Cash transfers and quality of life among households in the Eastern Cape, South Africa: Application of a generalized linear model

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Abstract

Cash transfers have become an important tool for reducing poverty and improving the well-being of households in many developing countries including South Africa. However, cash transfers' effects on household quality of life are still debatable. This study examined the relationship between cash transfers and quality of life, controlling various household characteristics. The study used the 2021 South African General Household Survey with a sample of 1,499 households selected through a stratified random sampling technique. Data were analyzed using the contingency table technique and a Generalized Linear Model. The results showed that cash transfer families had a greater quality of life than non-transfer households. The results of the GLM analysis revealed that public safety, health, infrastructure, access to remittances and population group were important predictors of quality of life among the households in the research. The results also showed that education, economic environment and gender had no significant effect on the households' quality of life while age group had a minimal effect. The study concludes that cash transfers (both social grants and remittances) have an impact on households' quality of life. The study's findings suggest that policymakers should continue to implement cash transfer programs to improve the well-being of households and improve public safety, health, infrastructure, education and the economic environment in the province.

Keywords: Cash transfers, Contingency tables, Eastern Cape, GLM, Quality of life, South Africa.

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1. Introduction

Cash transfers have become an important tool for reducing poverty and improving the well-being of households in many developing countries. It protects against vulnerability and social exclusion and significantly influences the economic and social standing of society [1]. Generally, governments and policymakers employ this strategy not only to help the poor but also for various other economic, social and even political reasons. Cash transfers can be categorized into two types: formal and informal. Social grants are a good example of a formal cash transfer while remittances (in this case, money received from local and international friends and relatives) perfectly describe an informal type of cash transfer. The social grant system has been instrumental in reducing poverty and providing a safety net for many households [2, 3].

According to the 2020 Poverty Trends report by the South African government, the province in South Africa with the highest poverty rate is the one with almost 70% of its inhabitants living below the poverty line which contrasts with the country's overall poverty rate of 55.5% [4]. The social grants system provides regular cash transfers to low-income households including children, the elderly and individuals with disabilities, covering over 18 million people in the country [5]. Remittances represent an informal financial flow into households that does not necessarily involve an exchange of economic value [6] and has a significant impact on household well-being and the recipients can directly access the funds without intermediaries or middlemen [6].

The effectiveness of cash transfers in raising household quality of life in the Eastern Cape Province of South Africa is currently not properly supported by data. Previous studies have focused on outcomes related to food security and absolute poverty. This study aims to address the gap by examining the impact of cash transfers (social grants and remittances) on household quality of life in the Eastern Cape Province and exploring how contextual factors such as household characteristics, community infrastructure, access to services and other dynamics, contribute to the conceptualization of household quality of life which is a multidimensional latent outcome. The findings of this research have important policy implications, informing the design and implementation of cash transfer programs to maximize their effectiveness in reducing poverty and enhancing household quality of life in low-income settings such as the Eastern Cape Province of South Africa. The rest of the paper is organized as follows: The first section provided an insight into the paper which was followed by relevant literature as well as a presentation of the theoretical approach and conceptual framework, focusing on the relationship between social grants and remittances and households' welfare. Next, we also presented the data and methods used for the study discussed the results of the data analyses and concluded with some policy insights.

2. Literature Review and Theoretical Underpinnings

Cash transfer programs involve the provision of cash payments (through formal and informal) arrangements to individuals as a means of addressing poverty and promoting social protection. These programs have become increasingly popular in recent years with many countries implementing them as a way of reducing poverty and inequality [7]. Cash transfer programs can take different forms such as conditional cash transfers, unconditional cash transfers and social pensions [8]. Empirical evidence on the development effects of cash transfers remains mixed which investigated the effect of cash transfers or social grants on households' welfare conditions [9-16]. Some of these studies underscore the poverty or welfare reducing-effect and some emphasize the equalizing effect of cash transfers on the welfare of the recipients. According to Evans and Popova [17], the "temptation goods" effect of cash transfers on households' well-being.

