

## **DIGITAL MARKETING'S IMPACT TO HOSPITAL VISITS DURING COVID-19: A SYSTEMATIC REVIEW**

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### **Abstract**

**Background:** The development of the digital era is very helpful to find solutions during the COVID-19 pandemic. This is not only beneficial for patients but also provides a place for digital marketing to see opportunities to restore public trust in health institutions, especially hospitals. **Method:** We searched the journals through the Pro Quest, Scopus, Springer link, Science Direct and Google Scholar database. We specify the inclusion and exclusion criteria. The Preferred Reporting Items for Systematic Reviews & Meta-Analyzes (PRISMA) 2009 instrument was used and a flowchart was prepared. **Results:** 1) Covid-19 had short term and long term effect for health industry including hospital, 2) digital technology helps health service providers including hospitals in engagement, innovation, and improvement for public service, 3) sosial media can be used to develop digital strategies including marketing in achieving specific goals, 4) poland's hospital websites are of satisfactory quality and significantly optimize digital search, 5) the role of digital technology and digital marketing helps the difficulties of vorious health fields, 6) the COVID-19 pandemic is associated with reduce in on-site health services and an increase in digital facilities such as promotion and telemedice 7) in the era of digital health services, it can provide an evaluation of digital marketing with the aim of attracting costomers interest in choosing hospital service. **Discussion:** Digital marketing can affect the public's good view of health service providers and increase public trust in hospitals. **Conclusion:** 6 journals reviewed and Joanna Briggs Institute (JBI) and Critical Appraisal Skills Programme (CASP) were use to do critical appraisal. We conclude that social media affects the hospital visitations during COVID-19 pandemic

**Keywords:** COVID-19, digital marketing, hospital visits, impact.

### **Intriduction**

On March 11, 2020, Coronavirus Disease 2019 was declared a pandemic by the World Health Organization.<sup>1</sup> The whole world was shocked by the existence of a very fast and deadly pandemic. All sectors in the world are affected without exception. The health sector is the sector most affected by the COVID-19 pandemic because there is no experience in dealing with this very extraordinary case. Hospitals are the first institutions to feel the impact of COVID-19 with all its shortcomings. Some hospital visits were reduced, in the first month of the COVID-19 pandemic in the United States

there was a decrease in Emergency Room (IGD) visits. The decline was 41.5% in Colorado and 63.5% in New York.(Jeffery et al., 2020) In Indonesia, the decline in hospital visits was investigated by the digestive surgery association and found a median decrease of 20 cases per month when compared to before the pandemic. The Indonesian Oncology Association documented a 29.9% decrease in cases at M. Djamil Hospital, Padang.(Eby Juliana Sabrimala, Riona Sanjaya, Surmiasih, 2020; Nugroho et al., 2021)

In recent decades, the use of digital technology has expanded dramatically around the world. The digital world has developed rapidly and is widely used by everyone. Digital marketing has been widely adopted in business, indicated by 73% of Americans participating in at least one social media platform. The use of digital media does not look at the generations, both young and old. Most users come from the young adult age group (aged 18-29 years). The role of "digital marketing" is formulated with the following four biggest challenges: (1) data explosion, (2) social media, (3) channel proliferation, and (4) shifting consumer demographics. Three of these four biggest challenges are related to the development of digital marketing/the Internet has become one of the most important markets for goods and services transactions. For example, online consumer spending in the United States exceeds USD 100 billion and the growth rate of online demand for information goods, such as books, magazines, and software, is between 25% and 50%.<sup>3</sup> In an era of digital development, the ability for a company to regulate website, email and social media are indispensable. Health care providers are among the leaders in the industry, but according to studies the health industry is one of the fields that is late to enter the digital realm because its use was only maximal in 2014. Now, every hospital has an expert in the field of technology. Increasing digitization poses challenges for marketing executives. Hospitals use digital marketing platforms such as social media to promote healthy habits and share health-related information. For example, a hospital Facebook might contain advice on healthy living, facts about seasonal illnesses, tips on preventive health behaviors, and relevant findings in medical research. During flu season, one hospital posts vaccination reminders on Twitter. (Leefflang, Verhoef, Dahlström, & Freundt, 2014; Smith, 2017)

