

DISSERTATION REPORT

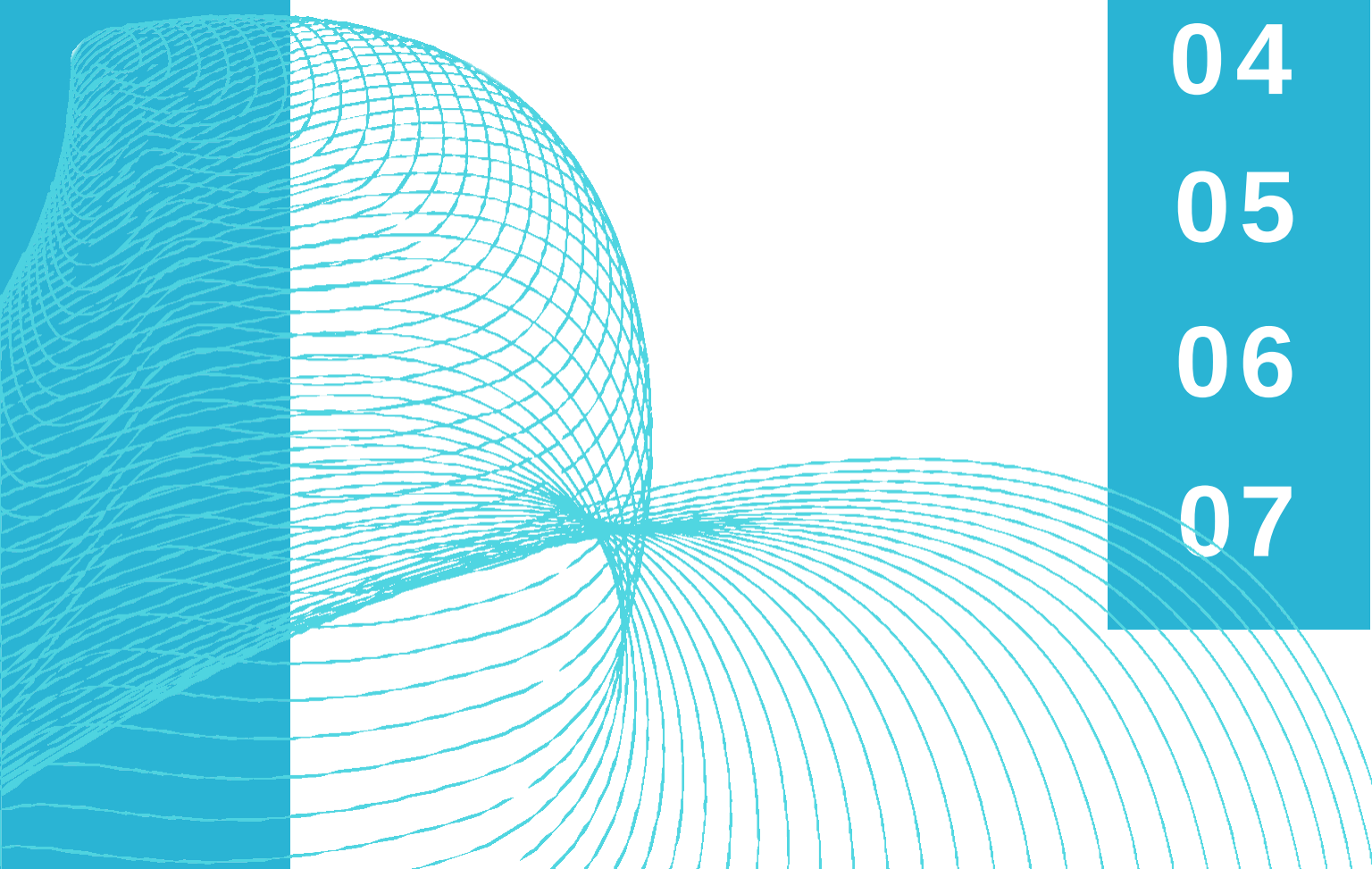
**A STUDY TO IDENTIFY GAPS AND UNMET NEEDS
IN THE DIGITAL HEALTH SPACE**

DEEPTI KIRAN

Roll no- 1280

MBA- Hospital Management

CONTENTS

- 
- 01 Introduction & background**
 - 02 Research questions**
 - 03 Aims & Objective**
 - 04 Materials & Methodology**
 - 05 Discussion**
 - 06 Summary**
 - 07 Recommendations**

INTRODUCTION

The combination of technology with healthcare is known as the "digital health industry," and it aims to improve the provision of healthcare services and patient care which will eventually help in maximizing health outcomes. The extensive spectrum of digital solutions embraces Mobile apps, wearable technology, telemedicine, HIE, EHRs, remote monitoring systems, and applications for artificial intelligence (AI)

Most of the telehealth and telemedicine technologies still fall short of addressing the needs of patients and healthcare practitioners, and their implementation frequently necessitates unseen labour that goes unrecognised.

