

The Digital Medic: Assessing the Role of Social Media in Empowering Individuals with Health Knowledge and Choices

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Abstract

Purpose: The rapid expansion of social media platforms has significantly transformed communication patterns and information access. This study examines the role of social media in sharing health-related content among Indian users, evaluating its trust, influence, and impact. **Methodology:** A questionnaire survey was conducted among 100 people using SPSS v24, G-power, and literature reviews. Statistical methods assessed reliability, trust, influencing behaviour, and impact perspectives. A model was developed using SPSS 21 AMOS software. **Findings:** This study examines the transformative potential of social media platforms like YouTube and Instagram for health-oriented information dissemination. It found a significant association between gender and the use of social media for medical information, with independent variables including reliability and Trust, Influence and Behaviour Impact and perspective, and positive impact. The value of ANOVA in the regression model was 0.00, indicating a better fit for the regression model. **Practical Implication:** The effectiveness of tools in decision-making is crucial for organisations like fitness clubs, gyms, and yoga centres to boost publicity, increase consumer base, and achieve higher revenues, while general people can find trustworthy healthcare information platforms.

Keywords: Empowerment, Health-Information, Influence, Social Media, Trust

1. Introduction

Social media significantly increases medical knowledge availability, but unregulated Internet platforms can spread invalidated or unproven information, potentially leading to undesirable consequences. Public awareness is crucial, and platforms should play a greater role in regulation and fact-checking information. (Samy *et al.*, 2020). The study examines the use of social media and search engines for health information by Saudi patients and their companions. It aims to systematically review these uses and their impact on the population. The study also examines the adherence to healthcare information on social media, its publicity, and users' health consciousness. (Qiong & Verboord, 2020)

1.1 Literature Review

The evolving role of social media in disseminating health information has become a subject of increasing interest. The accessibility and convenience of platforms have introduced both positive and negative implications for individuals seeking health knowledge and making informed choices, prompting a comprehensive exploration of these dynamics through a literature review.

The surge in medical knowledge availability on social media platforms has provided users with unprecedented access to health-related information. However, the absence of regulation and quality control mechanisms has led to the proliferation of unverified and potentially harmful health content. This unregulated environment highlights the necessity of public awareness and underscores the

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potential for platforms to take a more proactive role in fact-checking and validating information (Samy *et al.*, 2020).

Studies investigating user behaviour and preferences in health information seeking on social media platforms have unveiled valuable insights. From a cross-sectional study in Riyadh, Saudi Arabia, emerged the revelation that platforms like WhatsApp, YouTube, and Facebook have become significant sources of health-related information. Nevertheless, concerns persist about the reliability of such information (Marar *et al.*, 2019). Another study reinforced the connection between educational level, gender, and online health information-seeking behaviour, emphasizing the need for credible health sources in the online realm (AlMuammar *et al.*, 2021)

The evolving landscape of social media platforms, including major players like Facebook, has ushered in a dichotomy in their impact on public health. While they offer avenues for raising health awareness and facilitating professional development, the challenge lies in the potential spread of misinformation, which can impact both doctor-patient relationships and overall health outcomes (Kanchan & Gaidhane, 2023). Research has also examined the utility of social media for health promotion, showcasing various applications ranging from research to social mobilization. Despite the potential benefits, gaps in understanding audience segmentation, intervention impact, health identity development, and privacy concerns underscore the need for further examination (Chen & Wang, 2021).

Within the domain of provider-patient relationships, social media's influence has been explored, revealing varied patient behaviours, including emotional support-seeking and information sharing. These behaviours have implications for patient self-management, psychological well-being, privacy concerns, and interactions with healthcare professionals (Smailhodzic *et al.*, 2016).

Miscommunication and the spread of misinformation emerge as crucial challenges in health-related social media interactions. Studies focusing on diseases and vaccines have illuminated factors contributing to misinformation, highlighting the role of conspiracy theories, emotions, and cognitive skills. The role of peers and social connections in misinformation propagation emphasises the need for targeted interventions (Wang *et al.*, 2019).

