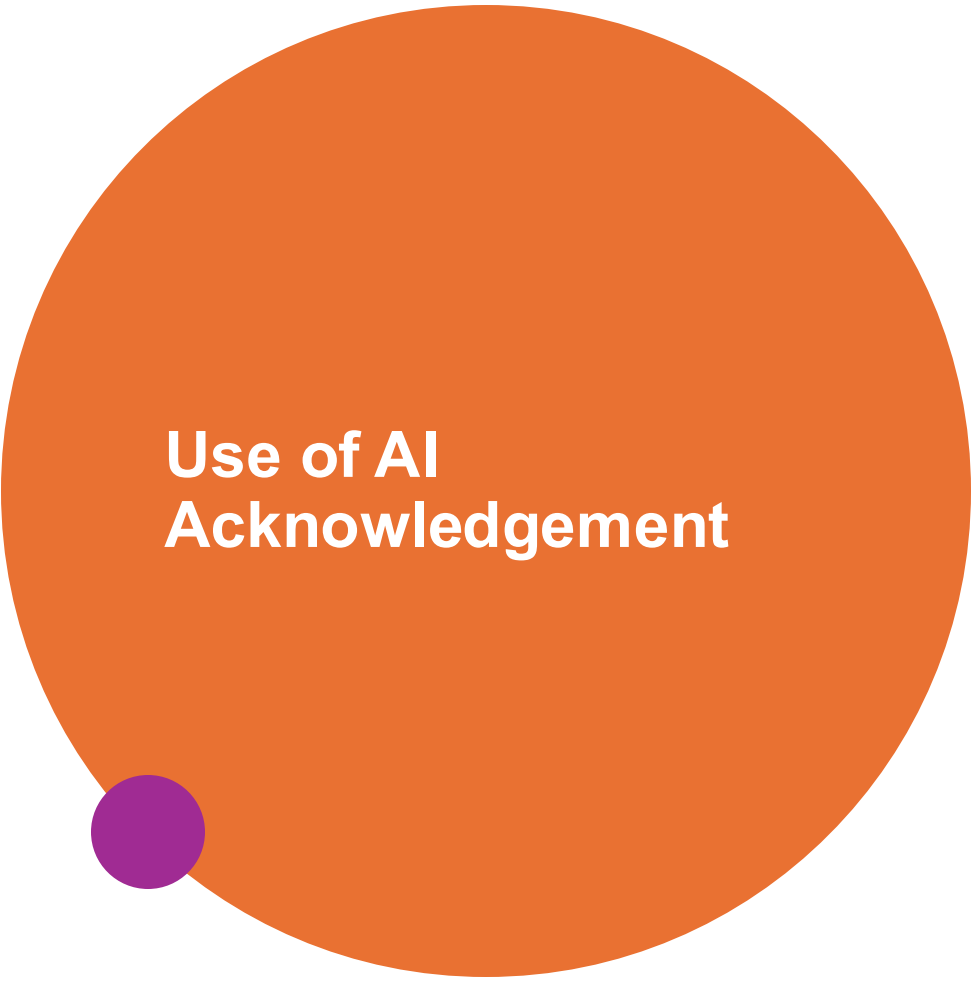


Digital Transformation in the Health and Care Professions (BMHP6026)

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Use of AI Acknowledgement

I confirm that I have not used any AI tools in the research and creation of this assignment. I confirm that I have not presented any AI generated materials as my own work. I confirm I have copies of my drafts, notes, and other resources I used, which I may be asked to provide in evidence

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Introduction

- Telehealth is a established digital innovation that is actively reshaping healthcare delivery.
- Core Concept: Involves a wide range of technologies and services to provide patient care and management from a distance.
- Key Components Include:
 - Digital consultations with care practitioners.
 - Remote patient assessment.
 - Mobile health applications for patient self-management.
- Primary Benefit for Patients: Enables them to manage their health conditions from the comfort of their own home.



