children who drop out of school often resort to criminal activities due to their families' financial constraints. Some are compelled to beg for sustenance, confronting the perils of street life at a young age. Others, valuing education, attend school during the day and engage in activities like begging or selling items until late at night, making the arduous journey home (Zimmerman et al., 2021). In these settings, children find themselves working in hazardous environments such as quarries and mines. The increasing prevalence of child labor in rural Kenya underscores the imperative of effective social protection programs that employ cash transfers to assist impoverished and disadvantaged households.

In contrast to South America's successful use of cash transfer programs for social protection, Kenya's approach is relatively new. However, this concept has gained prominence as an integral component of Kenya's National Social Protection Policy since 2011, promising essential services such as medical care, education, and a decent standard of living. Despite the pivotal roles of education and employment in fostering economic and social progress, rural areas have received insufficient attention. The development of human capital hinges significantly on education,

emphasizing the need to prioritize the education of all children in Kenya, regardless of their orphaned or vulnerable status. This research thus aims to build upon previous studies focusing deeper into how the country's economic landscape influences child labor and focusing on educational access and addressing methodological gaps in existing research. The study was thus be undertaken to answer the research question; what is the effect of cash transfers on child labour and schooling in rural Kenya.

1.3 Research Objectives

The general objective of this study is to examine the effect of cash transfers on child labour and schooling in rural Kenya.

The specific objectives include:

i. To explore the patterns of cash transfer and schooling in rural Kenya

ii. To determine the effect of cash transfer on child labour in rural Kenya

iii. To establish the effect of cash transfer on schooling in rural Kenya

iv. To provide policy suggestions on child labour and schooling in rural Kenya

1.4 Research Questions

The research study seeks to answer the following research questions:

i) What are the patterns of cash transfers and schooling in rural Kenya?

ii) How do cash transfers affect child labour in rural Kenya?

iii) What are the effects of cash transfers on schooling in rural Kenya?

1.5 Justification of the Study

High rates of child labour and low rates of school attendance are among the most severe problems in Kenya (Multiple Indicator Cluster Survey, 2009). Consequently, the Kenyan government, along with multiple humanitarian organizations both domestic and international, has utilized financial aid initiatives as a means of social protection. These efforts aim to alleviate the adverse effects of limited earnings and, consequently, financial hardship experienced by households.

The finding of the present study on the influence of cash transfers as a policies intervention on the social well-being of children in Kenya's informal economy may improve efforts to eradicate child labour and boost the economy there. As well as adding to the existing body of literature on child labour, child schooling, and cash transfer, this study will serve as a catalyst for new inquiries into how to improve the effectiveness and centrality of cash transfer programs in the development of policies to end child labour and increase the number of at-risk children who are in school.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The study's theoretical foundations and examples of reviews of relevant empirical literature form the main focus of this chapter's literature review. Key findings from the analysed ideas and research are summarized in the study's overview.

2.2 Theoretical Literature Review

This section focuses on relevant theories to the study. The human capital theory, the child centred theory, and classical liberal theory of equal opportunity guided the research.

2.2.1 Human Capital Theory

Human capital theory, as outlined by Gay (1992), is an offshoot of the macroeconomic development theory that views investments in things like schooling, career training, and health care as a whole as a capital whose returns affect both personal and societal prosperity. Increased productivity is presumed to be the result of increased training and education. Human capital theory's first uses focused on studying the correlation between education and earnings. However, subsequent studies have shown that emphasis on quality education and its significance in creating human capital is misplaced. There is a direct correlation between a country's economic development and its level of democracy. Therefore, child labour has a multiplicatively detrimental influence on a country's economic growth and development since it hinders a children's ability to get an education.

According to this view, child labour is harmful because it prevents young people from receiving the education and health care, they need to become productive adults who can help the economy grow and flourish (Ennew, 2005). That children participate in the economy is assumed to be true under this idea.

Yet it is important that their human capital not be compromised in any manner. According to this view, children have developing skills and potentials that need to be safeguarded and fostered so that they might reach their full potential as adults. Since then, childhood has been a time of heightened production and a burgeoning economy (Ennew, 2005). This theory focuses on the development of human potential through formal and informal learning experiences beginning in childhood. All children, even those who must work to make ends meet, benefit from the programs designed to safeguard their well-being. Human capital approach is pertinent to this research because it highlights the importance of education as a means to reduce child labour.

2.2.2 The Child Centred Theory

Child-centred education was advocated by John Dewey in 1871–1913. This theory contends that it is essential to put children's needs at the forefront while attempting to make sense of the complexities surrounding child labour. Human rights agreements like UNCRC provide the foundation for the child-centred RBA which prioritizes children's best interests. Article 31 of UNCRC states that all Countries shall take all necessary precautions to safeguard children from exploitation, abuse, and neglect, including child labour, as well as from any other harmful activity that endangers the child's physical, mental, moral, or social development. To be clear, this isn't a blanket argument against allowing minors to have jobs. (Tisdall, 2017).

The primary premise of the child-centred approach is to prioritize children's voices and include them in important decisions about their life whenever possible. The theory recognizes that children need protection for two reasons: on the one hand, they are reliant and susceptible to human activities like child labour, and on the other, they contain nascent but important talents, knowledge, and skills for future economic growth. This finding suggests that children are not only helpless targets of development initiatives, but rather capable agents of change. The theory of child-centred care is important to this research because it highlights the articles and rules of the UN Convention on the Rights of the Child (UNCRC) that safeguard children from being exploited economically or exposed to dangerous environments.

2.2.3 Classical Liberal Theory of Equal Opportunity

The classical liberal theory is a fundamental aspect of contemporary society. This theory was developed by John Stuart Mill (1806–73) and Harriet Taylor (1808–58). According to this theory, each individual is born with a certain amount of inherited ability. Therefore, educational institutions should be intended to eliminate any obstacles that hinder gifted students from disadvantaged socioeconomic situations from realizing their potential. In essence, the classical liberal theory asserts that equal access to education will foster social mobility (Melkevik, 2019). This philosophy stresses that through education, every person should be granted the social rank to which he or she is entitled based on inherited abilities.

