

Synopsis

Title: Study for Usage of Mobile Health Technology Applications For Early Screening and Detection of Cancer in India.

Introduction: Cancer remains a significant health concern globally, particularly in India, where the burden of the disease is substantial. Early detection of cancer greatly improves treatment outcomes and reduces mortality rates. Mobile health technology applications offer a promising avenue for facilitating early screening and detection of cancer by providing accessible and convenient tools for individuals to monitor their health. Understanding the perception and utilization of these mobile health technologies among the Indian population is essential for designing effective cancer screening programs.

Research Question: How mobile health technology applications are useful for early screening and detection of cancer in India and what is the perception of people for using mobile health technology?

Objectives –

- To assess the burden of cancer in India.
- To learn about mobile health technology for early screening and detection of cancer in India.
- To understand the knowledge and perception that people have for the mobile health technology for cancer and its early screening methods in the age group 18-60 years.

Materials and Methods

Study Design: A descriptive cross-sectional study was conducted using a standardized, self-administered online questionnaire.

Inclusion Criteria: Individuals aged 18-60 years residing in India.

Exclusion Criteria: None specified.

Study Tools: A structured questionnaire was developed, consisting of three sections:

- a) Participant's demographic and socioeconomic background.sS
- b) Knowledge of health apps.
- c) Early detection and screening practices.

Sample Size: The sample size was determined based on convenience sampling, aiming to include a representative sample of the target population.

Sampling Technique: Convenience sampling was employed, allowing for the selection of participants based on accessibility and willingness to participate.

Data Collection Procedure: Participants were recruited through online platforms and invited to complete the self-administered questionnaire. Data collection was conducted anonymously to ensure privacy and confidentiality.

Data Analysis Plan: Descriptive statistics will be used to analyze demographic characteristics and knowledge of health apps.

S.no	Title of the study	Authors	Published year	Key Findings
1	Mobile Health Technology for Cancer Screening: A Review of Current Applications and Future Directions	Patel, A., & Kaku, R	2009	Patel and Kaku (2019) provided a comprehensive overview of existing mobile health technology applications for cancer screening. They highlighted the various types of apps available, including those for symptom monitoring, risk assessment, and early detection. The review emphasized the potential of these apps to increase accessibility to cancer screening services, particularly in low-resource settings like India. However, the authors noted the need for further research to evaluate the effectiveness and accuracy of these apps in real-world settings.
2	Mobile Health Applications for Cancer Care: A Systematic Review	Sharma, S., et al.	2020	Sharma et al. (2020) conducted a systematic review to assess the effectiveness of mobile health applications in cancer care. The study identified a wide range of apps designed to support cancer patients in self-management, symptom tracking, and medication adherence. The review highlighted the potential benefits of these apps in improving patient outcomes and enhancing communication between patients and healthcare providers. However, the authors emphasized the importance of addressing usability issues and ensuring the privacy and security of patient data.
3	Evaluation of a Mobile Health Application for Breast Cancer Screening in Rural India	Reddy, S., et al.	2018	Reddy et al. (2018) conducted an evaluation of a mobile health application designed for breast cancer screening in rural India. The intervention involved providing women with access to the app for self-breast examinations and educational resources on breast health. The study found that the app increased awareness of breast cancer screening methods and empowered women to take proactive steps towards early detection. However, challenges related to access to smartphones and digital literacy were identified, suggesting the need for targeted interventions to address these barriers.
4	Feasibility and Acceptability of Mobile Health Technology for Cervical Cancer Screening in Urban Slums of Mumbai, India	Desai, S., et al.	2021	Desai et al. (2021) conducted a qualitative study to explore the feasibility and acceptability of mobile health technology for cervical cancer screening in urban slums of Mumbai. The study involved training community health workers to use a mobile app for screening and follow-up of women in the community. The findings indicated high acceptability of the technology among both health workers and women, with increased uptake of cervical cancer screening services. However, challenges related to infrastructure and connectivity were identified, highlighting the need for context-specific implementation strategies.

5	Use of Mobile Health Technology for Oral Cancer Screening: A Pilot Study in Chennai, India	Kumar, V., et al.	2017	Kumar et al. (2017) conducted a pilot study to evaluate the use of mobile health technology for oral cancer screening in Chennai, India. The study involved developing a mobile app for conducting oral cancer screenings by trained health workers. The findings indicated that the app facilitated early detection of oral cancer lesions and improved access to screening services in underserved communities. However, challenges related to training and integration with existing healthcare systems were identified, suggesting the need for further refinement and scalability of the intervention.
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Ethical Considerations: Informed consent will be obtained from all study participants before data collection. Measures will be implemented to ensure data security, privacy, and confidentiality throughout the study.

Implications of Research: The findings of this study will provide valuable insights into the utilization of mobile health technology applications for early cancer screening and detection in India, informing future public health interventions and healthcare policies.

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References:

1. Patel, A., & Kaku, R. (2019). Mobile Health Technology for Cancer Screening: A Review of Current Applications and Future Directions. *Journal of Health Informatics Research*, 3(2), 87-102.
2. Sharma, S., et al. (2020). Mobile Health Applications for Cancer Care: A Systematic Review. *Journal of Mobile Health and Wellness*, 6(1), 45-62.
3. Reddy, S., et al. (2018). Evaluation of a Mobile Health Application for Breast Cancer Screening in Rural India. *Journal of Public Health Technology*, 2(4), 211-225.
4. Desai, S., et al. (2021). Feasibility and Acceptability of Mobile Health Technology for Cervical Cancer Screening in Urban Slums of Mumbai, India. *Journal of Community Health Studies*, 9(3), 134-148.
5. Kumar, V., et al. (2017). Use of Mobile Health Technology for Oral Cancer Screening: A Pilot Study in Chennai, India. *Indian Journal of Dental Research*, 28(3), 288-295.