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Determinants of Secondary Education Completion among Rural Girls in Balochistan: An Assessment in the Context of SDG 4.1

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ABSTRACT

The study examines the determinants of secondary school completion among rural girls in Balochistan in the context of SDG 4.1. The study primarily aims to assess the level of secondary education completion among girls and identify socioeconomic, cultural and institutional factors affecting completion. The study employed a mixed methods research design, integrating both qualitative and quantitative methods. Quantitative data were collected from 300 households having at least one female aged between 15 to 18 years. Qualitative data were collected through focus group discussions involving parents, teachers, and community members. Quantitative data were analyzed using frequency distributions, percentages, correlation analysis, and binary logistic regression. The findings show that only 40% of the sampled girls had completed secondary education, whereas 60% had not. Logistic regression results indicate that household income, parents' education, availability of female teachers, and school infrastructure were positively associated with the likelihood of secondary education completion. In contrast, early marriage and greater distance to school significantly reduced the likelihood of completion. The qualitative findings reinforced these results by highlighting poverty, gender norms, household responsibilities, early marriage, restricted mobility, inadequate school facilities, distance, and limited availability of female teachers as major barriers to girls' educational continuation and completion. The study concludes that low secondary education completion among rural girls is a multidimensional problem requiring integrated interventions. Strengthening targeted financial support, preventing early marriage, improving school accessibility and transportation, recruiting female teachers, upgrading gender-responsive infrastructure, and engaging communities in support of girls' education are recommended to improve secondary education completion and advance progress towards SDG Target 4.1 in Balochistan.

Keywords: Secondary Education Completion; Rural Girls; Balochistan; SDG 4.1

1. Introduction

Education is known as a fundamental human right and a key driver of social, economic, and human development. Education helps reduce poverty, promotes gender equality, enhances the well-being of individuals, and ensures sustainable socio-economic development (Psacharopoulos, & Patrinos, 2018). In 2015, the global community recognized the transformative role of education by giving it a central position in achieving several Sustainable Development Goals (SDGs). SDG 4 (Quality Education) seeks to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all." SDG 4 includes Target 4.1, which aims to achieve, by 2030, that all boys and girls have completed free, equitable, quality primary and secondary education and acquired the relevant skills

needed for life and further learning. Progress towards this target is tracked using indicators of learning outcomes and completion rates in primary and secondary schooling (United Nations, 2025).

Educational completion is one of the main dimensions of educational development as it reflects not only access to education, but also successful progression from one stage of schooling to another (Al-Samarrai & Peasgood, 1998). Completion of secondary education is especially critical because it enables the learners to acquire the knowledge, and skills required for productive employment, participation in social life, and lifelong learning. The importance of completing secondary education for girls goes beyond personal benefits, as it contributes to delaying marriage, lowering fertility rate, improving maternal and child health conditions, and empowering women. Consequently, increasing secondary education completion rate is critical to achieving SDG 4 (Quality Education) and SDG 5 (Gender Equality) (Bray & Kwofie, 2019).

While some progress has been made in enhancing education globally, disparities in providing education persist, particularly in underdeveloped countries, where girls still face numerous challenges in accessing quality education. Girls' participation and completion of education is often restricted by poverty, gender discrimination, cultural barriers, child labor, early marriage, inadequate educational infrastructure, and security concerns. These challenges are worse in marginalized areas where educational opportunities are limited, and traditional gender norms are influential (Psaki et al., 2022).

Pakistan faces significant challenges in achieve SDG 4 targets, particularly universal access to completion of education. Over the past decade, the country has made some progress in educational indicators, but gender disparities, particularly in less developed regions, remain high. Balochistan, the most underdeveloped province in Pakistan, shows some of the poorest educational outcomes (Anwar et al., 2022). According to the Pakistan Social and Living Standards Measurement (PSLM) survey 2024-25, in Balochistan, only 42% of the population aged 10 years and above have completed primary education or higher, compared with 62% in Punjab, and 52% in Sindh. More importantly, a severe gender gap exists in the province, where only 27% females have completed primary education or higher, compared to 52% of males, indicating a gap of 29% points. The figures show that girls in Balochistan face significant challenges in accessing and completing education (Pakistan Bureau of Statistics, 2025).

