LITERATURE REVIEW

Primary preventive strategies, such as vaccination, are receiving more and more attention due to the increased use of digital technology in healthcare. This review aimed to describe and evaluate existing digital health initiatives that encourage HPV vaccination among adolescents and their parents and to provide recommendations for how such programs could be improved. Factors including HPV-related information, talks about immunization, and vaccination intentions all improved due to the treatments (Choi et al., 2023). Smart homes, which include sensors for detecting motion, contact, light, temperature, and humidity; external memory aids, which combine activity learning through an intelligent home with mobile apps; and hybrid technologies, which combine multiple technologies such as devices installed at patients' homes and telemedicine, make up the intervention above technologies. Using intelligent houses in the community might have several advantages for continuity of care since it would let local and hospital health services constantly monitor the health of the elderly (Facchinetti et al., 2023). Mobile eHealth applications are rapidly gaining prominence in the healthcare management toolkit with the ability to provide information and assistance anytime. There is significant potential for pre-and post-operative patient assistance thanks to the author's creation of a unique digital health information technology (Görtz et al., 2023) that facilitates tailored support for doctor-nurse-patient dialogue.

Improve remote patient care and facilitate the spread of intelligent homes by integrating AI methods into the current Internet of Medical Things (IoMT) infrastructure. Integrating IoT medical sensors' data, analysis, and deep learning algorithms' complexity into a mobile AI engine's implementation on an AI-based cloud infrastructure presents a formidable programming challenge when working with real-time settings of AI technologies (Elbagoury et al., 2023). Rehabilitation treatments, such as anorectal biofeedback, are resource- and labour-intensive but may be delivered successfully and affordably via home-based healthcare. There was a case study done using biofeedback training methods. Clinical gold standard high-definition anorectal manometry was used to evaluate IoMT data. By presenting anorectal pressure profiles comparable to clinical manometry, we showed that our suggested IoMT is feasible and might be utilized for anorectal biofeedback treatment in the comfort of a patient's home (Zhou et al., 2022).

The proliferation of mobile network data over the last several years has opened the door to fine-grained urban function identification by permitting the extraction of actionable insights about ur-ban functions. The data from these cellular towers exhibit similarities while displaying differences for the same metropolitan functional zone. Three typical supervised learning models are used to test our system and chosen features; all three obtain above-average classification accuracy (Deng & Hu, 2022). Among the younger elderly, behavioural attitude, subjective norms, and perceived behavioural con-trol play a crucial role in determining their propensity to utilize applications designed for ageing. The emotional happiness of the young and old is significantly affected by the habit of using age-appropriate apps. The younger elderly's selective usage of age-appropriate applications is a good sign that they are actively adapting to and accepting new technology, boosting their happiness and quality of life (Liu & Tang, 2022). Finally, the authors present their system, which aggregates user categorization data to produce spatiotemporal analytics concerning regional and seasonal disease patterns, and makes these analytics available to all system users to raise awareness of global agricultural trends (Reda et al., 2022). This article aims to investigate the impact of a continuous nutrition management intervention based on a mobile medical APP on the health and growth of preterm newborns. Premature babies' nutritional health, growth and development, and quality of life may all benefit from an intervention plan centred on ongoing nutrition management delivered by mobile medical apps after they are discharged from the hospital (Zhang & Huo, 2022).

A usability study may be conducted before launching a smartphone-based SmartMed app (application) designed to encourage patient self-management, medication adherence, and data gathering for patients on anticoagulant treatment to guarantee the value of OAC app creation and adoption. The SmartMed app's perceived effect on frequent OAC use was measured using the System Usability Scale (SUS) and the app-specific domain of the Mobile App Rating Scale (MARS) (Wang et al., 2022). The usability test results validate that the app is suitable for use by citrus growers. The study's use of Greek as its only language and the relatively small size of its assessment sample are also caveats. To better serve farmers in the field, researchers want to create crop-specific mobile applications that integrate location-based services, warnings, and cloud data storage (Karetsos et al., 2022). The widespread availability of smart-phones provides hope that mobile health apps may be able to reach and motivate people living with type 2 diabetes to manage their condition via increased self-care better. The authors interviewed 29 people with type 2 diabetes using a semi-structured format. Patients were selected using a purposeful sample method from the diabetes and metabolism clinic in Singapore. The results may guide the development of an AI-powered mobile health app intervention to enhance diabetic self-care (Yoon et al., 2022).

