

Enabler for Interdisciplinary eHealthcare: A qualitative study

Presented by

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Introduction

- Advancement of IT has led to significant developments in healthcare and health technologies (i.e. medical devices, pharmaceutical drugs, health informatics and eHealth)
- eHealth: "*the cost effective and secure use of information and communications technologies in support of health and health related fields*" (WHO, 2004)
- Need for comprehensive evaluation to determine the benefits, costs and value of health technology
- Research aim
 - Better understanding of the current standing of health technology evaluation and the gaps that exist in research
 - Gain insight and an in-depth understanding of clinician perspectives and attitudes towards the use of eHealth within an interdisciplinary workplace
 - Provide the foundation for the creation of a generic measurement model that allows for the comparative analysis of health technologies

Background

- Vast amounts of opportunity to improve healthcare services through the implementation of IT
- Evaluation of health technology required to ensure benefits and costs of the technology is understood
- eHealth borders the line between traditional medical technology and health informatics and has not been adequately assessed through HTE or HIE methods
- Specific eHealth evaluation frameworks have been proposed, but there lacks a framework that encompasses all factors required for the evaluation of eHealth
 - Catwell and Sheikh, 2009; Hamid and Sarmad, 2008; AHIMA, 2012
- Lack of consistent evaluation is causing challenges in comparing eHealth applications against alternative methods

Methods

- Aim: to understand allied healthcare clinician's views and perspectives on eHealth within rural NSW
- Focused on the traumatic brain injury discipline
- Qualitative study involving 1 focus group
- Process



Participant recruitment

- Target group: researchers in the field of eHealth and allied healthcare, allied healthcare professionals working in traumatic brain injury and external thought leaders in the field
- Participant demographics

Characteristics	Focus group
Region	Rural NSW
Organisation Type	Non-government
Services provided	Public inpatient and outpatient rehabilitation
No. of participants	5
Medical areas	<ul style="list-style-type: none">• 1 Speech pathologist• 1 Occupational therapist• 1 Rehabilitation physician• 2 Spinal care coordinator
Years in the team	<ul style="list-style-type: none">• One >10 years• One 5-10 years• Three 1-5 years

Data collection

- Conducted on site at participants' workplace by 4 researchers
- Audio of interview recorded and transcribed (and de-identified)
- Interview based on 4 questions
 - How the clinicians work as a team?
 - How eHealth has been utilised to support their work? Any challenges?
 - Future outlook of eHealth
 - Summary of key issues and ideas raised

Data analysis

- Analysis based on transcript and written notes
- Conducted analysis through traditional thematic analysis method (based on framework by Krueger and Casey 2009)
 - Involved 3 rounds of team discussions of 7 people
- Quality checks were incorporated to ensure results were reliable, valid and with minimal subjectivity and biases
 - E.g. transcripts verified by participants, multiple researchers analysed data independently

Results and analysis

- Clinician perspectives and attitudes towards the use of eHealth were obtained from the focus group
- From the analysis, 6 main themes were identified
 1. Organisational structure
 2. Culture and attitudes towards technology
 3. External organisations
 4. Technology, facilities and infrastructure
 5. IT support
 6. Policies and guidelines

Results and analysis: Technology, facilities and infrastructure

- Basic technologies used for communication, administrative tasks, client management and as part of client therapy
 - Examples: mobiles, email, teleconferencing
- Challenges
 - Lack of interoperability between systems
 - Variable data quality
 - Lack of available and accessible infrastructure and facilities

Results and analysis: Training and support

- Training and support present at all sites, however to varying degrees
- Geographic barrier cause misunderstandings between clinicians and IT staff
 - Example: IT support of the rural organisation is offsite
- Language barrier between IT staff and clinicians lead to issues in effective communication

Results and analysis: Policies and guidelines

- Lack of policies and guidelines on who and how can use each type of technology and system, transmission and storage of data
- Misalignment of internal policies with organisational processes
 - E.g. access to systems, how information should be transmitted

Conclusion and potential implications

- Confirms the need for rigorous evaluation of eHealth and importance of considering the technology-environment fit
- Provides initial insights into the factors that need to be considered in the evaluation
- Future work
 - Additional qualitative studies
 - Quantitative study of eHealth evaluation
 - Establish a generic measurement model that can be applied to the evaluation of eHealth in all health disciplines

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