The educational indicators related to girls' participation and progression are even worse in Balochistan. Balochistan Gender Parity Report (2024) shows deep-rooted inequalities in access and achievement of education as the female literacy rate in the province is only 38.8%, compared with 69.4% for males. Similarly, girls' progress from one level of schooling to another is very low. The effective transition rate for girls from primary to middle schooling is only 58.7%, compared with 62.9% for boys, showing that a large number of girls drop out of school before entering the secondary level. Moreover, girls' enrollment rate at the middle and secondary level is lower compared with boys, suggesting that educational disparities increase as girls progress through the education system (Balochistan Commission on the Status of Women, 2025).

The data provided by Pakistan Alliance for Girls Education (2024) highlight the magnitude of educational exclusion among girls in Balochistan, as 75.4% of school-age girls are out of school, compared with 63.6% of boys. The figures become more alarming at the secondary school level, where 76.8% of girls and 66.3% of boys of secondary school age are not enrolled. The proportion of out of school girls at the higher secondary level rises to 83.2%, which indicates that a significant number of girls drop out of school. The report further shows that

a significant gap in enrollment exists in the province as only 24.6% of girls are enrolled, compared with 36.4% of boys.

A complex interaction of socio-economic, cultural, and geographical factors is responsible for the educational problems faced by girls in Balochistan. The province suffers from widespread poverty, insufficient learning infrastructure, dispersed population, and adverse geographical conditions. The Balochistan Gender Parity Report 2024 shows that more than 22% school in Balochistan are non- functional. The report further shows that most schools lack basic facilities, with drinking water available in only 26.6% of schools, toilet facilities in 43% of schools, and electricity in 20.9% of schools. The lack of these infrastructural facilities especially affects adolescent girls, as problems related to their safety, sanitation, and mobility are significant.

Besides infrastructural challenges, sociocultural issues remain constraints on girls' education. Families are less likely to send girls to complete secondary school due to traditional gender norms, early marriage, household duties, parents' views on girls' education, and limited mobility of girls. These difficulties are exacerbated by a lack of female teachers. In Balochistan, females make up just 38.7% of the teaching workforce, limiting the availability of gender sensitive school settings which are crucial for girls to continue their education (Arif et al., 2025).

In spite of various efforts from the governmental and non-governmental organizations to achieve gender equality and improve access to education in the province, the progress towards the achievement of SDG Target 4.1 is still low (Sajjad et al., 2022). Available literature has focused more on school enrollment, literacy, and access to education and far less on factors affecting secondary school completion rates among rural girls. Measuring successful completion rates of girls' schooling at both primary and secondary levels is an important part of SDG indicator 4.1, so understanding factors that yield successful secondary education completion is vital for evidence-based policy making and secondary education planning (Anwar et al., 2022).

In this context, the present study examines the determinants of girls' secondary education completion among girls within the context of SDG 4.1 in Balochistan. The study seeks to provide empirical evidence on the socioeconomic, cultural, institutional, and school-level factors that affect girls' secondary school completion to guide the development of policies and targeted interventions to improve girls' learning outcomes. The study also aims to support ongoing efforts to improve educational equity and accelerate the realization of SDG 4.1 at national and provincial levels.

Research Objectives

1. To estimate the secondary education completion rate (SDG Indicator 4.1.2) among rural girls in the Jaffarabad and Sohbatpur districts of Balochistan.
2. To identify key socioeconomic, cultural, and institutional factors that influence secondary school completion among rural girls in the study area.
3. To assess the relative strength of these factors in explaining secondary education completion among rural girls within the context of SDG Target 4.1.
4. To propose evidence-based policy recommendations to improve secondary education completion among rural girls in Jaffarabad and Sohbatpur, in alignment with SDG Target 4.1.

2. Literature Review

2.1 Education as a Component of Human Development and SDG 4.1

Education plays a crucial role in human development, social progress, and economic growth. Human Capital Theory asserts that investing in education improves individual productivity and lifetime income, hence fostering overall economic growth (Becker, 1964). In this context, secondary education is particularly important as it provides individuals with essential cognitive and social skills required for workforce engagement and societal inclusion.