REFERENCES

- Choi, J., Tamí-Maury, I., Cuccaro, P., Kim, S., & Markham, C. (2023). Digital Health Interventions to Improve Adolescent HPV Vaccination: A Systematic Review. *Vaccines*, *11*(2), 249. doi:10.3390/vac-cines11020249 PMID:36851127
- Deng, L., & Hu, H. (2022). Fine-Grained Urban Functional Region Identification via Mobile App Usage Data. *Mobile Information Systems*, 2022, 1–17. Advance online publication. doi:10.1155/2022/6434598
- Elbagoury, B. M., Vladareanu, L., Vlădăreanu, V., Salem, A. B., Travediu, A. M., & Roushdy, M. I. (2023). A Hybrid Stacked CNN and Residual Feedback GMDH-LSTM Deep Learning Model for Stroke Prediction Applied on Mobile AI Smart Hospital Platform. *Sensors*, 23(7), 3500. doi:10.3390/S23073500
- Facchinetti, G., Petrucci, G., Albanesi, B., De Marinis, M. G., & Piredda, M. (2023). Can Smart Home Technologies Help Older Adults Manage Their Chronic Condition? A Systematic Literature Review. *International Journal of Environmental Research and Public Health*, 20(2), 1205. doi:10.3390/ijerph20021205 PMID:36673957
- Görtz, M., Wendeborn, A., Müller, M., & Hohenfellner, M. (2023). The Mobile Patient Information Assistant (PIA) App during the Inpatient Surgical Hospital Stay: Evaluation of Usability and Patient Approval. *Healthcare* (*Switzerland*), 11(5), 682. doi:10.3390/healthcare11050682 PMID:36900686
- Karetsos, S., Costopoulou, C., Gourdomichali, N., & Ntaliani, M. (2022). A Mobile App for Support-ing Citrus Fruit Growers in Greece. *Electronics*, 11(20), 3342. doi:10.3390/ELECTRONICS11203342
- Liu, W., & Tang, W. (2022). Effects of Age-Appropriate Mobile APP Use Behavior on Subjective Well-being of Young Elderly. *Security and Communication Networks*, 2022, 1–12. Advance online publication. doi:10.1155/2022/3209804
- Reda, M., Suwwan, R., Alkafri, S., Rashed, Y., & Shanableh, T. (2022). AgroAId: A Mobile App Sys-tem for Visual Classification of Plant Species and Diseases Using Deep Learning and TensorFlow Lite. *Informatics*, 9(3), 55. doi:10.3390/INFORMATICS9030055
- Wang, S. W., Chiou, C. C., Su, C. H., Wu, C. C., Tsai, S. C., Lin, T. K., & Hsu, C. N. (2022). Measuring Mobile Phone Application Usability for Anticoagulation from the Perspective of Patients, Caregivers, and Healthcare Professionals. *International Journal of Environmental Research and Public Health*, 19(16), 10136. doi:10.3390/IJERPH191610136
- Yoon, S., Kwan, Y. H., Phang, J. K., Tan, W. B., & Low, L. L. (2022). Personal Goals, Barriers to Self-Management and Desired mHealth Application Features to Improve Self-Care in Multi-Ethnic Asian Patients with Type 2 Diabetes: A Qualitative Study. *International Journal of Environmental Research and Public Health*, 19(22), 15415. doi:10.3390/ijerph192215415 PMID:36430134
- Zhang, Q., & Huo, Z. (2022). Effect of Continuous Nutrition Management Intervention on Nutritional Status and Development of Premature Infants Based on Mobile Medical APP. *Computational and Mathematical Methods in Medicine*, 2022, 1–8. Advance online publication. doi:10.1155/2022/8586355 PMID:35979052
- Zhou, J., Ho, V., & Javadi, B. (2022). New Internet of Medical Things for Home-Based Treatment of Anorectal Disorders. *Sensors*, 22(2), 625. doi:10.3390/S22020625