

Media Preferences for Climate Change Information among Rural Women in Tamil Nadu: Traditional or Digital?

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Abstract:

Communication plays a vital role in enhancing environmental awareness and supporting informed decision-making among rural communities. This study compared the use of traditional and digital media as sources of climate change information among rural women in Tamil Nadu. It examined whether media preferences varied across age groups. Primary data were collected from 982 rural women using a structured interview schedule. Media exposure was assessed across six information sources representing traditional and digital platforms: television, newspapers, magazines, radio, search engines, and WhatsApp. The media exposure scale demonstrated acceptable internal consistency (Cronbach's $\alpha = 0.643$). Pearson's Chi-square test was employed to examine associations between age groups and media preferences. The findings revealed significant age-related differences in the use of traditional media, with television emerging as the most preferred source of climate change information across all age groups. In contrast, the use of search engines and WhatsApp did not differ significantly across age categories, suggesting that digital platforms have evolved into shared information spaces connecting rural women across generations. The findings highlight the complementary roles of traditional and digital media in improving access to climate information and support the adoption of integrated communication strategies to strengthen climate awareness among rural communities.

Keywords: Climate change communication, traditional media, digital media, rural women, media preferences.

1. Introduction

Climate change is one of the most significant environmental challenges affecting agricultural communities worldwide. Rising temperatures, erratic rainfall, droughts, cyclones, floods, and other extreme weather events have increased the vulnerability of rural populations, particularly women who depend on agriculture and natural resources for their livelihoods. Effective adaptation requires timely access to reliable climate information, enabling communities to understand environmental changes and make informed decisions (IPCC, 2022).

The media play a crucial role in communicating climate-related information and increasing public awareness. Traditional communication channels, including television, newspapers, magazines, and radio, together with digital platforms such as internet search engines and social media, provide information on climate risks, weather forecasts, adaptation practices, and environmental policies. Access to timely and reliable information enables rural communities to make informed decisions and strengthens their adaptive capacity (Moser, 2016). Effective climate communication also promotes public engagement and encourages behavioural responses that support climate adaptation and resilience (IPCC, 2022; Schäfer & Painter, 2021).

Rapid growth in internet connectivity, smartphone ownership, and digital communication technologies has transformed the way information is accessed and shared in India. Nevertheless, traditional media continue to remain important information sources in many rural communities, particularly where digital access is limited. Media preferences may vary across age groups, influencing how climate-related information is received, interpreted, and utilised. Understanding these differences is essential for designing effective climate communication strategies that reach diverse segments of rural populations (Newman et al., 2024). Previous studies have reported that media preferences are influenced by demographic characteristics, particularly age, education, and access to communication technologies (Auxier & Anderson, 2021). Recent evidence further

suggests that mobile-based applications and social media platforms are increasingly used to obtain environmental and climate-related information, even among populations traditionally dependent on conventional media (Radwan & Ayyad, 2024; Schäfer, 2025).

Although several studies have investigated climate change awareness and adaptation behaviour, comparatively little attention has been given to age-based preferences for traditional and digital media among rural women. Rural women constitute an important stakeholder group because they actively participate in agriculture, household resource management, and community decision-making. Understanding how they access climate information can improve communication strategies and contribute to climate-resilient rural development (Jannat & Kusakabe, 2024). Accordingly, the present study examines media preferences for climate change information among rural women in Tamil Nadu and investigates whether age influences the use of traditional and digital media sources.

2. Objectives of the Study

1. To examine the use of traditional and digital media as sources of climate change information among rural women in Tamil Nadu.
2. To assess age-based differences in media preferences for climate change information.
3. To compare the relative importance of traditional and digital media in disseminating climate change information among rural women.

3. Literature Review

The media serve as an important bridge between scientific knowledge and the public's understanding of climate change. Previous studies have consistently demonstrated that information disseminated through trusted media channels enhances environmental awareness, strengthens risk perception, and encourages adaptive behaviour. Repeated exposure to climate-related information improves environmental knowledge and promotes public support for climate action (Moser, 2016; IPCC, 2022).