Video



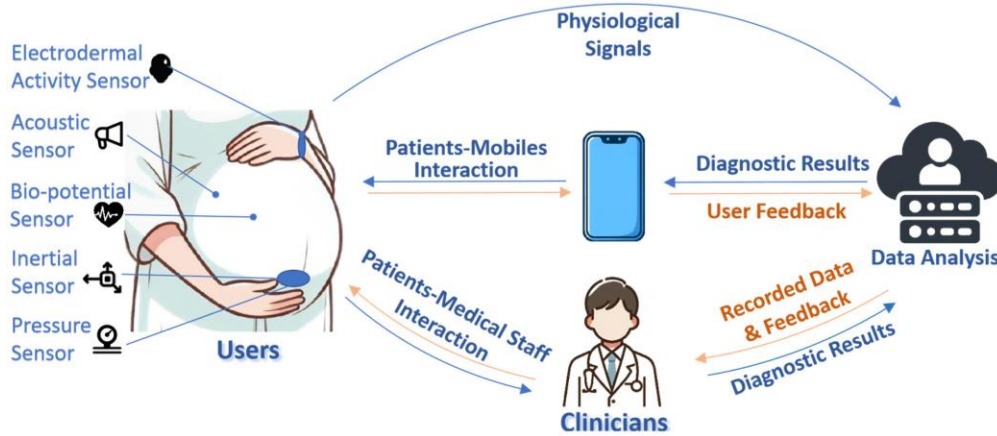
Impact in workforce

- **Shifts Workforce Roles & Skills:** Requires a reconsideration of the traditional roles and skills of healthcare professionals.
- **Enables Continuous Monitoring:** Allows practitioners and nurses to monitor patient vital signs in real-time, continuously.
- **Provides Rich Patient Data:** Generates comprehensive data on both normal and abnormal biomarker fluctuations, creating a powerful patient record.
- **Improves Decision-Making:** Empowers practitioners to make faster, more tailored, and care-specific decisions.
- **Facilitates Early Intervention:** Helps identify critical issues before they become severe, allowing for early care interventions and better outcomes.
- **Supports Proactive Care:** AI and machine learning in wearables can flag abnormalities, enabling a shift from reactive to proactive healthcare management.
- (Brown et al., 2023; Chapman et al., 2023)

The Impact of Wearables on the Healthcare Workforce



Impact on service delivery



- **Increases Workforce Flexibility:** Enables remote work, allowing professionals to monitor and respond to patients in real-time from any location.
- **Enhances Service Effectiveness:** Facilitates closer attention to detailed health metrics like heart rate, activity levels, and sleep patterns.
- **Improves Collaboration:** Allows for efficient consultation on medical cases without the need for physical presence.
- **Optimizes the System:** Leads to more integrated care services, better resource allocation, and increased job satisfaction among staff.
- (Dodson et al., 2024; Willie, 2024)



Impact on patients

- Personalized Healthcare Access
- Improved Patient Engagement
- Keeps patients aware of their health journey by monitoring vital parameters (e.g., blood pressure, glucose).
- Future Potential: Integration with AI/ML could detect irregularities and predict critical conditions, providing early alerts.
- Leads to positive outcomes: increased patient survival rates, reduced hospital stays, and higher satisfaction.
- Reduced Healthcare Costs
- Real-time Feedback and Alerts
- (Williams et al., 2023).

Impact on Community

- This is well-evident where those technologies have allowed real-time monitoring of vital health signs, by which patients can access care services outside conventional care settings.
- Reduced the rate of frequent hospital visits, from which care access in rural or underserved community settings has improved significantly (Kariwo et al., 2024).
- Wearable devices are strengthening community healthcare in three key ways:
 - They empower individual patients,
 - Enhance the quality of family-level care,
 - And promote seamless continuity of care in public facilities.
- (Kariwo et al., 2024; Thompson et al., 2024)



Challenges of the innovation

- Data security risk.
- Device integration issues that can disrupt seamless care, the future of wearable devices is promising.
- As their popularity grows, they have the strong potential to reshape patient experiences by significantly improving access to care and enhancing patient autonomy.
- (Stoumpos et al., 2023).



Recommendations

- To propose a novel real-time health-monitoring service that merges wearable devices with recommendation systems to better mitigate individual health risks.
- To create a practical service delivery framework for healthcare practitioners and providers, facilitating the implementation of this new service model.
- Provides a clear structure for academics and practitioners in service management to grasp this emerging health service and its technological opportunities (wearables & recommender systems).
- (Roy et al., 2018)



Conclusion

- In conclusion, wearable devices in telehealth services have transformed the overall health and social care service delivery practices, providing both opportunities and challenges.
- Therefore, while discussing the telehealth device, in the presentation has mentioned its impact on workforce, overall service delivery, patients, and community associates.
- While interpreting how such wearable technologies impact community settings, the aspects of decentralized care facilities and well-fostered homecare-based healthcare management have become comprehended. Additionally, their impact on family involvement and public healthcare integration within community settings has become prominent in the presentation.



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