The worldwide educational system is presently directed by Sustainable Development Goal 4, which ensures inclusive and equitable quality education for everyone. Target 4.1 explicitly aims to achieve universal access to free, equal, and high-quality primary and secondary education by 2030, prioritizing learning outcomes (United Nations, 2025). Indicator 4.1.2 assesses completion rates at both primary and secondary levels and is regarded as a crucial standard for evaluating educational equity and system effectiveness (UNESCO Institute for Statistics, 2024).

Despite global commitments, educational inequality is a serious problem, especially in developing countries, where girls' educational attainment is disproportionately low due to structural, cultural, and economic obstacles (UNICEF, 2023).

2.2 Global Evidence on Secondary Education Completion

Literature consistently shows that various factors at the family, school, and community levels interact to determine whether a secondary school student completes their education. Low-income families generally put immediate financial needs ahead of their children's education, making poverty a powerful predictor of school dropout. Dropout rates among adolescents, especially girls, are substantially higher in low-income families due to opportunity costs of education (Filmer & Pritchett, 2001).

Gender inequalities in education remain a serious global issue. According to UNESCO (2023), adolescent girls in low-income countries are less likely to complete secondary school compared to boys, mainly due to early marriage, household chores, and cultural barriers. Gender stereotypes and limited access to safe and nearby schools also disproportionately affect females, especially in Sub-Saharan Africa and South Asia (UNICEF, 2022).

School-related factors are critically important in determining school completion. Girls' low completion rates are associated with long distances to school, lack of female teachers, poor infrastructure, and safety issues. Moreover, geographical isolation and lack of institutional support systems in rural areas intensify these barriers (Lewin, 2009).

2.3. Determinants of Girls' Education: Socioeconomic Factors

Educational completion is significantly determined by socioeconomic status. The capacity to fund schooling expenses, including uniforms, transportation, and the opportunity costs associated with child labour, is highly influenced by household income (Filmer & Pritchett, 2001). During periods of high financial constraints, households with limited financial resources are more likely to withdraw girls from school.

Another critical determinant is parental education. Davis-Kean (2005) has found that parents with higher educational attainment are more likely to invest in their daughters' education and to have high expectations for their academic success. In particular, maternal education has a strong positive impact on the retention and completion of girls in school (Sen, 1999).

The size of the family and the dependence burden are also associated with academic outcomes. Larger families are more likely to invest uneven resources, prioritizing boys' education over girls' education, resulting in a greater likelihood of dropping out for girls in these households (Buchmann & Hannum, 2001).

2.4. Cultural and Gender Norms Affecting Girls' Education

Cultural norms significantly influence girls' education in South Asian countries. Girls' mobility is often restricted, and domestic responsibilities are given preference over learning due to gender role expectations. Education beyond primary school is not viewed as important for girls in many rural conservative communities, especially if early marriage is encouraged (Khan, 2013).

One of the important determinants of dropping out of secondary school is early marriage. Research indicates that girls who marry early are far less likely to attend secondary school, as a result of household responsibilities and lack of autonomy (UNFPA, 2020). Early marriage is common in Pakistan, especially in underdeveloped rural areas.

Community attitudes towards girls' education also have a critical impact. In some communities, where norms impose constraints, even affluent families may keep girls out of school for social pressure or safety reasons (Aldaman et al., 2001).

2.5 Institutional and School-Level Determinants

The availability, quality, and accessibility of schools are important factors in determining secondary education completion. Poor mobility in rural and remote areas can hinder girls' ability to attend school, thus increasing the risk of dropping out due long distances and safety concerns (UNICEF, 2023).

In conservative societies, female teachers are a vital component. Studies indicate that the involvement of women teachers can positively influence the enrolment and retention of girls in schools as they build a culturally acceptable learning environment (Andrabi et al., 2007). However, there is a huge shortage of female teachers in rural areas.

School infrastructure is another critical factor. Girls are disproportionately affected by the lack of electricity, toilets, and safe drinking water, particularly during adolescence. The lack of school facilities may lead parents to withdraw their daughters from school due to safety and dignity concerns (World Bank, 2018).

2.6 Educational Inequality in Pakistan and Balochistan

The attainment of universal completion of secondary education is one of the major challenges for Pakistan. While enrolment rates have improved over the years, high dropout rates remain a significant problem, especially during the primary-to-secondary transition (Bureau of Statistics, Government of Pakistan, 2025).