Traditional media continue to play an important role in disseminating climate information, particularly in developing countries. Television remains one of the most accessible and influential communication channels because it combines visual and auditory content, enabling complex environmental issues to be presented understandably. Newspapers, magazines, and radio also contribute significantly to environmental awareness by providing detailed information and extending communication to rural communities where internet access may be limited (Moser, 2016; Schäfer & Painter, 2021; Newman et al., 2024).

Digital media have expanded opportunities for accessing climate information through search engines, websites, and social networking platforms. These platforms facilitate rapid information sharing, interactive communication, and public participation in discussions related to environmental issues. Recent studies have shown that social media and mobile messaging applications such as WhatsApp have become important sources of climate-related information and public engagement (Radwan & Ayyad, 2024; Schäfer, 2025). However, differences in age, digital literacy, and access to technology continue to influence the extent to which individuals utilise digital communication platforms.

Age is an important determinant of media consumption behaviour. Younger individuals generally demonstrate greater engagement with digital technologies, whereas older adults often rely more on traditional communication channels. Nevertheless, increasing smartphone penetration and improved internet accessibility have gradually reduced these differences, particularly in rural communities. Understanding age-related media preferences is therefore essential for developing effective climate communication strategies that reach diverse population groups (Newman et al., 2024).

Despite growing interest in climate communication, empirical evidence comparing preferences for traditional and digital media among rural women in India remains limited. Examining these preferences can provide valuable insights to improve climate information dissemination and support climate-resilient rural development.

4. Methodology

4.1 Study Area

The study was conducted in five villages representing five purposively selected districts of Tamil Nadu: T. Palur (Ariyalur), Vangal (Karur), Thirumalairaya Samudram (Pudukkottai), Kollankarrai–Vallundupattu (Thanjavur), and Chinna Suriyur (Tiruchirappalli) belonging to Cauvery Delta Zone (CDZ). These districts are predominantly agriculture-based and frequently experience irregular rainfall, drought, and water scarcity. A descriptive cross-sectional research design was adopted. Using stratified random sampling, 1,000 rural women were initially selected, of whom 982 provided complete responses for analysis.

4.2 Data Collection

Primary data were collected using a structured bilingual (Tamil and English) interview schedule. The questionnaire obtained information on socio-demographic characteristics and media sources used to access climate change information. Media exposure was assessed using six information sources: television, newspapers, magazines, radio, search engines, and WhatsApp. Respondents indicated their level of use on a five-point Likert scale ranging from "Not at all" to "Very Much" (Likert, 1932).

4.3 Reliability and Statistical Analysis

The reliability of the media exposure scale was assessed using Cronbach's alpha. The six-item media exposure scale demonstrated acceptable internal consistency (Cronbach's $\alpha = 0.643$), supporting its suitability for subsequent analyses. Descriptive statistics, including frequencies and percentages, were used to summarise respondent characteristics and media preferences. Pearson's Chi-square test was employed to examine the association between age groups and media preferences (Cash et al., 2022, Gliem and Gliem (2003). All statistical analyses were performed using SPSS Version 25, and statistical significance was assessed at the 5% level.

5. Results

5.1 Reliability Statistics for Media Exposure Scale

Table 1 The reliability of the media exposure scale was assessed using Cronbach's alpha (Gliem and Gliem 2003). The six-item media exposure scale, comprising television, newspaper, magazine, radio, search engines, and WhatsApp, recorded a Cronbach's alpha value of 0.643. This value indicates acceptable internal consistency for exploratory social science research and suggests that the items adequately measure media exposure for climate change information among rural women.

Table 1. Reliability Analysis

Media Exposure Scale	No. of Items	Mean	Cronbach's Alpha (α)
Television, Newspaper, Magazine, Radio, Search Engines, and WhatsApp	6	2.2	0.64

Tables 2a, b–7a, b present the association between age groups and the use of traditional and digital media sources for climate change information. Media use was measured on a five-point scale ranging from “Not at all” to “Very Much,” and Pearson's Chi-square test was employed to examine age-based differences in media preferences.

