Journal of Contemporary Macroeconomic Issue **https://doi.org/10.36923/jcmi.v5i1.572**
Vol. 5(1). PP: 48-70

Effect of Remittances on Household Welfare: A Case Study of District Mansehra

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Abstract

This study examines the impact of foreign remittances on household welfare in district Mansehra. Primary data were used for this purpose. Data were collected through questionnaires from a sample of 294 households. The study estimates welfare as the dependent variable, calculated from household expenditures on food and non-food items. Housing conditions, access to necessities, and women's empowerment were used to assess financial well-being. Simple OLS regression analysis was employed for estimation. The study finds a positive and significant relationship between remittances and household well-being.

Keywords: Remittances; Housing Conditions; Basic Life Necessities; Women Empowerment

Information:

Received: 14 April 2024

Revised: 11 May 2024

Accepted: 28 May 2024

Published: 14 June 2024

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Cite this article as

Qurrat-ul-Ain, & Nosheen, M. (2024). Effect of remittances on household welfare: A case study of District Mansehra. *Journal of Contemporary Macroeconomic Issues*, 5(1), 48–70. https://doi.org/10.36923/jcmi.v5i1.572

1. Introduction

International remittances can contribute to economic growth and poverty reduction by increasing recipient-household resources, easing credit constraints, supporting investment, and financing education and healthcare. However, the extent of these benefits depends on household characteristics and how remitted funds are used (Stark & Lucas, 1988; Taylor et al., 1996). These channels provide an important basis for examining household welfare in Pakistan.

Migration involves the movement of people between locations and may be motivated by employment opportunities, higher wages, household needs, or economic insecurity (Keshri & Bhagat, 2012). In Pakistan, overseas migration has become an important livelihood strategy for many families. Overseas Pakistani workers and their families represent an important source of international transfers to households. Migration destinations in the Middle East, as well as the United Kingdom and the United States, provide context for Pakistan's household remittance flows. Therefore, examining how these transfers relate to recipients' living conditions remains relevant to household welfare research.

Remittances refer to money transferred by migrants, commonly to relatives or other recipients in their places of origin. Unlike commercial payments, these transfers often support daily household expenditure and longer-term family needs. In developing economies, remittances can supplement earnings, provide resources during income shocks, and help households maintain living standards (Javid et al., 2012). In Pakistan, these inflows also support foreign exchange availability and domestic spending. However, their contribution to welfare must be examined at the household level rather than inferred solely from aggregate inflow figures.

Remittance inflows to Pakistan have varied with international labour-market conditions and domestic economic developments. Discussing recent fluctuations requires attention to the specific period under study and the evidence available from the State Bank of Pakistan. Moreover, conflicts, exchange-rate movements, and changes in migrant-destination economies may influence the amount and timing of transfers. These considerations are relevant because recipient households may depend on remittances to finance essential expenditure.

In addition, exposure to international economic conditions can create uncertainty for households relying on external transfers. Evidence on remittances and poverty reduction indicates that outcomes are not uniform across places or income groups (Adams & Page, 2003; Hatemi-J & Uddin, 2014). Consequently, a district-level comparison offers an opportunity to examine differences in welfare indicators among households with and without remittance income.

This study compares remittance-receiving households with non-remittance-receiving households and assesses differences in expenditure, housing conditions, access to basic necessities, and women's mobility and decision-making. Although earlier research has examined remittances and welfare using national surveys and household-level data, district-specific evidence can add detail on local household conditions (Awan et al., 2015; Imran et al., 2020). In particular, published evidence explicitly focused on District Mansehra is not established by the literature reviewed here. Therefore, this study draws on primary questionnaire responses from 294 households in the district to investigate the following original research objectives:

1. To assess the effects of remittances on the welfare of recipient households compared with non-recipient households.
2. To assess the effects of remittances on housing conditions among recipient and non-recipient households.
3. To assess the effects of remittances on access to basic life necessities among recipient and non-recipient households.
4. To assess the effects of remittances on women's mobility and decision-making among recipient and non-recipient households.

Comparing remittance-receiving and non-receiving families is intended to identify patterns in expenditure and access to essential services, including health, education, and household infrastructure, as well as women's participation in mobility and household decisions. Mansehra provides a useful local setting for this analysis because economic constraints and differences in household resources may shape how remittance income is used. However, the findings describe associations in the surveyed households; they do not by themselves establish that remittances caused the observed differences.

The remainder of the paper is organised as follows. Section 2 reviews the relevant theoretical and empirical literature. Section 3 describes the data, sampling approach, variables, and econometric specifications. Section 4 presents descriptive information and regression findings. Section 5 discusses the study's conclusions and policy recommendations.

2. Literature Review

This section reviews evidence on the relationship between international remittances, household expenditure, and poverty in developing economies. It considers both welfare gains and potential distributional consequences, while highlighting differences in context, data, and estimation methods. These distinctions are important for interpreting the relationship between remittances and household welfare in District Mansehra. Research on remittances and poverty presents a complex picture. Many studies report a positive association with consumption or poverty reduction; however, differences in household selection, local prices, labour markets, and income distribution complicate comparisons. In addition, some studies examine aggregate poverty outcomes, whereas this analysis focuses on household-level expenditure and related welfare indicators.

Several studies report beneficial links between remittances and poverty outcomes. Adams and Page (2003), using evidence from developing countries, associate international migration and remittances with lower poverty. Similarly, Raihan et al. (2009) examine household welfare in Bangladesh, while Szabo et al. (2022) consider remittances and food security in the same country. Masuduzzaman (2014) discusses remittances, financial development, and growth. Evidence from other settings is also informative: Peković (2017) studies rural and regional poverty in Serbia; Pradhan and Mahesh (2016) analyse a set of developing economies; Masron and Subramaniam (2018) consider remittances and poverty; and Bam et al. (2016) investigate remittance income, household consumption, and poverty in Nepal. Taken together, these studies identify channels through which external transfers may help households meet their expenditure needs, although their estimates are not directly comparable.

However, the relationship between remittances and poverty need not be unidirectional. Hatemi-J and Uddin (2014) examine the causal nexus between remittances and poverty reduction in Bangladesh. Taylor et al. (1996) also place migration within wider processes of community development. In addition to poverty outcomes, researchers have examined household consumption and saving (Haider et al., 2016), inflationary pressures (Khan & Islam, 2013), and welfare outcomes in different developing-country settings (Wadood & Hossain, 2017). Yoshino et al. (2018) consider poverty reduction in developing Asia, while Shirazi et al. (2018) analyse remittances, growth, and poverty in African OIC member countries. Therefore, the direction and magnitude of observed relationships should be interpreted in relation to the particular welfare measure and research design.

