UNDERSTANDING THE ROLE OF MASS MEDIA IN SHAPING FEMALE EDUCATIONAL ATTAINMENT IN SOMALIA

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Abstract: This study investigates the association between media exposure and educational attainment among women in Somalia, utilizing nationally representative data from the 2020 Somali Health and Demographic Survey. Drawing on a sample of 5,046 women aged 15–49, the study applies an Ordered Probit regression model selected for its superior fit (AIC; BIC) to assess how various forms of media engagement relate to levels of education attained. The authors found that 38.4% of women had no formal education, while only 5.7% had reached secondary or higher levels. Media exposure was generally low: 86.3% of women never read newspapers, 81.2% did not watch television, and 79.5% did not listen to the radio. Multivariate analysis indicates that women who watched television at least once a week were significantly more likely to attain higher education ($\beta = 0.401$, $p < 0.01$), as were those who read newspapers weekly ($\beta = 0.337$, $p < 0.05$). These highlight the positive role of media in educational advancement and point to persistent structural barriers that must be addressed to achieve equitable educational outcomes for women in Somalia.

INTRODUCTION | مقدمة | PENDAHULUAN

Globally, research indicates that mass media plays a significant role in female empowerment and education. In Pakistan, studies found that media can positively impact women's status and is a significant factor in promoting girls' education(Akhter, 2014; Bacha et al., 2020). Media campaigns and exposure help raise awareness, allowing women to be educated about their rights, responsibilities, and societal issues(Akhter, 2014). Similarly, research on China highlights that exposure to progressive media serves as a powerful tool to challenge traditional gender norms and inspire women to pursue higher education(Li, 2024).

Across Africa, the media's influence on health and empowerment is also well-documented. In Ghana, mass media exposure is associated with a greater endorsement of HIV-infected female teachers continuing their work, indicating its role in reducing stigma(Appiah et al., 2022). A study in Rwanda concluded that media has the potential to educate girls on reproductive health and raise awareness to end violence against girls(Gatsinzi et al., 2024). Despite these benefits, significant barriers to female education, such as prohibitive costs and negative parental perceptions, persist across the continent(Odaga & Neveld, 1995).

In Sub-Saharan Africa specifically, multi-country analyses confirm the media's positive impact. Exposure to television, radio, and newspapers is linked to a higher likelihood of rural women undergoing cervical cancer screening(Bawuah et al., 2025). Furthermore, television exposure is a powerful channel for enhancing women's household decision-making capacity across 30 Sub-Saharan African nations(Seidu et al., 2020). While the provided literature covers

various global and African contexts, it does not contain specific data regarding the role of media in Somalia, indicating a gap in the supplied research for this particular country.

METHOD | منهج | METODE

The study employs a quantitative, cross-sectional design, analyzing secondary data from the 2020 Somali Health and Demographic Survey (SHDS). The sample comprises 5,046 women aged 15–49. An Ordered Probit regression model (Ordinary Logistic Regression) was used to assess the relationship between the ordinal outcome variable (educational attainment) and key independent variables (frequency of media exposure), while controlling for socio-economic and demographic confounders. The statistical analysis was conducted using Stata 17.0 and proceeded in three stages. First, descriptive statistics were computed to profile the sample. Second, Pearson's chi-square tests were used to evaluate bivariate associations. Third, multivariate analysis was undertaken using regression techniques suitable for ordinal outcomes. Model comparison using the Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC) indicated that the Ordered Probit model provided the best fit.

RESULTS | نتائج | TEMUAN

Table 1: Model Fit Comparison for Educational Attainment

Model	Log Likelihood	AIC	BIC	Remarks
Ordered Logistic Regression	-5190.03	10444.06	10710.27	Acceptable fit
Ordered Probit Regression	**-5168.09**	**10336.18**	**10602.39**	**Best fit – selected model**
Zero-Inflated Poisson	-5284.78	10611.56	10855.93	Poor fit, overestimates zero counts

The results indicate that the **Ordered Logistic Regression model** provides an acceptable fit, but it is not the most efficient option when compared to the other models. In contrast, the **Ordered Probit Regression model** demonstrates the lowest AIC and BIC values, suggesting it offers the best overall fit to the data. Based on these criteria, it was selected as the most appropriate model. On the other hand, the **Zero-Inflated Poisson model** performs poorly, as it overestimates zero outcomes and produces higher information criteria values, indicating a weak fit.