The provision of legal equality of access to education by placing everyone on a level playing field ensures that the ensuring run is fair, according to this theory. This theory is pertinent to this research in the sense that children who engage in child labour are denied educational chances and, thus, are unable to use their innate abilities. Thus, child labour hinders children's access to and retention in school (Nesi, Nogler & Pertile, 2016). It also implies that the government cannot fulfil the Sustainable Development Goals (SDGs) and provide UPE if some children are out of school owing to child labour, therefore the need to address the issue to boost access to education and student retention.

2.3 Empirical Literature

This section highlights previous studies which provide insights related to aspects of cash transfer, schooling, and child labour.

2.3.1 Child schooling and cash transfer

It is often assumed that poverty prevents impoverished children from attending school. Cash transfers are utilised to assist and encourage their access to school in order to overcome this barrier. Temidayo and Awojobi (2020) evaluated the effect of several cash transfer programs in Africa and Latin America on the educational results of children. Google scholar was used to do a systematic search for relevant papers. Ten studies satisfied the inclusion criteria; five in Africa and five in Latin America. Eight researchers used quantitative methodology, and two utilized mixed approach. Both Conditional and Unconditional Cash Transfers had favourable impacts on school outcomes, according to the results of the included research, which used various study methods. Some findings demonstrated significant evidence, while others demonstrated very little evidence. Cash transfer programs provide impoverished children with the means to attend school. Nevertheless, the effect of these programs differs according to their implementation strategies.

To investigate the impact of an increment in children's income not derived from work due to government financial aid on their employment and school attendance, Prifti et al. (2021) conducted a study using Ethiopia's Social Cash Transfer Programme. Implemented by the Bureau of Social Affairs (BOLSA) of the Government of Ethiopia, and supported by the United Nations Children's Fund, the Social Cash Transfer Pilot Programme (SCTPP) was executed between 2011 and 2014 in the rural district of Hintalo Wajirat and the urban district of Abiy Addi in Ethiopia's Tigray Region (UNICEF).This was because of the high rates of severe poverty and food insecurity in these two woredas, as well as the absence of any other social protection programs. There were a total of 3,664 houses in the sample; 1,629 were in the intervention group, while 1,589 served as controls. The research found that although transfers reduced child labour and increased school attendance in rural regions, they had the reverse effect in urban areas, worsening the child labour situation and decreasing the proportion of children in school. Part of the reason for the contradictory findings on child labour and the absence of effects on school attendance may be due to an inadequate transfer amount and a lack of messaging on its suggested usage.

In general, financial transfers help poor children succeed in school, but which disadvantaged kids benefit the most. Evans, Gale and Kosec (2023) investigated the educational effects of cash

transfers for children with varying disadvantages (such as being girls, orphans, among the poorest, and having low baseline exam performance). Findings showed that when students were randomly assigned to receive transfers, both their school attendance and their rates of completing primary school rose significantly. Gains were not evenly distributed across the youngsters, as evidenced by the various point estimates. The initiative increased the likelihood that children from low-income families would ever attend school, while also increasing the likelihood that children from middle- and upper-income families would complete elementary school. Each boy and girl benefits equally. Students who were already doing well academically saw the greatest gains.

These strategies are presently being integrated into comprehensive cash-plus frameworks, merging financial assistance with additional transfers, interventions, or services to enhance the effectiveness of cash transfer programs. The supplemental ("plus") components of the intervention are designed to bolster the impact of cash transfers by addressing intermediate outcomes or the availability of resources and services. In a study conducted by Sabates et al. (2019), the researchers examined the short- and medium-term effects of unconditional cash transfers on the educational choices of recipient children in Rwanda. The study relied on an independent evaluation of Concern Worldwide's Graduation Programme, which offered participants monthly cash transfers and training in sustainable livelihoods. The results suggested that the program aided low-income families in overcoming economic challenges, leading to increased investment in their children's education. However, as the baseline school attendance was already above 80% due to the government's emphasis on universal access to basic education, the program did not result in further improvements in educational access. Therefore, it was concluded that income impacts and policy measures were ineffective for children who remained out of school.

In theory, when qualified children do not directly receive benefits but their households are recipients of cash transfers, it may lead to involvement in labour activities and changes in their educational enrolment. In a study conducted by Camillo and Zuluaga in 2022, the researchers explored the presence of indirect effects. Employing a non-experimental approach, the study uncovered a detrimental impact on the school attendance of non-beneficiary siblings, coupled with a rise in their rates of absenteeism. Moreover, the study identified varying spillover effects on child labour that are contingent upon the child's gender and age. Based on their findings, they

recommended that the conditional cash transfer program be restructured to extend its coverage to the entire household, rather than constraining the number of beneficiary children within a household. This adjustment aims to mitigate the negative consequences observed among non-beneficiary siblings and foster more equitable outcomes.

2.3.2 Child labour and cash transfer

Churchill et al. (2021) conducted research to determine how unconditional cash transfers (UCTs) influence the amount of time children spend working and how well they do in school. According to the findings, UCTs had a positive impact on school enrollment as well as grade progression, but they had no effect in the short run on the rates of children dropping out of school. The BISP policy intervention encourages grade progression for male students but does not have the same effect for female students. In the short run, the BISP has the effect of dramatically lowering the dropout rates for boys while significantly raising those rates for females. The results indicated that the BISP policy intervention did not have an impact in the short term on child labour. However, medium-to long-term cash transfers helped reduce work among boys and girls. On the other hand, the BISP had a short-term effect of increasing child labour among girls but not among boys.

Human capital accumulation among youth in poor countries was analysed by Li and Sekhri (2020). Impacts on school enrollment and child labour were studied by looking at the rollout of India's MGNREGA. Relative school enrollment drops in areas where MGNREGA is introduced. The analysis found that fifth graders were the main cause of the enrollment drop. Using data on employment from all 50 states, the study shows that job guarantee programs have negative effects on human capital in the form of increased child labour

In a study by Casco (2022), the researcher explored the influence of government-funded cash transfer programs on choices made by households concerning different activities children may engage, such as attending school, working, and leisure. The empirical findings suggest that the primary change in behaviour induced by the program included a decrease in the likelihood of households sending children to work, coupled with an increased likelihood of households choosing to combine child labour with schooling. However, the program led to limited time allocated to

specific labour activities, although these outcomes are primarily attributed to the impact of the transfer at a broader level, rather than in terms of the intensity or extent of child labour engagement.