Several studies have shown that cash transfer programs have a positive impact on poverty reduction. For example, a study by Hidrobo, et al. [18] in rural Zambia found that cash transfers led to increased household income, improved food security and greater investment in education and health. Similarly, a study by Davis, et al. [19] in Tanzania found that cash transfers improved the welfare of vulnerable households leading to increased consumption and asset accumulation. According to Brown, et al. [20] as cited in Nanziri and Mwale [16], remittances may provide social protection hence increasing household well-being. The study emphasised that by increasing household investment and expenditure which raises expectations for future consumption, remittances can increase household wellbeing. According to Nanziri and Mwale [16], remittances are a valuable safety net for impoverished families because they affect their way of life or their income, in addition to improving investment. According to Fonta, et al. [21], the development effect of remittances has generally been a topic of significant controversy. According to Murakami, et al. [22], remittances may still have a welfare reducing effect through a phenomenon termed voluntary unemployment. The potential for receivers to misuse monetary transfers (including social handouts and remittances) is another alarming option. There is a high propensity for misusing the fund and this is well discussed in the work of Evans and Popova [17] on "cash transfers and temptation goods". Households' spending on the consumption of temptation goods has a negative consequence for their welfare status because of the perceived misuse of income from cash transfers [17]. Policymakers in South Africa have an interest in focusing on education and health to increase each individual's human capital investment but this may be impeded by the perception that households choose "temptation goods". According to Evans and Popova [17], cash transfer recipients may squander the fund on alcohol consumption and other non-essential and unnecessary forms of consumption" [23] as cited in Evans and Popova [17]. Items such as alcohol and tobacco are both regarded as "temptation goods" [24, 25]. The authors expressed that these goods "generate positive utility for the self that consumes them and anticipates that they will be consumed in the future [17]". From the viewpoint of social grants and remittance impact, this may be detrimental to the profits and advantages of cash transfers. Therefore, activities and attempts to raise the amount of cash transfers should be accompanied by efforts to direct the cash transfers to more productive uses inside the households in order to sustainably enhance the quality of life and general welfare of their members. Theoretically, the research is guided by the social protection framework which emphasizes the importance of providing vulnerable populations with access to social services and resources as a means of promoting social welfare [7]. The study also draws on the capabilities approach which focuses on

the importance of enhancing the well-being and agency of individuals and households [26]. These theoretical frameworks guide this study and the analysis of the impact of cash transfers on households' quality of life in the Eastern Cape Province of South Africa.

3. Conceptual Approach

According to Plagerson, people's well-being cannot be primarily determined by their money since it encompasses more than just satisfying their fundamental requirements [27, 28]. According to Plagerson [28], the capacity approach to well-being describes this process since it has to do with what individuals can accomplish in order to live a meaningful life they value and deserve. Similarly, sustainable development is anchored on investments in improving people's capabilities to drive social, economic and environmental change to increase people's opportunities to flourish, to be healthy, educated, safe, included and active in political engagement. According to Sen [26], this also requires addressing the major sources of societal challenges, such as inequality, poverty and violence. Investment in capabilities suggests "*empowering people to identify and pursue their own paths for a meaningful life* [27]". According to Plagerson [28], the human condition and capacities are seen as a crucial starting point for a comprehensive strategy to accomplish Sustainable Development Goals (SDGs) 1, 2, 3, 4, 5, 13, 16, and 17. These SDGs are important to address societal deprivations and inequality and to improve human capabilities so that people can realise their potential and achieve greater achievements in life [28].

In light of this context, the publications of Plagerson [28] and Yonk, et al. [29] contributed to this study by providing background information and clear instructions on how to conceptualize the quality of life-latent index. QoL is assumed to be unobserved. Hence, its construct comprises some domains and representative indicators that transverse many of the SDGs. This is covered in the subheading below along with the a-priori assumptions for the indicators that are based on theoretical insights and statistical proof of relationships.

