



A DESCRIPTIVE STUDY TO ASSESS THE KNOWLEDGE REGARDING DIGITAL HEALTH LITERACY AMONG THE STUDENTS OF SELECTED NURSING COLLEGE AT MANGALORE WITH A VIEW TO DEVELOP AN INFORMATION BOOKLET

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ABSTRACT

In an increasingly digital world, health services are being delivered online through telehealth consultations, electronic medical records, and mobile apps for managing chronic conditions. Having strong digital health literacy skills allows people to find reliable health information online, understand and evaluate health resources, use online tools for booking appointments, viewing test results and managing personal health. Objectives: To assess the knowledge regarding digital health literacy among the nursing students. Method: A descriptive approach was used in this study. This study was conducted in a selected nursing college at Mangalore. The sample was selected by simple random sampling technique. Data was collected on 09-10-2024 using a rating scale and analysed using descriptive and inferential statistics. Result: After analysis and interpretation of data 19% (11) have inadequate knowledge, 67% (42) have moderately adequate knowledge and 14% (7) have adequate knowledge regarding digital health literacy. Conclusion: Maximum students 67% (42) have moderate knowledge. Therefore, it can be inferred that knowledge regarding digital health literacy is Moderately adequate among nursing students.

Key Words: Assess, knowledge, digital health literacy, nursing students.

INTRODUCTION

Digital health literacy, often referred to as e-health literacy, encompasses the skills required to effectively utilize digital resources, including computers, smartphones, and the internet, to access, comprehend, and apply health-related information. The swift advancement of technology, along with widespread internet connectivity and the prevalence of mobile devices, has revolutionized how we obtain information, rendering it both abundant and easily reachable. In today's increasingly digital landscape, healthcare services are increasingly provided through online platforms, including telehealth consultations, electronic health records, and mobile applications designed to assist in managing chronic illnesses. Consequently, possessing digital health literacy has become crucial for individuals seeking to navigate contemporary healthcare systems, make well-informed health choices, and take charge of their overall well-being. This skill set empowers individuals to find reliable health information, engage with healthcare providers through virtual means, and utilize various digital tools to monitor their health status. As the healthcare landscape continues to evolve towards more digital solutions, the ability to critically evaluate online health information and effectively communicate with healthcare professionals via digital channels is vital.



Ultimately, enhancing digital health literacy not only benefits individuals in managing their health but also contributes to better health outcomes on a broader scale, as people become more proactive and informed participants in their own healthcare journeys. As a result, being digitally health literate has become essential for individuals to navigate modern healthcare systems, make informed health decision and manage their own well- being.¹

NEED FOR THE STUDY

Artificial intelligence is the theory and development of computer systems capable of performing tasks that historically required human intelligence, such as recognising speech, making decisions, and identifying patterns. AI is an umbrella term that encompasses a wide variety of technologies, including machine learning, deep learning and natural language processing. Although the term is commonly used to describe a range of different technologies in use today, many disagree on whether these actually constitute artificial intelligence. The integration of AI in health care has revolutionised the industry, transforming the way medical professionals diagnose, treat and manage patient care. AI's potential to improve patient outcomes, streamline clinical workflows, and enhance the overall quality of care has made it an indispensable tool in modern healthcare. AI Powered predictive models can forecast patient outcomes, identify high risk patients and optimise treatment plans.²

AI techniques help nurses by suggesting customised regimen. AI has the potential to greatly improve the nursing profession by improving efficiency, effectiveness, and even work-life balance. Patients can be diagnosed, drugs can be developed from start to finish, doctor-patient contact can be enhanced, medical records like prescriptions may be transcriptional, and patients can be treated remotely.³

OBJECTIVES OF THE STUDY

To assess the knowledge regarding digital health literacy among nursing students.

METHODOLOGY

Research approach

A descriptive survey approach is used for this study. Considering the purpose of the study i.e. to assess the knowledge regarding digital health literacy among the students of a selected nursing college at Mangalore, a descriptive approach was found to be the best method for this study.