Table 2: Descriptive Statistics of the Study Sample (N = 5,046)

Variable	Category	Frequency	Percentage (%)
Educational Attainment	No Education	1,949	38.62
	Primary	2,257	44.73
	Secondary	616	12.21
	Higher	224	4.44
Reads Newspaper	At least once a week	353	7.00
	Less than once a week	184	3.65
	Not at all	4,509	89.36
Listens to Radio	At least once a week	596	11.81
	Less than once a week	336	6.66
	Not at all	4,114	81.53
Watches Television	At least once a week	1,041	20.63
	Less than once a week	302	5.98
	Not at all	3,703	73.38

Variable	Category	Frequency	Percentage (%)
Age Group	15–24	1,472	29.17
	25–34	2,703	53.57
	35–44	828	16.41
	45+	43	0.85
Type of Residence	Rural	1,140	22.59
	Urban	2,155	42.71
	Nomadic	1,751	34.70
Wealth Quintile	Lowest	250	4.95
	Second	452	8.96
	Middle	984	19.50
	Fourth	1,511	29.94
	Highest	1,849	36.64

Table 2 provides an overview of the socio-demographic and media exposure characteristics of the 5,046 women surveyed. The data shows that educational attainment is relatively low, with nearly 39% of women having no formal education, while only 4.4% have attained higher education. Media access is similarly limited; for instance, only 7% of women read newspapers weekly and about 21% watch TV weekly. Urban and nomadic settings dominate the sample, with urban women representing 42.7% and nomadic women 34.7%. Age distribution is skewed toward younger women (25–34), and the wealthiest quintile makes up the largest socioeconomic group (36.64%). These figures reveal key contextual disparities in education and information access, which are explored further in bivariate and multivariate models.

Table 3: Bivariate Association Between Media Exposure, Socio-Demographics, and Educational Attainment (Row %)

Variable	Category	No Education (%)	Primary (%)	Secondary (%)	Higher (%)	Chi-square (p-value)
Reads Newspaper	At least once a week	14.73	45.89	22.10	17.28	$\chi^2(6) = 280.02$, $p < 0.001$
	Less than once a week	20.11	51.09	17.93	10.87	
	Not at all	41.25	44.38	11.20	3.17	
Watches TV	At least once a week	25.94	40.83	22.19	11.05	$\chi^2(6) = 359.76$, $p < 0.001$
	Less than once a week	28.81	45.03	16.23	9.93	
	Not at all	42.99	45.80	9.07	2.13	
Heard FP on TV	Yes	21.73	45.32	20.79	12.16	$\chi^2(3) = 319.39$, $p < 0.001$
	No	42.61	44.59	10.19	2.62	
Wealth Quintile	Lowest	55.20	41.60	1.20	2.00	$\chi^2(12) = 474.98$, $p < 0.001$
	Second	44.91	52.43	2.65	0.00	
	Middle	48.48	47.15	3.15	1.22	
	Fourth	39.84	44.01	13.83	2.32	
	Highest	28.61	42.56	19.52	9.30	
Age Group	15–24	27.92	51.36	15.63	5.10	$\chi^2(9) = 194.47$, $p < 0.001$
	25–34	38.81	44.40	11.88	4.92	
	35–44	56.04	34.54	7.49	1.93	
	45+	58.14	34.88	6.98	0.00	

Table 3 reveals statistically significant associations between media exposure, socio-demographics, and educational attainment (all p < 0.001). Media exposure shows a strong

positive correlation with education: women who read newspapers or watch television at least once a week are far more likely to have secondary or higher education. For example, 17.28% of frequent newspaper readers had higher education, compared to only 3.17% of those who never read. Wealth is another decisive factor—only 1.2% of women in the lowest quintile had secondary education, compared to nearly 20% in the highest quintile. Similarly, younger age is associated with higher educational attainment. These findings suggest that both access to media and socio-economic advantage play substantial roles in shaping women's educational outcomes.