5.2 Television as source of information on climate change

Higher levels of television use were observed among respondents aged 32–39 years (52.3%) and 46 years and above (53.9%). Across all age groups, the highest percentage of responses falls under the "Very Much" category (47.8%), followed by "Much" (31.7%). Interest in television decreases as the level of interest moves from "Very

Much" to "Not at all (Table 2a). The Chi-square analysis revealed a significant association between age and television use ($\chi^2 = 31.569$, $p = 0.011$), indicating that television preferences vary across age groups (Table 2b).

Table 2a. Association between age groups and television as climate change information source

Dependent Variables			Likert Scale					Total
			Not at all	A little	Some what	Much	Very Much	
Age group	<= 22	Count	5	17	33	71	87	213
		% within Age group	2.3%	8.0%	15.5%	33.3%	40.8%	100.0%
		% within Television	23.8%	36.2%	24.6%	22.8%	18.6%	21.7%
		% of Total	0.5%	1.7%	3.4%	7.2%	8.9%	21.7%
	23 - 31	Count	4	10	35	48	88	185
		% within Age group	2.2%	5.4%	18.9%	25.9%	47.6%	100.0%
		% within Television	19.0%	21.3%	26.1%	15.4%	18.8%	18.8%
		% of Total	0.4%	1.0%	3.6%	4.9%	9.0%	18.8%
	32 - 39	Count	6	9	28	63	116	222
		% within Age group	2.7%	4.1%	12.6%	28.4%	52.3%	100.0%
		% within Television	28.6%	19.1%	20.9%	20.3%	24.7%	22.6%
		% of Total	0.6%	0.9%	2.9%	6.4%	11.8%	22.6%
	40 - 45	Count	4	3	19	81	88	195
		% within Age group	2.1%	1.5%	9.7%	41.5%	45.1%	100.0%
		% within Television	19.0%	6.4%	14.2%	26.0%	18.8%	19.9%
		% of Total	0.4%	0.3%	1.9%	8.2%	9.0%	19.9%
	>=46	Count	2	8	19	48	90	167
		% within Age group	1.2%	4.8%	11.4%	28.7%	53.9%	100.0%
		% within Television	9.5%	17.0%	14.2%	15.4%	19.2%	17.0%
		% of Total	0.2%	0.8%	1.9%	4.9%	9.2%	17.0%
Total		Count	21	47	134	311	469	982
		% within Age group	2.1%	4.8%	13.6%	31.7%	47.8%	100.0%
		% within Television	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	2.1%	4.8%	13.6%	31.7%	47.8%	100.0%

Table 2b. Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	31.569 ^a	16	.011
Likelihood Ratio	31.989	16	.010

Linear-by-Linear Association	9.652	1	.002
No. of Valid Cases	982		
a. 5 cells (20.0%) have expected count less than 5. The minimum expected count is 3.57.			

5.3 Newspaper as source of information on climate change among rural women

Table 3a presents the association between age groups and newspaper use for climate change information, and age significantly influences newspaper reading habits. The findings highlight generational differences in newspaper consumption, possibly influenced by digital media alternatives among younger individuals (Table 3a). The Chi-square test revealed a significant association between age group and newspaper use ($\chi^2 = 45.354$, $p < 0.001$), indicating that newspaper preferences vary across age categories (Table 3b).

Table 3a. Association between age groups and newspaper as source of climate change information

