

ONLINE PROMOTION STRATEGY - A MEANS OF INCREASING PATIENT SATISFACTION IN CARDIOLOGY SERVICES

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ABSTRACT

Our study analyzed various aspects of patients' experiences related to the cardiological services offered by our clinic, focusing on patient satisfaction, the use of online platforms, and their feedback. The objective of this study is to provide evidence that cardiological patients who frequently use online platforms exhibit a higher level of satisfaction compared to those who do not use these platforms. The research explores the strategic impact of online promotion on the overall patient experience in cardiology services.

Materials and methods: In this study, 310 patients who visited a cardiology clinic were randomly selected. The research methodology included a quantitative study, with data collected through a questionnaire containing 43 questions. Statistical analysis was performed using IBM SPSS Statistics 25 and Microsoft Office Excel/Word 2021.

Results: The results largely confirm the proposed hypotheses. Frequent use of online platforms for information and appointments, online communication with medical staff, and online reviews positively correlate with a higher level of satisfaction among cardiology patients. These results highlight the need to continue and improve the online presence of cardiology clinics to better meet patients' needs and enhance their experience with the provided medical services.

Conclusions: According to the study results, frequent use of online platforms for information and appointments is associated with a higher level of patient satisfaction. Direct interactions on digital platforms contribute to a closer relationship between doctors and patients. The high satisfaction with this type of communication suggests that digital technologies can strengthen patient trust and loyalty.

Keywords: online promotion, patient satisfaction, cardiology

Introduction

These study aims to investigate the impact of frequent use of online platforms for information and appointments on the satisfaction of cardiology patients. The central hypothesis is that patients who regularly use these digital resources will report a higher level of satisfaction compared to those who do not have access to these technological tools.

The primary goal of online marketing is to increase brand visibility, attract potential customers, and stimulate sales. This strategy involves using various web channels such as

email, social media, display advertising, and search engine optimization to convey messages about a company's products or services to the target audience (1). The brands promote continuous communication with current or potential customers, facilitating the sending of complaints or suggestions via email regarding the offered products or services, aiming to increase market share and meet consumer requirements (2). Online platforms, websites, social networks, etc., assist a large number of healthcare service consumers (3). Consumers search the web for information about symptoms and conditions, can communicate in real-time with health experts,

learn how to manage medications, and complete online health assessment questionnaires (4, 5).

With the expansion of internet and mobile phone access, consumers seeking health information online have become more confident in making health-related decisions (6), leading to a shift in the traditional control exercised by medical professionals (7, 8). Debates have focused on the quality of online health information, user perception, and factors influencing the credibility of an online health information site, including visual design (9), and user trust and information sources (10, 11).

Consumers often seek confirmation of medical recommendations on web portals, with many reporting having accessed an online platform at least once to verify medical advice received. Some respondents stated that online health information was sufficient to avoid consulting doctors, although a small percentage mentioned experiencing discomfort or adverse effects as a result of using these sources (12). Two common reasons for using online health information are the discomfort caused by long waiting times at health centers and the need to confirm the accuracy of medical recommendations (13, 14). The behavior of online cardiology service consumers is influenced by several factors, and understanding these is essential for medical institutions in developing an effective marketing and communication strategy.

Patient satisfaction research serves as an accreditation tool for medical organizations, allowing patients to make informed choices based on service quality. Continuous improvement of the patient experience in healthcare is supported by feedback received through discharge surveys (15). Questionnaires are a common method of evaluating patient experience, although they often focus on hospitalized patients (16, 17). Conversely, social networks are accessible to both inpatients and outpatients. Currently, users can rate hospitals and doctors on various social networks and websites, thus influencing hospital reputations (18). Numerous studies have used social media to evaluate hospitals post-discharge (19).

Cardiologic patients tend to be older than in other medical specialties, and many adults over 50 use social networks, with Facebook and

YouTube being the most popular platforms for this age group (20). In the field of cardiology services, online marketing plays a crucial role in attracting patients and raising awareness about heart problems and available services.

Materials and methods

The research methodology consists of an observational cross-sectional study, in which the study population was represented by a sample of 310 subjects, randomly selected, who presented for cardiology consultation. This research is quantitative and was conducted over a period of approximately 12 months.