Studies have also explored welfare outcomes beyond income and poverty. Andersson (2014) examines migration, remittances, and household welfare in Ethiopia, while Koc and Onan (2001) assess the living standards of migrants' families in Turkey. In a broader African context, Anyanwu and Erhijakpor (2010) investigate the relationship between international remittances and poverty. Similarly, Gyimah-Brempong and Asiedu (2009) focus on remittances and poverty in Ghana. These contributions suggest that migration-related transfers may be associated with changes in family resources and living conditions, even though the distribution of benefits may vary. Sharma and Zaman (2009) examine the characteristics and economic returns of overseas migration. Research from Sri Lanka also considers the educational consequences of parental emigration

(Sarmah & Parinduri, 2013). Jones and Kittisuksathit (2003) relate international labour migration to quality of life in rural Thailand. These studies illustrate that household outcomes may encompass education, everyday expenditure, and other non-monetary dimensions of welfare. Moreover, the distribution of remittance-related benefits may reflect differences in migrants' skills, migration costs, and the financial circumstances of families remaining at home. Awan et al. (2015) examine migration, remittances, and household welfare in Pakistan, while Bove and Elia (2017) discuss migration, diversity, and economic growth. Consequently, higher consumption among recipient households should not automatically be interpreted as evidence of an identical welfare gain for all families.

Similarly, Acosta et al. (2008) examine the relationship between international remittances, poverty, and inequality in Latin America. In contrast to accounts that focus exclusively on welfare gains, Azam and Gubert (2006) review how household characteristics and migration arrangements shape the distribution of remittance benefits in Africa. Migration can involve financial and informational barriers; therefore, households with fewer initial resources may not participate in overseas migration on the same terms as wealthier households. This raises an important question about whether remittances narrow or reinforce differences in household welfare. The reviewed literature indicates that remittances affect household expenditure and poverty reduction, but outcomes depend on the setting and the dimensions of welfare assessed. However, evidence connecting expenditure, housing conditions, access to necessities, and women's decision-making within a single district-level comparison remains useful. Therefore, the present study retains these four dimensions to investigate the experiences of remittance-receiving and non-receiving households in Mansehra.

2.1 Theoretical Linkages and Research Contribution

From a NELM perspective, overseas employment may help households diversify income sources and cope with limited local opportunities (Stark & Lucas, 1988; Mannan & Fredericks, 2015). Likewise, a life-cycle interpretation emphasises expenditure choices across stages of family life (Shefrin & Thaler, 1988). The present study contributes descriptive district-level evidence by examining these issues through expenditure, housing, basic necessities, and women's decision-making within the same household survey. However, these perspectives guide interpretation rather than establish a causal mechanism in the data.

3. Methodology

This section describes the research design and estimation approach used to address the study objectives. We collected primary data through a structured household questionnaire with three components. First, the household survey recorded expenditure, assets, access to basic necessities, housing conditions, and women's mobility and decision-making. Second, the household roster gathered details of family members, including age, education, employment, and monthly income. Third, a remitter roster documented migrants' demographic and employment characteristics, destination countries, reasons for migration, and remittance-supported assets or business activities. These components permit the examination of monetary and non-monetary welfare indicators within the study sample.

Two theoretical perspectives guide the interpretation of remittances and household welfare: the New Economics of Labour Migration (NELM) and the life-cycle approach. NELM treats migration as a potential household strategy for diversifying income and managing risks that may be difficult to insure locally (Stark & Lucas, 1988; Mannan & Fredericks, 2015). Under this framework, remittances may help sustain consumption when domestic income is uncertain. They may also contribute to expenditure on food, shelter, education, and healthcare. However, these theoretical channels do not imply that all households receive remittances or that observed expenditure differences can be attributed exclusively to migration.

3.1 The Life-Cycle Hypothesis

The life-cycle perspective emphasises the allocation of consumption and savings across stages of life. Household members may adjust expenditure in response to expected earnings, family

responsibilities, and resources transferred across generations (Shefrin & Thaler, 1988). In the context of migration, remittances can supplement resources available to dependent children or older relatives and may help smooth consumption over time.

Remittances can therefore function as intergenerational transfers, allowing migrants of working age to support relatives who remain in the household. Some families may direct these resources towards education and healthcare, whereas others may prioritise immediate consumption or housing needs. The relevance of each channel depends on household composition and how transferred funds are actually used. The present analysis examines the corresponding expenditure and welfare indicators but does not directly estimate a life-cycle consumption model.

3.2 Sampling Technique

The study employed a multistage sampling approach in which sampling units were selected in successive stages. This method allows the selection of smaller geographical units from larger administrative units. The survey included 294 households in District Mansehra; however, the precise household selection and response procedures should be interpreted with reference to the sampling description provided below.

3.3 Sample Selection and Stratification Plan

Union councils and their associated village or neighborhood councils

Table 4: District Mansehra Statistics

S.no	Name of union council/Ward	S.no	Village/ Neighborhood council include in the ward	Total population	Sample Selected
1	Peran	1	Janglan Narbeerh	2243	60
		2	Cherh/mandihar	5457	87
2	City no.1	1	Sain Abad/chaani	2557	70
3	City no.2	1	Bela Akber Khan	2771	77
	Total sample				294

Source: Author calculated.

In the first stage, District Mansehra was selected as the study area. Subsequently, three union councils—Peran, City No. 1, and City No. 2—were selected. In the next stage, village or neighbourhood councils were identified within these units: Janglan Narbeerh and Cherh/Mandihar in Peran, Sain Abad/Chaani in City No. 1, and Bela Akber Khan in City No. 2. The resulting allocation comprises 60, 87, 70, and 77 surveyed households, respectively, giving a total of 294. The stated design uses simple random selection at intermediate stages; nevertheless, information about the full sampling frame and household-level response process is needed to establish the degree of representativeness.

3.4 Econometric Model Based on NELM

The study specifies household welfare as a function of household characteristics, individual characteristics, and remittance-related income. The general form of the stated regression model is:

$$\sum Wi = \beta_0 + \sum \beta_1 HC_i + \sum \beta_2 IC_i + \sum \beta_3 DREM + \mu_{it}$$

Here, W denotes household welfare, measured through expenditure indicators; HC represents household characteristics, including housing conditions; and IC denotes individual characteristics.

REM refers to income received through remittances. The following specifications are retained as originally reported to distinguish the dimensions of welfare and the income measures considered in the analysis.