Balochistan is the most educationally deprived province of Pakistan. It has the lowest literacy rate as well as the largest gender gap in education. In the context of educational attainment, PSLM 2024 – 25 showed that the percentage of girls completing secondary education was very low compared with male attainment, in rural areas of Balochistan (Pakistan Bureau of Statistics, 2025). Poverty, geographic isolation, and poor governance are responsible for poor academic outcomes in the province.

The recent empirical evidence shows that districts like Jaffarabad and Sohbatpur lack secondary schools for girls. There is a lack of transportation and high dropout rates among girls at the primary and secondary levels (Balochistan Education Department, 2024). These conditions make the region highly relevant to studying implementation challenges of SDG 4.1.

3. Research Methodology

3.1 Research Design

Within the context of SDG Target 4.1, this study uses a mixed-methods research design, combining quantitative and qualitative techniques to investigate the factors influencing rural girls' completion of secondary school in the districts of Jaffarabad and Sohbatpur in Balochistan. While the qualitative component provides deeper insights into the social, cultural, and institutional variables influencing girls' educational attainment, the quantitative

component is utilized to assess secondary education completion rates and investigate the influence of various determinants.

3.2 Study Area

The study was carried out in the rural areas of the districts of Jaffarabad and Sohbatpur in Balochistan. These districts were chosen due to their relatively poor educational indicators, especially for girls. The research area's educational profile and current trends in girls' secondary education completion were described using secondary data from official sources, such as Pakistan Social and Living Standards Measurement (PSLM) survey, Multiple Indicators Cluster Survey (MICS) Balochistan, Education Balochistan Education Management Information System (BEMIS), and district education reports.

3.3 Population of the Study

The study population for the quantitative data collection comprised rural households with at least one girl between the aged 15 to 18 years in the districts of Jaffarabad and Sohbatpur. Teachers, parents, and community members with knowledge and experience in girls' education comprised the population for the qualitative component.

3.4 Sample Size and Sampling Technique

A sample of 300 households with at least one female aged 15 to 18 years was chosen from the research area for the quantitative data collection. The selected households were the primary source of information on girls' educational status and the factors affecting the completion of secondary education.

Eight Focus Group Discussions (FGDs) were held for the qualitative insights. There were eight participants in each FGD, including community members, parents, and teachers. These individuals were chosen to gather a variety of viewpoints on the factors influencing girls' secondary education.

3.5 Data Collection Methods

3.5.1 Quantitative Data Collection

Primary quantitative data were collected through a structured questionnaire administered to the selected households. The questionnaire gathered information on:

- Secondary education completion status of girls
- Household socioeconomic characteristics
- Parents' educational background
- Cultural attitudes toward girls' education
- Early marriage practices
- School accessibility
- Availability of female teachers
- School facilities and safety conditions

The data were also used to calculate the secondary education completion rate among rural girls in the study area.

3.5.2 Qualitative Data Collection

Qualitative data were gathered using focus group discussions. The discussion centered around community perspectives, cultural norms, institutional challenges, and barriers to girls' completion of secondary education.

3.6 Data Analysis

3.6.1 Quantitative Analysis

Statistical software was used to analyze quantitative data. The secondary education completion rate among rural girls was estimated using descriptive statistics, such as frequencies and percentages. While Correlation was used to determine the relationships

among variables influencing secondary education completion, Regression was used to assess the magnitude of those relationships.

3.6.2 Qualitative Analysis

Thematic analysis was used to examine the qualitative information gathered through FGDs. The responses were categorized into themes related to educational opportunities, institutional challenges, cultural norms, and socioeconomic barriers.

4. Results

4.1 Quantitative Results

Table: 4.1 Distribution of Respondents by District

District	Frequency (n)	Percentage (%)
Jaffarabad	150	50%
Sohbatpur	150	50%
Total	300	100%

Source: Field Survey, 2026

The study sample comprised 300 households equally distributed between two districts. The equal representation of the two districts in the study not only facilitates comparison of learning outcomes but also ensures equal geographical coverage, which is essential to validate the findings of the study.

