Examining the Relationship Between Health Literacy and the Primary Source of Information for Healthcare Services Among Rural Residents

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Abstract

Rural residents face significantly lower access to, and utilization of, healthcare services compared to their urban counterparts. To inform the development of effective interventions aimed at reducing urban-rural health disparities through improved health communication we conducted a survey study from June to September 2023. This study examined the primary sources of healthcare information used by rural residents and explored the relationship between health literacy and the primary source of healthcare information. The sample included 464 residents from Tillman and Harmon counties in Oklahoma. These two counties are marked by persistent rural health disparities, including low education levels, high poverty rates, and limited access to healthcare services. Key sources of healthcare information identified included social media, the internet, email, and community newsletters. Results indicated that higher health literacy was associated with greater use of the internet and community newsletters for healthcare information. Additionally, sociodemographic factors played a significant role in healthcare information-seeking behaviors. For instance, Hispanic/Latino participants were more likely than White participants to use mobile platforms and text-based communication. Participants with higher education levels and incomes were more likely to rely on social media and the internet, while those with lower income levels tended to rely more on traditional sources like television. These findings underscore the need for tailored health communication strategies that account for varying levels of health literacy and cultural preferences in rural populations. This study highlights the importance of integrating both modern and traditional information sources to enhance healthcare access and informed decision-making in underserved rural communities.

Key Words: Rural Health Disparities, Healthcare Information, Health Information-Seeking Behavior, Health Literacy, Rural Communities

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Introduction

Rural communities across the United States face persistent and well-documented disparities in health outcomes, access to care, and availability of resources (USDA, 2024). These disparities are driven by a complex interplay of geographic, socioeconomic, and structural barriers that disproportionately affect the 46 million Americans living in rural areas (USDA, 2024). For example, nearly 20% of the U.S. population resides in rural areas; however, only 11.4% of physicians practice in these regions, contributing to significant healthcare shortages (Mareck, 2011). To better understand and address these challenges it is critical to study rural regions that exemplify multiple indicators of disadvantages.

Tillman and Harmon counties in Oklahoma represent such communities. According to the 2015 County Typology Codes created by the United States Department of Agriculture (USDA) Economic Research Services, these counties meet all five key indicators of rural disadvantage: low education, low employment, persistent poverty, persistent child poverty, and population loss (USDA Economic Research Service, 2015). Their unique profiles make them important focal points for examining the underlying factors contributing to rural health disparities. With 100% rural populations, these two counties are also characterized by limited healthcare infrastructure, high uninsured rates, and elevated vulnerability to social and structural risks that impact health access and decision-making. For instance, the uninsured rates are 22.2% in Harmon and 12.9% in Tillman, compared to the national rate of 8.6% (US Census Bureau, 2023). Additionally, both counties report high scores on the Social Vulnerability Index (Harmon: 0.76, Tillman: 0.91, national average: 0.58), indicating greater susceptibility to challenges such as limited transportation, housing instability, and reduced access to public health resources (CDC, 2022). Similarly, based on the Area Deprivation Index (ADI), both counties are classified among the "Most Disadvantaged" counties nationally, with large portions of their populations in the lowest socioeconomic quartile (University of Wisconsin School of Medicine and Public Health, 2022). These social determinants of health are especially relevant to this study, which seeks to understand how rural residents access and engage with healthcare information in contexts where formal health services may be scarce, and alternative communication strategies are essential.

Health literacy, defined as "the degree to which individuals have the ability to find, understand, and use information and services to inform health-related decisions and actions for themselves and others", plays a crucial role in influencing health behavior and medical decision-making (Santana et al., 2021). A person's ability to access and use information about healthcare services directly impacts their healthcare utilization (Alma Taya & Chuang, 2025; Chen et al., 2023). Previous research has shown that individuals with lower health literacy are less likely to receive preventive care services (Chen et al., 2023). However, few studies have focused on understanding how health literacy intersects with the sources from which rural populations obtain information about healthcare services. This gap in the literature highlights the need to examine how health literacy influences the primary sources of healthcare information in underserved rural communities, particularly in counties like Tillman and Harmon.

Therefore, the purpose of this study is to (1) identify the primary sources of healthcare information used by rural residents in Tillman and Harmon counties of Oklahoma, and (2) evaluate the relationship between health literacy and the primary source of healthcare information among this population. By doing these, we aim to inform health communication strategies that improve healthcare access and decision-making in these rural communities.

