Usability of Mobile Applications: A Concept Analysis to be Used in Health Promotion

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**Theme:** Development of health-oriented health care management systems

**Organizers:** Competence Centre for Health Promotion in Hospitals and Health Care,
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  Long-Term Care / Mental Health Nursing / Counseling Care

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Introduction
Health Promotion

Academia

Industry

Mobile Application

Not achieved their goals.
Methods
Nursing Field: Concept Analysis
(Walker and Avant, 2019)

1. Identifying the use of the concept
2. Determining the defining attributes
3. Constructing cases
4. Identifying antecedents and consequences
5. Defining empirical referents
Defining Attributes

- Efficiency
- User Satisfaction
- Learnability

Usability of Mobile Applications
Model Case

Mobil Diab Application

1.78% Reduction in Glycohemoglobin

Simple interface. Intuitive screens for data entry.

Overall benefits

- Efficiency in self-health management
- Learnability
- User satisfaction

Participants were also asked to fill out a questionnaire evaluating the Mobil Diab system. The results obtained indicate that users were satisfied with their experience.
Contrary Case

Food Journaling Apps

Reduce the physical or psychological burdens of the paper-and-pencil recording process.

Improvement

- Lack of ingredient measurement skills.
- Inability to accurately estimate portion size.
- Difficult to analyze dishes with multiple ingredients.

Overall

- Low learnability
- Low intention to continuously use the app
- Unable to efficiently achieve the goal
- User satisfaction would be low
Antecedents and Consequences

**Antecedents**
- Mobile phones
- Human users with adequate mobile phone literacy
- Technical applications
- Goals

**Consequences**
- Continue to use the app
- Achieve their goals
- Intend to recommend it
Empirical Referents

**Questionnaires**
System Usability Scale (John Brooke, 1986)
- Efficiency
- User satisfaction
- Learnability

**Observations**
A process-based approach to test usability of multi-platform mobile applications. (Ingrid and Arilo, 2016)
- User satisfaction
- Learnability

**Interviews**
“An innovative mobile electronic tourist guide application” (Kenteris et al., 2009)
- Efficiency
- User satisfaction
- Learnability
Conclusions
A mobile app with satisfactory usability achieves the goals set for its design and reaches its maximal efficacy.
Well-designed health promotion mobile applications can in turn be integrated into a health management system in order to provide continuous long-term follow-up care outside the hospital.
Thank you!

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