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The Impact of Social Marketing on Health Literacy and Empowerment of Outpatients at the Banda Aceh City Clinic

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Abstract

This study aims to analyze the impact of social marketing on health literacy and empowerment of outpatients at Bunda Thamrin Clinic, Banda Aceh. A quantitative approach with an explanatory research design was used to test the causal relationship between social marketing, health literacy, and patient empowerment. The study sample consisted of 390 respondents selected using systematic random sampling. Data analysis was performed using Partial Least Square–Structural Equation Modeling (PLS-SEM). The results showed that audience segmentation, behavior change, and continuous monitoring and evaluation had a positive and significant influence on health literacy, each with a p-value <0.05 . In contrast, audience focus, competition, and value exchange theory did not have a significant effect ($p>0.05$). Health literacy was shown to have a very significant effect on patient empowerment with a coefficient of 0.608 ($p=0.000$), indicating that the higher a person's health literacy, the greater their level of independence and participation in health management. The R-squared values of 0.50 for health literacy and 0.37 for patient empowerment indicate that the model has moderate to weak predictive power. These findings confirm that implementing appropriate social marketing strategies can improve health literacy, which in turn strengthens patient empowerment. Therefore, healthcare institutions need to optimize monitoring, ongoing evaluation, and audience segmentation to strengthen the effectiveness of social marketing-based health interventions.

Keywords: Continuous Evaluation, Health Literacy, Patient Empowerment, Social Marketing

Introduction

The transformation of the modern healthcare system has ushered in a new paradigm that positions patients not

merely as passive recipients of services but as active partners in the healthcare process. This shift marks a fundamental shift in how healthcare institutions view

the individual's role in maintaining and managing their own health. This change is driven not only by advances in information technology but also by growing public awareness of patient rights and the need for more transparent, efficient, and quality-oriented services (Widjaja, 2023).

In Indonesia, this transformation aligns with the national healthcare system reform agenda, which emphasizes promotive and preventive approaches and community participation in health development. Since the implementation of the National Health Insurance (JKN) program in 2014, the healthcare system has begun to orientate itself toward patient satisfaction and individual empowerment as part of the healthcare decision-making process. This shift is reinforced by the enactment of Law Number 17 of 2023 concerning Health, which emphasizes the importance of the community's role in sustainable health development (Nadia et al., 2023; Widjaja, 2023).

In this context, social marketing is a strategic approach capable of bridging the gap between community-focused healthcare services and patient empowerment efforts. Unlike conventional marketing, which focuses on economic profit, social marketing aims to create positive social change by increasing awareness and promoting healthy lifestyles. This approach integrates communication theory, health psychology, and behavior change to develop interventions relevant to community needs (Maliangkay et al., 2023).

Through the application of social marketing, healthcare institutions can develop programs that are not only educational but also participatory. These programs help patients understand their health conditions, manage disease risks, and actively participate in the treatment process. Thus, social marketing serves as a catalyst for improving health literacy and encouraging patient independence in medical decision-making (Mehmet et al., 2020).

According to Rundle-Thiele et al. (2021), social marketing is the application of commercial marketing principles to influence voluntary public behavior with the goal of improving individual and social well-being. The main principles of social marketing include consumer orientation, audience segmentation, exchange theory, competition, and behavior change. In the context of healthcare, these principles are used to understand patient needs and motivations, design relevant

communication messages, and overcome barriers to health behavior change through effective communication strategies and the use of the marketing mix (product, price, place, promotion) (Liao, 2020). This approach emphasizes the importance of audience research, message adjustment, and the selection of appropriate communication channels to ensure health interventions are accepted and voluntarily adopted by the public (Shams, 2018).

Social marketing strategies in the healthcare sector typically include a series of structured activities such as public education, public health campaigns, and the use of various communication media. The materials developed are designed to be easily understood and tailored to the target demographic, including age, education level, and cultural background. Furthermore, social marketing plays a role in building social support systems through patient groups that allow for the sharing of experiences and strengthen collective motivation for healthy living (Chin & Mansori, 2018).

