PESHUM : Jurnal Pendidikan, Sosial dan Humaniora
Vol.5, No.6, Oktober 2026

The Influence of Digital Health Education Content on Social Media Marketing Effectiveness

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Article History:
Received: 20 Juli 2026
Revised: 29 September 2026
Accepted: 04 Oktober 2026

Keywords: *Digital health literacy, hospital marketing, social media, health education, public relations*

Abstract: *In the digital era, hospitals are required not only to provide quality healthcare services but also to establish effective digital communication with the community. Social media has become an important marketing and educational platform for healthcare institutions. This study aims to analyze the influence of digital health education content created by hospital public relations on the effectiveness of social media as a marketing tool, with digital health literacy as a moderating variable. This research employed a quantitative cross-sectional design conducted at RSUD Ir. Soekarno Sukoharjo. Data were collected through an online questionnaire distributed to Instagram followers who had interacted with the hospital's educational content. The study used purposive sampling with a minimum of 100 respondents. Data analysis was conducted using Moderated Regression Analysis (MRA) with SPSS 29 and SmartPLS 4.0. The findings indicate that digital health education content significantly influences social media effectiveness in terms of engagement, brand awareness, reputation, and patient visit intention. Furthermore, digital health literacy strengthens the relationship between educational content and social media effectiveness. Respondents with higher levels of digital health literacy demonstrated stronger engagement and greater trust toward hospital information shared through social media. This study highlights the importance of integrating educational communication and literacy-based segmentation into hospital public relations strategies to improve marketing performance and public trust.*

INTRODUCTION

Hospitals are currently expected not only to provide high-quality healthcare services but also to establish effective communication with the community. The development of digital technology

has transformed communication patterns, particularly through social media platforms that facilitate rapid and interactive information dissemination. Social media is increasingly utilized by healthcare institutions as a communication channel to educate the public, strengthen institutional branding, and build long-term engagement with patients.

In Indonesia, the use of Instagram, Facebook, TikTok, and YouTube by hospitals has significantly increased over recent years. Hospital public relations divisions have adopted digital communication strategies to deliver health education content regarding disease prevention, healthy lifestyles, medical services, and hospital facilities. Educational content is considered more effective in attracting public attention because it provides practical value while simultaneously strengthening hospital credibility.

RSUD Ir. Soekarno Sukoharjo has actively implemented digital communication strategies through its social media platforms. Since early 2024, the hospital's public relations team has intensified the publication of digital health education content, including information on diseases, preventive healthcare, specialist services, and medical innovations. This strategy has been accompanied by increasing public engagement and outpatient visits, indicating that social media educational content contributes to hospital marketing effectiveness.

Previous studies have demonstrated that educational content on social media enhances public trust and engagement more effectively than purely promotional content. However, research examining the relationship between digital health education content and social media effectiveness in hospital marketing remains limited, particularly in the Indonesian healthcare context. In addition, audience capability in understanding digital health information, known as digital health literacy, may influence the effectiveness of social media communication.

Digital health literacy refers to an individual's ability to search, understand, evaluate, and apply online health information. Individuals with higher levels of digital health literacy are more likely to comprehend educational messages, trust credible healthcare information, and make informed healthcare decisions. Therefore, digital health literacy may strengthen the influence of educational content on social media effectiveness.

Based on these conditions, this study aims to analyze the influence of digital health education content by hospital public relations on the effectiveness of social media as a marketing tool and examine the moderating role of digital health literacy. This study contributes theoretically to the development of digital health communication and practically to hospital public relations strategies in Indonesia.

RESEARCH METHODS

This study employed a quantitative research method using a cross-sectional design. The research was conducted at RSUD Ir. Soekarno Sukoharjo, focusing on followers of the hospital's official Instagram account who had interacted with digital health education content.

The population consisted of social media users following the hospital's Instagram account. Purposive sampling was used with inclusion criteria: respondents aged 17 years or above and individuals who had viewed or interacted with educational content within the previous six months. The minimum sample size was determined based on Hair et al.'s recommendation for multivariate analysis, resulting in at least 100 respondents.

Data collection was conducted using an online questionnaire distributed through Google Forms. The questionnaire used a five-point Likert scale ranging from strongly disagree to strongly agree. Instrument items were adapted from previous validated studies related to social media effectiveness, digital health literacy, and health communication.

The independent variable in this study was digital health education content, measured through

indicators including content quality, consistency, relevance, credibility, and interactivity. The dependent variable was social media effectiveness, measured through engagement, brand awareness, hospital reputation, and patient visit intention. The moderating variable was digital health literacy measured using the eHealth Literacy Scale (eHEALS).

Validity testing was conducted using Pearson correlation, while reliability testing used Cronbach's Alpha with a minimum acceptable value of 0.70. Data analysis involved descriptive statistics, multiple regression analysis, and Moderated Regression Analysis (MRA) using SPSS version 29 and SmartPLS 4.0.

RESULT AND DISCUSSION

The results indicate that digital health education content significantly influences the effectiveness of social media as a hospital marketing tool. Respondents perceived educational content that was informative, visually attractive, relevant, and easy to understand as more engaging and trustworthy. Educational posts related to disease prevention, specialist doctor information, healthy lifestyles, and hospital services generated higher interaction rates through likes, comments, shares, and direct messages.

The findings also demonstrate that social media effectiveness is reflected in improved hospital image, stronger public awareness, and increased intention to utilize healthcare services. Respondents stated that educational content made them more familiar with hospital services and increased their trust toward the hospital.

Table 1. Moderation Analysis Results

Hypothesis	Relationship	Path Coefficient (β)	t-value	p-value	Decision
H1	Digital Health Education Content → Social Media Marketing Effectiveness	0.482	5.671	<0.001	Supported
H2	Digital Health Literacy → Social Media Marketing Effectiveness	0.318	4.285	<0.001	Supported
H3	Digital Health Education Content × Digital Health Literacy → Social Media Marketing Effectiveness	0.236	3.154	0.002	Supported (Moderating Effect)

Source: Research Data, 2026

The moderation analysis revealed that digital health literacy significantly strengthens the relationship between digital health education content and social media effectiveness. Respondents with higher digital health literacy showed better understanding of health information and stronger trust in hospital educational messages. These respondents were also more likely to engage actively with content and demonstrate greater intention to seek healthcare services at the hospital.

These findings are consistent with previous studies suggesting that educational communication increases audience engagement and institutional credibility more effectively than direct promotional strategies. The results also support the theory that digital literacy influences how audiences process and respond to online health information.

From a practical perspective, hospitals should develop educational content strategies tailored to audience characteristics and literacy levels. Public relations divisions should prioritize evidence-based information, simple language, attractive visual presentation, and interactive communication to maximize engagement. Hospitals also need to improve consistency in digital communication to maintain public trust and strengthen institutional branding.

CONCLUSION

This study concludes that digital health education content created by hospital public relations significantly influences the effectiveness of social media as a marketing tool. Educational content contributes positively to public engagement, hospital reputation, brand awareness, and patient visit intention. In addition, digital health literacy strengthens the relationship between educational content and social media effectiveness. Individuals with higher levels of digital health literacy are more capable of understanding and utilizing health information shared through social media. Hospitals are encouraged to integrate literacy-based communication strategies into public relations activities to optimize digital marketing performance and public trust. Future studies are recommended to involve multiple hospitals and use longitudinal designs to improve generalizability and examine long-term impacts of digital health communication.

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