Dependent Variables			Likert Scale					Total
			Not at all	A little	Some what	Much	Very Much	
Age group	<= 22	Count	18	47	63	59	26	213
		% within Age group	8.5%	22.1%	29.6%	27.7%	12.2%	100.0%
		% within Newspaper	20.7%	26.6%	24.1%	18.4%	19.0%	21.7%
		% of Total	1.8%	4.8%	6.4%	6.0%	2.6%	21.7%
	23 - 31	Count	11	30	50	76	18	185
		% within Age group	5.9%	16.2%	27.0%	41.1%	9.7%	100.0%
		% within Newspaper	12.6%	16.9%	19.2%	23.8%	13.1%	18.8%
		% of Total	1.1%	3.1%	5.1%	7.7%	1.8%	18.8%
	32 - 39	Count	28	25	51	82	36	222
		% within Age group	12.6%	11.3%	23.0%	36.9%	16.2%	100.0%
		% within Newspaper	32.2%	14.1%	19.5%	25.6%	26.3%	22.6%
		% of Total	2.9%	2.5%	5.2%	8.4%	3.7%	22.6%
	40 - 45	Count	25	43	55	46	26	195
		% within Age group	12.8%	22.1%	28.2%	23.6%	13.3%	100.0%
		% within Newspaper	28.7%	24.3%	21.1%	14.4%	19.0%	19.9%
		% of Total	2.5%	4.4%	5.6%	4.7%	2.6%	19.9%
	>=46	Count	5	32	42	57	31	167
		% within Age group	3.0%	19.2%	25.1%	34.1%	18.6%	100.0%
		% within Newspaper	5.7%	18.1%	16.1%	17.8%	22.6%	17.0%
		% of Total	0.5%	3.3%	4.3%	5.8%	3.2%	17.0%
Total	Count		87	177	261	320	137	982
	% within Age group		8.9%	18.0%	26.6%	32.6%	14.0%	100.0%
	% within Newspaper		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

	% of Total	8.9%	18.0%	26.6%	32.6%	14.0%	100.0%
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Table 3b. <i>Chi-Square Tests</i>			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	45.354 ^a	16	.000
Likelihood Ratio	47.926	16	.000
Linear-by-Linear Association	1.557	1	.212
No. of Valid Cases	982		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 14.80.			

5.4 Magazine as source of information on climate change among rural women

Table 4a relates to magazine readership, which was generally low across all age groups. The results indicate that age significantly influences magazine reading habits. Older individuals (≥ 46) are more likely to be frequent magazine readers, while younger individuals (≤ 22 and 40-45 age groups) tend to read magazines less. The findings suggest that magazines may be more popular among middle-aged and older individuals, whereas younger age groups may prefer alternative media formats (Table 4a). The Pearson Chi-Square value indicates a statistically significant association between age group and magazine reading frequency. The Likelihood Ratio test ($\chi^2 = 33.775$, $p = 0.006$) also confirms this association. However, the Linear-by-Linear Association test ($\chi^2 = 0.318$, $p = 0.573$) suggests that the trend in magazine readership across age groups is not strictly linear (Table 4b).

Table 4a. Association between age groups and *magazine* as climate change information source

Dependent variables			Likert Scale					Total
			Not at all	A little	Some what	Much	Very Much	
Age group	<= 22	Count	64	52	54	27	16	213
		%within Age group	30.0%	24.4%	25.4%	12.7%	7.5%	100.0%
		% within Magazine	23.6%	20.6%	21.6%	20.8%	20.5%	21.7%
		% of Total	6.5%	5.3%	5.5%	2.7%	1.6%	21.7%
	23 - 31	Count	53	30	62	27	13	185
		% within Age group	28.6%	16.2%	33.5%	14.6%	7.0%	100.0%
		% within Magazine	19.6%	11.9%	24.8%	20.8%	16.7%	18.8%
		% of Total	5.4%	3.1%	6.3%	2.7%	1.3%	18.8%
	32 - 39	Count	62	58	56	28	18	222
		% within Age group	27.9%	26.1%	25.2%	12.6%	8.1%	100.0%
		% within Magazine	22.9%	22.9%	22.4%	21.5%	23.1%	22.6%
		% of Total	6.3%	5.9%	5.7%	2.9%	1.8%	22.6%
	40 - 45	Count	46	71	46	23	9	195

		% within Age group	23.6%	36.4%	23.6%	11.8%	4.6%	100.0%
		% within Magazine	17.0%	28.1%	18.4%	17.7%	11.5%	19.9%
		% of Total	4.7%	7.2%	4.7%	2.3%	0.9%	19.9%
		Count	46	42	32	25	22	167
	>=46	% within Age group	27.5%	25.1%	19.2%	15.0%	13.2%	100.0%
		% within Magazine	17.0%	16.6%	12.8%	19.2%	28.2%	17.0%
		% of Total	4.7%	4.3%	3.3%	2.5%	2.2%	17.0%
		Count	271	253	250	130	78	982
	Total	% within Age group	27.6%	25.8%	25.5%	13.2%	7.9%	100.0%
		% within Magazine	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	27.6%	25.8%	25.5%	13.2%	7.9%	100.0%

Table 4b. Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	34.364 ^a	16	.005
Likelihood Ratio	33.775	16	.006
Linear-by-Linear Association	.318	1	.573
No. of Valid Cases	982		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 13.26.			