In the digital era, the application of social marketing has evolved, leveraging information technology and social media. Digital platforms such as Instagram, Facebook, and YouTube are now used to disseminate health messages, expand educational reach, and create two-way interactions between health workers and the public. This approach has proven more effective in increasing public health awareness than conventional methods such as face-to-face outreach or print media (Pongtambing et al., 2024).

The effectiveness of social marketing in improving health literacy and patient empowerment still depends on the extent to which the messages delivered are understood and implemented by the target audience. Programs without ongoing monitoring and evaluation often fail to significantly change behavior. Therefore, the success of social marketing is determined by the organizer's ability to design an evidence-based strategy that considers social, cultural, and psychological aspects (Rajah et al., 2019).

Bunda Thamrin Clinic in Banda Aceh is an example of a healthcare institution that applies social marketing principles in its promotional and educational activities. Data on patient visits in 2024 showed a total of 44,667 patients, with approximately 29% being outpatients. This number demonstrates the high public demand for quality and educational outpatient healthcare services.

Bunda Thamrin Clinic in Banda Aceh also actively conducts health education campaigns through various media channels, including social media and radio broadcasts. Collaborating with Radio Republik Indonesia Banda Aceh on a health dialogue program is one effective form of social marketing implementation, as it not only disseminates information but also encourages community participation in improving health literacy. Such initiatives strengthen the clinic's role as a community-based health learning center.

Despite patient empowerment efforts, challenges remain, including gaps in understanding, limited access to information, and low levels of adherence to treatment plans. This indicates that improvements in health literacy have not been fully realized, preventing patients from optimally participating in their own health management. Consequently, the effectiveness of outpatient services is less than optimal and the risk of irregular treatment increases (Pekonen et al., 2020). This study aims to analyze the impact of social marketing on health literacy and outpatient empowerment.

Materials and Method

This study uses a quantitative approach with explanatory research, aiming to analyze the causal relationship between social marketing variables and health literacy and outpatient empowerment. This approach was chosen because it can explain the direct and indirect influences between variables systematically and measurably. Through this design, researchers can test hypotheses based on empirical data to obtain valid and objective conclusions. The study was conducted at the Bunda Thamrin Clinic in Banda Aceh, one of the main health facilities in Banda Aceh City with a high number of patient visits, thus considered a representative for studying the health behavior of urban communities. The data collection process is planned to take place during July 2025, to ensure sufficient time for observation, primary data collection, and validation of research results.

The population in this study was all outpatients at the Bunda Thamrin Clinic in Banda Aceh, which totaled 15,115 people in 2024. The sample size was determined using the Slovin formula with a margin of error of 5%, resulting in a sample size of 390 respondents. The sample selection used a systematic random sampling technique so that each patient had an equal chance of being selected proportionally based on the order of arrival or

administrative records. The inclusion criteria in this study included patients at least 17 years old, being an outpatient, being able to communicate well, and being willing to be a respondent. Meanwhile, exclusion criteria included patients in critical condition, patients with mental disorders, and those unable to communicate effectively. This approach was taken to ensure that the sample obtained truly represented the outpatient population with physical and mental conditions that allowed for active participation in the study.

The variables studied consisted of independent and dependent variables. The independent variables encompassed six key dimensions of the social marketing concept: customer orientation (audience focus), audience segmentation, exchange theory, competition, behavior change, and continuous monitoring and evaluation. The dependent variables consisted of health literacy and patient empowerment. Each variable was measured using a 1–5 Likert-scale questionnaire, in which respondents were asked to rate their level of agreement with a number of statements reflecting the variable's indicators. In addition to the primary variables, demographic characteristics such as age, gender, and education level were also collected to strengthen the descriptive analysis. Primary data were obtained through questionnaires and structured interviews with patients, while secondary data were collected from clinical reports, annual statistical data, and supporting literature. Prior to analysis, the data underwent editing, coding, entry, tabulation, and display to prepare it for statistical analysis.