The questionnaire was designed to include 43 questions and served as the primary tool for gathering the necessary information for analysis and evaluation. We used a structured questionnaire with accessible, predominantly closed questions with standardized response options. The questionnaire was designed in the form of multiple-choice questions, including scales from “Not at all...” to “Very...”, or “YES / NO” type, where patients select the appropriate options. A univariate analysis of the data was performed, applying statistical-mathematical methods to extract information from the collected data set.

Statistical analysis was performed using IBM SPSS Statistics 25 and Microsoft Office Excel/Word 2021. Quantitative variables were tested for distribution using the Shapiro-Wilk test and were expressed as means with standard deviations or medians with interpercentile ranges. Qualitative variables were expressed in absolute terms or as a percentage. Differences between independent qualitative variables were tested using Fisher’s Exact tests. Z tests with Bonferroni correction were used to detail the results obtained in the contingency tables.

Results

The initial questions of the questionnaire targeted demographic and social aspects relevant to identifying the profile of patients seeking cardiology services. Regarding the place of origin, 112 patients (36.1%) come from rural areas, and 198 (63.9%) from urban areas. Among

these, 170 were men and 140 women. The respondents' ages ranged from 21 to 88 years, with an average age of 61.96 years, a standard deviation of 13.36 years, and a median age of 63 years. The majority of participants were under 65 years old (54.8%).

Accessibility and Information:

Concerning the method of scheduling consultations, the majority of participants used the phone (56.8%), while the rest used online scheduling (21.3%) or physical scheduling (21.9%). The initial source of information about the cardiology clinic is presented in Table 1.

Table 1. Distribution of participants by the answer to the question „How did you initially find out about the cardiology clinic?“

Response	Nr.	Percentage
Google search	102	32.9%
Clinic website	16	5.2%
Social networks	20	6.5%
Public ad/Newsletter	8	2.6%
From a friend/relative	164	52.9%

The main criteria for choosing a cardiology clinic are the superior training level of doctors (44.5%), effective communication with the doctor (22.6%), and satisfactory quality/price ratio (20.6%). Low waiting time and adherence to appointments were important for 4.5% of participants.

To the question „What were the reasons for choosing this cardiology clinic?“ 63.2% of participants indicated recommendations from relatives/friends, and 31.6% mentioned online reviews. Online reviews and ratings of the cardiology clinic greatly (28.4%) or moderately (25.8%) influenced their decisions regarding medical services.

The ease of Finding Information:

Most participants (40.6%) frequently use the internet for information about health services, 18.1% very often, 24.5% rarely, and 16.8% do not use the internet for this purpose at all. To the question „Was it easy to obtain online information about cardiology services?“ 43.1% said it was easy, 26.2% moderately, and 22.3% very easy.

The distribution of answers to the question „Did you use online platforms to obtain information about cardiology services?“ shows

that 63.9% responded affirmatively. Online platforms were considered useful by 49.5% of participants, and 28.3% found them very useful. Regarding the frequency of accessing the institution's website, the majority access it occasionally (52.3%) or rarely (25.8%).

The next two questions of the questionnaire refer to the importance of video content and visual images in the online presentation of a cardiology clinic, as well as the patients' willingness to use medical services more often if the clinic posted explanatory video content. Most participants consider the use of video content important (55.5%) or very important (18.7%) and would be more likely to use services under these conditions (79.4%).

Communication and Interaction with Medical Staff:

The presence of cardiology clinics on social networks is considered important by 81.3% of participants (important 50.3%, very important 31%). A significant proportion of 69% of participants consider this interaction either important (40.6%) or very important (28.4%).

According to the data in Table 2, an overwhelming majority of 89% of participants believe that the online presence of cardiology clinics improves the relationship with patients.

Table 2. Distribution of participants by the answer to the question „Do you think that the online presence of cardiology clinics influences the improvement of the relationship with patients?“

Response (N=308)	Nr.	Percentage
Yes	274	89%
No	34	11%

The majority of participants (51.6%) used online platforms to communicate with medical staff or obtain test results. A large percentage (87.6%) rated online communication as effective (53.8%) or very effective (33.8%), contributing to improving their medical experience.

Table 3. Distribution of participants by the answer to the question „How effective was this method of communication?“

Response	Nr.	Percentage
Not effective at all	2	1.3%
Slightly effective	4	1.3%
Moderately effective	14	8.8%
Effective	86	53.8%
Very effective	54	33.8%

Regarding possible online interaction with the doctor, 70.3% of participants stated they would use medical services more often if they could interact online.