3.1. Conceptualization of Quality of Life (QoL)

Scholars in the field of social sciences have different opinions on the conceptualization and measurement of quality of life. This diverse view stems from the attempt to explore the developmental challenges which transverse quite a number of areas of global concerns and also explain the policy plans and justify the implementation Yonk, et al. [29]. Yonk, et al. [29] created an updated categorization system as a model which consists of five distinct categories after considering various viewpoints on the notion of QoL. These are: public safety, health, infrastructure, education and the economic environment. Meanwhile, the indicators used for each of these domains are context specific and their usage is subject to the availability of data across different countries.

Public safety: Household and community safety and peace are central to the quality of life for residents of any community [29]. Crime and a lack of protection services can have adverse impacts on people' well-being. Therefore, the availability of good public safety will have a positive impact on the quality of life in any society. This study used a sub-indicator: access to security services at home in each area. Although, being the only measure and given its dichotomous nature, it may have little or no explanatory power in the computation of the aggregate QoL index, it surely captures its availability in the final construct and data analysis.

Health: There are many indicators of health status other than access to physical health. Health facilities are great but if residents are unable to access them, they may not be useful. Therefore, having health insurance or a medical plan is often necessary for consultations at medical centers and it may also indicate that at least some of these individuals' essential medical requirements are being fulfilled. The study considered the availability of health facilities where households seek medical help and enrollment in health insurance as measures of health in the quality of life construct.

Infrastructure: Functional infrastructure facilities are another good domain of quality of life and they are also needed for a functional economy in terms of economic transactions [29]. This study recognizes the importance of infrastructure facilities to foster better quality of life among the people and this was captured by the following indicators: access and distance to culinary water; access to safe energy or grid fuel for lighting, heating and cooking purposes by households; access to communication and internet facilities to facilitate seamless communications and transactions and access to public transportation services to increase households' access to better labor market opportunities and to maximize commuting times from place to place. According to Yonk, et al. [29], these indicators are necessary for individuals to maximize the other indicators of the index and their quality of life. A well-constructed index targeted at measuring the quality of life must be called a coherent measure of the infrastructure.

Education: The quality of education in any community can provide insight into the general standard of living of its residents. This means that the fundamental services provided to students that promote the teaching and learning process in an educational setting are highly important. This study took into account both students' access to the internet while in class and when learning at a public library.

Economic environment: The economic environment defines economic development as an attempt to improve the quality of life of individuals and communities through job creation and diversification of livelihoods to increase incomes. This study considered the following indicators of economic development: livelihood diversity, income per-capita and people's employment status. The diversity of livelihood suggests that the more diversified people are, the higher the likelihood of having a better life while higher income per-capita may imply having more disposable income to acquire the basic necessities of life and people's employment status invariably determines their economic activeness.

3.2. Construction and Validation of QoL Aggregates

This study achieved the QoL construct from the indicators (observed variables) through a re-scaling procedure that followed the guidelines provided in Yonk, et al. [29] and was based on theoretical understanding. The globally tested minimum-maximum standardization metric of the United Nations Human Development Index approach was used in the process by converting the actual value of each of these variables to a scale range of 0 to 1. It is important to point out that since each of the variables has been converted to this scale, the actual value of a given variable is no more of interest but rather the score generated in terms of the minimum and maximum observed for that value. Furthermore, the variables were aggregated into sub-indicators (domains) by taking the average (using the simple average technique) of the score on each of the variables included for each of the QoL components.

3.3. S/X = Scaled Value of Individual Variable / Total # of Variables Included in the Sub-Indicator

The resultant value was then scaled again (using the previously used United Nations Human Development standardisation algorithm) to produce the value of each domain. This was done by averaging the variables contained in each domain. Yonk, et al. [29] employed a simple average procedure to generate the overall index. This study applied principal component analysis (PCA) to generate the aggregate quality of life construct.

The importance of generating aggregate indexes is to express multiple dimensions of several variables in the simplest way possible for interpretation purpose. The use of the PCA technique solves the difficulty regarding the random choice of weights and measurements attached to the quality of life indicators used in this research. The construction of a QoL index can also be achieved with various methods, apart from the composite index approach used in this research. For instance, the matrix method, the time analysis approach and the gap method [30, 31]. The composite index methodology was chosen for this study due to its superior capacity to appropriately address the multidimensional character of QoL compared to other approaches. The indicator variables used for QoL have been internationally validated and widely used by various related studies [32-34].