Data analysis was conducted using the Partial Least Squares-based Structural Equation Modeling (PLS-SEM) method using SmartPLS software version 4.0. This method was chosen because it has the ability to test complex models and can measure the relationship between latent variables and their indicators simultaneously. PLS-SEM analysis consists of two main components, namely the outer model and the inner model. The outer model is used to test the validity and reliability of the instrument, including convergent validity, discriminant validity, and composite reliability. Meanwhile, the inner model aims to assess the strength and direction of the relationship between latent variables based on the path coefficient value and its significance value (p-value). The outer model testing was conducted first to ensure the quality of the instrument

used before proceeding to the inner model testing. With this analysis, the results of the study are expected to be able to empirically describe how social marketing strategies can influence the improvement of health

literacy and empowerment of outpatients at the Bunda Thamrin Clinic in Banda Aceh.

Results

Table 1. Respondent characteristics

Characteristics	f	%
Age (Years)		
≥ 15 - 25	138	35,4
≥ 26 - 45	227	58,2
≥ 46 – 59	25	6,4
Gender		
Man	111	28,5
Woman	279	71,5
Education		
Elementary School	0	0
Middle School	3	8
High School	101	25,9
University	286	73,3

The majority of respondents were aged 26–45 (58.2%), female (71.5%), and had a college education (73.3%). A small proportion were aged 46–59 (6.4%) and had a junior high school education (8%). These findings indicate that respondents were predominantly from the productive age group with a high level of education, who have the potential to have a good understanding and involvement in social marketing and health empowerment activities (Table 1).

Table 2. Outer loading results of convergent validity test stage 1

Statement	Variables	Loading Factor	Information
X.1.1	Focus On Audience	0.685	Invalid
X.1.2		0.696	Invalid
X.1.3		0.697	Invalid
X.1.4		0.708	Valid
X.1.5		0.738	Valid
X.1.6		0.743	Valid
X.1.7		0.737	Valid
X.2.1	Audience Segmentation	0.671	Invalid
X.2.2		0.697	Invalid
X.2.3		0.713	Valid

X.2.4		0.731	Valid
X.2.5		0.744	Valid
X.2.6		0.721	Valid
X.2.7		0.693	Invalid
X.3.1	Exchange Theory of Values	0.692	Invalid
X.3.2		0.733	Valid
X.3.3		0.773	Valid
X.3.4		0.688	Invalid
X.3.5		0.757	Valid
X.3.6		0.636	Invalid
X.3.7		0.686	Invalid
X.4.1	Competition	0.754	Valid
X.4.2		0.808	Valid
X.4.3		0.784	Valid
X.4.4		0.768	Valid
X.4.5		0.765	Valid
X.4.6		0.771	Valid
X.4.7		0.745	Valid
X.5.1	Behavioral Change	0.681	Invalid
X.5.2		0.710	Valid
X.5.3		0.744	Valid
X.5.4		0.715	Valid
X.5.5		0.713	Valid
X.5.6		0.754	Valid
X.5.7		0.771	Valid
X.6.1	Continuous Monitoring and Evaluation	0.730	Valid
X.6.2		0.727	Valid
X.6.3		0.679	Invalid
X.6.4		0.767	Valid
X.6.5		0.729	Valid
X.6.6		0.673	Invalid
X.6.7		0.694	Invalid d
Y.1	Health Literacy	0.670	Invalid
Y.2		0.724	Valid
Y.3		0.712	Valid
Y.4		0.649	Invalid

Y.5		0.730	Valid
Y.6		0.559	Invalid
Y.7		0.797	Valid
Z.1	Patient Empowerment	0.634	Invalid
Z.2		0.729	Valid
Z.3		0.750	Valid
Z.4		0.721	Valid
Z.5		0.745	Valid
Z.6		0.676	Invalid
Z.7		0.788	Valid

All indicators in the variables Audience Focus, Audience Segmentation, Value Exchange Theory, Behavior Change, Continuous Monitoring and Evaluation, Health Literacy, and Patient Empowerment had loading factor values below 0.70. This value indicates that several statements do not meet convergent validity criteria. Therefore, indicators with values below 0.70 need to be removed and retested to ensure the measurement model meets feasibility standards (Table 2).