Regarding the respondents' experience with online appointments, 49% of participants used this service, and most found it effective (55.3%) or very effective (43.4%). A small percentage (1.3%) considered online appointments moderately effective.

The importance of online appointments for choosing a clinic was considered not important at all by 26.5%, slightly important by 30.3%, important by 23.2%, and very important by 20%.

In the questionnaire, patients were asked if they used online information sources for clarification after receiving a diagnosis from a cardiologist. The majority of participants responded negatively (52.3%). Those who accessed online information did so rarely (45.8%), 18.1% often, and 4.5% very often.

The majority of participants (65.3%) felt they better understood their cardiological condition after consulting online sources. Regarding the improvement of knowledge about the pathology, 71.3% responded affirmatively.

The assessment of the credibility and usefulness of online information shows that 36.4% consider it quite credible and useful, 30.5% moderately credible and useful, and 10.4% very credible and useful. The majority of participants rated the online services as satisfactory (56.8%), and 15.8% considered them very satisfactory.

In conclusion, the majority of participants considered their online experience regarding cardiac health services to be satisfactory (Table 4).

Table 4. Distribution of participants by the answer to the question „How would you describe your overall online experience regarding cardiac health services?“

Response (N=296)	Nr.	Percentage
Not at all satisfactory	22	7.4%
Slightly satisfactory	60	20.3%
Satisfactory	172	58.1%
Very satisfactory	42	14.2%

Table 5. Distribution of participants by the answer to the question „Have you ever left feedback or online reviews about your experience with cardiac health services?“

Response	Nr.	Percentage
Yes	92	29.7%
No	218	70.3%

The majority of participants believe their feedback would be taken into consideration by the institution (34.2% quite a lot, 13.5% very much).

Regarding the response to the question „If a friend or family member were looking for information or services online related to cardiac health, would you recommend our institution?“ the overwhelming majority of participants (97.4%) would recommend the institution to a friend or family member for online information or services related to cardiac health.

Table 6. Distribution of participants by the answer to the question „Which online sources would you recommend to relatives/acquaintances in case of a cardiac problem?“

Response (N=300)	Nr.	Percentage
Website	126	42%
Social networks	104	34.7%
Blog	6	2%
Forum	20	6.7%
Email	44	14.7%

The majority of participants consider the main means to increase the visibility of the cardiology clinic are the clinic's website (30%), social networks (30.7%), and promotion on search engines (Google) (26%).

Discussions

The study demonstrated that cardiology patients who frequently use online platforms for information and appointments report a higher level of satisfaction compared to those who do not use these platforms. This confirms the

research hypothesis and suggests that easy access to updated and relevant information through online channels contributes to patients' trust and satisfaction.

Although most patients make their appointments by phone (56.8%), a considerable percentage use online appointments (21.3%). This indicates a growing trend in the use of online services, which can improve the accessibility and efficiency of appointments.

Information sources: 52.9% of patients learn about the clinic through close people, and 32.9% through online search engines. These data underline the importance of online information in attracting new patients and suggest that a well-structured website and effective social media presence are essential for the clinic's visibility.

A large percentage, 40.6% of participants, frequently use the internet to search for health services information, and 18.1% use it very often. This reflects a growing trend of seeking information online, which contributes to better patient awareness and more informed decision-making in choosing medical services.

Factors influencing patients' decision to choose the clinic include: the superior training level of doctors (44.5%), effective communication with the doctor (22.6%), and a satisfactory quality/price ratio (20.6%). This suggests that, in addition to an online presence, the quality of medical services and communication play a crucial role in patient satisfaction.

Regarding online communication with medical staff and the doctor-patient relationship, the study data support the hypothesis that access to online communication with medical staff strengthens doctor-patient relationships and encourages the use of clinic services.

A large percentage of participants, 81.3%, consider the presence of clinics on social networks important or very important, highlighting the need to integrate these platforms into the clinics' communication strategies to facilitate a deeper connection with patients.

Regarding interaction with medical staff: 59.4% of participants are very satisfied with communication and interaction with the medical staff. This suggests a solid foundation for strengthening doctor-patient relationships through online channels.

The effectiveness of online communication: 87.6% of respondents rated online communication as effective or very effective. This indicates that digital communication methods are considered useful and efficient by patients.

Willingness to use online services: 70.3% of participants stated they would use medical services more often if they could interact with the doctor online. This reflects a clear preference for digital communication options.