5.5. Radio as source of information on climate change among rural women

Table 5a provides data on the engagement of individuals from different age groups with radio. Radio use was generally low among respondents, with younger women reporting lower engagement than older age groups. Radio use was relatively low, with 28.9% of respondents reporting no use. Respondents aged 40–45 years showed comparatively higher levels of radio engagement, whereas the youngest age group (≤ 22 years) reported the lowest. The Chi-square test revealed a significant association between age group and radio use ($\chi^2 = 27.993$, $p = 0.032$), indicating that radio listening habits vary across age categories (Table 5b).

Table 5a. Association between age groups and radio as climate change information source

Dependent Variables			Likert scale					Total
			Not at all	A little	Some what	Much	Very Much	
Age group	<= 22	Count	84	36	37	30	26	213
		% within Age group	39.4%	16.9%	17.4%	14.1%	12.2%	100.0%
		% within Radio	29.6%	18.4%	19.7%	17.0%	18.8%	21.7%
		% of Total	8.6%	3.7%	3.8%	3.1%	2.6%	21.7%
	23 - 31	Count	53	30	44	34	24	185
		% within Age group	39.4%	16.9%	17.4%	14.1%	12.2%	100.0%
		% within Radio	29.6%	18.4%	19.7%	17.0%	18.8%	21.7%
		% of Total	8.6%	3.7%	3.8%	3.1%	2.6%	21.7%

		% within Age group	28.6%	16.2%	23.8%	18.4%	13.0%	100.0%
		% within Radio	18.7%	15.3%	23.4%	19.3%	17.4%	18.8%
		% of Total	5.4%	3.1%	4.5%	3.5%	2.4%	18.8%
	32 - 39	Count	60	47	44	43	28	222
		% within Age group	27.0%	21.2%	19.8%	19.4%	12.6%	100.0%
		% within Radio	21.1%	24.0%	23.4%	24.4%	20.3%	22.6%
		% of Total	6.1%	4.8%	4.5%	4.4%	2.9%	22.6%
	40 - 45	Count	41	46	32	44	32	195
		% within Age group	21.0%	23.6%	16.4%	22.6%	16.4%	100.0%
		% within Radio	14.4%	23.5%	17.0%	25.0%	23.2%	19.9%
		% of Total	4.2%	4.7%	3.3%	4.5%	3.3%	19.9%
	>=46	Count	46	37	31	25	28	167
		% within Age group	27.5%	22.2%	18.6%	15.0%	16.8%	100.0%
		% within Radio	16.2%	18.9%	16.5%	14.2%	20.3%	17.0%
		% of Total	4.7%	3.8%	3.2%	2.5%	2.9%	17.0%
	Total	Count	284	196	188	176	138	982
		% within Age group	28.9%	20.0%	19.1%	17.9%	14.1%	100.0%
		% within Radio	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	28.9%	20.0%	19.1%	17.9%	14.1%	100.0%

Table 5b. Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	27.993 ^a	16	.032
Likelihood Ratio	27.515	16	.036
Linear-by-Linear Association	6.427	1	.011
No. of Valid Cases	982		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 23.47.			

5.6. Search Engines as source of information on climate change among rural women

Table 6a presents the association between age groups and the use of search engines for climate change information. A considerable proportion of respondents reported using search engines either "Much" or "Very Much" for obtaining climate-related information. Although younger (≤ 22 years) and older (≥ 46 years) respondents reported relatively higher levels of use, the Chi-square test did not reveal a significant association between age group and search engines use ($\chi^2 = 23.011$, $p = 0.113$). This finding suggests that search engine usage is relatively similar across age groups (Table 6b).