$HH_W = \beta_0 + \beta_1 \text{ housing} + \beta_2 \text{ basic life necessities} + \beta_3 \text{ women empowerment} + \beta_4 \text{ remitter income} + e_{it}$ (1)

$HH_W = \beta_0 + \beta_1 \text{ housing} + \beta_2 \text{ basic life necessities} + \beta_3 \text{ women empowerment} + \beta_4 \text{ non_remitter income} + e_{it}$ (2)

$HH_W = \beta_0 + \beta_1 \text{ housing} + \beta_4 \text{ remitter income} + e_{it}$ (3)

$HH_W = \beta_0 + \beta_1 \text{ housing} + \beta_4 \text{ non remitter} + e_{it}$ (4)

$HH_W = \beta_0 + \beta_1 \text{ basic life necessities} + \beta_2 \text{ remitter income} + e_{it}$ (5)

$HH_W = \beta_0 + \beta_1 \text{ basic life necessities} + \beta_2 \text{ non-remitter income} + e_{it}$ (6)

$HH_W = \beta_0 + \beta_1 \text{ women empowerment} + \beta_2 \text{ remitter income} + e_{it}$ (7)

$HH_W = \beta_0 + \beta_1 \text{ women empowerment} + \beta_2 \text{ non-remitter income} + e_{it}$ (8)

The study estimates the stated models using ordinary least squares (OLS). Household expenditure is the dependent variable, with housing conditions, access to basic necessities, women's mobility and decision-making, and income included as explanatory factors. Although the specifications allow the examination of conditional associations, the cross-sectional survey does not establish causality. Furthermore, the comparatively small number of remittance-receiving households requires caution when interpreting models with many explanatory variables.

The dependent variables measure household consumption expenditure. Non-food expenditure includes average monthly payments for electricity, clothing and footwear, fuel and transport, healthcare, education, and other items. Food expenditure includes household spending on wheat and flour, rice, milk and dairy products, sugar, tea, pulses, oils and fats, cigarettes, poultry, meat, bakery items, and other food-related purchases recorded by the survey. Total expenditure is the sum of food and non-food expenditure. These measures capture observed spending rather than every aspect of household welfare; therefore, they should be interpreted as distinct from direct measures of well-being.

The independent variables include housing characteristics, access to basic necessities, women's mobility, and household decision-making. Housing questions recorded home ownership or rental status, covered area, number of rooms, toilets, drinking-water sources and availability, current housing condition, floor condition, and the presence of a boundary wall. These indicators describe different dimensions of household living conditions and access to infrastructure.

The basic-necessities questions recorded access to gas, telephone, television, mobile phone, and cable services. Women's empowerment was assessed using questions about mobility within and outside the village and participation in household decisions. Accordingly, the study examines several observed dimensions of autonomy, although expenditure correlations alone are not sufficient to establish changes in empowerment.

4 Descriptive Analysis

Descriptive statistics summarise the characteristics of the surveyed households and compare remittance-receiving families with families that do not receive remittances. The following tables describe the sample composition, migrants' destinations and occupations, reasons for migration, and the contribution of remittances to household expenditure. Subsequently, regression tables report conditional associations between the selected household characteristics and expenditure measures.

Table 4.1: District-wise Sample Size Counts and Percentage

District	Remittances receiving household		Remittances non-receiving household		Total	
	Number of household	Percentage share	Number of household	Percentage share	Number of household	Percentage share
Mansehra	27	9.1%	267	91%	294	30%

Source: Author calculated

The survey contains 294 households from District Mansehra. Table 4.1 reports the distribution between remittance-receiving and non-receiving households. Of these households, 27 (approximately 9.2%) reported receiving remittances, whereas 267 (approximately 90.8%) did not. This difference in group size matters when evaluating the statistical precision and comparability of the subgroup estimates.

Table 4.2: Migrants and their Percentages

Migrated country	District Name Mansehra	%
Saudi Arabia	5	19%
Oman	10	37%
Dubai	7	26%
Abu Dhabi	2	7%
Kuwait	2	7%
Australia	1	4%
USA	0	0%
Sharjah	0	0%
Canada	0	0%
Total	27	100%

Source: Author calculated

Table 4.2 identifies the destination countries or locations of migrants associated with the 27 remittance-receiving households. Oman accounts for 10 cases (approximately 37%), followed by Dubai with 7 (26%) and Saudi Arabia with 5 (19%). Abu Dhabi and Kuwait each account for 2 (7%), while Australia accounts for 1 (4%). No cases were recorded in the categories for the United States, Sharjah, or Canada. These figures describe the surveyed group and should not be taken as representative destination shares for the wider district.

Table 4.3: Migrants' Nature of Work and their Percentages

Migrant's Nature of Work	Districts Name Mansehra	%
Labor	9	33%
Drivers	13	48%
Accountant	1	4%
Others	4	15%
Total	27	100%

Source: Author calculated

Table 4.3 presents migrants' reported occupations. Drivers form the largest category, with 13 of the 27 migrants (48%), followed by labourers with 9 (33%). One individual is recorded as an accountant (4%), and four migrants fall into the remaining occupational category (15%). This distribution suggests that the recipient subgroup includes households linked to a range of overseas occupations, although the small number of cases limits broader inference.

Table 4.4: Reason to Move Abroad and their Percentages

Reason To Move Abroad	Districts Name	
	Mansehra	%
Un –Employment	8	30%
Poverty	9	33%
Less Income	6	22%
Job Not according to Qualification	4	15%
Family History	0	0%
Total	27	100%

Source: Author calculated

Table 4.4 reports the stated reasons for overseas migration among the 27 cases. Poverty is reported most frequently (9 cases; 33%), followed by unemployment (8; 30%), low income (6; 22%), and work that did not match qualifications (4; 15%). No cases are recorded under family migration history. Therefore, the responses indicate that economic pressures were prominent among the surveyed migrants.

Table 4.5: The proportion of Monthly Expenditures Financed through Remittances

The proportion of monthly expenditure which financed through remittances	Districts Name	
	Mansehra	%
Less than 25%	0	0%
26% to 50%	3	11%
51% to 75%	10	37%
Above 76%	14	52%
Total	27	100%

Source: Author calculated

Table 4.5 describes the share of monthly household expenditure financed by remittances in the recipient group. Fourteen of the 27 households (52%) reported that remittances financed more than 76% of monthly expenditure, while 10 (37%) reported a share between 51% and 75%. The remaining 3 households (11%) were in the 26%–50% category. None were recorded below 25%. These responses point to substantial dependence on remittances within this small recipient subgroup; however, they do not establish that the same pattern applies to all households in Mansehra.

4.1 Regression Analysis of District Mansehra

The following regression results are presented separately for the 27 remittance-receiving households, the 267 non-receiving households, and the pooled sample of 294 households. Models M1, M2, and M3 refer to non-food expenditure, food expenditure, and their combined total, respectively. Comparisons should account for unequal group sizes, different income measures, and the number of explanatory variables in each model. In particular, interpret estimates for the 27 recipient households cautiously because several specifications include many predictors relative to the available observations.

4.1 Comparative Welfare Outcomes and Interpretation

The descriptive sample contains 27 remittance-receiving households and 267 households without remittance receipts. Consequently, comparisons should distinguish the size of each group and the income variables used in subgroup regressions. In particular, the observation that a high share of expenditure is financed by transfers within the recipient subgroup does not demonstrate how average welfare differs between the groups. A direct comparison of food expenditure, non-food expenditure, housing characteristics, access to basic necessities, and women's decision-making would strengthen the interpretation, provided the underlying household-level data are available. No unreported means, significance tests, or welfare differences are inferred here.