Methods

Procedures and Participants

We conducted survey data collection from June to September 2023. To be eligible for this study, participants had to (1) be residents in Tillman and Harmon counties of Oklahoma, (2) be 18 years or older, and (3) physically located in the United States at the time when filling out the survey. One graduate student was selected as a Rural Scholar for this project to conduct data

collection, spending 10 weeks living in Tillman County and travelling to Harmon County, to engage in community service and build trust with local residents. The Rural Scholar Program at Oklahoma State University trains upper-level undergraduates and graduate students to lead community-engaged research in rural areas during the summer. Rural Scholars live within the community and work closely with community leaders to carry out research projects while also provide assistance, support, and solutions for community issues. Prior to placement, students receive training in community-based research methods and gather background information about their assigned community.

Our Rural Scholar employed a purposive snowball sampling strategy by distributing both hard copy and digital recruitment flyers to organizations and colleagues serving these rural counties, including County Health Departments, Oklahoma State University County Extension Offices, Chambers of Commerce, Federally Qualified Health Centers, as well as local hospitals and clinics. These organizations further disseminated the recruitment information within their facilities and through their social media pages. The recruitment flyer contains anonymous QR code and a direct link to our Qualtrics survey. Potential participants with limited internet access had the option to contact the research team requesting a physical copy of the survey in the mail with a pre-paid return envelope. Considering that Spanish is the most commonly spoken language after English and is spoken at home by 12.4% of Tillman residents and 16.25% of Harmon residents (US Census Bureau, 2023), participants could choose to complete the survey in either English or Spanish.

The participants who completed the survey and passed both survey validation items (one survey validation item asked participants to select "somewhat agree" and the other item asked participants to select "somewhat disagree") had the chance to opt-in to a drawing for a chance to win an Amazon gift card. The gift card prizes were one $100 gift card, two $50 gift cards, and forty $20 gift cards. We included a final sample size of 464 who completed our survey and passed both survey validation items in our data analysis. This study was approved by the Oklahoma State University Institutional Review Board.

Measures

Health Literacy

We utilized a health literacy measure developed by the Centers for Disease Control and Prevention (CDC) in the 2016 Behavioral Risk Factor Surveillance System (BRFSS) (*CDC - BRFSS - Questionnaires*, 2024). This measure consists of three self-reported survey questions: (1) evaluating individuals' ability to access information, "How difficult is it for you to get advice or information about health or medical topics if needed?"; (2) understanding spoken information, "How difficult is it for you to understand information that doctors, nurses, and other health professionals tell you?"; (3) understanding written information, "You can find written health information on the Internet, in newspapers and magazines, and in brochures at doctor's offices and clinics. How difficult is it for you to understand written health information?" Each question was answered using a 4-point Likert scale, with responses ranging from 1 = "very difficult" to 4 = "very easy." We calculated a total score, with possible values ranging from 3 to 12. A higher score indicated better health literacy as reported by the participant.

Primary Source of Healthcare Information

We asked our participants to identify the primary source of healthcare information, "What is your primary source of information

regarding the healthcare services available in the community" (check all that apply). We included 13 sources (e.g., social media, community newsletters, word of mouth, and public libraries) in the list and provided an "Other" option. We also asked those who check on the "Other" option to specify their primary source(s).

Sociodemographic Characteristics

Sociodemographic characteristics included age, biological sex, race/ethnicity (White, Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian or Pacific Islander, Hispanic or Latino, Biracial/multiracial, and Other), education attainment (below high school, high school or GED, some college, college graduate, and postgraduate), and annual household income ($20,000 and below, $20,001- $40,000, $40,001-$60,000, $60,001-$80,00, $80,001-$100,000, and over $100,000).

Data Analysis

To examine the relationship between health literacy (independent variable) and the primary source of information for healthcare services (outcome variables), we performed a set of bivariate logistic regressions (without covariates) as well as multiple logistics regressions (controlling for demographic characteristics). Demographic variables (i.e., age, biological sex, race/ethnicity, education, and annual household income) were included as covariates in the multiple logistic regression analysis due to their established association with health literacy in prior research (Institute of Medicine, 2004). We performed separate logistic regressions for each primary source of healthcare information. We used Stata 16 for data analysis, with a significance level set at $\alpha = 0.05$.