Table 6a Association between age groups and search engines as climate change information source

Dependent Variables			Likert Scale					Total
			Not at all	A little	Some what	Much	Very Much	
Age group	<= 22	Count	11	18	43	62	79	213
		% within Age group	5.2%	8.5%	20.2%	29.1%	37.1%	100.0%
		% within Search Engines	11.1%	16.7%	22.8%	24.5%	23.7%	21.7%
		% of Total	1.1%	1.8%	4.4%	6.3%	8.0%	21.7%
	23 - 31	Count	17	16	41	43	68	185
		% within Age group	9.2%	8.6%	22.2%	23.2%	36.8%	100.0%
		% within Search engines	17.2%	14.8%	21.7%	17.0%	20.4%	18.8%
		% of Total	1.7%	1.6%	4.2%	4.4%	6.9%	18.8%
	32 - 39	Count	29	30	36	55	72	222
		% within Age group	13.1%	13.5%	16.2%	24.8%	32.4%	100.0%
		% within Search engines	29.3%	27.8%	19.0%	21.7%	21.6%	22.6%
		% of Total	3.0%	3.1%	3.7%	5.6%	7.3%	22.6%
	40 - 45	Count	24	24	42	54	51	195
		% within Age group	12.3%	12.3%	21.5%	27.7%	26.2%	100.0%
		% within Search engines	24.2%	22.2%	22.2%	21.3%	15.3%	19.9%
		% of Total	2.4%	2.4%	4.3%	5.5%	5.2%	19.9%
	>=46	Count	18	20	27	39	63	167
		% within Age group	10.8%	12.0%	16.2%	23.4%	37.7%	100.0%
		% within Search engines	18.2%	18.5%	14.3%	15.4%	18.9%	17.0%
		% of Total	1.8%	2.0%	2.7%	4.0%	6.4%	17.0%
Total		Count	99	108	189	253	333	982
		% within Age group	10.1%	11.0%	19.2%	25.8%	33.9%	100.0%
		% within Search engines (	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	10.1%	11.0%	19.2%	25.8%	33.9%	100.0%

Table 6b. Chi-Square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	23.011 ^a	16	.113
Likelihood Ratio	24.263	16	.084

Linear-by-Linear Association	5.601	1	.018
No. of Valid Cases	982		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 16.84.			

5.7. WhatsApp as source of information on climate change among rural women

Table 7a presents the association between age group and the use of WhatsApp to obtain climate change information. Overall, 42.4% of the respondents reported using WhatsApp "Very Much", while 28.4% reported using it "Much." The highest proportion of frequent users was observed among respondents aged 23–31 years. However, Pearson's Chi-square analysis indicated no significant association between age and WhatsApp use ($\chi^2 = 23.961$, $p = 0.090$), suggesting that WhatsApp has become a widely used source of climate-related information across all age groups (Table 7b).

Table 7a. Association between age groups and *WhatsApp* as climate change information source

Dependent Variables			Likert Scale					Total
			Not at all	A little	Some what	Much	Very Much	
Age group	<= 22	Count	7	21	29	61	95	213
		% within Age group	3.3%	9.9%	13.6%	28.6%	44.6%	100.0%
		% within WhatsApp	11.5%	23.6%	21.2%	21.9%	22.8%	21.7%
		% of Total	0.7%	2.1%	3.0%	6.2%	9.7%	21.7%
	23 - 31	Count	6	12	25	52	90	185
		% within Age group	3.2%	6.5%	13.5%	28.1%	48.6%	100.0%
		% within WhatsApp	9.8%	13.5%	18.2%	18.6%	21.6%	18.8%
		% of Total	0.6%	1.2%	2.5%	5.3%	9.2%	18.8%
	32 - 39	Count	22	16	35	57	92	222
		% within Age group	9.9%	7.2%	15.8%	25.7%	41.4%	100.0%
		% within WhatsApp	36.1%	18.0%	25.5%	20.4%	22.1%	22.6%
		% of Total	2.2%	1.6%	3.6%	5.8%	9.4%	22.6%
	40 - 45	Count	14	20	23	67	71	195
		% within Age group	7.2%	10.3%	11.8%	34.4%	36.4%	100.0%
		% within WhatsApp	23.0%	22.5%	16.8%	24.0%	17.1%	19.9%
		% of Total	1.4%	2.0%	2.3%	6.8%	7.2%	19.9%
	>=46	Count	12	20	25	42	68	167
		% within Age group	7.2%	12.0%	15.0%	25.1%	40.7%	100.0%
		% within WhatsApp	19.7%	22.5%	18.2%	15.1%	16.3%	17.0%
		% of Total	1.2%	2.0%	2.5%	4.3%	6.9%	17.0%
Total		Count	61	89	137	279	416	982