Additionally, the potential of social media for advocacy and policy change has been acknowledged. Organizations and advocates can harness platforms to provide real-time

support, share success stories, and gauge public sentiment for informed policy decisions (Rajshri & Jessica, 2023).

Trust in health information disseminated through social media has also been investigated, revealing how factors like education level, platform type, and engagement influence the perceived credibility of online health information (Chen & Wang, 2021).

The landscape of consumer information seeking on social media, especially in the context of health and diseases, has been thoroughly explored in recent research. A total of 21 studies conducted from 2011 to 2016 (Qin *et al.*, 2020) have revealed that while individuals seek valuable social support on these platforms, concerns regarding the quality and authority of the information available can impede their engagement. Furthermore, specific research focusing on psoriasis patients found that 72% of these individuals turn to Facebook for disease-related information, with higher-rated hospitals reporting increased Facebook usage (Howell *et al.*, n.d.). However, the efficacy of social media in disseminating health information is a subject of debate, as it may not be as reliable as traditional health communication (Saxena, 2020).

A comprehensive review of 57 papers highlighted miscommunication in various health contexts, including vaccine-related misinformation (Wang *et al.*, 2019). Additionally, research indicates that while there are no racial or ethnic disparities in social media health communication (Huo *et al.*, 2019), there has been a shift in the type of information shared, with an increase in the exchange of medical information. Parents are also increasingly relying on social media for health information, influencing clinical practices and prompting adjustments by paediatric healthcare providers (Frey *et al.*, 2021).

A study in China explored trust in health and fitness information, revealing demographic factors that affect credibility (Gong & Verboord, n.d.). These findings collectively underscore the multifaceted nature of health information seeking on social media, emphasizing the role of social support, concerns about information quality, and the impact of demographics and platform preferences on information credibility and dissemination.

1.2 The purpose of this study is to conduct a systematic review

- a) To evaluate the social media used by Indian users and their companions to find health information, and to explain their trust, influence, and impact.

b) To create a model with the help of that information.

1.3 Hypotheses

- a) H0= There is no association between using social media to obtain medical information and gender.
- b) H0= There is no significant impact between reliability and trust, influence and behaviour, and impact and perspective for the overall experience as a source of health information.

1.4 Results

Table 1. Demographic information of respondents

| Demographic Factors | Description | Frequency | % |
|---------------------|-------------------|------------|--------------|
| Gender | Male | 53 | 53.0 |
| | Female | 47 | 47.0 |
| | Total | 100 | 100.0 |
| Age | 18 and Below | 6 | 6.0 |
| | 19-26 | 80 | 80.0 |
| | 27-34 | 12 | 12.0 |
| | 35-42 | 1 | 1.0 |
| | 43 and more | 1 | 1.0 |
| | Total | 100 | 100.0 |
| Marital Status | Married | 8 | 8.0 |
| | Unmarried | 92 | 92.0 |
| | Total | 100 | 100.0 |
| Occupation | Salaried | 22 | 22.0 |
| | Businessman | 9 | 9.0 |
| | Professional | 4 | 4.0 |
| | Others (Students) | 65 | 65.0 |
| | Total | 100 | 100.0 |

The demographic information of the respondents reveals that the survey included an equal distribution of gender, with 53% being male and 47% female out of a total of 100 respondents. In terms of age, the majority (80%) falls within the “19-26” age group, with smaller proportions in other age categories. Marital status shows that 8% of the respondents are married, while the vast majority (92%) are unmarried. Occupation-wise, 22% are classified as “Salaried,” 9% as “Businessmen,” 4% as “Professionals,” and a significant 65% fall under the category of “Others (Students).”

2. Discussion Based on the Test

From this data, it is evident that both males and females have used social media to obtain medical information. However, the numbers suggest that a higher proportion of females (46 out of 47) have utilized social media for this purpose compared to males (42 out of 53). Based on the result of the Pearson Chi-Square test, the p-value is 0.004, which is less than the typical significance level of 0.05. Therefore, the test indicates that there is a statistically significant association between the variables “use of social media to obtain medical information” and “gender.”