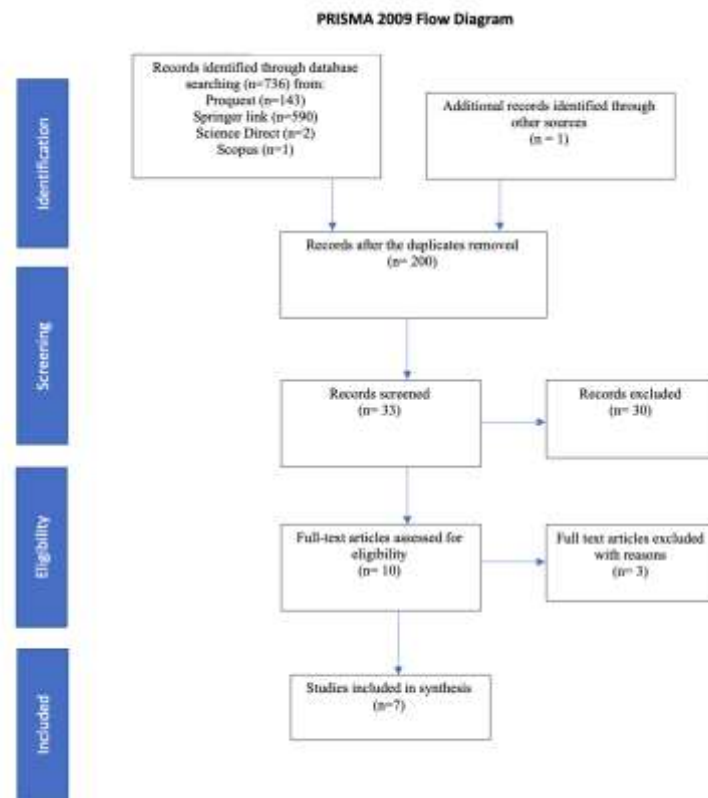
In July 2020 there were 3.96 billion people using the internet, smartphones and social media. In 2020, for the first time, half of the world's population has achieved the use of social media. The United States has recorded at least a 72% growth over the last 14 years in the use of the internet and digital technology.(Budd et al., 2020) The development of the digital era is very helpful in finding solutions during the COVID-19 pandemic. Companies, governments and schools are adopting smart solutions for problem solving during the pandemic. Digital technology is also used by the health sector and hospitals. Digital interactions occur during the pandemic, reducing contact which can reduce beneficial virus transmission. In addition, with the advantages of the internet and digital developments, it provides a perspective for health institutions to know the wishes of the community and provide educational content. This is not only beneficial for patients but also provides a place for digital marketing to see

opportunities to restore public trust in health institutions, especially hospitals.(Ahmed et al., 2020; Katz et al., 2018).

### **Method**

The initial step we did in this systematic review was by opened the website and after that we entered the password and key to be able to enter and access the page. Next, a data base page appeared in the form of e-resource length that can be selected. Article searches were conducted according to predetermined keywords in English on the Pro Quest, Scopus, Springer link and Science Direct database. In addition, and to obtain data, a database on Google Scholar is also opened. The inclusion criteria for entering the desired literature are 1) an English articles, 2) National and international research articles contained hospital visitations and social media effects related information on the COVID-19 pandemic era, 3) the valid journal are limited during the pandemic period 4) Articles are not limited to one type of research design. Key words were "The Impact of Digital Marketing COVID-19 to the Hospital Visits OR" Digital Marketing Effects on Hospital Visits COVID-19"

The exclusion criteria were not the full text article, the contents of the journal are not related to the visitations and social media effects related information in hospitals on COVID-19 era and resources derived from journal articles not valid. Data extraction and analysis of each downloaded article was carried out by the author. The results were then analyzed thematically. Furthermore, the data is arranged according to the analysis of the theme and is arranged in a narrative paper form. For article search results, PRISMA instrument was used and a flowchart prepared based on the PRISMA 2009 checklist guidelines, sequentially removing the articles that did not match by using the identification, screening, eligibility criteria, and finally download from the expected article.



**Figure 1  
PRISMA 2009.**

### Result and Discussion

From Pro Quest, 143 journals were obtained. Then a duplication check was performed by the search engine resulting 20 journals. We filtered to 6 articles and then it became 2 when we do exclusion process. Finally, after the searched from Proquest was reviewed, then we obtained 1 articles which were included in the article that will be reviewed according to the title were chosen. Scopus searches using the advance search method were found 2 journals in according with a predetermined keyword. A search using Science Direct produced 79 articles, after being filtered by the year, we found 18 articles then after being filtered based on Open Access / Full text Then after reading and filtering based on the appropriate title or topic, we found result of 1 journal.

From Springer link, 590 journals were obtained. After filtering 153 articles were obtained. Then the filter was carried out again and 33 journals were obtained. Twenty. From 20 journals, 6 articles related to the title that will be reviewed were obtained.

The total number of journals obtained were 7 journals. We re-filtered according to duplication, similarity in title or author's name, then we filtered again by to the title or topic of writing using the manual method. We found 12 journals and we screen duplication again with [https://rayyan.qcri.org/users/sign\\_in](https://rayyan.qcri.org/users/sign_in) and we found no duplication from all the journals we still review. There were 1 journals from others sources, 3 journals from Proquest, 2 journals from Science Direct, 1 journal from Scopus.

We do critical appraisal by the Joanna Briggs Institute (JBI) method that suitable to review the journal consist of economic evaluation and Critical Appraisal Skills Program (CASP) to one systematic review that we analyze. We found and conclude that all of the journals we were found were fulfilled the critical appraisal.