	% within Age group	6.2%	9.1%	14.0%	28.4%	42.4%	100.0%
	% within WhatsApp	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	6.2%	9.1%	14.0%	28.4%	42.4%	100.0%

Table 7b. <i>Chi-Square Tests</i>			
	Value	<i>df</i>	Asymptotic Significance (2-sided)
Pearson Chi-Square	23.961 ^a	16	.090
Likelihood Ratio	24.312	16	.083
Linear-by-Linear Association	6.590	1	.010
No. of Valid Cases	982		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.37.			

6. Discussion

The present study examined age-related differences in the use of traditional and digital media for obtaining climate change information among rural women in Tamil Nadu. The findings revealed that television remained the most preferred source of climate-related information across all age groups, demonstrating its continuing importance as an accessible and trusted communication channel in rural communities. This finding is consistent with previous studies, which identified television as an effective medium for disseminating environmental information because of its extensive reach, credibility, and ability to present complex issues in a simple manner (Moser, 2016; Schäfer & Painter, 2021).

The study further demonstrated that age significantly influenced the use of traditional media, including television, newspapers, magazines, and radio. These findings suggest that preferences for conventional media continue to vary across generations, reflecting differences in media consumption behaviour and information-seeking practices. Similar age-related variations in traditional media use have been reported by Newman et al. (2024), who observed that demographic characteristics continue to influence preferences for conventional communication channels.

In contrast, search engines and WhatsApp showed no significant variation across age groups, indicating that digital communication platforms are increasingly used irrespective of age. The widespread availability of smartphones, improved internet connectivity, and expanding digital literacy contributed to the growing acceptance of these platforms among rural women. Similar findings have been reported by Auxier and Anderson (2021) and Radwan and Ayyad (2024), who noted that digital communication technologies are increasingly bridging generational differences in access to information and facilitating broader public engagement with environmental issues.

The findings demonstrate that traditional and digital media perform complementary roles in climate communication. While traditional media continue to provide broad outreach and public credibility, digital platforms offer rapid access to information, interactive communication, and continuous information exchange. Similar conclusions have been reported by Moser (2016) and Schäfer and Painter (2021), who emphasised that integrating conventional and digital communication channels enhances climate awareness and public engagement. The outcome of the findings suggest that integrated climate communication strategies combining traditional media with digital platforms are likely to improve information dissemination, strengthen climate awareness, and support informed environmental decision-making among rural women.

7. Conclusion

The study compared age-based preferences for traditional and digital media among rural women in Tamil Nadu

for obtaining climate change information. The findings indicate that television remained the most preferred source of climate-related information, while age significantly influenced the use of traditional media, including television, newspapers, magazines, and radio. In contrast, search engines and WhatsApp showed no significant age-related differences, indicating that digital platforms have become widely accepted sources of climate information among rural women across generations. An important contribution of this study is the finding that digital platforms, particularly search engines and WhatsApp, are now widely used by rural women across all age groups, suggesting that digital communication has evolved into an inclusive channel for disseminating climate information. Therefore, climate communication programmes should combine traditional and digital media to improve climate awareness, increase access to climate information, and support informed decision-making among rural communities

8. Study Limitations

The study was confined to selected districts of Tamil Nadu and focused exclusively on rural women; therefore, the findings may not be generalisable to urban populations or rural communities in other regions. In addition, the cross-sectional design captures media preferences at a single point in time and does not permit causal inferences. Future research may adopt longitudinal designs, include additional digital communication platforms, and examine diverse population groups to provide a broader understanding of media use in climate change communication.

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10. Conflict of Interest

The authors declare no conflicts of interest.

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