Walker and Bartlett (2018) conducted a lab-in-the-field experiment with child workers in Kenya to determine the relationship between a child's risk preferences and family choices on child labour supply. The research indicated that risk-averse children were more likely to decide alone to work, as opposed to being sent by their parents or debating the choice with them. In addition, the research showed no association between a child's risk preferences and whether or not their parents sent them to work. The findings implied that risk-averse youngsters engage in strategic behaviour when confronted with a dangerous outside choice in semi-nomadic pastoralism, the predominant vocation in the research region. The results were robust to the addition of proxies for home wealth and peer influence, and they lacked bias from unobservable variables.

Tagliati (2019) examined the impact of monetary vs non-monetary transfers on child labour. Using data from a program that randomly provided cash or a food basket to impoverished homes in Mexico, the research indicated that the cash transfer lowered children's labour engagement by a considerably greater margin than the in-kind gift. Both transfers had substantial negative impacts on child labour among beneficiaries in the middle tertile of the income distribution, according to the findings. The in-kind transfer did not decrease child labour among children in the lowest tertile, but the cash transfer did. In addition, transfer receivers in various tertiles of income adjust child labour by varying margins (extensive versus intensive). The study demonstrated that the varying adjustment margins across the income distribution may be explained by a model in which preferences for education follow a luxury axiom and the family can forgo child labour earnings only when the transfer pushes consumption over subsistence levels.

In order to comprehend the effects of child labour on mental health outcomes and the effect of sexual orientation on these consequences, Meyer, Yu, Rieders and Stark (2020) investigated the frequency of child labour among teenage refugees from South Sudan in two refugee settlements in Uganda. These settlements were located in Uganda. The refugees were from South Sudan. Between the months of December 2014 and February 2015, 470 adolescents between the ages of 13 and 17 from the refugee villages of Adjumani and Kiryandongo in Uganda were interviewed.

A model of child labour consisting of two clusters was developed via the use of univariate finite mixture modelling. The connection between child labour and psychological well-being was analysed with the use of logistic regression models. Results indicated a two-cluster solution to the problem of child labour activity among the 332 adolescents who self-reported participating in any kind of child work (n = 174 for significant child labour, n = 158 for moderate child labour, and n = 138 for no child labour). In a model that examined the interaction between sex and child work while adjusting for socio-demographic factors, the chances of depression among adolescents who were exposed to considerable child labour were 4.15 times higher than those who were not exposed to any child labour at all.

2.4 Overview of Literature

The study adopted the human capital theory, the child centred theory, and classical liberal theory of equal opportunity to guide the research. Human capital theory posits that child labour hampers the development of human capital by depriving children of the education and health care necessary for them to become productive adults who can contribute to the economy. Children are viewed as having untapped potential that needs to be nurtured and safeguarded to ensure their full development. The theory underscores the critical role of education in reducing child labour.

The child-cantered theory prioritises the best interests of the child, emphasising the need to protect children from exploitation, abuse, neglect, and harmful activities, including child labour. It underscores the importance of involving children in decisions that impact their lives, emphasising their role as agents of change.

The classical liberal theory advocates for equal access to education to eliminate barriers that hinder gifted students from disadvantaged backgrounds. It asserts that education is the cornerstone of social mobility and that individuals should be granted opportunities based on their inherent abilities. In the context of child labour, this theory highlights that child labor obstructs educational opportunities for children, preventing them from utilizing their innate abilities. It underscores that children's exclusion from education due to child labour not only hinders their individual

development but also compromises the government's capacity to meet educational goals and provide universal primary education.

The review of literature examines the influence of cash transfer initiatives on child education, particularly focusing on Conditional Cash Transfers (CCTs) and Unconditional Cash Transfers (UCTs). Research conducted by Temidayo and Awojobi (2020) across Africa and Latin America illustrates that these programs can significantly enhance educational outcomes for children. However, the effectiveness of these programs varies depending on the design and implementation strategies. Evans, Gale, and Kosec's study (2023) in Tanzania emphasizes that the impact of cash transfers on schooling is not uniform. Although they contribute to increased school attendance and completion of primary education, the benefits differ among subgroups, with children from lower-income families more likely to initiate school attendance and those from middle- to upper-income families more likely to complete primary education.

The review discusses the intricate relationship between cash transfers and child labour. Churchill et al. (2021) examined Pakistan's Benazir Income Support Programme (BISP) and found that Unconditional Cash Transfers (UCTs) positively influenced school enrollment and grade progression, with gender-specific impacts, particularly affecting girls in terms of child labour. Walker and Bartlett's research (2018) in Kenya suggests that children's risk preferences play a role in decisions about child labour, with risk-averse children more likely to choose to work independently.

The literature underscores that the impact of cash transfer programs is multifaceted and context-dependent, influenced by factors such as program design, income distribution, and the intended use of the transfer. Studies reveal varying outcomes for different groups, highlighting the need for nuanced policy approaches. The emergence of "cash-plus" programs, which combine cash transfers with additional interventions, presents a new avenue for enhancing the impact of these initiatives (Sabates et al., 2019). Further research across diverse economies is crucial to gaining a comprehensive understanding of the complexities of cash transfers, schooling, and child labour.

The effectiveness of cash transfer programs can significantly vary across regions due to variations in infrastructure, access to education, labour market conditions, and community norms. The existing literature draws from studies conducted in various regions globally, including Africa and Latin America, but does not delve deeply into the nuances of rural Kenyan settings. The existing literature does not directly address the implications of these regional differences in relation to rural Kenya. The contextual gap exists in understanding how cash transfers, given the unique socio-economic and cultural factors of rural Kenya, impact child labour and schooling in this specific context. The present study filled this gap.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter explains the theoretical framework, modelling, and data analysis. Its theoretical framework was useful in analysing the data. It also highlighted the way to achieving the goals that have been defined. The chapter also explains the numerous tests used to determine the reliability of data.

3.2 Theoretical Framework

In the rural landscapes, the allocation of education is not a universal right but a tradable commodity (Yiu & Yun, 2017), necessitating a thoughtful theoretical framework to unravel the complex interplay between cash transfer programs, child schooling, labor. This study is anchored on a framework known as the Cash Transfer-Education-Labor Nexus (CTELN), which draws inspiration from established models and empirical insights to illuminate the intricate dynamics within this context. Within this framework, the human capital Model, as proposed by Schultz (1961), underlines the pivotal role of education as an investment in human capital. This model posits that education enhances an individual's productivity and socio-economic well-being, thus contributing to the broader development of society. In rural settings, where access to quality education is often limited, the link between education and human capital development is particularly critical. Cash transfer programs, by augmenting household income, have the potential to become a catalyst for this transformation.