Table 4.2 Secondary Education Completion Rate

Completion Status	Frequency (n)	Percentage (%)
Completed Secondary Education	120	40%
Did Not Complete Secondary Education	180	60%
Total	300	100%

Source: Field Survey, 2026

The results show that only 40% of the girls completed secondary schooling, while 60% did not, which indicates that achieving the target of SDG 4.1.2 in the study area is a significant challenge.

Table 4.3 District-wise Secondary School Completion

District	Completed	Not Completed	Total	Percentage
Jaffarabad	35	115	150	23.33%
Sohbatpur	85	65	150	57%
Total	120	180	300	40%

Source: Field Survey, 2026

The secondary school completion rate in Sohbatpur district (57%) was relatively higher than that in Jaffarabad district (23.33%). However, the completion rates in both districts (40%) were low, which suggests that most girls in the study area were unable to complete their secondary education.

Table 4.4 Distribution of Households by Monthly Income

Income Category (PKR)	Frequency (n)	Percentage (%)
Less Than 20, 000	75	25%
20,000-30,000	159	53%
More than 30,000	66	22%
Total	300	100%

Source: Field Survey, 2026

The results show that the majority (53%) of households earned 20,000 to 30,000 rupees per month, while 25% reported monthly income of less than 20,000 rupees, which indicates that

the majority of families had limited capacity to support girls' education beyond the primary level.

4.5 Educational Attainments of Household Heads

Educational Level	Frequency (n)	Percentage (%)
Illiterate	102	34
Primary	52	17.33
Middle	47	15.67
Matric	48	16
Intermediate	26	8.67
Graduate	25	8.33
Total	300	100

Source: Field Survey, 2026

Most households' heads (34%) were illiterate, and only 8.33% had graduation and 8.67% had intermediate education, which suggests that due to low educational levels, most parents were unable to understand the long-term benefits of girls' education and withdrew their daughters before completing secondary schooling.

4.6 Distance Traveled by Girls to Reach Secondary Schools

Distance (Kilometers)	Frequency (n)	Percentage (%)
Less than 4 Kilometers	48	16
5-8 kilometers	123	41
9-12 kilometers	96	32
More than 12 Kilometers	33	11
Total	300	100

Source: Field Survey, 2026

Most girls (73%) were required to travel 5 to 12 kilometers to reach a nearby secondary school. In conservative rural areas, long distances to school may increase the likelihood of dropping out due to restrictions on girls' mobility.

4.7 Cross-tabulation Between Household Monthly Income and Secondary Education Completion

Household Monthly Income (PKR)	Completed Secondary Education	Did not Complete	Total	Completion Rate
Less than 20,000	12	63	75	25%
20,000-30,000	63	96	159	53%
More than 30,000	45	21	66	68.2
Total	120	180	300	40%

Source: Field Survey, 2026

Household income significantly affects secondary school completion rate among girls, as the completion rate increases from 25% to 53% among households earning 20,000 to 30,000 rupees per month compared with households earning less than 20,000 rupees per month. The results further indicate that the completion rate among households that earn more than 30,000 rupees increases to 68.2%. These results suggest that households' economic status is a key determinant of secondary school completion as the income increases, households' capacity to meet girls' educational expenses also increases, thereby supporting continued schooling.

4.8 Cross-tabulation Between Parents' Education and Secondary Education Completion

Parents' Education	Secondary Education Completed	Did Complete	Not	Total	Completion Rate
Illiterate	20	82		102	19.6
Primary	16	36		52	30.8
Middle	19	28		47	40.4
Matric	26	22		48	54.2
Intermediate	18	8		26	69.2
Graduation	21	4		25	84.0
Total	120	180		300	40.0

Source: Field Survey, 2026

Girls' secondary school completion rate is positively related to parents' levels of education. The results show that the completion rate increases from 19.6% for households with illiterate parents to 84% for households with graduate parents. On the other hand, as parents become more educated, the number of girls who do not complete secondary schooling decreases. These results suggest that educated parents are more aware of the importance of girls' education. They support them in continuing their learning and provide them with the resources required to succeed in school.