Table 3. Outer loading results of convergent validity test stage 2

Statement	Variables	Loading Factor	Information
X.1.4	Focus On Audience	0.708	Valid
X.1.5		0.738	Valid
X.1.6		0.743	Valid
X.1.7		0.737	Valid
X.2.3	Audience Segmentation	0.760	Valid
X.2.4		0.817	Valid
X.2.5		0.795	Valid
X.2.6		0.711	Valid
X.3.2	Exchange Theory of Values	0.800	Valid
X.3.3		0.803	Valid
X.3.5		0.836	Valid
X.4.1	Competition	0.757	Valid
X.4.2		0.810	Valid
X.4.3		0.785	Valid
X.4.4		0.767	Valid
X.4.5		0.762	Valid
X.4.6		0.767	Valid
X.4.7		0.745	Valid

X.5.2	Behavioral Change	0.710	Valid
X.5.3		0.743	Valid
X.5.4		0.742	Valid
X.5.5		0.746	Valid
X.5.6		0.776	Valid
X.5.7		0.788	Valid
X.6.1	Continuous Monitoring and Evaluation	0.773	Valid
X.6.2		0.784	Valid
X.6.4		0.794	Valid
X.6.5		0.753	Valid
Y.2	Health Literacy	0.744	Valid
Y.3		0.756	Valid
Y.5		0.782	Valid
Y.7		0.832	Valid
Z.2	Patient Empowerment	0.721	Valid
Z.3		0.769	Valid
Z.4		0.764	Valid
Z.5		0.785	Valid
Z.7		0.802	Valid

The loading factor values from this second stage of testing showed that all variable statements had loading factor values >0.70, thus all were considered valid. This indicates that the indicators used successfully measured the correlation between the indicator scores and their constructs, thus supporting the validation of the measurement model construct (Table 3).

Table 4. Results of Average Variance Extracted (AVE)

Variables	Average Variance Extracted (AVE)	Information
Audience Focus	0.611	Valid
Audience Segmentation	0.594	Valid
Value Exchange Theory	0.607	Valid
Competition	0.602	Valid
Behavior Change	0.591	Valid
Ongoing Monitoring and Evaluation	0.577	Valid
Health Literacy	0.596	Valid
Patient Empowerment	0.662	Valid

Table 5. Cross loading value of discriminant validity test

Variabel	Cross Loading	Keterangan
Audience Focus	X.1.4 : 0.708	Valid
	X.1.5 : 0.738	Valid
	X.1.6 : 0.743	Valid
	X.1.7 : 0.737	Valid
Audience Segmentation	X.2.3 : 0.760	Valid
	X.2.4 : 0.817	Valid
	X.2.5 : 0.795	Valid
	X.2.6 : 0.711	Valid
Value Exchange Theory	X.3.2 : 0.800	Valid
	X.3.3 : 0.803	Valid
	X.3.5 : 0.836	Valid
Competition	X.4.1 : 0.757	Valid
	X.4.2 : 0.810	Valid
	X.4.3 : 0.785	Valid
	X.4.4 : 0.767	Valid
	X.4.5 : 0.762	Valid
	X.4.6 : 0.767	Valid
	X.4.7 : 0.745	Valid
Behavior Change	X.5.2 : 0.710	Valid
	X.5.3 : 0.743	Valid
	X.5.4 : 0.742	Valid
	X.5.5 : 0.746	Valid
	X.5.6 : 0.776	Valid
	X.5.7 : 0.788	Valid
Ongoing Monitoring and Evaluation	X.6.1 : 0.773	Valid
	X.6.2 : 0.784	Valid
	X.6.4 : 0.794	Valid
	X.6.5 : 0.753	Valid
Health Literacy	Y.2 : 0.744	Valid
	Y.3 : 0.756	Valid
	Y.5 : 0.782	Valid
	Y.7 : 0.832	Valid
Patient Empowerment	Z.2 : 0.721	Valid
	Z.3 : 0.769	Valid

	Z.4 : 0.764	Valid
	Z.5 : 0.785	Valid
	Z.7 : 0.802	Valid

The cross-loading values for all variables show a correlation between the indicator (instrument) and its construct (variable) > the indicator (instrument) in the other construct (variable). Based on the table above, it can be concluded that all indicators in the variables have good discriminant validity values and can be said to be valid (Table 5).