4. Study Area

Eastern Cape Province is one of the nine provinces of South Africa and it is also the second-largest province in terms of land area, covering approximately 168,966 square kilometers [35, 36] with a population of around 6.7 million people [35] . The province has a diverse geography ranging from the rugged wild coast to the rolling hills of the Transkei, and includes a number of important natural and cultural heritage sites [36]. The Province is bordered by three other provinces, namely KwaZulu-Natal to the north, the Free State to the west, and the Western Cape to the southwest while to the east, it is bordered by the Indian Ocean [35]. The area of study has a moderate climate with warm summers and mild winters [35]. The coast is generally warm and humid while the inland areas are cooler and drier [37]. The province receives most of its rainfall in the summer months with the coastal regions experiencing more rain than the inland areas [35]. The economy of the Eastern Cape Province is largely based on agriculture with the province being a major producer of wool, mohair, beef and dairy products [35]. The Eastern Cape Province of South Africa is a diverse and culturally rich region known for its natural beauty, important heritage sites and significant economic contributions to the country. It is a popular destination for tourists, offering a range of outdoor activities and cultural events and having important educational institutions that contribute to the country's intellectual and academic development.

5. Materials and Methods

This section gives an overview of the methodology and estimating strategy used to achieve the study goals. A brief insight into the type of data used and sampling procedure was presented while explanations were also provided on the analytical techniques and the modeling strategy applied.

5.1. Data and Sampling Procedure

This study used households' datasets from the 2021 South African General Household Survey (GHS) where a sample of 1,499 households was drawn through stratified and systematic proportionate to size sampling techniques [38]. The variables used for each of the QoL domains were standardized and weighted in accordance with Fry, et al. [39] instructions and the standardisation measure of the United Nations' Human Development Index methodology.

5.2. Analytical Approach: Estimation Strategies and Techniques

The research used the contingency table approach in order to assess and demonstrate the relationships between the variables of interest along the gender line and from the perspective of the population group. Using a distribution family (gaussian) and link function (identity), the Generalized Linear Model (GLM) was estimated through the Generalized Least Squares (GLS) estimation method which accounts for structure in the error term. This approach was used to analyze how people's QOL varies with access to cash transfers (both conditional social grants and unconditional remittances), domains defining human existence and households' personal characteristics. Since QOL is a derivative of several indicators and domains, it has a latent character in this situation [29]. Moreover, the use of GLM is intended to address the possibility that the loadings from PCA may not be limited between 0 and 1 provided the distribution of the outcome variable (PCA loadings of QoL index). The Wald test of simple and composite linear hypotheses was also computed as a *Post-hoc estimation* to test the joint significance of all the parameters estimated in the model.

5.3. Modeling Procedure

According to Baum [40] and Hardin and Hilbe [41], the relationship between QOL and cash transfers as well as other theoretically hypothesized variables can be expressed as presented in Equation 1:

$$g\{E(y)\} = x\beta, \qquad y \sim F \tag{1}$$

For this study, y is distributed as a Gaussian (normal) and $g(.)$ is the identity function as indicated in Equation 2.

$$g\{E(y)\} = x\beta, \qquad y \sim Normal \tag{2}$$

where

$g(.)$ is the link function.

F is the distributional family.

x is the explanatory variable of ith observation.

β is the regression coefficient.

6. Presentation and Discussion of Results

This section explains the conclusions and displays the outcomes of the datasets exploratory and inferential analyses.

6.1. Cash Transfers by Age Group, Gender and Population Group of the Households

The results of contingency tables with tests of associations for the variables of interest are presented in Table 1. Evidently, households who are in the older age-group categories (56-65 years and above 65 years) are the most beneficiaries of all the social recipients households while households with younger heads ($\leq$35 years and 36-45 years) were the most remittance recipients households in the study area. The results also showed that the majority (81.2%) of social grant recipient households are headed by women while among households that received remittances; the majority (24.3%) is also headed by women. African or black and coloured households which make up 74.7% and 60% respectively of recipient households are the main recipients of social grants. The most remittance receiving households were the Indian and Asian population groups with 25% each. It appeared that 71.5 % of all households in all study groups received grants whereas 19.3 % of all households received remittances.