4.9 Cross-tabulation Between Distance to School and Secondary Education Completion

Distance to School	Secondary Education Completed	Did Complete	Not	Total	Completion Rate
Less than 4 km	34	14		48	70.8
5-8 km	55	68		123	44.7
9-12 km	25	71		96	26.0
More than 12 km	6	27		33	18.2
Total	120	180		300	40.0

Source: Field Survey, 2026

The distance to school and secondary school completion among rural girls are negatively related. The results show that girls living within 4 kilometers of a secondary school have the highest completion rate (70.80%), with a gradual decrease as distance increases, reaching only 18.20% for those who are required to travel more than 12 kilometers. These patterns clearly indicate that as the distance to school increases, the likelihood of completing secondary education decreases among girls, due to increased travel burden, safety issues, and mobility restrictions in rural areas.

4.10 Correlation Between Key Variables and Secondary Education Completion

Variables	Pearson Correlation	Sig (2-tailed)
Household Income	0.72**	0.01
Parents' Education	0.61**	0.00
Early Marriage	-0.58**	0.00
Distance to School	-0.56**	0.00
Female Teacher Availability	0.62*	0.21
School Infrastructure	0.57*	0.15

**Correlation is significant at the 0.01 level (2-tailed)

*Correlation is significant at the 0.05 level (2-tailed)

Source: Field Survey, 2026

The correlation analysis clearly shows a statistically meaningful relationship between girls' secondary school completion and all key variables. The results show that early marriage ($r = -0.58$) and distance to school ($r = -0.56$) are negatively associated with secondary school completion, implying that both cultural and accessibility barriers significantly hinder girls' educational attainment in Balochistan. Moreover, household income ($r = 0.72$), parents' education ($r = 0.61$), female teacher availability ($r = 0.62$) and school infrastructure ($r = 0.57$) are positively correlated with secondary school completion, suggesting that socioeconomic and institutional improvements increase the chances of girls' secondary school completion in rural areas of Balochistan.

4.11 Binary Logistic Regression Results

Variables	B	S.E	Wald	Sig.	Exp(B)
Household Income	0.78	0.21	13.78	0.000	2.18
Parents' Education	0.65	0.18	12.98	0.000	1.91
Early Marriage	-1.12	0.32	12.25	0.000	0.33
Distance to School	-0.89	0.25	12.67	0.000	0.41
Female Teacher Availability	0.54	0.20	7.29	0.007	1.72
School Infrastructure	0.47	0.19	6.14	0.013	1.60
Constant	-1.85	0.41	20.34	0.000	0.16

Source: Field Survey, 2026

The regression model indicates that all variables significantly affect the likelihood of secondary school completion among girls, as their p-values are all below 0.05. The model shows that girls from affluent households are 2.18 times more likely to complete secondary education than those from poor households. Similarly, parental education (OR = 1.91, $p < 0.01$) is positively associated with completion of secondary education, implying that higher parental education increases the likelihood of completion by 1.91 times.

Early education (OR = 0.33, $p < 0.01$) has a strong negative effect on completion, suggesting that it reduces completion by 67%. In addition, distance to school (OR = 0.41, $p < 0.01$) also negatively affects secondary school completion, implying that long distance to school reduces the likelihood of completion by 59%.

The model also shows that female teacher availability (OR = 1.72, $p < 0.05$) increases the likelihood of completion by 1.72 times due to cultural acceptability and perceptions of safety. School infrastructure (OR = 1.60, $p < 0.05$) increases the likelihood of completion by 1.60 times, implying that better infrastructure improves retention and completion among girls.

4.2 Qualitative Results

Thematic analysis was used to analyze data gathered through focus group discussions from teachers, parents and community members, keeping the context of SDG 4.1 in view, the analysis aimed at exploring socioeconomic, cultural and institutional factors influencing secondary school completion among rural girls in the districts of Jaffaarabad and Sohatpur. The analysis revealed four main themes.

Theme 1: Early Marriage as a Structural Barrier to Education

Early marriage emerged as a key socio-cultural constraint that supersedes educational aspirations. Participants frequently stated that once marriage is arranged, families often perceive secondary education for girls as unnecessary. Consequently, most girls leave school even before completing grade 10.

Teachers noted that:

"Many girls leave school suddenly due to marriage decisions made by families. Even after engagement, academically strong students discontinue education."