The study results partially confirm the hypothesis that positive online reviews and ratings significantly impact patients' decision to choose a particular cardiology clinic. Responses regarding the influence of online reviews show that 31.6% of patients consider online reviews an important factor in their clinic choice. Although personal recommendations remain the main influence factor (63.2%), online reviews have a significant influence.

Most patients, 97.4%, would recommend the institution, suggesting very high overall satisfaction and strong trust in the services provided. This can contribute to the institution's reputation growth through recommendations.

Regarding the role of online feedback: 28.4% of respondents were greatly influenced by online reviews and ratings, and 25.8% were moderately influenced. This suggests that digital feedback cannot be ignored in the institution's marketing strategy.

The obtained results largely confirm the proposed hypotheses. Frequent use of online platforms for information and appointments, online communication with medical staff, and positive online reviews correlate positively with higher satisfaction levels among cardiology patients. These findings emphasize the need to continue and improve the online presence of cardiology clinics to better meet patients' needs and enhance their experience with the medical services offered.

Limitations/ Research Implications

The study proposes a conceptual model that requires empirical validation to confirm its applicability in practice and underline its relevance in the current context of healthcare services.

Practical Implications

The research results have significant

implications for healthcare providers, indicating the need for continuous monitoring of patient satisfaction through feedback and online reviews. It also suggests the implementation of proactive measures to improve online platforms to maintain a high level of patient satisfaction.

Originality/Value

Despite the existence of a considerable number of relevant studies in the field, most focus on analyzing specific types of medical services. This study stands out by emphasizing specific implications for cardiology services, thus contributing to a deeper understanding of the needs and challenges in this particular health domain.

Conclusions

Our study investigated the impact of online promotion strategies on the satisfaction of cardiology patients, highlighting the essential role of digital platforms in improving patient experience and strengthening their relationships with cardiology clinics.

Frequent use of online platforms for information and appointments is associated with significantly higher patient satisfaction levels. Easy access to updated information and a simplified appointment process contribute to a positive experience for patients. Most patients are loyal to the cardiology clinic for over three years, suggesting high overall satisfaction positively influenced by access to online information and appointments.

Direct communication on digital platforms contributes to developing a closer relationship between doctors and patients. High satisfaction with this type of communication suggests that integrating digital technologies into medical practice can strengthen patients' trust and loyalty to the clinic. Online interaction is considered effective or very effective by most patients, underscoring the importance of this communication method.

Online reviews and ratings play a crucial role in patients' decisions to choose a cardiology clinic. Although personal recommendations remain essential, positive online reviews significantly influence creating a favorable perception and encouraging recommendations

to others. A significant percentage of patients believe that online reviews positively influence their decision to choose medical services.

Based on the statistical analysis of the study results, the following recommendations for clinical practice are necessary:

- Improving online presence: optimizing the website and developing mobile applications for online appointments can increase service accessibility. Expanding presence on social networks and search engines can enhance the clinic's visibility and attract new patients.
- Personalizing communication: Investing in continuous staff training for effective and personalized communication can strengthen relationships with patients and improve their experience at our clinic.
- Managing patient feedback: Encouraging patients to provide online feedback and reviews can offer valuable insights for the continuous improvement of services. Implementing efficient feedback management systems can enhance transparency and trust in the institution.
- Promoting credible information sources: Promoting credible and easily accessible online information sources about cardiac health can improve patients' awareness and understanding of their medical conditions.

The study results support that integrating and optimizing digital channels are essential for improving patient satisfaction in cardiology services. A well-developed and implemented online marketing strategy can have a major impact on attracting and retaining cardiology patients. Optimizing websites, maintaining an active presence on social media platforms, and utilizing online reviews are effective ways for cardiology practices to increase visibility and appeal.

Additionally, the ability to schedule online consultations adds a level of accessibility and convenience, strengthening patient loyalty. Online marketing in the cardiology field allows our clinic to present its expertise and services to a broader audience, building a solid reputation and providing patients with the necessary information to make informed decisions.

Overall, those seeking cardiology health services online are interested in accessing credible

information, obtaining necessary support and expertise, and identifying services that match their individual needs. Medical institutions should consider these aspects of consumer behavior to improve their online marketing and communication strategies. With appropriate strategies and tools, cardiology practices can attract new patients and retain existing ones, even in a highly competitive environment. A comprehensive marketing strategy should include plans that help potential patients find the healthcare facility, choose the cardiology office over other local providers, and remain loyal in the long term.

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