Research design

A research design is collecting and analysing data including specifications for enhancing the internal and external validity of the study.⁴ A descriptive survey design is adopted for this study.

Setting of the study

The study was conducted in one of the colleges of nursing in Mangalore. It is a private institute and is 1 km away from the main city. The college offers Diploma nursing, B.Sc. nursing, PB BSc. nursing and MSc. nursing.

Population

The target population consists of 60 nursing students.

Sample

Sixty nursing students of 2nd and 3rd year GNM course

Sampling technique

Sampling is the process of selecting a representative part of the population. Using simple random sampling technique, 60 students were selected as the sample for the study.



Data collection instruments

The final tool comprises two parts:

Section I: Information regarding internet usage —

It consisted of 8 items such as internet usage, internet usage frequency, duration of time spent, gadget used, use of the internet to obtain health-related information, source of interest, reliability of online health-related information and checking the accuracy of online health-related information.

Section II: Rating scale to assess the knowledge regarding digital health literacy —

A rating scale was prepared to assess the knowledge regarding digital health literacy among nursing students. It consisted of 24 items and each item had five options and the score for each item ranged from 1-5. The maximum score was 120. Based on the score the knowledge was arbitrarily classified.

Arbitrary classification of the score

Type of knowledge	Score range	Percentage score
Inadequate knowledge	0-40	0-33%
Moderately adequate knowledge	41-80	34-67%
Adequate knowledge	81-120	68-100%

Data collection procedure

Permission was obtained from the Principal of the particular college of nursing as well as from the class coordinator. Data was collected on 9/10/2024. The purpose of the study was explained to the participants, confidentiality was assured and informed consent was obtained from the samples. It took approximately 25 minutes to complete the tool. The investigator thanked the participants for their cooperation.

RESULTS

This section constitutes the main body of the report, wherein the results of the study are presented in clear, non-technical terms with liberal use of all sorts of illustrations such as charts, diagrams and the like ones.⁵

This chapter deals with the analysis and interpretation of the data collected from the nursing students about the level of knowledge regarding digital health literacy.

Organisation of the findings —

Section I: Information regarding internet usage

Section II: Level of knowledge regarding digital health literacy among the nursing students

Section I: Information regarding internet usage —

The results of the study showed that 100% of nursing students use internet daily, most of them (48%) spend 4-7 hours, 42% spend 1-3 hours and 10% in excess of 7 hours. Almost all the students (100%) use mobile phones while using internet, out of which 78% use internet to obtain health-related information and 22% do not use internet to obtain health-related information. Majority of the students (98%) use mobile data and (2%) use Wi-fi. Most of the students (55%) find online health-related information sometimes reliable and 45% find it reliable. Majority of them (92%) check the accuracy of online health-related information and 8% do not check the accuracy.

Section II: Level of knowledge regarding digital health literacy among the nursing students –

This section deals with the analysis and interpretation of the data collected from 60 nursing students regarding their level of knowledge about digital health literacy.

Table 1: Level of knowledge regarding digital health literacy among the sample

Level of knowledge	Frequency (f)	Percentage (%)	Mean	Median	Mode	Standard deviation
Inadequate knowledge	11	19	12.15	12	8	3.89
Moderately adequate knowledge	42	67	40.68	40	45	3.21
Adequate knowledge	7	14	7.80	5	3	5.05