Table 1.
Contingency table results.

Variables	Cash transfers			
	Social grants		**Remittances**	
	Access (1071)	**None (428)**	**Access (289)**	**None (1210)**
Age-group (Years)				
$\leq$ 35	93 (52.2)	85 (47.8)	73 (41.0)	105 (59.0)
36-45	149 (55.2)	121 (44.8)	58 (21.5)	212 (78.5)
46-55	170 (57.6)	125 (42.4)	51 (17.3)	244 (82.7)
56-65	293 (82.5)	62 (17.5)	59 (16.6)	296 (83.4)
Above 65	366 (91.3)	35 (8.7)	48 (12.0)	353 (88.0)
Gender				
Male	425 (60.5)	278 (39.5)	96 (13.7)	607 (86.3)
Female	646 (81.2)	150 (18.8)	193 (24.3)	603 (75.7)
Population group				
African/Black	1016 (74.7)	345 (25.3)	270 (20.0)	1091 (80.0)
Coloured	45 (60.0)	30 (40.0)	14 (18.7)	61 (81.3)
Indian/Asian	0 (0.0)	4 (100.0)	1 (25.0)	3 (75.0)
White	10 (17.0)	49 (83.0)	4 (6.8)	55 (93.2)

Note: Figures in parentheses are percentage values.
For Social grants and Age-group
Pearson $chi^2(4) = 193.4354$ $Pr = 0.000$
Likelihood-ratio $chi^2(4) = 206.8186$ $Pr = 0.000$
Cramér's $V = 0.3592$
For Remittances and Age-group
Pearson $chi^2(4) = 70.9902$ $Pr = 0.000$
Likelihood-ratio $chi^2(4) = 63.0437$ $Pr = 0.000$
Cramér's $V = 0.2176$
For Social grants and Gender
Pearson $chi^2(1) = 78.4155$ $Pr = 0.000$
Likelihood-ratio $chi^2(1) = 79.0314$ $Pr = 0.000$
Cramér's $V = -0.2287$
For Remittances and Gender
Pearson $chi^2(1) = 26.9040$ $Pr = 0.000$
Likelihood-ratio $chi^2(1) = 27.4374$ $Pr = 0.000$
Cramér's $V = -0.1340$
For Social grants and Population groups
Pearson $chi^2(3) = 107.5729$ $Pr = 0.000$
Likelihood-ratio $chi^2(3) = 97.4124$ $Pr = 0.000$
Cramér's $V = 0.2679$
For Remittances and Population groups
Pearson $chi^2(3) = 6.2989$ $Pr = 0.098$
Likelihood-ratio $chi^2(3) = 7.8442$ $Pr = 0.049$
Cramér's $V = 0.0648$

Further, the results from the contingency tables (Table 1) also showed the Pearson-X^2 and LR-X^2 (chi-squares) values, and these values test for the relationships between variables of interest. Considering the Pearson-X^2 value, the null hypothesis (H_o) points out no relationship between the variables and to reject this, the X^2(chi^2) needs to be statistically significant. The likelihood ratio test is also interpreted the same way and the interpretations hold true for all other outputs tested. Therefore, the study concludes that there is a relationship between the tested variables and cash transfers. The output-Cramer's V is a measure of the strength of the relationship between two variables and the lower the output value.

6.2. Effect of Cash Transfers on Households' Quality of Life

The results presented in Table 2 depict the outcomes of a Generalized Linear Model (GLM) with a Gaussian family distribution assumption and an identity link function. The model was estimated using the maximum likelihood (ML) method of GLS to examine the impact of cash transfers and other factors on household quality of life in the Eastern Cape Province of South Africa.