Results

Our final sample ($N = 464$) contained of 46.34% ($n = 215$) men and 51.94% women ($n = 242$), with a mean age of 34.01 (SD = 6.51) and the median age was 34. This median age was younger than the general population in Tillman (39.6 years) and Harmon (40.3 years) (US Census Bureau, 2023). Most of the participants were White (76.72%), and about 10% identified themselves as Black or African American. Many participants (43.74%) had an annual household income below $40,000. The racial distribution and the income levels of our sample were generally similar to the general population in these two counites (US Census Bureau, 2023). Table 1 shows the demographic characteristics of our participants.

As shown in Table 2, social media (52.37%), the internet (39.44%), and email (37.93%) were identified as the top primary sources of healthcare information. More than 20% of our participants also identified community newsletters, television, text messages, and bulletin boards/flyers as their primary source of healthcare information. About 10% to 20% of participants identified phone apps, newspaper, word of mouth, and radio as their primary sources. Public libraries (3.45%) and postcard (4.31%) were the least identified primary sources.

Our participants' health literacy scores ranged from 3 to 12 (M = 8.54, SD = 1.71). The distribution of health literacy scores was roughly symmetric, with a slight tendency toward higher scores, and it closely follows a normal distribution (Skewness = -0.07, Kurtosis = 2.96). The results of the simple logistic regression models indicated that those with higher health literacy had higher odds of identifying the internet (OR = 1.12, 95% CI: 1.01-1.26, $p = 0.040$) and community newsletter (OR = 1.14, 95% CI: 1.01-1.29, $p = 0.036$) as their primary sources of healthcare information. When holding age,

Table 1. Participants' demographic characteristics (n = 464).

Socio-Demographics	N or Mean	% or Range
Age	34.01 (SD = 6.51)	18–71
Gender		
Men	215	46.34
Women	242	51.94
Missing	8	1.72
Race/Ethnicity		
White	365	76.72
Black or African American	47	10.13
American Indian or Alaska Native	11	2.37
Asian	12	2.59
Native Hawaiian or Pacific Islander	8	1.72
Hispanic or Latino	19	4.09
Biracial/multiracial	4	0.86
Missing	7	1.51
Education		
Below high school	21	4.53
High school or GED	84	18.10
Some college	102	21.98
College graduate	139	29.96
Postgraduate	108	23.28
Missing	10	2.16
Annual Household Income		
$20,000 and below	60	12.93
$20,001 to $40,000	139	29.96
$40,001 to $60,000	63	13.58
$60,001 to $80,000	70	15.09
$80,001 to $100,000	51	10.99
Over $100,000	72	15.52
Missing	9	1.94

Table 2. The primary source for healthcare information

Source	N	%
Social media (e.g., Facebook, Instagram, Twitter, and Reddit)	243	52.37
Internet (e.g., Google searches, news, and websites)	183	39.44
Email	176	37.93
Community newsletters	124	26.72
Television	111	23.92
Text messages	106	22.84
Bulletin boards/flyers	93	20.04
Phone apps	89	19.18
Newspaper	72	15.52
Word of mouth (e.g., family, friends, neighbors, and doctors)	56	12.07
Radio	54	11.64
Postcard	20	4.31
Public libraries	16	3.45

biological sex, race/ethnicity, education, and annual household income constant, health literacy was not associated with the identification of any primary source of healthcare information.

Interestingly, we found that when holding health literacy, biological sex, race/ethnicity, education, and annual household income constant, compared to people with younger age, those who were older had higher odds of identifying the internet (OR = 1.04, 95% CI: 1.00-1.08, $p = 0.025$) and social media (OR = 1.04, 95% CI: 1.01-1.26, $p = 0.036$), but had lower odds of identifying email (OR = 0.95, 95% CI: 0.92-0.99, $p = 0.009$) as their primary source of healthcare information.

When holding health literacy, age, race/ethnicity, education, and annual household income constant, compared to women, men had higher odds of identifying the internet (OR = 2.72, 95% CI: 1.76-4.22, $p < 0.001$) and social media (OR = 2.45, 95% CI: 1.58-3.79, $p < 0.001$) as their primary sources of healthcare information.