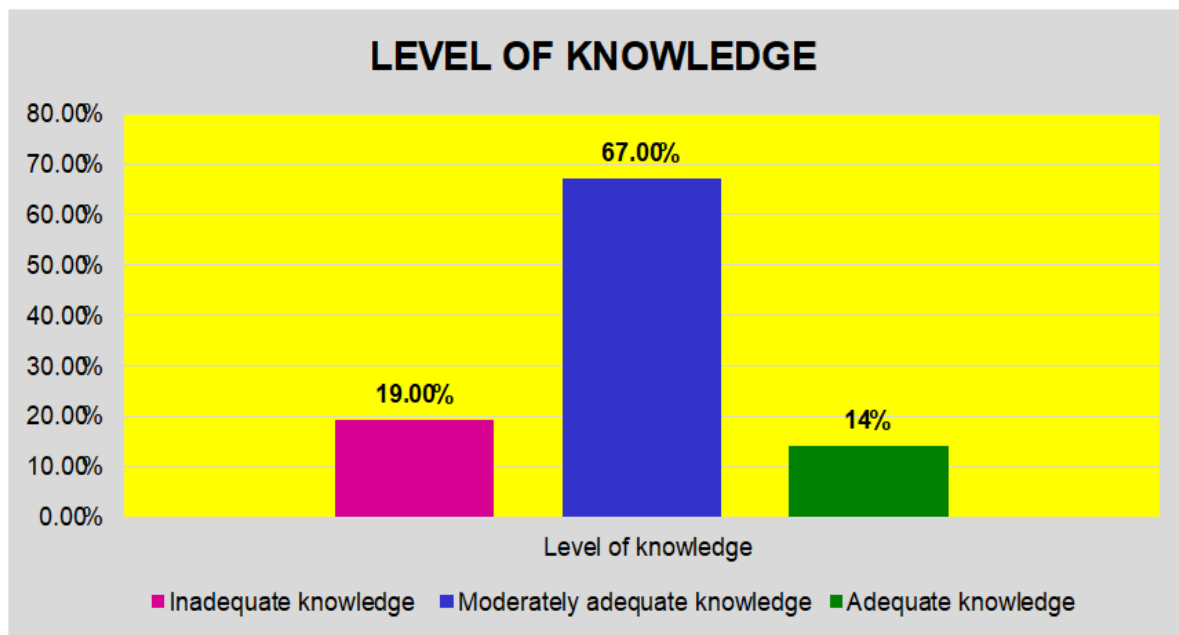


Fig. 1 – Bar diagram showing distribution of sample according to the level of knowledge

Analysis and interpretation of data revealed that 19% had inadequate knowledge, 67% had moderately adequate knowledge and 14% had adequate knowledge regarding digital health literacy as shown in Fig.1. Therefore, it can be inferred that knowledge regarding digital health literacy is moderately adequate in nursing students.

DISCUSSION

The findings of the study have been discussed with reference to the objectives and statistical findings of other such studies. The present study findings support the findings of the study conducted in Rajasthan which revealed that adequate knowledge regarding digital health literacy among adults was considerably less. A significant majority of the participants in that study were found to have moderately adequate knowledge regarding digital health literacy.



The results highlight the importance of targeted educational interventions to improve digital health literacy among adults, as this knowledge is important for navigating the increasingly digital landscape of healthcare. Furthermore, the similarities in findings across studies emphasize the need for ongoing research and policy development aimed at enhancing digital health literacy, which can ultimately lead to better health outcomes and more effective use of health technology.

CONCLUSION

The findings of the present study will significantly impact various tiers of the educational framework, particularly within nursing education and nursing research. This investigation has yielded valuable insights into both the theoretical understanding and the practical competencies of nursing students. By identifying strengths and weaknesses in these areas, the findings can inform curriculum development, teaching methodologies, and assessment strategies.

Furthermore, the implications extend beyond the classroom, influencing clinical practice and patient care. Enhanced theoretical knowledge equips nursing students with the foundational concepts necessary for effective decision-making in real-world scenarios. Meanwhile, improved practical skills improve confidence and competence in clinical settings, ultimately leading to better patient outcomes. The insights gained from this study can guide nursing research initiatives by highlighting areas that require further exploration or intervention. Researchers can build upon these findings to investigate specific aspects of nursing education and practice, contributing to the body of knowledge that informs evidence-based practices.

LIMITATIONS OF STUDY

The sample was selected from only one college at Mangalore, which limits the generalisation of the findings.

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