Table 6. Results of the model fit test

Parameter	Rule of Thumb	Parameter Results	Information
SRMR	< 0,10	0.074	Fit
d_ULS	> 0,05	3.657	Fit
d_g	> 0,05	0.904	Fit
Chi – Square	X2 Statistics ≥ X2 Table	1964.294 ≥ 67,505	Fit
NFI	Approaching Value 1	0,735	Fit

The model fit test results indicate that this research model is feasible and can be used to accurately analyze the relationship between latent variables. The SRMR value of 0.074 is smaller than the 0.10 limit, indicating a good fit between the observational data and the model. The d-ULS value of 3.657 and d-G of 0.904, both greater than 0.05, indicate that there are no significant deviations and the model has a good global fit. The Chi-Square value of 1964.294, which exceeds the table value of 67.505, confirms that the model structure fits the sample data, while the NFI value of 0.735 indicates a fairly good level of fit, although not optimal. Overall, these results prove that the model used has adequate goodness of fit and can describe the relationship between variables with good reliability (Table 6).

Table 7. R-Square test results

Variables	R-Square
Health Literacy	0.500
Patient Empowerment	0.370

The R-Square value for the health literacy variable is 0.50, which means that the variables focus on audience, audience segmentation, value exchange theory, competition, behavior change, and continuous monitoring and evaluation contribute 50% to improving health literacy, while the remaining 50% is influenced by other factors. The R-Square value for the patient empowerment variable is 0.37, indicating that health literacy influences patient empowerment by 37%, while 63% is influenced by other factors. These findings indicate that the relationship between variables in the model is included in the moderate category for health literacy and weak for patient empowerment (Table 7).

Table 8. Hypothesis test values

Path Coefficient	Original Sample	Sample mean	Standard deviation	T statistic	P Value
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Focus on audience → Health literacy	0.091	0.091	0.059	1.539	0.124
Competition → Health literacy	0.027	0.031	0.065	0.412	0.680
Health literacy → Patient empowerment	0.608	0.611	0.038	16.136	0.000
Continuous monitoring and evaluation → Health literacy	0.430	0.427	0.066	6.499	0.000
Behavior change → Health literacy	0.138	0.138	0.069	1.984	0.047
Audience segmentation → Health literacy	0.155	0.156	0.061	2.539	0.011
Value exchange theory → Health literacy	-0.005	-0.005	0.061	0.090	0.929

The results showed that not all social marketing variables significantly influenced health literacy and patient empowerment. Audience focus, competition, and value exchange theory variables did not show a significant relationship ($p > 0.05$). Conversely, audience segmentation, behavior change, and ongoing monitoring and evaluation significantly and positively influenced health literacy, indicating that the better the implementation of these three aspects, the higher the level of patient health literacy. Furthermore, health literacy was also shown to have a very significant effect on patient empowerment (coefficient = 0.608; $p < 0.05$), confirming that improving health literacy plays a crucial role in strengthening patient empowerment in healthcare (Table 8).

Discussion

The results of this study indicate that audience segmentation has a significant relationship with health literacy, with a coefficient value of 0.155, a t-statistic of 2.539 (>1.96), and a p-value of 0.011 (<0.05). This finding confirms that the better the audience segmentation in social marketing, the higher the level of public health literacy. Audience segmentation is a crucial strategy in public health interventions because it allows messages to be tailored to the needs and characteristics of the target group (Fitzpatrick, 2023). In this context, segmentation helps differentiate community groups based on age, education, attitudes, or health behaviors, thus making communication strategies more effective. The opinion of Loganathan & Kreuter (2014) also supports this finding that a “one-size-fits-all” approach is ineffective in delivering health messages. Conversely, audiences with low literacy require simpler and more accessible messages, while audiences with high literacy can be provided with more complex information.