When holding health literacy, age, biological sex, education, and annual household income constant, compared to non-Hispanic White, Hispanic or Latino had higher odds of identifying the internet (OR = 2.99, 95% CI: 1.02-8.76, $p = 0.046$), phone apps (OR = 9.47, 95% CI: 3.16-28.39, $p < 0.001$), and text messages (OR = 7.13, 95% CI: 2.47-20.64, $p < 0.001$), but had lower odds of identify social media (OR = 0.15, 95% CI: 0.05-0.50, $p = 0.002$) as their primary source of healthcare information. We also observed differences among other racial/ethnic groups. Asian participants had higher odds of identifying newspaper (OR = 4.09, 95% CI: 1.04-16.09, $p = 0.044$) as their primary source of healthcare information; American Indian or Alaska Native participants had higher odds of identifying radio (OR = 4.55, 95% CI: 1.16-17.83, $p = 0.030$) and word of mouth (OR = 7.24, 95% CI: 1.11-47.13, $p = 0.038$) as their primary

sources of healthcare information. While participants self-identified as Native Hawaiian or Pacific Islander participants had higher odds of identifying television (OR = 9.88, 95% CI: 1.78-54.74, $p = 0.009$) as their primary source of healthcare information, this finding should be interpreted with caution due to the small sample size (n = 8) in this subgroup, although having 5-9 subjects per category may still be acceptable and yield useful exploratory findings (Vittinghoff & McCulloch, 2007).

When holding health literacy, age, biological sex, race/ethnicity, and annual household income constant, compared to responders with education attainment below high school, those graduated from high school and above had higher odds of identifying social media (OR ranged from 5.95 to 10.58, all $p < 0.05$) as their primary source of healthcare information; those who had received some college education and above had lower odds of identifying newspaper (OR ranged from 0.24 to 0.28, all $p < 0.05$); those who graduated from college had higher odds of identifying the internet (OR = 5.89, 95% CI: 1.50-23.16, $p = 0.011$) but lower odds of identifying phone apps (OR = 0.16, 95% CI: 0.05-0.52, $p = 0.002$); those who received postgraduate degrees had lower odds of identifying community newsletters (OR = 0.19, 95% CI: 0.05-0.81, $p = 0.025$) as their primary source of healthcare information.

When holding health literacy, age, biological sex, race/ethnicity, and education constant, compared to those with annual household income $20,000 or less, those with income between $20,001 to $40,000 had lower odds of identifying television (OR = 0.45, 95% CI: 0.21-0.94, $p = 0.034$); those with income between $40,001 to $60,000 had higher odds of identifying email (OR = 2.63, 95% CI: 1.19-5.82, $p = 0.017$) but lower odds of identifying newspaper (OR = 0.36, 95% CI: 0.13-0.98, $p = 0.045$) as their primary source

of healthcare information; those with income between $80,000 to 100,000 had higher odds of identifying social media (OR = 2.78, 95% CI: 1.09-7.08, $p = 0.032$) and bulletin boards/flyers (OR = 3.96, 95% CI: 1.30-12.02, $p = 0.015$) as their primary sources of healthcare information; those with income over $100,000 had higher odds of identifying bulletin boards/flyers (OR = 3.74, 95% CI: 1.29-10.85, $p = 0.015$) but lower odds of identifying email (OR = 0.40, 95% CI: 0.16-0.98, $p = 0.046$), newspaper (OR = 0.23, 95% CI: 0.07-0.77, $p = 0.017$), and radio (OR = 0.20, 95% CI: 0.05-0.79, $p = 0.022$) as their primary sources of healthcare information. We also found that compared to those with annual household income $20,000 or less, those with income above $40,000 all had higher odds of identifying community newsletters (OR ranged from 3.22 to 11.67, all $p < 0.05$) and word of mouth (OR ranged from 36.64 to 110.34, all $p < 0.01$) as their primary sources of healthcare information.

Discussion

Rural residents in Tillman and Harmon counties of Oklahoma identified several sources, including social media, the internet, email, community newsletters, television, text messages, and bulletin boards/flyers, as primary sources of information about healthcare services available in their communities. This increasing reliance on digital platforms for health information aligns with broader trends observed in rural populations (Chirumamilla & Gulati, 2021). Studies have shown that rural residents are increasingly turning to the internet and social media for health information. For instance, between 2009 and 2011, approximately 70% of adults in rural Kansas used the internet, with a substantial population utilizing it for health-related purposes (Das et al., 2015). Additionally, a 2017 nationally representative survey study found that search engines, medical websites, and social media were among the most commonly used sources of health information among rural residents (Chen, Orom, et al., 2018).

These findings align with previous research (Sanders et al., 2023) and the preliminary results of our interview study, which indicate that rural healthcare facilities, including clinics, health departments, and Cooperative Extension, are increasingly turning to social media platforms such as Facebook to share healthcare information with rural residents. This strategy is aimed at improving access to care and promoting health awareness in underserved areas. Facebook, in particular, is a cost-effective and impactful platform for reaching rural populations for health campaigns (Flood-Grady et al., 2020). This helps explain the growing reliance on social media and the internet for healthcare information among rural residents.