The response variable in the model is the index of households' quality of life. Each variable's coefficient indicates the estimated change in the dependent variable associated with a one-unit increase in that particular variable while holding all other variables constant. The standard error reflects the precision of the coefficient estimate and the z-score and p-value indicate the statistical significance of each variable in the model. Furthermore, the log-likelihood of the model is 767.35819 serving as a measure of how well the model fits the data. A higher log-likelihood indicates a better fit. The deviance and Pearson statistics provided are additional measures of the model's goodness of fit.

The data strongly suggests that at least one predictor variable significantly affects the response variable providing strong evidence against the null hypothesis. The estimates in Table 2 revealed that access to social grants has a negative and significant coefficient of -0.1165 ($p<0.01$). This indicates that for a one-unit increase in access to social grants, the estimated change in quality of life decreases by 0.117 units keeping all other predictors in the fitted model constant. The significant association between access to social grants and households' quality of life is consistent with a study conducted in South Africa by Waidler and Devereux [42] which found that social grants improved households' food security and the overall well-being of beneficiaries and their families. Similarly, access to remittances has a negative coefficient and is statistically significant (-0.0776, $p<0.01$) suggesting that for a one-unit increase in access to remittances, the estimated change in quality of life decreases by 0.078 units, keeping all other predictors constant. The significant effect of access to remittances on households' quality of life is supported by a study conducted by Böhme, et al. [43] which found that remittances have a positive impact on the well-being of individuals and households in developing countries.

Public safety has a positive and significant coefficient (0.227, $p<0.01$) which implies that for a one-unit increase in public safety, there is an increase of 0.2265 units in the estimated change in the households' quality of life keeping all other predictors constant. This finding is consistent with a study conducted by Zeballos and Gomensoro [44] which found that the perception of safety has a significant positive effect on life satisfaction. Infrastructure facilities have a large positive and significant coefficient of 0.943 ($p<0.01$) which means that a unit increase in infrastructure induces an increase of 0.9429 units on the estimated change in quality of life keeping all other predictors constant. This result agrees with the findings of Shao, et al. [45] who found that access to basic infrastructure services such as water and electricity is positively associated with well-being.

Population groups have positive and significant coefficients for all three categories: coloured (0.468, $p<0.01$), Indian/Asian (0.427, $p<0.05$) and white (0.342, $p<0.01$) in comparison to the African or black population used as a reference group. Therefore, the estimations show how much better each demographic group's quality of life is on average than the reference group. For instance, the estimated change in quality of life for a household with a coloured head of household is 0.4682 units higher than the reference group keeping all other predictors constant. According to the estimates, the same outcome applies to other population groups. The significant relationship between population group and households' quality of life in this study is consistent with the study by Lalloo, et al. [46] which found that race and ethnicity have significant impact on health and well-being outcomes.

The age group of the household has a positive and significant coefficient (0.0664, $p<0.1$) for the youngest age group which is 36-45 years. However, the coefficients for the older age groups are not statistically significant suggesting that age may not be a strong predictor of quality of life in this model. For example, the estimated change in quality of life for a household in the 36-45 age group is 0.066 units higher than the households in a much younger group. The finding is consistent with a few previous studies showing that older adults report higher levels of subjective well-being and life satisfaction while others have found no significant relationship or even a negative relationship between age and quality of life. Other factors such as health status, financial resources and social support may have a greater impact on quality of life than age alone.

The non-significance of health, education and the economic environment reveals the degree of functionality of these sectors. This does not mean that these sectors are non-functional because the government has made some significant efforts in these aspects. However, this data highlights the need to increase investments in various sectors of the economy by creating an atmosphere that supports livelihood diversification. Both the public's enrolment in public schools and the people's participation in the medical assistance programme must also be encouraged by the government. Overall, the findings suggest that improving access to social grants and remittances as well as public goods and services can have a significant and positive effect on households' quality of life.

Table 2.
GLM estimates: Cash transfers and households' quality of life.