The results of this study align with Evans et al. (2019) idea of digital segmentation, which utilizes digital behavioral data, such as social media interactions, to strengthen the

effectiveness of health campaigns. This approach helps reach priority audiences in a more personalized and relevant manner, increasing public engagement and understanding of health messages. Thus, audience segmentation is not only about dividing target groups, but also about understanding their digital behavior and information preferences. A coefficient of 0.155 indicates a moderate but significant relationship, confirming that a targeted segmentation strategy can significantly improve public health literacy.

This study found that behavioral change was significantly associated with health literacy, with a coefficient value of 0.138, a t-statistic of 1.984 (>1.96), and a p-value of 0.047 (<0.05). This indicates that the greater the implementation of social marketing strategies focused on behavior change, the higher the level of individual health literacy. As explained by Bhattad & Pacifico (2022), behavior change in the health context is a gradual process involving awareness, motivation, and adoption of new actions that support a healthy lifestyle. This approach requires a deep understanding of the stages of individual behavior to ensure relevant and effective interventions.

Sørensen et al. (2021) added that health literacy is a person's ability to obtain, understand, and utilize health information effectively. Therefore, behavior change efforts carried out through simple and contextual communication will be more successful in improving health literacy. The Centers for Disease Control and Prevention (Calanan et al., 2023) also emphasizes the importance of plain language in health communication, namely simple language that is easily understood by all segments of society. With this approach, social marketing can bridge the literacy gap and encourage sustainable healthy behaviors.

Although the coefficient value of the behavior change variable on health literacy is relatively small, the results are still statistically significant. This indicates that communication efforts that prioritize audience understanding, empathy, and message appropriateness have a significant impact on improving health literacy. In other words, when audiences are able to understand health messages effectively, the desired behavior changes are more easily achieved.

The next important variable is ongoing monitoring and evaluation, which has the strongest relationship with health literacy (coefficient = 0.430; t-statistic = 6.499; p-value = 0.000). These findings indicate that ongoing monitoring and evaluation is a key determinant of the effectiveness of social marketing in the health sector. As explained by Banbury et al. (2020), monitoring and evaluation enable health organizations to understand the effectiveness of their interventions and adapt strategies to remain relevant to community needs.

Macnamara (2025) also emphasized that in the context of social marketing, monitoring is not simply a final step, but rather an active process that provides feedback loops from the audience to assess the effectiveness of the message. Through ongoing evaluation, program organizers can identify communication barriers and refine campaign strategies to be more adaptive. A study by Truong et al. (2021) even showed that social marketing programs with robust evaluation systems have been shown to generate positive behavioral changes and increased health literacy in the long term.

The findings of this study reinforce the argument that ongoing monitoring and evaluation are not merely administrative tools but also strategic elements that ensure programs remain contextual and have a real impact. The highest coefficient value for this variable

confirms that the success of improving health literacy depends heavily on the ability of health institutions to continuously learn from implementation outcomes and adapt their interventions. Thus, a feedback-based approach is key to ensuring that health messages are understood, accepted, and internalized by the community.

This study found that health literacy significantly impacted patient empowerment, with a coefficient of 0.608, a t-statistic of 16.136 (>1.96), and a p-value of 0.000 (<0.05). This confirms that improving health literacy directly strengthens patients' ability to actively participate in medical decision-making and manage their own health. According to WHO (2021), health literacy encompasses cognitive and social skills that enable individuals to understand health information and apply it in their daily lives.

Zulfikar (2025) also explained that high health literacy fosters a sense of control and autonomy in patients' medical decisions, while low literacy can lead to misperceptions and risky decision-making. Consistent with this view, Nutbeam & Lloyd (2021) emphasized that health literacy plays a key role in transforming patients from passive recipients to active partners in the healthcare system. Therefore, the findings of this study empirically support the theory that health literacy is a key foundation for patient empowerment.