The concept of the income effect, rooted in economic models of consumer behaviour, holds significance within the CTELN framework. An increase in household income, due to cash transfers can reshape the educational decisions of parents. This heightened income can alleviate the financial pressure on families, reducing the necessity for children to engage in labor. Consequently, children may have the opportunity to attend school more regularly, as described by Becker (1965). The CTELN framework also incorporates insights from behavioural economics, notably the "nudge" concept (Thaler & Sunstein, 2008). It acknowledges that individuals often

make decisions influenced by heuristics and biases. Cash transfers, by altering the perceived costs and benefits of education and labor, can act as a nudge, influencing parents' choices and directing them toward more favourable decisions for their children.

In exploring the CTELN framework, it's imperative to acknowledge the influence of social norms and cultural context. Drawing from sociological perspectives as emphasized by Coleman (1988), the study recognizes the profound impact of community expectations and cultural norms on decisions related to child labor and schooling. These factors play a pivotal role in shaping the choices made by families in rural setting. Another critical component of the CTELN framework involves the effectiveness of targeting mechanisms in cash transfer programs. Ensuring that the most vulnerable households, where child labor is prevalent, receive the benefits is essential. Efficient targeting can potentially lead to a reduction in child labor and an increase in school attendance, aligning with the broader goals of these programs.

The interplay within the CTELN framework is dynamic and context-specific. Cash transfers possess the potential to disrupt the traditional trade-off between child labor and schooling. However, the effectiveness of this disruption hinges on numerous factors, including the amount of the transfer, local economic conditions, and the quality of available educational facilities

3.3 Estimable Model

Due to the binary character of the dependent variable, the probit model will be used to examine child labour and schooling among rural Kenya. This form of regression is based on the likelihood, as well the response factor assumes the binary (0,1) value(s). Following Muriithi (2013), these kinds of models are predicated based on premise that individuals must select amongst two choices, with selection of one or the other depending on a number of circumstances. In this instance, the error term follows the normal distribution. By monitoring a variable, say Y, whose values range from 0 to 1, as well defining the latent factor (Y*) as;

$$Y_i^* = \beta_j X_i + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 1$$

Where Y^* is the response variable of child labour or schooling, X_i is the predictor variable(s) that act as child labour or schooling determinant(s), including income, age, education levels, and other factors.

β are the coefficient(s) to be determined

ε is the disturbance term that has a normal distribution

The response variable Y in this case, may be detected whether y>0, indicating observable effect, or y=0, denoting no observable effect i.e.,

Y_i= 1, if a child is schooling or subjected to work..2

  0, Otherwise

Consequently, the probability that Y equals 1 where X is evaluated by the use of the ordinary normal cumulative function, as represented by the following equation:

P (Y = 1/X = Φ(X'β) …………………………………………………………………….3

Whereby P indicates probability, Φ indicates the cumulative standard normal distribution function as well ß is a number of the factors or variables with estimable parameter.

The third equation may be read as the likelihood phrased as the conditional probability that a child is schooling or subjected to work, given a set of recognized variables Xi. The same model was estimated using the likelihood function from where we estimate β̂ that maximizes the log likelihood function. According to Orayo (2014), it is necessary to determine the average marginal effects (AME) for the purpose of evaluating the direction as well as the size or extent. The AME illustrate the transformation in the likelihood of y = 1 for each unit change in the predictor factor X. The marginal impact is computed for the sample average or as the mean of distinct ME.

3.4 Model Specification

The dependent variable, in nature, is a binary variable for either experiencing the effect. Here, the study assumed that the probability of a child in rural areas attending school or subjected to child work was established by some determined variables (explanatory factors), which is a number of predictor factors that are either cash transfers, child individual characteristics, household features or maternal characteristics. Thus, estimable model was stated as:

$$Y_{i=1,2} = \beta_0 + \beta_1 CT + \beta_2 BO_2 + \beta_3 Sex + \beta_4 Age + \beta_5 Income + \beta_6 HS + \beta_7 HH + \varepsilon \dots\dots\dots.4$$

$Y_{i\ (i=1,2)}$ is either; 1=child labour (C, 2=child schooling (CS).

β_1 is the coefficient of the cash transfers (CT); β_2 is the coefficient of birth order (BO) of the child; β_3 is a coefficient of Sex of the child (Sex); β_4 is the coefficient of age of the child (Age); β_5 is the coefficient of household income (Income), β_6 is the coefficient of household size (HS), β_7 is the coefficient of education level of household head (EHH). The error term that is ε represents a vector of particular hidden traits that might influence a child's activity. These traits are assumed to be distributed independently and uniformly with an average of zero and a variance of sigma squared.

3.5 Variable definitions

Table 3.1: Expected Variable Behaviours

Variable	Measurement	Expected Sign
Dependent Variables		
Child Labour (Y_1)	Aware of child participating in an activity that earns them income (1 if aware, 0 otherwise)	
Child Schooling (Y_2)	Aware of children attending school (1 if aware, 0 otherwise)	
Independent Variables		
Cash Transfer (CT)	Cash transfer (1, if household is a recipient, 0, otherwise)	Indeterminate for child labour , . Positive for child schooling.
Birth Order of the child (BO)	Birth order (the rank of a child among his or her siblings)	Positive for child labour, and negative for child schooling.

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Sex of the child (*Sex*)	Sex (1if male, 0 otherwise)	Boys are more likely to participate in labour compared to Girls, On schooling sex is indeterminate
Age of the child at last birth day (*Age*)	Age (No. of completed years at last birthday)	Child work engagement increases with age; school attendance is likely to decrease with increase in age
Income of the Household (*Income*)	Income of the household (proxied by: if household head is currently working)	Negative sign is expected for child labour Positive sign expected for child schooling.
Household Size (*HS*)	Total number of people residing in the home, including children.	Positive for child labour and negative for child schooling
Education level of household head (EHH)	Education level of household head (number of completed years of schooling)	Negative for child labour and positive for child schooling

3.6 Data Source

This study employed secondary data sourced from the 2022 Kenya Demographic and Health Survey (KDHS). The KDHS 2022 survey took place between February and July of the same year. The survey's sample was drawn from the Kenya Household Master Sample Frame (K-HMSF), which forms the basis for household-based sample surveys conducted by the Kenyan National Bureau of Statistics (KNBS). Out of 129,067 enumeration areas (EAs), a total of 10,000 EAs were chosen.