While digital and online sources are gaining traction, traditional methods such as community newsletters, television, text messages, and bulletin boards/flyers continue to hold significant importance. This suggests that, in addition to embracing digital platforms, rural populations still rely on conventional methods to gather healthcare information. A previous study similarly found that primary care providers, family members, and nurses are among the most popular sources of health information for rural residents (Chen, Orom, et al., 2018). Therefore, rural populations likely adopt a mixed approach, utilizing both modern and traditional sources to obtain health-related information. This dual approach could be especially important for ensuring that health communication strategies effectively reach a wide audience in rural areas, catering to diverse preferences and varying levels of access to technology.

The findings of this study also provide important insights into the relationship

between health literacy and the primary source of healthcare information among rural residents. Our results indicate that individuals with higher health literacy are more likely to rely on the internet and community newsletters as their primary sources of healthcare information. Similarly, a previous study also found that people with higher health literacy had higher odds of using medical websites for health information (Chen, Hay, et al., 2018). These findings indicate that people with low health literacy, especially those living in rural areas, tend to have difficulty accessing and using the internet and community newsletters for healthcare information. This difficulty may be attributed to limited digital literacy, lack of access to technology, or challenges in understanding the information presented in these formats (Lee et al., 2021; Zanobini et al., 2024). As a result, individuals with lower health literacy may rely more on traditional sources such as word of mouth for information, which can limit their ability to access comprehensive, accurate, and timely health information. These barriers emphasize the need for tailored health communication strategies that account for varying levels of health literacy and access to digital resources, ensuring that all individuals, regardless of their health literacy, have the tools they need to make informed healthcare decisions.

Interestingly, after controlling sociodemographic factors, health literacy alone did not significantly influence which primary source of healthcare information a person identified as. These findings revealed nuanced variations in healthcare information source preferences based on different sociodemographic characteristics. For example, compared to non-Hispanic White participants, those who identified as Hispanic or Latino were more likely to rely on the internet, phone apps, and text messages for healthcare information, while their use of social media was lower. These results suggest that health communication strategies targeting Hispanic or Latino populations may benefit from focusing on mobile-friendly platforms and text-based communications, which could better meet their informational needs (Gonzalez et al., 2021; Perez Ramirez et al., 2025). Other racial/ethnic groups also showed distinct preferences. Asian participants preferred using newspapers, while American Indian or Alaska Native participants showed a preference for radio and word of mouth. Participants identifying as Native Hawaiian or Pacific Islander appeared more likely to identify television as their primary source of healthcare information; however, due to the small number of participants in this category (n = 8), this result should be interpreted with caution and warrants further investigation in larger samples. Overall, these findings underscore the importance of culturally and technologically tailored health communication strategies that align with the preferences of diverse rural populations.

We also found that older participants were more likely to identify social media and the internet as their primary sources of information for healthcare services available in their communities, whereas younger participants preferred email. This finding contrasts with a previous study that reported older individuals were less likely to seek general health information from the internet and social media (Rao et al., 2022). A possible explanation for this discrepancy is that the majority of our participants were 45 years old and younger (95.39%), with only two participants over the age of 65. As a result, the older participants in our sample may have been more digitally engaged than the older populations typically studied in previous research, where digital engagement among seniors might be lower.

Another finding that differed from previous studies indicating women are usually more likely to seek health

information online (Lee et al., 2021; Sanders et al., 2023) is that we found men were more likely to identify the internet and social media as their primary sources of healthcare information compared to women. First, the population in our study was predominantly younger, which may reflect a generational shift where younger men are more likely to engage with digital platforms for health information (Heath, 2024). Additionally, as the internet and social media have become increasingly prevalent and user-friendly, men may be adopting these platforms more readily for health-related information, especially given the increasing use of online resources for accessing specific healthcare services in rural areas. Another possible explanation is the growing trend of digital health campaigns targeted at male audiences (Duthie et al., 2024), which may be influencing men's engagement with online health information.

Another possible explanation is that the information-seeking behavior for general health information might differ from that for specific healthcare services available in rural communities. Rural residents may be more likely to use social media and the internet to seek out specific services and resources available in their local areas, as these platforms are often used to share localized health updates, clinic hours, and community health events. On the other hand, when seeking more general health information, people may rely more on traditional sources or personal connections, such as healthcare providers, family, and nurses (Chen, Hay, et al., 2018; Chen, Orom, et al., 2018). This distinction between general health information and specific healthcare service availability may explain the higher reliance on digital sources for service-specific information, particularly in rural settings.