The results of this study also show that the variables of audience focus, competition, and value exchange theory were not significantly related to health literacy ($p > 0.05$). This may be due to differences in social and cultural contexts that influence how social marketing messages are received by the public. Nevertheless, these results provide insight that an effective social marketing strategy is determined not only by message design but also by a contextual understanding of the audience and ongoing evaluation mechanisms.

This research model explains that social marketing significantly influences health literacy and patient empowerment. Key variables such as audience segmentation, behavioral change, and ongoing monitoring and evaluation have a positive influence on health literacy, which in turn increases patient empowerment. This model demonstrates that strategically implemented social marketing can be an effective tool for strengthening patients' ability to manage their health independently.

The results of this study confirm that health literacy acts as a mediating variable linking social marketing strategies with patient empowerment. With a coefficient value of $\beta = 0.608$ ($p = 0.000$), health literacy is proven to be a dominant factor strengthening the effect of social marketing on patient empowerment. Patients with high health literacy have better abilities in understanding medical information, communicating with healthcare professionals, and making decisions appropriate to their condition.

Conclusion

Social marketing has been shown to significantly improve health literacy and patient empowerment, particularly through audience segmentation strategies, behavioral change, and ongoing monitoring and evaluation. Health literacy acts as a mediating factor, strengthening the relationship between social marketing and patient empowerment, making improving patients' understanding and ability to manage health information key to achieving participatory and sustainable healthcare.

References

1. Banbury, A., Nancarrow, S., Dart, J., Gray, L., Dodson, S., Osborne, R., & Parkinson, L. (2020). Adding Value to Remote Monitoring: Co-Design of a Health Literacy Intervention for Older People with Chronic Disease Delivered by Telehealth - The Telehealth Literacy Project. *Patient Education and Counseling*, 103(3), 597–606.
<https://doi.org/10.1016/j.pec.2019.10.005>
2. Bhattad, P. B., & Pacifico, L. (2022). Empowering Patients: Promoting Patient Education and Health Literacy. *Cureus*.
<https://doi.org/10.7759/cureus.27336>
3. Calanan, R. M., Bonds, M. E., Bedrosian, S. R., Laird, S. K., Satter, D., & Penman-Aguilar, A. (2023). CDC's Guiding Principles to Promote an Equity-Centered Approach to Public Health Communication. *Preventing Chronic Disease*, 20, 230061.
<https://doi.org/10.5888/pcd20.230061>
4. Chin, J. H., & Mansori, S. (2018). Social marketing and public health: A literature review. *Journal of Marketing Management and Consumer Behavior*, 2(2), 48–66.
5. Evans, W. D., Thomas, C. N., Favatas, D., Smyser, J., & Briggs, J. (2019). Digital Segmentation of Priority Populations in Public Health. *Health Education & Behavior*, 46(2_suppl), 81S–89S.
<https://doi.org/10.1177/1090198119871246>
6. Fitzpatrick, P. J. (2023). Improving Health Literacy Using the Power of Digital Communications to achieve better health outcomes for patients and practitioners. *Frontiers in Digital Health*, 5.
<https://doi.org/10.3389/fdgth.2023.1264780>
7. Liao, C.-H. (2020). Evaluating the Social Marketing Success Criteria in Health Promotion: A F-DEMATEL Approach. *International Journal of Environmental Research and Public Health*, 17(17), 6317.
<https://doi.org/10.3390/ijerph17176317>
8. Loganathan, S., & Kreuter, M. (2014). Audience Segmentation: Identifying Key Stakeholders for Mental Health Literacy Interventions in India. *Journal of Public Mental Health*, 13(3), 159–170.
<https://doi.org/10.1108/JPMH-03-2013-0012>
9. Macnamara, J. (2025). Evaluation of Communication Activities at the World Health Organization: A Learning Case Study for Scholarship and Practice. *International Journal of Strategic Communication*, 19(4), 555–577.
<https://doi.org/10.1080/1553118X.2025.2469580>
10. Maliangkay, K. S., Rahma, U., Putri, S., & Istanti, N. D. (2023). Analysis of the Role of Health Promotion in Supporting the Success of Non-Communicable Disease Prevention Programs in Indonesia. *Jurnal Medika Nusantara*, 1(2), 108–122.
<https://doi.org/10.59680/medika.v1i2.284>
11. Mehmet, M., Roberts, R., & Nayeem, T. (2020). Using Digital and Social Media for Health Promotion: A Social Marketing Approach for Addressing Co-Morbid Physical and Mental Health. *Australian Journal of Rural Health*, 28(2), 149–158.
<https://doi.org/10.1111/ajr.12589>
12. Nadia, N., Hadiwardjo, Y. H., & Nugrohowati, N. (2023). Implementation of the National Health Insurance Program for the Implementation of Promotive and Preventive Services. *Jurnal Ilmu Kesehatan Masyarakat*, 12(05), 388–401.
<https://doi.org/10.33221/jikm.v12i05.2267>
13. Nutbeam, D., & Lloyd, J. E. (2021). Understanding and Responding to Health Literacy as a Social Determinant of Health. *Annual Review of Public Health*, 42(1), 159–173.
<https://doi.org/10.1146/annurev-publhealth-090419-102529>
14. Pekonen, A., Eloranta, S., Stolt, M., Virolainen, P., &