To ensure representativeness, Kenya's 47 counties were classified into rural and urban strata, creating a total of 92 strata. The sample size included 42,300 households, with 25 households selected from each cluster, resulting in the formation of 1,692 clusters distributed across the country. Among these clusters, 1,026 were located in rural areas, while 666 were situated in urban areas.

3.7 Diagnostic Tests

3.7.1 Normality

The test evaluates data distribution, anticipating a normal distribution. The Shapiro-Wilk test was employed to assess normality of the variables. In instances where the models do not satisfy this assumption, it is recommended to consider a non-linear model.

3.7.2 Heteroscedasticity

Heteroscedasticity pertains to a set of random variables where there is variability in the error variance across observations, contrasting with homoscedasticity where the variance remains consistent across all data points. This variation can undermine the accuracy of variance estimations. To detect the presence of heteroscedasticity, a test employing scatter plots were conducted, and if it is identified, robust standard errors was employed (Berry, & Stanley, 1985)

3. 7. 3 Multicollinearity

When the independent variables exhibit correlation among themselves, (multicollinearity or collinearity) a single predictor variable can predict the others. This phenomenon also inflates the estimated standard deviation of regression variables. To assess multicollinearity, the variance inflation factor (VIF) is employed. When independent variables lack linear relationships, the VIF indicates the extent to which variances in regression coefficients are magnified. If the VIF approaches one, it suggests the absence of a link between the independent variables. However, a VIF of 10 or higher indicates the presence of multicollinearity (Everitt & Skrondal, 2010). In such cases, the estimates are affected, and the coefficients related to the variable become unstable, with associated statistics potentially experiencing significant shifts when other independent variables are included or removed.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Introduction

This section presents empirical findings and interpretations and discussion examining examine the effect of cash transfers on child labour and schooling in rural Kenya. The empirical results are presented through tables and figures.

4.2 Descriptive statistics

Table 4.1 presents descriptive statistics for the independent variables, including cash transfers, birth order of the child, gender of the child, age, household income, household size, and education level of the household head. It also provides information on the dependent variables, namely child labor (Y1) and child schooling (Y2).

Table 4.1: Summary statistics

Variable	Observations	Mean	Std. Dev.	Min	Max
Child Schooling	15025	0.5442273	0.4981446	**0**	**1**
Child Labour	14891	0.2894163	0.9393412	**0**	**1**
Cash Transfer (CT)	12795	0.5320875	0.4986454	0	1
Birth Order of the child (*BO*)	15198	3.38846	3.405338	1	6
Sex of the child (*Sex*)	15198	0.2765533	0.4473008	0	1
Age of the child at last birth day (*Age*)	15198	13.187564	12.89323	5	17
Income of the Household (*Income*)	15160	0.3646884	0.3709297	0	1
Household Size (*HS*)	15198	4.845118	4.515619	1	9
Education Level of the Household Head (*EHH*)	15198	12.15205	13.25913	0	18

Source: Author's computation based on KDHS (2022)

Most of the respondents reported as school going children were approximately 54 percent while children reported to participate in employment with earning returns were about 29 percent. On the other hand, the study showed that households that received cash transfers were about 53 percent were recipient of the transfer while about 47 percent were classified as non-recipient.

Considering birth order of the child, it was revealed that most of the children were third born. On the age of child last birth day was on average, 13 years, ranging from 5 years(the youngest) to 17 years (the oldest). The households with a member currently working were 36 percent. The study considered the household size which was 4 members on average whereas the education attainment of household head was approximately 12 years with others having no education while the highest being 18 years.

4.3 Diagnostic Tests

4.3.1 Normality Test

Table 4.2 displays the outcomes of the Shapiro-Wilk test for normality conducted on various variables related to child schooling, child labor, cash transfer, child's sex, birth order of the child, age of the child at the last birthday, income of the household, household size, and education level of the household head. The table includes the number of observations (Obs), the test statistic (z), and the probability (Prob>z). The results reveal that all variables exhibit p-values below the significance level of 0.05, leading to the rejection of the null hypothesis of normality. This suggests that the distribution of the variables deviates from a normal distribution. The observed significant p-values indicate that the data for child schooling, child labor, cash transfer, birth order of the child, child's sex, age of the child at the last birthday, income of the household, household size, and education level of the household head is not normally distributed.

Table 4.2: Shapiro-Wilk W test for normal data

| Variable	Obs	z	Prob>z
Child Schooling	15025	4.786	0.00000
Child Labour	14891	7.072	0.00000
Cash Transfer	12795	6.633	0.00000
Birth Order of the child	15198	8.109	0.00000
Sex of the child	15198	7.999	0.00000
Age of the child at last birth day	15198	5.454	0.00000
Income of the Household	15160	16.280	0.00000
Household Size	15198	7.160	0.00000
Education Level of the Household Head	15198	2.561	0.00521

Source: Author's computation based on KDHS (2022)

From the Shapiro-Wilk W test results suggest that the majority of the variables examined exhibit non-normal distributions, as evidenced by the low probabilities associated with the test statistics. These findings have implications for the choice of statistical analyses and methods appropriate for non-normally distributed data. However, the normality of individual predictors is not a strict requirement for running a probit model.

4.3.2 Heteroscedasticity Test

The residual plots method was employed to identify heteroscedasticity. This approach involves creating graphs that plot the squared residuals of the regression model(s) against either the predicted values of the dependent variable(s) or each explanatory variable. In the absence of homoscedasticity, no discernible systematic pattern should be evident in the plotted variables. The findings are as indicated in Figure 4.1.