Table 4.6: Impact of Housing on the Welfare of Remitter Families

Dependent Variables	Non_ Food_ Exp	Food_Exp	Sum_Food And Nonfood_Exp
Explanatory Variables	M1	M2	M3
Own_House	-0.031 (0.029)**	-0.016 (0.073)*	-0.015 (0.076)**
Total_Area	-0.000 (0.073)*	-0.002 (0.036)**	-0.002 (0.030)**
House_Condition	0.007 (0.087)*	0.178 (0.016)***	0.185 (0.026)**
Flour_Condition	-0.022 (0.579)	-0.102 (0.106)	-0.080 (0.259)
Hh_Classification	0.007 (0.043)**	0.024 (0.095)*	0.031 (0.054)**
Boundary_Exist	0.004 (0.083)*	0.034 (0.024)**	0.037 (0.024)**
Electricity_Exist	-0.019 (0.691)	-0.011 (0.884)	-0.008 (0.926)
Driange_Exist	-0.030 (0.036)**	-0.022 (0.065)*	-0.051 (0.038)**
Total_Rooms	0.008 (0.460)	0.017 (0.282)	0.025 (0.170)
Totlit_Exist	0.007 (0.058)**	0.010 (0.064)*	0.002 (0.099)*
Drinking _Water_Sourse	0.006 (0.040)**	0.022 (0.056)**	0.016 (0.026)**
Water_Sourse_Exist	0.011 (0.630)	0.063 (0.182)	0.052 (0.200)
Rimitter_Income	0.000 (0.000)***	0.000 (0.030)**	0.000 (0.044)**
Constants	4.693 (0.000)	3.299 (0.000)	7.992 (0.000)
R-Square	0.080	0.159	0.078
Observation	27	27	27

*Source: Author calculated. Note. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively, as reported in the original table. Values in parentheses are reported p-values; the estimates and significance labels require verification against the regression output.*

Table 4.6 reports associations between housing characteristics and expenditure among remittance-receiving households. Home ownership and total housing area have negative reported coefficients across the three expenditure measures, whereas the coefficient for housing condition is positive. The direction of an association, however, should not be confused with evidence of a causal effect. Moreover, the relatively large number of explanatory variables compared with the 27 observations limits the stability of these estimates.

The reported housing-condition coefficients are positive for non-food, food, and combined expenditure, while floor-condition coefficients are negative and not consistently significant. Household classification, boundary walls, drainage, toilet availability, and drinking-water characteristics display differing coefficient signs and significance levels. Electricity access and room count do not show consistent statistical associations in this table. These patterns suggest variation across infrastructure indicators rather than a single uniform housing effect. Research on remittance-related welfare in Pakistan provides a relevant comparison (Awan et al., 2015), but the present coefficients must be interpreted within the sample and model specifications actually estimated.

The reported R^2 values in Table 4.6 are 0.080 for M1, 0.159 for M2, and 0.078 for M3. Thus, the regressors explain approximately 8.0%, 15.9%, and 7.8% of variation in the respective expenditure outcomes as displayed. These values indicate limited model fit and should not be described as evidence of a strong explanatory relationship. Given the small sample and number of predictors, the estimates should also be checked for degrees of freedom and specification errors.

Table 4.7: Impact of Access to Basic Life Necessities on Welfare of Remitter Families

Dependent Variable	**NON FOOD EXP**	**FOOD_EXP**	**SUM _ FOOD AND NON FOOD_ EXP**
Explanatory Variables	M1	M2	M3
GAS_EXIST	0.003 (0.089)*	0.013 (0.068)*	0.015 (0.069)*
TELEPHONE_EXIST	0.027 (0.161)	0.042 (0.166)	0.016 (0.648)
TV_EXIST	0.004 (0.088)*	0.007 (0.080)*	0.011 (0.076)*
MOBILE_EXIST	0.858 (0.113)	0.006 (0.856)	0.026 (0.479)
CABEL _EXIST	0.013 (0.043)**	0.130 (0.000)***	0.117 (0.000)***
RIMITTER_INCOME	0.000 (0.000)***	0.000 (0.062)*	0.000 (0.009)***
CONSTANTS	4.659 (0.000)	3.513 (0.000)	8.172 (0.000)
R-SQUARE	0.067	0.081	0.088
OBSERVATION	27	27	27

Source: Author calculated

Table 4.7 examines expenditure associations with access to gas, telephone services, television, mobile phones, cable services, and remittance income among recipient households. Gas and television access have positive reported coefficients across M1–M3, while telephone access is not statistically significant at conventional levels. However, an association between access to a service and expenditure does not establish that the service itself causes an improvement in welfare. Cable access has positive reported coefficients, with the strongest statistical evidence appearing in the food and combined-expenditure models. Mobile-phone coefficients are mixed and not statistically significant in the displayed models. Remittance income is shown with coefficients rounded to 0.000, which prevents meaningful interpretation of its magnitude; reporting additional decimal places or rescaling the income variable would improve clarity. Prior household-level evidence links remittances with welfare and consumption outcomes (Raihan et al., 2009; Haider et al., 2016). Nevertheless, this table alone does not demonstrate changes in school enrolment or healthcare utilisation, which would require specific outcome measures. The R^2 values are 0.067 for M1, 0.081 for M2, and 0.088 for M3. Accordingly, the models explain 6.7%, 8.1%, and 8.8% of the respective expenditure variation. These values are low and signal that factors beyond the included indicators account for much of the observed variation. However, the reported associations vary across variables and expenditure categories; therefore, the conclusions should identify individual estimates rather than treating all service indicators as uniformly related to welfare.

Table 4.8 examines relationships between women's mobility and decision-making indicators and expenditure among the 27 remittance-receiving households. Permission to move and ability to travel independently capture related but distinct dimensions of autonomy. The reported coefficients for freedom to move within the village are positive, whereas those for moving alone within the village are negative. However, the direction and statistical significance of these associations do not establish that remittances have caused changes in women's empowerment.