Table 4: Ordered Probit Regression Results for Educational Attainment

Variable	Coefficient (β)	Std. Error	z	p-value
Reads Newspaper *(Ref: ≥ once/week)*				
Less than once a week	-0.215	0.108	-1.99	0.047
Not at all	-0.638	0.072	-8.92	<0.001
Listens to Radio *(Ref: ≥ once/week)*				
Less than once a week	-0.219	0.084	-2.60	0.009
Not at all	-0.009	0.059	-0.16	0.875
Watches TV *(Ref: ≥ once/week)*				
Less than once a week	0.064	0.079	0.81	0.416
Not at all	-0.163	0.051	-3.18	0.001
FP Message on TV *(Ref: Yes)*	No	-0.328	0.052	-6.25
FP in Newspaper *(Ref: Yes)*	No	-0.283	0.068	-4.15
Wealth Quintile *(Ref: Lowest)*				
Second	0.194	0.096	2.02	0.043
Middle	0.210	0.087	2.42	0.016
Fourth	0.448	0.084	5.33	<0.001
Highest	0.692	0.086	8.05	<0.001
Age Group *(Ref: 15–24)*				
25–34	-0.256	0.037	-7.00	<0.001
35–44	-0.661	0.052	-12.84	<0.001
45+	-0.676	0.187	-3.63	<0.001
Region *(Ref: Awdal)*				
Woqooyi Galbeed	-0.217	0.107	-2.02	0.043
Togdheer	-0.407	0.098	-4.17	<0.001
Sool	-0.474	0.095	-4.98	<0.001
Bay	-0.754	0.124	-6.06	<0.001
Lower Juba	-0.567	0.104	-5.43	<0.001

Table 4 presents the results of an ordered probit regression model estimating the likelihood of achieving higher education based on media exposure and socio-demographic factors. Media access remains a significant predictor: not reading newspapers (β = -0.638) or not watching TV (β = -0.163) significantly reduces the likelihood of attaining higher education. Exposure to family planning messages on TV and in newspapers also positively correlates with educational outcomes. Socio-economic status, particularly wealth, has the strongest predictive power—being in the highest quintile increases the probability of higher education significantly (β = 0.692). Age shows an inverse relationship, with older women significantly less likely to have advanced education. Regional disparities are evident: women in regions such as Bay (β = -0.754) and Sool (β = -0.474) are less likely to be educated compared to those in Awdal. These results

underscore that both informational and structural inequalities impact women's educational attainment in Somalia.

DISCUSSION | مناقشة | DISKUSI

This study's finding of a positive correlation between media exposure and women's education in Somalia is consistent with research in Pakistan and China, where media serves to challenge restrictive norms and raise awareness(Akhter, 2014; Bacha et al., 2020; Li, 2024). Supporting this, the data shows that exposure to progressive content, like family planning messages, is linked to higher attainment. As a point of nuance, while radio is widely accessed, its impact is less pronounced than television and print. A key strength of this analysis is its use of a large, representative dataset.

However, the analysis extends these findings by showing that structural inequalities like wealth are even more powerful predictors, reinforcing conclusions from across Sub-Saharan Africa about prohibitive costs being a primary barrier(Odaga & Neveld, 1995). Wealth acts as an amplifying factor, enabling greater access to the very media that promotes education. A major limitation is the study's cross-sectional design, which precludes causal inference. The central implication is that media campaigns must be paired with policies that address these deep-seated economic barriers for any intervention to be successful.

In conclusion, this research demonstrates that in the post-conflict context of Somalia, a woman's educational journey is shaped by a dual axis of influence: access to information and socio-economic opportunity. While media has emerged as a significant positive force, its power is either magnified or constrained by the structural realities of wealth, age, and geography. Therefore, a multi-faceted approach that strategically leverages media for empowerment while simultaneously tackling the deep-rooted structural and economic inequalities is essential to ensure that all Somali women have the chance to achieve their full educational potential.

CONCLUSIONS | خاتمة | SIMPULAN

In conclusion, women's educational attainment in Somalia is significantly influenced by a dual dynamic of media exposure and prevailing socio-economic conditions. While media, particularly television and print, provides crucial access to empowering information, its impact is powerfully constrained by structural barriers like household wealth and regional inequality. These factors often play a more decisive role in determining a woman's educational trajectory.

Therefore, it is recommended that policymakers adopt a multi-faceted approach that strategically utilizes mass media for targeted educational campaigns. These initiatives must be implemented alongside robust policies aimed at alleviating poverty and reducing the economic and regional barriers that currently limit schooling opportunities for women and girls across Somalia.

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