Figure 4.1: Residual plots for child labour and schooling
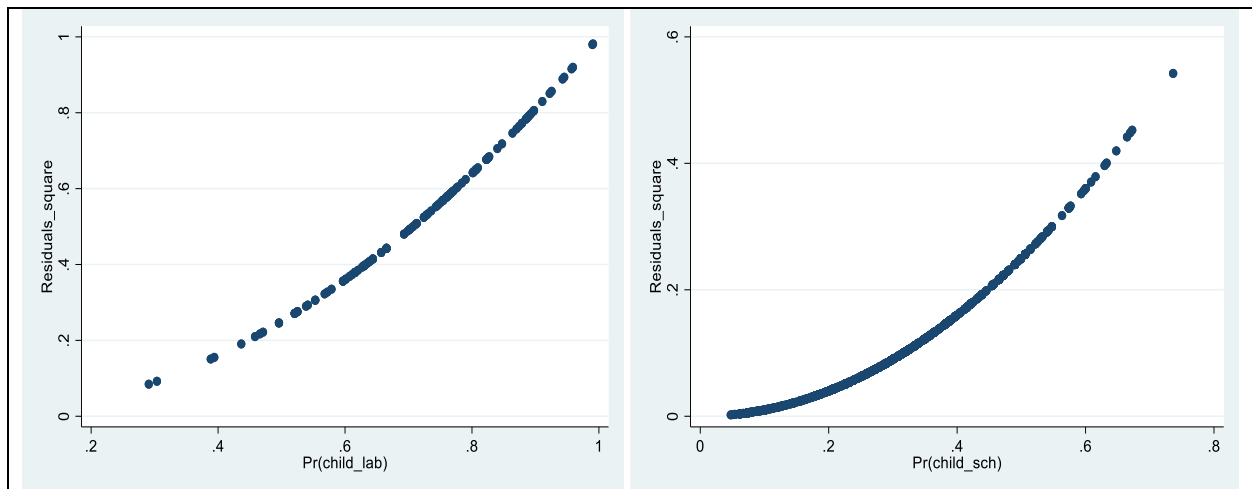
Source: Author's computation based on KDHS (2022)

From the findings, there is a consistent pattern observed which implies presence of heteroscedasticity in both models. As a remedy, the study followed Ombongi (2018), which employed robust standard errors in the final models.

4.3.3 Multicollinearity test

Typically, this process is carried out to determine the correlation between the study's dependent and independent variables. The analysis uses positive and negative signs to indicate the direction of association between these variables. Based on the analysis in appendix 1 and 2, child schooling and child labour was shown to only be negatively correlated with age, and cash transfer. Other correlations are as indicated in the correlation matrix.

4.4. Model Estimation and Interpretation

The Probit models presented in Table 4.3 aim to predict both child labor (Mode 1) and child schooling (Mode 2), offering insights into the factors influencing these outcomes. The overall model parameters indicate that both models are statistically significant, with chi-square test statistics (LR chi2) of 22.95 for child labor and a more substantial 118.09 for child schooling. These values, along with their associated p-values, suggest that the models collectively provide valuable insights into the likelihood of child labor and schooling.

The Pseudo R2 values indicate that the models explain approximately 15.75% of the variation in child labor and 5.29% in child schooling. While neither model captures the entirety of the variability in these outcomes, they offer meaningful explanatory power within the given context.

Table 4.3: Probit models - Average Marginal Effects (child labour and schooling)

Dependent variables	Mode 1: Child Labour				Model 2: Child Schooling			
Variables	**Marginal Effects**	**Robust Std. Error**	**t**	**P value**	**Marginal Effects**	**Robust Std. Error**	**t**	**P value**
Cash Transfer (*CT*)	-.2338385**	.0941722	-2.48	0.013	.2962382**	.1133863	2.61	0.009
Birth Order of the child (*BO*)	.2545514**	.1053432	2.42	0.016	-.3922528**	.1677451	-2.34	0.019
Sex of the child (*Sex*)	.3970126**	.1317044	3.01	0.003	.3348641**	.1176955	2.85	0.004
Age of the child at last birth day (*Age*)	.3049502**	.0681098	4.48	0.000	-.1409249	.1492773	-0.94	0.345

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Income of the Household (*Income*)	-.2732734	.2058806	-1.33	0.184	.2075629	.1636585	1.27	0.205
Household Size (*HS*)	.1069224	.086957	1.23	0.219	-.0619806	.1038561	-0.60	0.551
Education level of household head	-.2058441**	.0714614	-2.88	0.004	.4671486**	.1368439	3.41	0.001
Probit regression Number of obs = 12, 465 LR chi2(7) = 22.95 Prob > chi2 = 0.0079 Log likelihood = -185.97334 Pseudo R2 = 0.1575					Probit regression Number of obs = 12, 465 LR chi2(7) = 118.09 Prob > chi2 = 0.0000 Log likelihood = -1117.6709 Pseudo R2 = 0.0529			

(**) Significant at 5% level.

Source: Author's computation based on KDHS (2022)

Table 4.3 results show the marginal effects. The probit models, Mode 1 for child labor and Mode 2 for child schooling, offer valuable insights into the factors influencing these outcomes. Comparing the findings across the two models reveals distinctive patterns in the significance and direction of certain variables. In the context of cash transfer, Mode 1 (Child Labor) demonstrates a negative and significant marginal effect (-0.2338, p = 0.013), indicating that households receiving cash transfers are less likely to have children engaged in labor. Conversely, in Mode 2 (child schooling), the effect is positive and significant (0.2962, p = 0.009), suggesting that households receiving cash transfers are more likely to have children attending school. This intriguing dichotomy underscores the dynamic effect of cash transfers, influencing child labor and schooling in divergent ways.

Birth order of the child exhibits contrasting effects across the models. In Mode 1, a positive and significant effect (0.2546, p = 0.016) suggests that as the birth order of the child increases, the likelihood of child labor also increases. Conversely, in Mode 2, a negative and significant effect (-0.3923, p = 0.019) implies that higher birth order is associated with a decreased likelihood of child schooling. This inconsistency highlights the intricate relationship between birth order and child outcomes.

The sex of the child displays intriguing patterns. In Mode 1, a positive and significant effect (0.3970, p = 0.003) suggests that male children are more likely to be engaged in labor. In Mode 2, the effect is again positive and significant (0.3349, p = 0.004), indicating that male children are more likely to attend school. This discrepancy in the impact of gender on child labor and schooling emphasizes the complex interplay of sociocultural factors shaping educational and labor participation patterns among children.