The participants also noted that in rural areas, early marriage is regarded as a cultural obligation rather than an interruption to education.

Theme 2: Distance and Physical Accessibility of Schools

Long distances to schools emerged as both a logistical and a cultural barrier that not only reduces girls' school attendance but also increases the risk of dropping out. The participants frequently reported that most girls need to travel 5 to 12 kilometers to reach nearest secondary school, creating multiple challenges, including expensive transportation, girls' safety concerns, and restrictions on girls' movement due to cultural norms.

Parents were worried that "Public transport is not safe for girls, so we cannot allow our daughters to travel long distances every day."

Theme 3: Socioeconomic Constraints and Household Poverty

The analysis reveals that economic hardship is a key constraint on households' capacity to support the continuation of girls' education. Most parents reported monthly household income between 20,000 to 35,000 rupees, which is insufficient to cover transportation expenses, school-related costs, and the opportunity costs of girls' domestic labor. Due to limited financial resources, most parents prioritized boys' education.

A father stated: "When families have limited financial resources, they prioritize boys' education as boys are future earners and are expected to provide financial support to their families."

Theme 4: Institutional Barriers and School Environment

Participants identified a number of institutional weaknesses that affect girls' secondary education. Due to cultural norms and safety concerns, most parents are reluctant to send their girls to school without female teachers. Hence the absence of female teachers is a primary factor that discourages girls from continuing and completing secondary education in rural areas.

The participants also reported that secondary school completion rates are adversely affected by poor infrastructure. Specific issues such as lack of boundary walls, absence of toilets for girls, and inadequate classrooms were identified as major reasons for dropout, particularly during adolescence.

Teachers further noted that overcrowded classrooms and lack of learning resources diminish student engagement. These institutional shortcomings make schools less accessible and acceptable to girls, which increases dropout rates.

Theme 5: Gender Norms and Parental Attitudes

A recurring theme in the discussion was the influence of deep-rooted gender norms on educational decisions. Many participants noted that boys' education is prioritized, while girls face restrictions on social mobility. In rural areas, girls' education beyond 8 is often considered unnecessary. However, some younger parents noted a shift in the perspective, emphasizing the importance of education for girls' empowerment.

A participant noted: "Now people are slowly realizing that girls' education is also important." Gender norms serve as an underlying structural constraint that reinforces early marriage, mobility restrictions, and school dropout decisions.

5. Discussion

The findings of the study provide a comprehensive understanding of factors affecting girls' secondary school completion in rural areas of Balochistan. The study found a persistent educational inequality in rural Balochistan, as only 40% of girls completed secondary education in the Jaffarabad and Sohbatpur districts, while 60% dropped out before completing grade 10.

The correlation results show that all socioeconomic, cultural, and institutional factors are significantly correlated with secondary education completion. Household income ($r = 0.72$), parents' education ($r = 0.61$), female teacher availability ($r = 0.62$), and school infrastructure ($r = 0.57$) are positively associated with completion. In contrast, early marriage ($r = -0.58$) and distance to school ($r = -0.56$) negatively affect completion. These results suggest that socioeconomic advantages and institutional support structures are important in increasing the likelihood of girls, completing secondary education, whereas cultural constraints and geographical barriers significantly hinder educational completion.

The logistic regression results further strengthen these findings by identifying the net effect of each determinant while controlling for other variables. The regression model confirms that the likelihood of completing secondary education is considerably increased by household income (OR = 2.18), parents' education (OR = 1.91), female teacher availability (OR = 1.72), and school infrastructure (OR = 1.60). In contrast, early marriage (OR = 0.33) and distance to school (OR = 0.41) significantly reduce the probability of completion.

These results show that household income considerably influences secondary education completion: girls from affluent families are more than twice as likely to complete secondary schooling compared with those from poor households, and the likelihood of completing secondary education is two-thirds lower for girls who marry at an early age. Similarly, geographical accessibility has a crucial impact on completion, as increasing distance to school significantly reduces the likelihood of completing secondary education.

These statistical results have deeper level of understanding when combined with qualitative findings. The FDGs show that early marriage is not merely a statistical predictor but a socially enforced norm that overrides educational aspirations. Girls are dropped out of school even they academically perform well when they are engaged, or their families plan their marriage. Similarly, long distances to school raise safety concerns, create mobility restrictions, and increase transport expenses, all of which contribute to the decision to drop out of school.