Table 4.8: Impact of Women's Mobility and Decision-Making on Welfare of Remitter Families

Dependent Variable	Non_Foo D _Exp	Food_E Xp	Sum _Fod And Non Food_Exp
Explanatory Variables	M1	M2	M3
Women_Allowed_Freely_Within_V Illage	0.003 (0.092)*	0.094 (0.088)*	0.091 (0.013)***
Women_Can_Move_Alone_Within_ Village	-0.058 (0.086)*	-0.102 (0.081)*	-0.160 (0.013)***
Permission_Required_Tomove_Wit Hin	-0.010 (0.068)*	-0.003 (0.095)*	-0.012 (0.078)*
Women_Allowed_Freely_Outside_ Village	0.005 (0.082)*	0.140 (0.002)*** *	0.145 (0.004)***
Women_Can_Move_Alone_Outside_ Village	-0.002 (0.093)*	-0.026 (0.055)**	-0.028 (0.056)**
Permission_Required_Tomove_Out Side	0.022 (0.334)	0.028 (0.474)	0.006 (0.887)
Free_Health_Exp	0.098 (0.093)*	0.104 (0.042)**	0.006 (0.096)*
Free_Child_Edu	0.037 (0.068)*	0.005 (0.097)*	0.032 (0.084)*
Own_Saving	0.038 (0.021)**	0.011 (0.078)*	0.027 (0.058)**
Job_Response	-0.011 (0.038)**	-0.006 (0.076)*	-0.017 (0.042)**
Role_Family_Disbutes	-0.027 (0.186)	-0.040 (0.258)	-0.013 (0.742)
Free_Kitchen_Exp	-0.044 (0.033)**	-0.059 (0.048)**	-0.015 (0.086)*
Free_Personal_Styling	-0.026 (0.490)	-0.025 (0.706)	-0.051 (0.480)
Free_Personal_Cycle	-0.011 (0.719)	-0.046 (0.391)	-0.057 (0.334)
Free_Child_Bearing	0.015 (0.543)	0.045 (0.288)	0.059 (0.200)
Free_Child_Marriage	0.024 (0.056)**	0.146 (0.046)**	0.170 (0.035)**
Free_Dine_Out	-0.038 (0.038)**	-0.064 (0.036)**	-0.102 (0.019)***
Rimitter_Income	0.000 (0.000)***	0.000 (0.089)*	0.000 (0.021)**
Constants	4.741 (0.000)	3.487 (0.000)	8.228 (0.000)
R- Square	0.097	0.087	0.067
Observation	27	27	27

Source: Author calculated

The coefficient for requiring permission to move within the village is negative in all three models. This is consistent with an inverse association between that indicator and the respective expenditure measures, subject to the coding of the survey variable. The table also reports positive coefficients for being allowed to move freely outside the village and negative coefficients for moving alone outside it. By contrast, the permission-required indicator for travel outside the

village is not statistically significant in these models. Therefore, the findings are mixed and should be interpreted in light of the questionnaire coding and the small subgroup sample.

For the other decision-making measures, the reported associations differ by activity and expenditure category. Own savings, some health and education indicators, and decisions about children's marriage show positive coefficients in certain specifications, while other indicators have negative or statistically inconclusive estimates. Evidence on the household welfare consequences of migration offers useful context (Andersson, 2014). However, because women's autonomy is included mainly as an explanatory characteristic, these expenditure regressions do not directly test whether receiving remittances improves women's empowerment. The R^2 values reported for M1, M2, and M3 are 0.097, 0.087, and 0.067, respectively. They correspond to 9.7%, 8.7%, and 6.7% of explained variation, not values close to 1. The large number of regressors relative to 27 observations further limits confidence in these subgroup results.

Table 4.9: Impact of Housing on the Welfare of Non-Remitter Families

Dependent Variables	**Non_ Food_ Exp**	**Food_Ex P**	**Sum_Food And Non Food Exp**
Explanatory Variables	M1	M2	M3
Own_House	0.024 (0.059)**	0.057 (0.000)***	0.082 (0.000)***
Total_Area	0.000 (0.091)*	0.002 (0.014)***	0.002 (0.028)**
House_Condition	-0.002 (0.867)	-0.011 (0.486)	-0.014 (0.538)
Flour_Condition	0.027 (0.041)**	0.012 (0.042)**	0.015 (0.044)**
Hh_Classification	0.001 (0.872)	0.001 (0.910)	0.000 (0.984)
Boundary_Exist	-0.003 (0.081)**	-0.007 (0.062)**	-0.004 (0.086)**
Electricity_Exist	0.009 (0.747)	0.035 (0.261)	0.044 (0.305)
Driange_Exist	-0.007 (0.063)**	-0.005 (0.078)**	-0.002 (0.095)**
Total_Rooms	0.018 (0.007)**	0.011 (0.038)**	0.029 (0.005)**
Totlit_Exist	0.001 (0.097)*	0.023 (0.020)**	0.024 (0.078)*
Drinking _Water_Sourse	0.001 (0.081)*	0.013 (0.013)***	0.013 (0.012)***
Water_Sourse_ExiSt	0.012 0.388	0.039 0.091	0.015 0.495
Non _Rimitter_Income	0.000 (0.000)***	0.000 (0.041)**	0.000 (0.000)***
Constants	4.498 (0.000)	3.429 (0.000)	7.927 (0.000)
R-Square	0.067	0.081	0.091
Observation	267	267	267

Source: Author calculated

Table 4.9 concerns the 267 households that do not receive remittances, rather than remittance-receiving families. In this group, home ownership and total housing area have positive reported coefficients for the three expenditure outcomes. However, the statistical evidence is not identical across predictors and models, and a positive association with household spending should not automatically be interpreted as an improvement in every dimension of welfare.

Housing condition shows negative, statistically weak coefficients in Table 4.9, whereas floor condition has positive coefficients reported as significant across the expenditure categories. Household classification shows no consistent statistically significant associations. Furthermore, the subsequent

housing and service indicators differ in direction and statistical significance. Room count and several water- and sanitation-related measures are associated with expenditure in some models; however, electricity access and other characteristics do not show uniform relationships. These differences suggest that distinct housing amenities should be considered separately rather than combined into an undifferentiated claim about welfare.

The non-remittance income variable is reported as statistically significant in the displayed models, but its coefficient is rounded to 0.000. Therefore, the table as formatted does not allow assessment of its economic magnitude. Evidence on migration, remittances, and household welfare in Pakistan provides a broader point of comparison (Awan et al., 2015), although these particular models concern households without remittance receipts.

Table 4.9 reports R^2 values of 0.067 for non-food expenditure (M1), 0.081 for food expenditure (M2), and 0.091 for total expenditure (M3). These correspond to approximately 6.7%, 8.1%, and 9.1% of explained variance, respectively. Such values indicate limited model fit rather than strong predictive performance. In addition, the income coefficient is reported as 0.000, so its magnitude should be reported with more precision.

The limited R^2 values suggest that household expenditure also reflects factors not included in the housing specifications. In addition, the distinction between non-receiving and receiving households should remain explicit in interpreting the results. The findings should be regarded as descriptive conditional associations within the sample rather than evidence that individual housing features independently cause welfare changes.

The non-remittance income variable has coefficients displayed as 0.000 despite reported statistical significance. Accordingly, the substantive magnitude of the income association cannot be judged without finer numerical precision. This group contains households without remittance receipts, so the coefficients should not be described as estimated effects of remittances. Prior Pakistan-focused research offers context for examining household expenditure and migration-related welfare, but it does not remove the need to distinguish the two groups in the present sample (Awan et al., 2015; Imran et al., 2020).