Furthermore, we found that educational attainment and household income were also significant predictors of healthcare information sources. Participants with higher education levels and incomes were more likely to rely on social media and the internet, while those with lower income levels tended to rely more on traditional sources like television. These findings are consistent with previous studies (Khoong et al., 2019; Lee et al., 2021). This highlights the need for tailored health communication strategies that address the diverse informational needs and preferences across different socioeconomic groups.

Implications for Health Behavior Research

To enhance healthcare information access in rural communities, several strategies can be implemented. First, rural healthcare providers, including hospitals, clinics, and local health departments, could benefit from training on social media marketing to effectively engage residents and promote health campaigns (Rios & Mann, 2023). This would help bridge the gap between healthcare providers and rural residents, particularly as social media becomes an increasingly important tool for disseminating health information. Additionally, digital literacy programs should be developed for rural residents, helping them understand how to use the internet and social media to access healthcare information. Collaborating with local public libraries and Cooperative Extension services could be key to providing these resources and support (Philbin et al., 2019; Sanders et al., 2023). For example, these facilities can offer classes on using technologies to enhance basic computer skills, provide training for residents on how to find reliable online health information and identify credible websites, as well as create easy-to-understand guides and handouts that list local healthcare services and resources (Bloss et al., 2022).

Another valuable strategy is fostering intergenerational learning by encouraging young people to teach their grandparents how to use digital technologies for healthcare information (Rillera Marzo, 2024). This initiative could not only help older generations become more digitally literate but also strengthen family bonds and encourage shared health management. Furthermore, primary care providers and nurses should be actively involved in informing their patients about the healthcare services available in the community. Their trusted relationships with patients make them ideal conduits for ensuring that people have up-to-date information about health resources (Chen, Orom, et al., 2018). Lastly, promoting family-friendly events in local communities could help raise awareness about available healthcare services while also engaging residents in health-focused activities. These events can serve as informal, accessible opportunities to disseminate important healthcare information, ensuring that all community members, regardless of their preferred information source, are reached.

Limitations

First, the sample may be biased due to the use of an online survey, which likely excluded individuals with limited digital literacy and internet access. These individuals may also have lower health literacy, introducing a risk of sampling bias and limiting the generalizability of our findings. Although we offered the option to request a hard copy of the survey by mail with a pre-paid return envelope, no participants chose to use this method. Similarly, while the survey was available in both English and Spanish, all participants completed it in English. This may be partly due to the lack of study flyers in Spanish, which could have limited outreach and

discouraged participation among Spanish-speaking residents, thereby introducing sampling bias. In contrast, our qualitative interviews with older rural residents in the community revealed that word of mouth was a primary channel for receiving and exchanging healthcare information, highlighting the digital divide in these communities. As a result, our sample may overrepresent younger, more digitally connected, and English-speaking individuals, while underrepresenting those facing the greatest linguistic and technological barriers to accessing health information. This sampling bias may lead to an underestimation of health literacy challenges in the broader rural population. The findings should therefore be interpreted with caution. Future research should consider alternative or mixed-method recruitment strategies, including in-person, phone-based or mailed surveys, and multilingual outreach to ensure more inclusive and representative sampling. Additionally, while our analyses identified associations between variables, it is important to emphasize that correlation does not imply causation. Although sampling bias was present, the demographic composition of our sample broadly reflected that of the two counties, where the majority of residents are White, followed by Hispanic/Latino and Black or African American (US Census Bureau, 2023).

Conclusions

This study provides valuable insights into the healthcare information-seeking behaviors of rural residents. Our findings suggest that digital platforms, such as the internet and social media, are increasingly relied upon for healthcare information. However, traditional sources, such as community newsletters, television, text messages, and bulletin boards/flyers, remain important. These insights can inform targeted health

communication strategies to improve access to healthcare information, ensuring that both digital and traditional methods are utilized to reach diverse populations in rural areas in order to increase their healthcare services utilization.

Discussion Questions

How can health communication strategies be adapted to effectively address the varying information needs and preferences of different demographic groups in rural communities, particularly in balancing digital and traditional media sources?

How can digital literacy interventions be integrated into rural health programs to ensure equitable access to healthcare information, particularly among individuals with lower health literacy or limited access to technology?

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