This study will help in understanding the gaps and difficulties in the digital health sector, such as guaranteeing data security and privacy, adhering to regulations, assuring system interoperability, and tackling the digital divide that may prevent some populations from having access to these technologies

RESEARCH QUESTIONS

- What are the disparities in the uptake and accessibility of digital health, particularly among underprivileged communities or in areas with scarce resources, and how can these differences be addressed?
- What are the main barriers to the widespread use of digital health technologies and their integration into healthcare systems?
- What are the gaps in various electronic health records, digital health platforms, and healthcare providers, and how do these gaps impact the continuity and quality of patient care?

AIM & OBJECTIVES

Aim

To study the gaps and unmet needs of the population in the digital health space.

Objectives

- Identify existing challenges and areas of improvement in the digital health landscape which consists of various stakeholders in the digital health space, including patients, healthcare providers, policymakers, and technology developers.
- To assess how the identified gaps and unmet needs impact the healthcare delivery of services on patient outcomes, healthcare costs, efficiency, access to care, and overall quality of healthcare delivery.
- To assess disparities and address the digital divide among underserved populations or in regions with limited resources.

METHODOLOGY

Sources

Literature Databases like PubMed, google scholar, science direct, JMIR Publications, npj Digital medicine, Emerald Insight, Research gate.

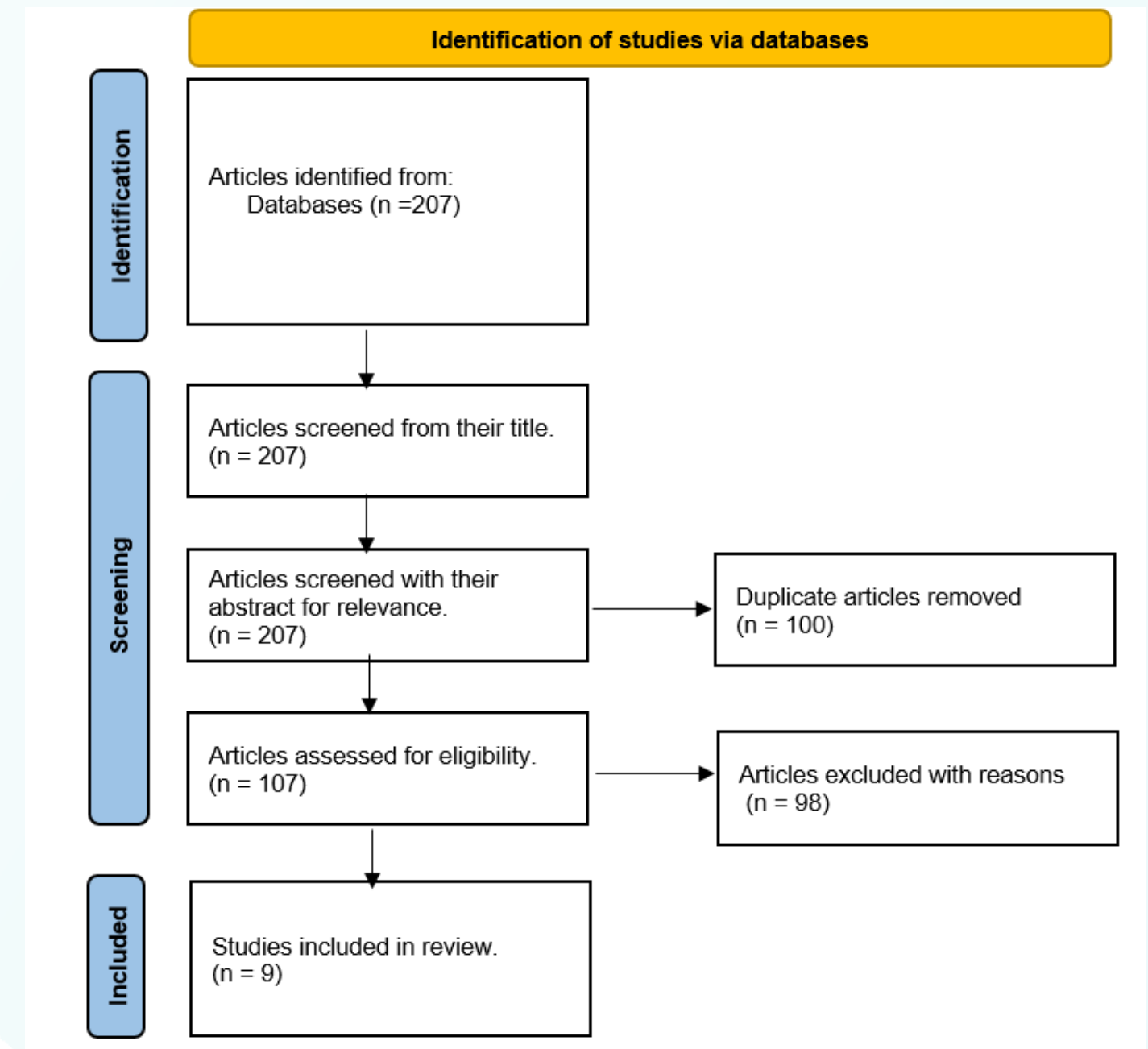
Years

2017-2023

Duration of study

This review was conducted during the three months period. (February – May 2023).