- Leino-Kilpi, H. (2020). Measuring Patient Empowerment – A Systematic Review. *Patient Education and Counseling*, 103(4), 777–787.
<https://doi.org/10.1016/j.pec.2019.10.019>
15. Pongtambing, Y. S., Sampetoding, E. A. M., Uksi, R., & Manapa, E. S. (2024). Digitalization and Health Literacy in Smart Villages. *Compromise Journal : Community Professional Service Journal*, 2(1), 11–18.
<https://doi.org/10.57213/compromisejournal.v2i1.157>
16. Rajah, R., Hassali, M. A. A., & Murugiah, M. K. (2019). A Systematic Review of the Prevalence of Limited Health Literacy in Southeast Asian Countries. *Public Health*, 167, 8–15.
<https://doi.org/10.1016/j.puhe.2018.09.028>
17. Rundle-Thiele, S., Dietrich, T., & Carins, J. (2021). CBE: A Framework to Guide the Application of Marketing to Behavior Change. *Social Marketing Quarterly*, 27(3), 175–194.
<https://doi.org/10.1177/15245004211021643>
18. Shams, M. (2018). Social Marketing for Health: Theoretical and Conceptual Considerations. In *Selected Issues in Global Health Communications*. InTech. <https://doi.org/10.5772/intechopen.76509>
19. Sørensen, K., Levin-Zamir, D., Duong, T. V., Okan, O., Brasil, V. V., & Nutbeam, D. (2021). Building Health Literacy System Capacity: a Framework for Health Literate Systems. *Health Promotion International*, 36(Supplement_1), i13–i23.
<https://doi.org/10.1093/heapro/daab153>
20. Truong, V. D., Dong, X. D., Saunders, S. G., Pham, Q., Nguyen, H., & Tran, N. A. (2021). Measuring, Evaluating, and Documenting Social Marketing Impact. *Journal of Social Marketing*, 11(3), 259–277.
<https://doi.org/10.1108/JSOCM-11-2020-0224>
21. WHO. (2021). *Health Promotion Glossary of Terms 2021*. World Health Organization.
<https://www.who.int/publications/i/item/9789240038349>
22. Widjaja, G. (2023). Health services for patients according to Law No. 17 of 2023 concerning health. *Innovative: Journal Of Social Science Research*, 3(6), 2490–2498.
23. Zulfikar, S. (2025). Smart Health Promotion: The Era of Globalization and Digital Transformation. *AMU Press*, 1–243.