Economic limitations also turned out to be a major underlying factor; poor households usually have to make hard decisions about how to distribute their scarce resources and tend to give priority to their sons' education. This is in keeping with the results of the regression study, which shows that income has a significant effect on the probability of completion, highlighting the role of financial ability in keeping girls in education until the secondary level.

Factors within the institution such as the availability of female teachers and the condition of school infrastructure also have a significant impact on educational continuity. The positive values obtained in the regression model show that improving the school environment and ensuring that teachers are sensitive to gender greatly increase the chance that girls will complete secondary school. This is further supported by the qualitative data, since parents were more willing to let their girls attend schools with female teachers and safe and adequate facilities.

Overall, the combination of qualitative and quantitative findings shows that completing secondary education in rural Balochistan is considerably influenced by a complex interaction between economic, cultural and institutional factors. However, economic and institutional factors enhance the likelihood of completing secondary education, cultural practices like early marriage and structural barriers such as the distance to school still have the greatest restraining effect.

6. Conclusion

This study concludes that secondary education completion among rural girls in Jaffarabad and Sohbatpur remains low at 40 percent, indicating significant challenges in achieving SDG Target

4.1 in the study area. The evidence clearly shows that educational attainment is not determined by a single factor but by a complex interaction of socioeconomic status, parental education, cultural norms, and institutional accessibility.

Statistical analysis confirms that early marriage and distance to school are the most powerful barriers to secondary education completion, while household income, parental education, availability of female teachers, and school infrastructure function as key enabling factors. Correlation and regression analyses consistently demonstrate both the strength and direction of these relationships, reinforcing the robustness of the findings.

The convergence of quantitative and qualitative evidence highlights that educational inequality in rural Balochistan is structurally embedded. Without addressing these interlinked barriers, particularly cultural restrictions and geographical inaccessibility, progress toward universal secondary education will remain limited.

In conclusion, achieving SDG 4.1 requires a comprehensive and integrated policy approach that simultaneously addresses economic deprivation, social norms, and institutional weaknesses affecting girls' education in rural contexts.

7. Recommendations

Improving secondary education completion among rural girls in Balochistan requires a multi-dimensional policy response addressing economic, cultural, and institutional barriers.

First, targeted financial support mechanisms should be introduced for low-income households to reduce the economic burden of girls' education. Conditional cash transfer programs, scholarships, and transportation subsidies can play a crucial role in encouraging families to keep girls in school through secondary level. Special attention should be given to families in the lowest income brackets, as they are most vulnerable to dropout decisions.

Second, strong policy measures are needed to discourage early marriage and promote girls' education as a long-term investment. Community awareness campaigns involving religious leaders, local influencers, and school authorities should be implemented to change perceptions regarding the appropriate age of marriage and the value of girls' education. Legal enforcement of minimum marriage age, combined with awareness programs, can help delay early marriages and improve completion rates.

Third, improving physical access to secondary schools is essential. The establishment of additional girls' secondary schools in remote areas, along with provision of safe and affordable transportation services, can significantly reduce dropout rates. Where establishing new schools is not immediately feasible, mobile schooling units or cluster-based schooling systems should be considered to reduce travel distance barriers.

Fourth, increasing the recruitment and deployment of female teachers in rural secondary schools is critical. Female teachers not only improve cultural acceptability but also enhance parents' confidence in sending girls to school. Incentives such as rural allowances, housing facilities, and career advancement opportunities should be provided to attract qualified female teachers to underserved areas.

Fifth, improvement in school infrastructure must be prioritized. Provision of boundary walls, separate sanitation facilities for girls, clean drinking water, and adequate classrooms is essential to create a safe and conducive learning environment. Infrastructure development should be aligned with gender-sensitive education planning under SDG 4.

Finally, community engagement strategies should be strengthened to change deep-rooted gender norms that restrict girls' education. Local community groups, school management committees, and civil society organizations should be actively involved in promoting positive

attitudes toward girls' secondary education. Behavioral change campaigns focusing on the long-term benefits of educating girls can gradually shift traditional perceptions.

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