Age of the child at last birthday exhibits interesting dynamics. In Mode 1, a positive and highly significant effect (0.3049, p = 0.000) suggests that as the age of the child increases, the likelihood of engaging in child labor also increases. However, in Mode 2, the effect is not statistically significant (-0.1409, p = 0.345), indicating that age may not be a significant factor in determining child schooling. This discrepancy underscores the importance of considering age as a contextual factor in the analysis of child labor and schooling.

Income of the household (Income) presents contrasting effects across the models. In Mode 1, the effect is not statistically significant (-0.2733, p = 0.184), implying that household head income may not significantly influence child labor. In Mode 2, the effect is positive but not statistically significant (0.2076, p = 0.205), suggesting a limited impact of household head income on child schooling. These results emphasize the need for a nuanced understanding of the relationship between household income and child outcomes.

Household size displays mixed results. In Mode 1, the effect is positive but not statistically significant (0.1069, p = 0.219), suggesting that household size may not be a significant determinant of child labor. In Mode 2, the effect is negative but not statistically significant (-0.0620, p = 0.551), indicating a lack of significant association between household size and child schooling. These findings highlight the complexity of household dynamics in influencing child labor and schooling outcomes.

Education level of household head is a crucial variable measured in completed years of schooling. In Mode 1, a negative and highly significant effect (-0.2058, p = 0.004) indicates that as the education level of the household head increases, the likelihood of child labor decreases. In Mode

2, the effect is positive and highly significant (0.4671, p = 0.001), suggesting that a higher education level of the household head is associated with an increased likelihood of child schooling. These results underscore the pivotal role of household head education in shaping child outcomes.

4.5 Discussion of the Regression Results

The findings from our models align with the theoretical perspectives discussed in the literature, especially the human capital theory, child centred theory, and classical liberal theory of equal opportunity. The literature review provides a theoretical foundation for understanding the complexities of child labor, schooling, emphasizing the importance of context in shaping outcomes. On cash transfer, Mode 1 (Child Labor) demonstrates a negative and significant marginal effect (p = 0.013), indicating that households receiving cash transfers are less likely to have children engaged in labor. Conversely, in Mode 2 (Child Schooling), the effect is positive and significant (p = 0.009), suggesting that households receiving cash transfers are more likely to have children attending school. This intriguing dichotomy underscores the dynamic impact of cash transfers, influencing child labor and schooling in divergent ways.

These findings align with the research conducted by Temidayo and Awojobi (2020), spanning Africa and Latin America, indicating that both Conditional and Unconditional Cash Transfers positively impact child schooling. The consistency in results reinforces the notion that cash transfer programs contribute significantly to enhancing educational outcomes. Additionally, Evans, Gale, and Kosec's (2023) study in Tanzania further supports our findings, emphasizing the positive effects of cash transfers on school attendance and completion, affirming the potential of such programs to foster educational development for children.

Birth order of the child exhibits contrasting effects across the models. In Mode 1, a positive and significant effect (p = 0.016) suggests that as the birth order of the child increases, the likelihood of child labor also increases. Conversely, in Mode 2, a negative and significant effect (p = 0.019) implies that higher birth order is associated with a decreased likelihood of child schooling. This inconsistency highlights the intricate relationship between birth order and child outcomes, emphasizing the need for nuanced policy considerations.

The sex of the child displays intriguing patterns. In Mode 1, a positive and significant effect (p = 0.003) suggests that male children are more likely to be engaged in labor. In Mode 2, the effect is again positive and significant (p = 0.004), indicating that male children are more likely to attend school. This discrepancy in the impact of gender on child labor and schooling emphasizes the complex interplay of sociocultural factors shaping educational and labor participation patterns among children. Evans, Gale, and Kosec's (2023) findings in Tanzania further support our observations regarding the positive impact of the sex of the child on both child labor and child schooling.

Age of the child at last birthday exhibits interesting dynamics. In Mode 1, a positive and highly significant effect (p = 0.000) suggests that as the age of the child increases, the likelihood of engaging in child labor also increases. However, in Mode 2, the effect is not statistically significant (p = 0.345), indicating that age may not be a significant factor in determining child schooling. This discrepancy underscores the importance of considering age as a contextual factor in the analysis of child labor and schooling. The literature suggests that child labor hampers the development of human capital. The positive impact of age on child labor (Mode 1) aligns with the theory, indicating that older children are more likely to engage in labor, hindering their education.

Income of the household head presents conflicting effects across the models. In Mode 1, the effect is not statistically significant (p = 0.184), meaning that income of the household head may not significantly influence child labor. In Mode 2, the effect is positive but not statistically significant (p = 0.205), suggesting a limited impact of household head income on child schooling. These results emphasize the need for an understanding of the relationship between household head income and child outcomes. The mixed results on the impact of household head income on child labor and schooling align with the complexities highlighted in the literature. While Temidayo and Awojobi's study (2020) shows positive impacts, the complex findings in our models indicate a need for context-specific considerations.

Household size displays mixed results. In Mode 1, the effect is positive but not statistically significant (p = 0.219), suggesting that household size may not be a significant determinant of child labor. In Mode 2, the effect is negative but not statistically significant (p = 0.551), indicating

a lack of significant association between household size and child schooling. These findings highlight the complexity of household dynamics in influencing child labor and schooling outcomes.

Education level of household head is a crucial variable measured in completed years of schooling. In Mode 1, a negative and highly significant effect ($p = 0.004$) indicates that as the education level of the household head increases, the likelihood of child labor decreases. In Mode 2, the effect is positive and highly significant ($p = 0.001$), suggesting that a higher education level of the household head is associated with an increased likelihood of child schooling. These results underscore the pivotal role of household head education in shaping child outcomes. The literature supports the importance of education in reducing child labor, and the negative impact of education level on child labor (Mode 1) aligns with this perspective. The positive impact on child schooling (Mode 2) further underscores the critical role of household head education.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the study and provides the conclusion and the recommendations.

5.2 Summary of the findings

Child labor and child schooling in Kenya are intricately linked challenges, particularly in rural areas. The prevalence of child labor, often driven by economic vulnerabilities and poverty, poses a significant barrier to accessing education. Children engaged in various forms of labor, such as agriculture and domestic work, find themselves caught in a cycle where the necessity to contribute to household income limits their ability to attend school consistently. This dynamic creates a vicious cycle, perpetuating poverty and hindering socio-economic development. Despite legislative measures and initiatives like the Orphan and Vulnerable Children Cash Transfer Program, which aims to alleviate economic hardships, there remains a significant gap in understanding how these interventions impact child labor and schooling in the context of rural Kenya. Bridging this gap is crucial for informed policy decisions and effective social protection strategies to break the cycle of child labor and improve educational outcomes for vulnerable children in the country.