In the ANOVA analysis of health-related questions related to social media, it was found that questions “Social media is a convenient and accessible source for gathering health information” and “I have changed my health-related behaviours based on advice I received from social media” had a significant impact on health-related decisions and behaviours, with lower p-values. In contrast, the remaining

Table 2. Used social media to obtain medical information

| Information | Frequency | % | |
|---|--------------|------------|--------------|
| Have you ever used social media to obtain medical information? | Yes | 87 | 87.0 |
| | No | 13 | 13.0 |
| | Total | 100 | 100.0 |

The provided data reveals that a majority of the respondents have used social media as a means to access medical information indicating a prevalent trend where social media serves as a significant source of medical information.

Table 3. Which social media platforms are used for health information?

| Social Media | Frequency | % | |
|--|--------------|------------|--------------|
| Which social media platforms are used for health information? | YouTube | 67 | 67.0 |
| | Instagram | 26 | 26.0 |
| | Twitter | 3 | 3.0 |
| | Facebook | 4 | 4.0 |
| | Total | 100 | 100.0 |

The above data shows social media platforms favoured by respondents for accessing health information. YouTube emerges as the most popular choice, with 67% of respondents utilizing it, followed by Instagram at 26%. Twitter and Facebook, while used to a lesser extent, still play a role, with 3% and 4% of respondents, respectively. This data indicates that Twitter and Facebook are less accessed by the respondents for accessing health information.

questions exhibited less significant differences between groups. In summary, social media has a strong influence on some aspects of health decisions and behaviours than others. As per the results of the ANOVA test, it was indicated that there is a significant difference. Some responses:

Table 4. Which type of health-related information have you sought on social media?

| Health-related information | Frequency | % |
|-----------------------------------|------------|--------------|
| General wellness tips | 33 | 33.0 |
| Nutrition and diet advice | 6 | 6.0 |
| Exercise and fitness routines | 37 | 37.0 |
| Mental health information | 10 | 10.0 |
| Medical conditions and treatments | 8 | 8.0 |
| Medication information | 6 | 6.0 |
| Total | 100 | 100.0 |

The study reveals that 33% of respondents sought health-related information on social media, with “general wellness tips” being the most popular. The other categories included “nutrition and diet advice,” “exercise and fitness routines,” “mental health information,” “medical conditions and treatments,” and “medicine information.” The majority of respondents sought information related to mental health, medical conditions, and treatments. The study shows that other health-related information is sought by a smaller proportion of the population.

“Social media is a convenient and accessible source for gathering health information. I have changed my health-related behaviours based on advice I received from social media”.

“I believe that social media has a positive impact on my overall health and well-being concerning marital status”, which means married people are more health-conscious than unmarried people. The researchers attempted to identify the regression between many independent variables, such as social media as a supplementary tool, confidence in searching for information, convenience in searching for information, positive impact on social media, and getting the information as a dependent variable. The results suggest that 40% of the variability is explained by the various independent variables mentioned above. The study suggests a coefficient of determination of 0.486, explaining the better fit of the regression model.

3. Assessment and Preparation of Model

Average Variance Extracted (AVE), individual indicator reliability, and Composite Reliability (CR) are evaluated as components of an outer model (convergent validity measurement).

Table 5. Reliability and trust, influence and behaviour, and impact and perspective

| S. No | Main Variable | Variable | SA(5) | A(4) | N(3) | D(2) | SD(1) | WAM |
|-------|-------------------------|---|-------|------|------|------|-------|------|
| 1 | Reliability and Trust | I feel confident in making health-related decisions based on information I obtain from social media. | 19 | 41 | 34 | 4 | 0 | 3.69 |
| 2 | | The health information I find on social media is generally accurate and reliable. | 6 | 53 | 36 | 5 | 0 | 3.6 |
| 3 | Influence and Behaviour | Social media is a convenient and accessible source for gathering health information. | 20 | 48 | 24 | 8 | 0 | 3.8 |
| 4 | | I have changed my health-related behaviour based on advice I received from social media. | 16 | 38 | 27 | 16 | 3 | 3.45 |
| 5 | Impact and Perspective | I believe that social media has a positive impact on my overall health and well-being. | 17 | 34 | 37 | 9 | 3 | 3.50 |
| 6 | | I believe that social media should only be used as a supplementary source of health information, not a primary one. | 26 | 35 | 29 | 10 | 0 | 3.77 |