No	Author	Theme	Published Year	Place	Variable	Research Method	Result
1.	Singh et al	Effect of COVID-19 on Hospital Marketing	August 2020	India	Marketing of hospitals affected by the pandemic.	Qualitative	COVID-19 had short term and long term effect for health industry including hospital
2.	Neal et al	Leveraging social media and digital technology to market and meet the needs of neurosurgery patients	January 2021	United States of America	Utilization of digital and social media strategies to meet patient needs	Qualitative	Digital technology helps health service providers including hospitals in engagement, innovation, and improvement for public service.
3.	Marcelin et al	How the field of infectious disease can leverage digital strategy and social media use during pandemic	2021	United States of America	Use of social media to develop digital strategy	Qualitative	Social media can be used to develop digital strategies including marketing in achieving specific goals
4.	Król et al	The quality of infectious disease hospital websites in Poland in light of the COVID-19 pandemic	January 2021	Poland	Quality of digital technology (websites) of hospitals in Poland	Qualitative	Poland's hospital websites are of satisfactory quality and significantly optimize digital search
5.	Budd et al	Digital technologies in the public-health response to COVID-19	August 2020	United Kingdom	Digital innovation to COVID-19 pandemic and its limitations	Qualitative	The role of digital technology and digital marketing helps the difficulties of various health fields
6.	Alexander GC et al	Use and content of primary care office-based vs telemedicine care visits during the COVID-19 pandemic in the US	2020	United States of America	Changes in service during pandemic with digital service	Qualitative	The COVID-19 pandemic is associated with reduce in on-site health services and an increase in digital facilities such as promotion and telemedicine
7.	Barr, JR et al	Telemedicine, Homecare in the Era of COVID-19 & beyond	2020	United States of America	Evaluation of telemedicine and homecare during the COVID-19 pandemic	Qualitative	In the era of digital health services, it can provide an evaluation of digital marketing with the aim of attracting customers' interest in choosing hospital services

COVID-19 has had such a huge impact, it is a new experience in various sectors, including the health sector and hospitals. Various kinds of regulations are made by governments from various countries to protect their countries from the spread of the virus. Lockdown and distance restrictions are options and the impact is that people no longer come traditionally to hospitals. There was a decrease in the number of visits to the hospital. Singh et al examined the impact of COVID-19 on hospital marketing by means of an online survey that aimed to see the impact of COVID-19 on hospital marketing and found that COVID-19 had an impact on the long-term and short-term impact on the healthcare industry. Identifying these can help build strategies with a new perspective especially due to the COVID-19 pandemic to find the best solutions and avoid adverse long-term risks. 8 This is evidenced by the research of Alexander et al. who examined national changes in the number, types and services provided at health facilities in the United States during the COVID-19 pandemic and found that on-site services had decreased and digital services had increased so that the COVID-19 pandemic was associated with changes in people's desires.(Alexander et al., 2020)

The pandemic not only has a bad impact, but various innovations are found in this difficult time. The era with the accelerated development of technology as it is now really supporting a variety of digital information delivery. As in the study by Neal et al. Pad explained that social media and digital technology not only provide valuable services to patients but can also be used as marketing tools. Mayo Clinic provides online educational resources that are easily accessible to everyone and are used as a strategy to increase patient engagement with the Mayo Clinic institution. In addition, the Mayo Clinic holds interactive online chats on social media with the aim of creating a community with a common vision. In addition, another digital strategy used by Mayo Clinic is synergistic integration between social media platforms. Changes in people's attitudes from offline to online to fulfill their health needs can be an opportunity to develop digital marketing for Mayo Clinic.(Neal & Lyons, 2021) In line with Neal et al, Marcelin et al studied the use of digital strategies in the field of infectious diseases during the COVID-19 pandemic and found that health services such as hospitals can disseminate information, health services can provide health knowledge, community references and build a 'brand' for the community. so the strategies obtained from the digital strategy during the COVID-19 pandemic are (1) Building public trust in the profession, (2) Creating content to interact with the desired audience along with the mission and (3) Instilling the values of an institution to convey to society.(Marcelin et al., 2021) Similar to Budd et al's research which examined digital technology including digital marketing during the COVID-19 pandemic, the result is that digital technology helps in the economic sector such as marketing to support the pandemic response even though it cannot stand alone and must complement the decisions taken by the government with the aim of reducing the effects. economy caused by COVID-19 in various sectors, especially hospitals. (Budd et al., 2020)

Websites are something to rely on a lot during the pandemic, Król et al researched 91 websites in Poland during the COVID-19 pandemic and found satisfactory results and helped in optimizing digital search. This is very important especially for hospitals as communication intermediaries between hospitals and the community and helping people to choose health facilities based on their needs. (Król & Zdonek, 2021)

Barr et al found that digital health services have a good impact, especially for digital marketing because digital health services can find out what people want to fulfill their needs in health care settings.(Barr, D'Auria, & Persia, 2020)

The various articles above reflect that the use of digital technology which has an implementation, one of which is digital marketing, can have a positive effect on the public's view of health service providers and increase public trust in hospitals.

**Conclusion**

6 journals reviewed and Joanna Briggs Institute (JBI) and Critical Appraisal Skills Programme (CASP) were use to do critical appraisal. We conclude that social media affects the hospital visitations during COVID-19 pandemic.

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