This research aims to improve our understanding of the socio-economic factors influencing child labor and education in rural areas of Kenya. The specific goals include investigating the trends in cash transfers and education in rural Kenya, assessing the impact of cash transfers on child labor, evaluating the effects of cash transfers on education, and offering policy recommendations. The study utilizes a comprehensive dataset, specifically the 2022 Kenya Demographic and Health Survey (KDHS). Through a combination of descriptive analysis and regression techniques, the research examines various variables such as cash transfers, birth order of the child, gender of the child, age, household head's income, household size, and education level of the household head. These variables serve as the independent factors, while child labor and child schooling are the dependent variables. The analysis employs Probit regression to estimate parameter coefficients,

and diagnostic tests are conducted to validate model assumptions. The statistical software STATA version 15 was used in estimations, ensuring a rigorous examination of the socio-economic determinants of child labour and schooling in rural Kenya.

5.3 Conclusion

This study aimed to deepen our comprehension of the socio-economic dynamics surrounding child labor and schooling in rural Kenya, with a specific focus on the effect of cash transfers. The exploration of patterns in cash transfers and schooling, coupled with the determination of the effects of cash transfers on both child labor and schooling, has provided valuable insights into the intricate relationships at play. Notably, cash transfer programs exhibited a positive and statistically significant effect on child schooling, indicating their potential to enhance educational opportunities. Conversely, the study found a negative and significant association between cash transfers and child labor, suggesting a promising role in mitigating the incidence of child labor in vulnerable households.

In the child labor model, other variables such as household health income, household size, and the education level of the household head emerged as statistically significant contributors. In the child schooling model, significant variables included birth order, sex of the child, age of the child at the last birthday, and household size.

5.4 Recommendations of the Study

Based on the findings of this study, several recommendations can be proposed to inform policy and practice in addressing child labor and enhancing child schooling in rural Kenya: The significant and positive impact of cash transfers on these outcomes suggests the need for an optimized and expanded approach to existing programs. The direction of effect, particularly the reduction in child labor and improvement in child schooling associated with increased cash transfers, provides a clear impetus for policymakers to prioritize and strengthen these initiatives.

To maximize the efficacy of cash transfer programs, targeted interventions are recommended. Identifying and focusing on households with specific risk factors, such as lower income levels and

larger household sizes, can tailor interventions to address the unique challenges faced by these vulnerable groups. Moreover, integrating financial literacy components into cash transfer programs empowers families to make informed decisions about allocating funds for the educational well-being of their children. Additionally, advocacy for sustained policy support and exploration of public-private partnerships can further amplify the positive impact of cash transfers on child well-being and long-term socio-economic development. By implementing these recommendations, there is a substantial opportunity to create lasting and meaningful change in rural Kenya's landscape of child labor and education.

5.5 Areas for Further Studies

While this study provides valuable insights into the impact of cash transfers on child labor and schooling in rural Kenya, there are several areas for further research to deepen our understanding and inform future policy decisions. Firstly, an in-depth exploration into the specific mechanisms through which cash transfers influence child labor and schooling dynamics would contribute to a more nuanced understanding of the causal pathways involved.

In addition, investigating the long-term effects of cash transfer programs on the educational and socio-economic trajectories of individuals who were beneficiaries during their childhood could offer valuable insights into the sustained impact of such interventions. Longitudinal studies tracking individuals over an extended period would be instrumental in this regard. Furthermore, a comparative analysis of cash transfer programs across different regions in Kenya could shed light on regional variations in program effectiveness, considering diverse socio-economic contexts. This could inform the development of targeted and context-specific interventions to address unique challenges faced by specific communities.

Exploring the intersectionality of variables, such as the interaction between cash transfers and cultural factors influencing child labor and schooling, presents another avenue for future research. Understanding how cultural norms and practices interact with cash transfer programs can enhance the design of culturally sensitive interventions. Lastly, incorporating qualitative research methods, such as interviews and focus group discussions, would provide a richer understanding of the lived

experiences of beneficiaries. Qualitative insights can complement quantitative findings, offering a more holistic perspective on the dynamics of child labor and schooling in the context of cash transfer programs. Addressing these areas for further study will contribute to the ongoing discourse on effective strategies to alleviate child labor and promote education in rural settings.

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APPENDICES

Appendix 1: Correlation Matrix with Child Schooling

Variable	Child Schooling	Cash Transfer	Birth Order of the child	Sex of the child	Age of the child at last birth day	Income of the Household	Household Size	Education level of Household Head
Child Schooling	1.0000							
Cash Transfer	-0.0249	1.0000						
Birth Order of the child	0.0662	0.0673	1.0000					
Sex of the child	0.2488	0.0047	-0.1118	1.0000				
Age of the child at last birth day	-0.1662	0.1450	0.0249	-0.1576	1.0000			
Income of the Household)	0.1769	-0.0106	0.2288	-0.0304	-0.0889	1.0000		
Household Size	0.1408	0.2368	0.2364	0.3078	-0.1180	0.0848	1.0000	
Education level of Household Head	0.1111	-0.0919	-0.0176	0.1539	0.0360	0.0726	-0.0064	1.0000

Appendix 2: Correlation Matrix with Child Labour

Variable	Child Labour	Cash Transfer	Birth Order of the child	Sex of the child	Age of the child at last birth day	Income of the Household	Household Size	Education level of Household Head
Child Labour	1.0000							
Cash Transfer	-0.0249	1.0000						
Birth Order of the child	0.0662	0.0673	1.0000					
Sex of the child	0.2488	0.0047	-0.1118	1.0000				
Age of the child at last birth day	-0.1662	0.1450	0.0249	-0.1576	1.0000			
Income of the Household	0.1769	-0.0106	0.2288	-0.0304	-0.0889	1.0000		
Household Size	0.1408	0.2368	0.2364	0.3078	-0.1180	0.0848	1.0000	
Education level of Household Head	0.1111	-0.0919	-0.0176	0.1539	0.0360	0.0726	-0.0064	1.0000