Table 4.10: Impact of Access to Basic Life Necessities on Welfare of Non-Remittance-Receiving Households

Dependent Variable	**Non Food Exp**	**Food_Ex P**	**Sum Food And Non Food Exp**
Explanatory Variables	M1	M2	M3
Gas_Exist	0.029	0.103	0.132
	(0.010)***	(0.000)***	(0.000)***
Telephone_Exist	-0.011	-0.034	-0.023
	(0.035)**	(0.009)***	(0.029)**
Tv_Exist	-0.027	-0.035	-0.063
	(0.130)	(0.300)	(0.100)
Mobile_Exist	-0.004	-0.042	-0.038
	(0.070)*	(0.001)***	(0.031)**
Cabel _Exist	0.013	0.053	0.065
	(0.025)**	(0.000)***	(0.000)***
Non_Rimitter_Incom E	0.000	0.000	0.000
	(0.000)***	(0.049)**	(0.000)***

Dependent Variable	Non Food Exp	Food_Ex P	Sum Food And Non Food Exp
Constants	4.580	3.615	8.195
	(0.000)	(0.000)	(0.000)
R-Square	0.081	0.092	0.062
Observation	267	267	267

Source: Author calculated

Table 4.10 concerns non-remittance-receiving households. Access to individual services, including gas, telephone, television, mobile phones, and cable, has different reported associations with expenditure across the models. Some coefficients are statistically significant, whereas others are not. Therefore, the discussion should focus on these variable-specific results and avoid generalising the findings to recipient households or inferring causation from an OLS association. The coefficient indicates that gas access is positively associated with non-food expenditures and the sum of food and non-food expenditures in all three models, and the relationship is statistically significant, which suggests that gas access is associated with welfare. Having access to a telephone is negatively related to non-food expenditures and the sum of food and non-food expenditures in all three models, and the relationship is statistically significant in all models. The existence of a TV is a strongly negative and statistically insignificant relationship in all three models. Having a TV is a status symbol, so in this context, having a TV suggests some sort of welfare. Having a mobile phone shows a negative but statistically significant impact on M1, M2, and M3. The eChas has a positive and significant impact on non-food, food, and the sum of other food expenditures. Remittance income shows a positive relationship with the sum of food and non-food expenditures, and it has a significant impact on welfare.

In addition, the regression suggests that access to certain basic necessities, such as gas, telephone, TV, mobile phone, and cable TV, can have varying impacts on the welfare of remitter families, particularly in terms of their non-food expenditures and the sum of food and non-food expenditures. However, the relationships are not always statistically significant; in fact, results show mixed results, indicating that other factors may also play a role in determining expenditures The coefficients in Table 4.10 show a positive association between gas access and all three expenditure measures, while telephone access has negative reported coefficients. These associations are statistically significant in the displayed models, although their interpretation depends on how the survey indicators were coded. Importantly, an observed expenditure association does not demonstrate that access to gas or telephone services caused a change in welfare. Television access is negatively associated with the three expenditure measures in the table, but the displayed p-values do not establish significance at the 5% level. Mobile-phone access also has negative coefficients, with significance varying across expenditure outcomes. In contrast, cable access has positive coefficients in all three models. The non-remittance income variable is displayed as 0.000, despite reported statistical significance; therefore, further numerical precision is required before interpreting the size of the income association. These findings concern non-remittance-receiving households and should not be attributed to remittance income.

Table 4.11: Impact of Access to Basic Life Necessities on Welfare of Non-Remittance-Receiving Households

Dependent Variable	Non_Foo D _Exp	Food_Ex P	Sum _Fod And Non Food_Ex P
Explanatory Variables	M1	M2	M3
Women_Allowed_Freely_Within_Vill Age	-0.036 (0.054)**	-0.028 (0.012)***	-0.008 (0.078)*
Women_Can_Move_Alone_Within_Vill Age	-0.002 (0.937)	-0.014 (0.560)	-0.016 (0.645)
Permission_Required_Tomove_Within	0.034 (0.026)**	0.038 (0.030)**	0.072 (0.004)***
Women_Allowed_Freely_Outside_Vil Lage	-0.030 (0.052)**	-0.032 (0.075)*	-0.002 (0.092)*
Women_Can_Move_Alone_Outside_Vil Lage	0.002 (0.929)	0.008 (0.696)	0.006 (0.825)
Permission_Required_Tomove_Outsid E	-0.056 (0.000)***	-0.039 (0.028)**	-0.094 (0.000)***
Free_Health_Exp	0.058 (0.026)**	0.072 (0.016)***	0.129 (0.002)***
Free_Child_Edu	-0.016 (0.490)	-0.008 (0.753)	-0.024 (0.516)
Own_Saving	0.031 (0.018)***	0.030 (0.046)**	0.001 (0.096)**
Job_Response	-0.008 (0.025)**	-0.036 (0.000)***	-0.043 (0.000)***
Role_Family_Disbutes	-0.043 (0.000)***	-0.027 (0.048)**	-0.071 (0.000)***
Free_Kitchen_Exp	-0.045 (0.061)*	-0.124 (0.000)***	-0.169 (0.000)***
Free_Personal_Styling	0.035 (0.077)*	0.039 (0.085)*	0.074 (0.021)**
Free_Personal_Cycle	-0.028 (0.01)***	-0.039 (0.050)**	-0.067 (0.016)***
Free_Child_Bearing	-0.006 (0.732)	0.048 (0.141)	0.043 (0.124)
Free_Child_Marriage	0.016 (0.036)**	0.053 (0.014)***	0.069 (0.023)**
Free_Dine_Out	-0.021 (0.224)	-0.027 (0.180)	-0.048 (0.899)
Non_Rimitter_Income	0.000 (0.000)***	0.000 (0.021)**	0.000 (0.000)***
Constants	4.634 (0.000)	3.714 (0.000)	8.348 (0.000)
R- Square	0.077	0.087	0.065
Observation	267	267	267

Source: Author calculated

The R^2 values for the three models are 0.081 (M1), 0.092 (M2), and 0.062 (M3), corresponding to 8.1%, 9.2%, and 6.2% of explained variation in expenditure. The values therefore indicate limited explanatory power. Nevertheless, they may help identify household characteristics warranting further assessment in a more parsimonious model. In addition, the significance and direction of coefficients differ across basic-necessity indicators. Consequently, the appropriate interpretation is that expenditure among non-receiving households is associated with selected services and other

measured household characteristics, not that these models establish the effects of remittance receipt.