DATA COLLECTION PROCEDURE



ETHICAL CONSIDERATIONS

- As this is a narrative reviewed it doesn't harm anyone in particular and the existing qualitative data aligns with the purpose for which it was originally collected. It respects the intellectual property rights and permissions associated with the data. Proper acknowledgement of the original authors and studies is provided.
- The findings are accurate and transparent, giving due credit to the original data sources. Care is taken to present the results in a manner that protects the privacy and confidentiality of the participants.

DISCUSSION

The research on the digital health space has identified several gaps and challenges that need to be addressed with facilitators. These include:

1. CHALLENGES

- Use and access to electronic medical records and patient portals are limited
- Limited adoption of Telemedicine and Telehealth medical apps
- A complex and fragmented digital health ecosystem
- The reliability and security of apps are still controversial as some health and medical applications have been discovered to give false diagnoses or harmful medical advice, making them potentially deadly.
- The lack of evidence-based digital health standards, privacy concerns, issues with data governance, and ethical issues are the main obstacles preventing the development of digital health.
- Obtaining informed patient consent
- Only half of the countries have privacy policies in place to secure data, therefore data stewardship is a big problem.
- Ethical issues like user consent.
- The use of ICTs and digital tools to acquire timely and relevant information regarding health-related concerns is limited among underprivileged communities or in areas with scarce resources

2. Facilitators

- Users (i.e., patients and unpaid carers) should take part in specialised educational activities that aim to give them the fundamental knowledge and abilities to use digital resources
- Education programmes and information sources should focus on raising knowledge of the health difficulties faced, rather than promoting self-management of treatment
- Health care professionals should be given training activities to improve their functional skills, with the main goals being to improve their ability to communicate succinctly and clearly to people through digital channels, to increase awareness of patients' information needs
- To improve patients' and informal carers' abilities to use the digital health care system, relational competencies should be developed.
- Specific actions should be taken to increase patients' and informal carers' crucial digital health literacy abilities, enhancing their capacity to distinguish between the various sources of information they might get online.
- Simulation-based research will help in producing more reliable, affordable, and timely evidence.
- The functional, relational, and critical abilities of patients, unpaid carers, and healthcare professionals will help in improving digital health literacy.
- Identification of the overarching pain points in digital health through the triangulation of the common issues that permeate all design strategies

SUMMARY

- **Lack of Interoperability and Data Integration:** The lack of interoperability across various healthcare systems, devices, and applications interferes with the efficient, coordinated delivery of care & seamless transmission of data between platforms and systems.
- **Privacy and security issues:** It is crucial to ensure the security and privacy of this data. Unauthorized access, data breaches, and the potential exploitation of health data are all causes of concern.
- **User Acceptance and Engagement:** Despite the widespread usage of digital health technologies, digital health solutions may provide challenges for many people, especially older folks and those with low levels of digital literacy.
- **Evidence and evaluation:** More study is required to fully comprehend the influence of numerous digital health technologies on patient satisfaction, health outcomes, and healthcare delivery because the evidence base for these technologies is still developing.
- **Regulation and policy:** There are no clear rules, standards, or regulations for the creation, assessment, and use of digital health solutions.
- **Health disparities:** Different populations do not all have equal access to technology, internet connectivity, and digital literacy, which could result in differences in who can use and benefit from digital health solutions.

LIMITATIONS

1

Many technologies and interventions used in the digital health sector are still relatively new. As a result, there may be insufficient long-term investigations and thorough evaluations, which might result in a weak evidence base. Therefore, it was challenging to evaluate the long-term efficacy, safety, and cost-effectiveness of digital health interventions due to the little body of evidence

2

Results may not fully generalise to different people, contexts, or technologies as a result of my lack of time to read all the studies.

3

Data privacy, security, and informed consent are all important ethical issues in digital health research. Therefore, this research may not give specific information on the ethical practises used

RECOMMENDATIONS

- To ensure adequate long-term care, this project is expected to require patients to securely retain, access, and share their medical records with other healthcare stakeholders. (goal of NDHM)
- All parties (physicians, patients, diagnostic labs, private and public hospitals, legislators, state and federal governments, pharmacies, and insurance companies) must collaborate to develop a national-level digital health ecosystem.
- To avoid ambiguity, promptness is required so that the stakeholder group easily embraces the digitization of health data initiative with the least defiance from the stakeholders and related systems for its effective and sustainable usage to accomplish the specified results.
- Regulations and policy direction should be friendly to the users which will encourage these stakeholders to maintain their motivation and fascination.
- Rather than digitizing a single hospital or group of hospitals' patient records, it is crucial to integrate stakeholders including insurance companies, diagnostic labs, pharmacies, and other organizations that have significant responsibilities to offer to create a digital ecosystem.
- It is crucial that governments establish laws and guidelines for data stewardship.

THANK YOU