The study evaluates the reliability, trustworthiness, accuracy, influence, and perspective of health-related information obtained from social media. It assesses respondents’ confidence in making health-related decisions based on social media information. The study also explores the influence of social media on health-related behaviours and the convenience of using social media for health information. The study also examines the perceived impact of social media on overall health and well-being, with higher WAM values indicating more positive perceptions and lower values indicating more negative or disagreement.

Table 6. Your overall experience with social media as a source of health information

| Experience Respondents | Frequency | % | |
|------------------------|--------------|------------|--------------|
| Experience | Positive | 88 | 88.0 |
| | Negative | 4 | 4.0 |
| | No Effect | 8 | 8.0 |
| | Total | 100 | 100.0 |

The majority (88%) reported a positive experience, while 4% had a negative experience. 8% reported no noticeable effect. The results show that social media has a positive impact on health information access.

Based on the results a model has been built by the researchers showing the positive impact of social media on health information seeking.

As per the above result, a significant association was found between gender and the use of social media for medical information, with independent variables including reliability and Trust, Influence and Behaviour Impact and perspective, and positive impact. The value of ANOVA in the regression model was 0.00, indicating a better fit for the regression model. The majority (88%) reported a positive experience, while 4% had a negative

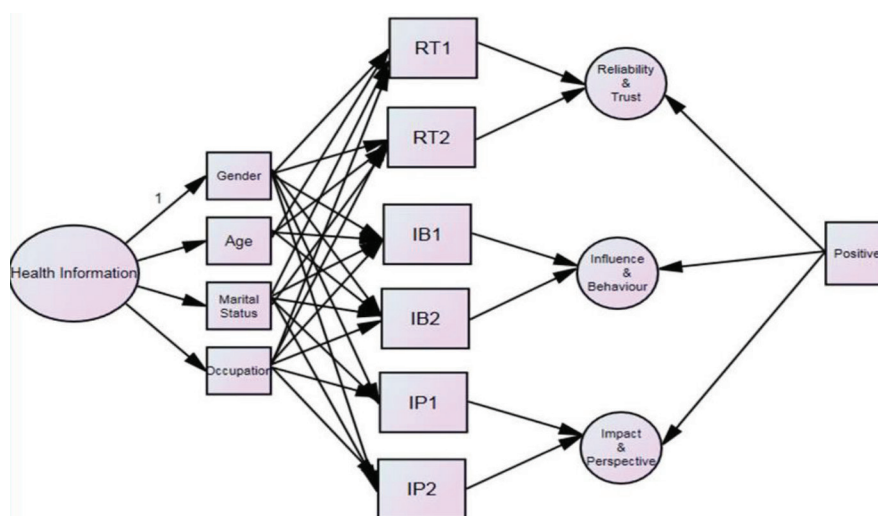


Figure 1. Model summary.

experience. 8% reported no noticeable effect. The results show that social media has a positive impact on health information seeking and access.

4. Conclusion

YouTube is the most popular platform for accessing health information, with 67% of respondents using it. Instagram follows at 26%, with Twitter and Facebook being less used. 33% of respondents sought health-related information on social media, with general wellness tips being the most popular. The study evaluates the reliability, trustworthiness, accuracy, influence, and perspective of health-related information obtained from social media, as well as respondents' confidence in making health-related decisions based on it. The study also explores the influence of social media on health-related behaviours and the convenience of using social media for health information.

Both males and females have used social media to obtain medical information, with a higher proportion of females using it. Various organisations, such as fitness clubs, gyms, and yoga centres, can decide which tool is most effective in increasing their customer base and revenue. General people can also retrieve various healthcare-related information from available websites and find the most trustworthy platform for the same.

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