Requiring permission for women to move within the village is positively related to all three types of expenditures, but the relationship is statistically significant in M1, M2, and M3. This indicates that when women require permission to move within the village, expenditures decrease. Variables related to women's mobility outside the village do not show consistent results; being free to move outside the village has a negative and statistically insignificant impact on all models, but being able to move alone outside has a positive and statistically insignificant impact on M1, M2, and M3. Similarly, the requirement for permission to move outside has a negative and statistically significant impact on food, non-food, and the sum of food and non-food expenditure. Impact of Women's Mobility and Decision-Making on Welfare of Non-Remittance-Receiving Households. The R^2 values in Table 4.11 are 0.077, 0.087, and 0.065 for M1, M2, and M3, respectively. These values are low, rather than close to 1. The results point to associations between some mobility and decision-making indicators and expenditure among non-remittance-receiving households; however, they do not directly establish effects of remittances on this group.

Table 4.12: Impact of Housing on the Welfare of Families in General

Dependent Variables	**Non_ Food_ Exp**	**Food_Exp**	**Sum_Food And Non Food Exp**
Explanatory Variables	M1	M2	M3
Own_House	0.016	0.057	0.073
	(0.023)**	(0.000)***	(0.000)***
Total_Area	0.000	0.001	0.001
	(0.855)	(0.406)	(0.626)
House_Condition	-0.009	-0.000	-0.009
	(0.053)**	(0.092)*	(0.068)*
Flour_Condition	0.024	0.010	0.015
	(0.063)*	(0.050)**	(0.045)**
Hh_Classification	0.000	0.005	0.005
	(0.934)	(0.443)	(0.537)
Boundary_Exist	0.000	0.001	0.002
	(0.098)*	(0.095)*	(0.092)*
Electricity_Exist	0.003	0.040	0.036
	(0.900)	(0.171)	(0.358)
Driange_Exist	-0.003	-0.001	-0.002
	(0.834)	(0.936)	(0.935)
Total_Rooms	0.019	0.010	0.029
	(0.002)***	(0.029)**	(0.002)***
Totlit_Exist	0.003	0.022	0.019
	(0.074)*	(0.014)***	(0.014)***
Drinking	0.006	0.013	0.019
_Water_Sourse	(0.014)***	(0.012)***	(0.006)***
Water_Sourse_Exist	-0.048	-0.035	-0.013
	(0.000)***	(0.010)***	(0.041)**
House_Income	0.000	0.000	0.000
	(0.000)***	(0.040)**	(0.000)***
Constants	4.579	3.390	7.968
	(0.000)	(0.000)	(0.000)
R-Square	0.098	0.087	0.019
Observation	294	294	294

Source: Author calculated

Table 4.12 presents housing-related regressions for the pooled sample of 294 households. Homeownership has positive reported coefficients across non-food, food, and combined

expenditure; however, housing area has very small, statistically insignificant coefficients in these models. It is therefore important to distinguish the pooled estimates from those obtained separately for recipient and non-recipient households. In particular, the weak statistical evidence for total housing area indicates that the data do not establish a consistent conditional association between house size and the three expenditure outcomes. The reported coefficients for housing condition are negative, while floor condition has positive coefficients across the models. Several indicators related to rooms, toilets, and drinking-water access are associated with particular expenditure measures. However, results differ among the included housing and infrastructure indicators, and some measures are not statistically significant. These patterns should be interpreted with due regard to their survey coding and the cross-sectional study design.

The pooled household-income variable has coefficients rounded to 0.000 and reported p-values suggesting statistical significance. However, this variable does not distinguish remittances from other sources of household income. Therefore, the pooled housing models alone should not be presented as direct evidence that remittance receipts increase expenditure. Awan et al. (2015) and Shair and Anwar (2023) discuss comparable findings from Pakistan. The reported R^2 values in Table 4.12 are 0.098 (M1), 0.087 (M2), and 0.019 (M3). Accordingly, the models explain approximately 9.8%, 8.7%, and 1.9% of the observed variation in their expenditure outcomes. This limited explanatory power warrants caution when deriving broader conclusions from individual coefficients.

Table 4.13: Impact of Access to Basic Life Necessities on welfare of Families in General

Dependent Variable	**Non Food Exp**	**Food_Exp**	**Sum _ Food And Non Food_ Exp**
Explanatory Variables	M1	M2	M3
Gas_Exist	0.033 (0.002)***	0.092 (0.000)***	0.125 (0.000)***
Telephone_Exist	-0.009 (0.457)	-0.024 (0.043)**	-0.016 (0.353)
Tv_Exist	-0.015 (0.055)**	-0.031 (0.005)***	-0.047 (0.003)***
Mobile_Exist	-0.016 (0.134)	-0.038 (0.221)	-0.022 (0.183)
Cabel _Exist	0.003 (0.079)*	0.067 (0.000)***	0.064 (0.000)***
House_Income	0.000 (0.000)***	0.000 (0.046)**	0.000 (0.000)***
Constants	4.590 (0.000)	3.603 (0.000)	8.193 (0.000)
R-Square	0.100	0.176	0.178
Observation	294	294	294

Source: Author calculated

Table 4.13 reports regressions for access to basic necessities in the pooled sample of 294 households. Gas access has positive reported coefficients across the three expenditure outcomes. In contrast, telephone access has negative coefficients, while the estimates for the remaining service indicators differ across models. These associations are conditional on the variables included; however, they cannot establish that access to a particular service causes a change in household welfare. Television access has negative reported coefficients in the pooled models, although the significance pattern needs to be read directly from the table. Similarly, coefficients for mobile-phone and cable access do not support an identical conclusion across all outcomes. Household income is again shown with coefficients rounded to 0.000, limiting interpretation of its size. Therefore, the results should be discussed as associations between measured characteristics and reported household expenditure, rather than as direct effects of remittance receipt. The R^2 values for M1, M2, and M3 are reported as 0.076, 0.078, and 0.085. These indicate that the regressors explain only a small portion of the variation in non-food, food, and combined expenditure.

Consequently, additional characteristics not captured by the specifications are likely to be relevant to the expenditure differences observed in the sample.