Quality of life	Coefficient	Std. error	z-value	p>|z|
Access to social grant	-0.116	0.028	-4.10*	0.000
Access to remittance	-0.078	0.029	-2.69*	0.007
Public safety	0.226	0.064	3.53*	0.000
Health	0.006	0.080	0.08	0.933
Infrastructure services	0.942	0.073	12.90*	0.000
Education	0.126	0.097	1.29	0.196
Economic environment	0.077	0.053	1.45	0.146
Gender	-0.015	0.022	-0.69	0.489
Population-group (African/Black - base group)				
Coloured	0.468	0.049	9.55*	0.000
Indian/Asian	0.427	0.205	2.08**	0.037
White	0.342	0.068	5.02*	0.000
Age-group ($\leq$ 35 - base group)				
36-45	0.066	0.040	1.66***	0.097
46-55	0.006	0.039	0.15	0.887
56-65	0.026	0.040	0.65	0.507
Above 65	0.014	0.039	0.36	0.718
Constant	-0.216	0.073	-2.96*	0.003

Note: Log likelihood = -767.35819; Deviance & Pearson statistics = 244.325961; Number of obs. = 1499
*, **, *** - $p<0.01$, $p<0.05$ and $p<0.1$ respectively.

6.3. Post-Hoc Test

The joint significance of all the estimated parameters in the model was tested using the Wald test of linear hypotheses. The test statistic (chi^2) of 636.88 indicates the overall goodness-of-fit of the model, assessing how well the observed data align with the expected values. A high chi-squared value suggests that the model fits the data well and that the independent variables collectively play a significant role in explaining the dependent variable. The probability value ($prob>chi^2$) of 0.0000 reflects the likelihood of observing a chi-squared statistic as extreme as 636.88 under the null hypothesis that all coefficients in the model are zero. Since the probability value is smaller than the significance level of 0.05 (highly significant), we can confidently reject the null hypothesis and conclude that at least one independent variable in the model has a significant relationship with the dependent variable. The large chi-squared statistic (636.88) further strengthens this conclusion. Overall, the Wald test provides supporting evidence for the hypothesis that the independent variables significantly impact the dependent variable and the model as a whole fits the data well.

(1) [qol]accgrant_hh = 0
(2) [qol]acc_fin_inc_rem = 0
(3) [qol]publ_safty_normlz = 0
(4) [qol]health_normlz = 0
(5) [qol]infr_srvc_normlz = 0
(6) [qol]educ_normlz = 0
(7) [qol]econ_envr_normlz = 0
(8) [qol]head_gender = 0
(9) [qol]2.head_popgrp = 0
(10) [qol]3.head_popgrp = 0
(11) [qol]4.head_popgrp = 0
(12) [qol]2.hh_agegrp = 0
(13) [qol]3.hh_agegrp = 0
(14) [qol]4.hh_agegrp = 0
(15) [qol]5.hh_agegrp = 0

$chi^2(15)$ = 636.88; $prob>chi^2$ = 0.0000

7. Conclusion and Policy Recommendations

Undoubtedly, both rural and urban regions in our society are experiencing a decline in quality of life but all of the indicators (such as food insecurity, poverty and inequality) have been labelled as "strong rural phenomena". This motivated the study to examine the effect of cash transfers on the quality of life among households in the Eastern Cape Province of South Africa. Using the dataset from the 2021 GHS, the study employs a generalized linear model to estimate the relationship between cash transfers and quality of life, controlling for various household characteristics.

The study finds that access to social grants has a significant and inverse effect on household quality of life. Households that have access to social grants report a lower quality of life compared to those that do not. This finding is contrary to *a priori* because a positive effect of social grants on households' quality of life is expected. Contrary to expectations, the study also finds that access to remittances has a negative but significant effect on households' quality of life. Remittances have been found to be an important source of support for households during crises. But this study shows that households

that receive remittances report a lower quality of life compared to those that do not receive remittances. This could perhaps be a result of the "temptation goods" effect.

Access to social grants and remittances, public safety, infrastructure and the population group of households are important determinants of households' quality of life in the Eastern Cape Province of South Africa. Households that have access to better public safety, infrastructure and population groups and those with a younger population are more likely to report a better quality of life. The non-significant effect of household controlling factors such as gender and old age groups on quality of life means that both gender and old age groups are not strong predictors determining the quality of life among households in the study area.

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