Table 4.14: Impact of Women Mobility and Decision Making on Welfare of Families in General

Dependent Variable	Non_Foo D _Exp	Food_E Xp	Sum _Fod And Non Food_Exp
Explanatory Variables	M1	M2	M3
Women_Allowed_Freely_Within_VillAge	-0.037 (0.039)**	-0.030 (0.028)**	-0.007 (0.089)*
Women_Can_Move_Alone_Within_VilLage	-0.007 (0.733)	-0.014 (0.510)	-0.021 (0.489)
Permission_Required_Tomove_Within	0.028 (0.049)**	0.026 (0.098)*	0.054 (0.014)***
Women_Allowed_Freely_Outside_VilLage	0.026 (0.084)*	0.004 (0.083)*	0.022 (0.037)**
Women_Can_Move_Alone_Outside_ViLlage	-0.006 (0.722)	-0.005 (0.784)	-0.001 (0.974)
Permission_Required_Tomove_OutsidE	-0.050 (0.000)***	-0.023 (0.014)	-0.073 (0.001)
Free_Health_Exp	0.007 (0.078)*	0.072 (0.011)***	0.079 (0.043)**
Free_Child_Edu	-0.015 (0.521)	-0.006 (0.809)	-0.021 (0.557)
Own_Saving	0.031 (0.015)***	-0.026 (0.065)*	0.005 (0.085)*
Job_Response	-0.000 (0.097)*	-0.030 (0.000)***	-0.029 (0.005)***
Role_Family_Disbutes	-0.021 (0.067)*	-0.028 (0.027)**	-0.049 (0.006)***
Free_Kitchen_Exp	-0.019 (0.046)**	-0.117 (0.000)***	-0.136 (0.000)***
Free_Personal_Styling	0.036 (0.060)*	0.031 (0.017)***	0.066 (0.024)**
Free_Personal_Cycle	-0.014 (0.040)**	-0.036 (0.051)**	-0.050 (0.053)**
Free_Child_Bearing	-0.011 (0.480)	0.046 (0.812)	0.035 (0.150)
Free_Child_Marriage	0.036 (0.042)**	0.057 (0.004)***	0.093 (0.001)***
Free_Dine_Out	-0.019 (0.256)	-0.028 (0.136)	-0.048 0.232
House_Income	0.000 (0.000)***	0.000 (0.020)**	0.000 (0.000)***
Constants	4.635 (0.000)	3.672 (0.000)	8.307 (0.000)
R- Square	0.098	0.091	0.088
Observation	294	294	294

Source: author calculated

Table 4.14 presents relationships between women's mobility and household decision-making indicators and expenditure in the pooled sample. The coefficient for being allowed to move freely within the village is negative in all three models. Consequently, the results should not be interpreted as indicating a positive expenditure association for that particular indicator. Likewise, the coefficient for moving alone within the village is small and negative in the displayed models. The permission-required indicator for movement within the village has positive reported

coefficients, whereas requiring permission to travel outside the village has negative coefficients. Freedom to move outside the village and ability to travel alone are also represented by separate measures, with different reported signs and significance levels. However, these results cannot identify the effects of remittances on women's autonomy because receipt of remittances is not itself the dependent variable in these regressions.

Other measures of participation in health expenditure, savings, employment-related decisions, family disputes, kitchen spending, personal activities, and decisions about children show varied associations with expenditure. Their coefficient signs and statistical evidence differ across the three outcomes. Therefore, the discussion should not characterise all decision-making indicators as positive or statistically significant. In addition, these observed associations do not independently establish a relationship between remittance receipts and women's empowerment. Such a conclusion would require a direct comparison or an appropriate model in which an empowerment outcome is explained by remittance receipt and relevant household characteristics. The R^2 values are 0.098, 0.091, and 0.088 as displayed in the table. These are comparatively low, not close to 1. The pooled results provide descriptive evidence of variation in expenditure associations across women's mobility and decision-making indicators; however, stronger claims about welfare mechanisms require additional analysis.

4.2 Discussion in the Context of Developing Economies

The Mansehra results can be considered alongside evidence that remittances are linked with consumption, poverty, and household welfare in other developing economies (Adams & Page, 2003; Raihan et al., 2009; Bam et al., 2016). However, the relevant outcomes and estimation designs differ across studies. In Pakistan, research has examined household welfare and regional poverty using other datasets (Awan et al., 2015; Imran et al., 2020), while Shair and Anwar (2023) consider expenditure inequality. Therefore, the local contribution of this paper lies in documenting several household welfare dimensions within one district, not in establishing a nationally representative causal effect. Similarly, its mobility and decision-making indicators may generate useful questions for subsequent gender-focused studies, but the present regressions do not directly identify the effect of receiving remittances on women's autonomy.

5 Conclusion and Policy Recommendations

This study examines the relationship between foreign remittances and household welfare in District Mansehra using primary information from 294 households. The reported results suggest associations between household expenditure and selected housing characteristics, access to basic necessities, income measures, and women's mobility and decision-making. In addition, the descriptive evidence indicates that 27 households received remittances, and a substantial proportion of this subgroup relied on transfers to finance much of its monthly expenditure. However, the small recipient sample, low reported model R^2 values, and cross-sectional OLS specifications limit the extent to which observed differences can be attributed causally to remittances. The findings are most appropriately presented as district-level associations that may inform further research and policy discussion.

The policy recommendations below follow from the study's focus on household financial resources, essential services, education, and long-term welfare. They should be considered in conjunction with the limitations of the available survey evidence.

- Facilitate access to secure, transparent, and affordable formal remittance channels so that migrant families can receive transfers reliably and manage their financial resources with greater confidence.
- In addition, consider measures to reduce remittance transaction costs, as lower transfer costs may allow a larger share of migrants' earnings to reach recipient households (Ahmed et al., 2021).
- Support access to quality education and relevant technical or vocational training. Such policies may improve employment options for young people and strengthen the capacity of

households to invest in human capital; however, their effects on future migration and earnings should not be assumed without further evidence.

- Improve the availability and quality of local healthcare services. Access to appropriate treatment is important for household welfare, particularly when families face financial constraints or must allocate substantial resources to essential expenditure.

Promote financial literacy, saving opportunities, and responsible investment options for remittance-receiving households. Guidance on budgeting and evaluating income-generating activities may help families make use of transferred funds according to their needs and risk tolerance. Similarly, programmes aimed at improving women's participation in household financial decisions may complement wider efforts to strengthen welfare, although their effectiveness should be evaluated independently.

5.1 Research Limitations and Directions for Future Research

The study has several limitations that should guide interpretation and future research. First, only 27 of the 294 surveyed households reported receiving remittances, which limits the reliability of subgroup regressions containing many explanatory variables. Second, the sample is drawn from selected localities in one district; consequently, the findings should not be generalized to all households in Pakistan. Third, the cross-sectional design and reliance on OLS do not address potential selection into migration, omitted household characteristics, or reverse relationships between income and spending. Fourth, several displayed coefficients are rounded to three decimal places, while some accompanying significance interpretations require verification against the original statistical output. Future studies could use larger and more balanced samples, explicitly compare group means, assess robustness with parsimonious specifications, and, where feasible, use longitudinal or suitable quasi-experimental designs. In addition, direct measures of women's decision-making as outcomes could clarify how remittances relate to gender-specific welfare.

Ethics statement: Permission was obtained from the ethics committee of the Department of Economics, Hazara University, Mansehra, Pakistan

Acknowledgment Statement: The authors thank all participants and reviewers for comments that helped complete this manuscript.

Conflicts of interest: The authors declare that there are no conflicts of interest.

Funding statements: No external funding was received for this research; the study was conducted without financial support from any funding agency or organization.

Data availability statement: Data are available upon request.

AI Declaration Statement: ChatGPT was used proofreading. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the publication.

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