



PROFESSIONAL AND ORGANISATIONAL FACTORS TO CONSIDER FOR SUCCESSFUL DIGITAL BEHAVIOURAL INTERVENTIONS

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- Digital behaviour change interventions (DBCI):
Devices and programs using digital technology to foster or support behavior change (Michie et al. 2017)
- Effectiveness of Internet-based (Webb et al. 2010),
smartphone (Zhao et al. 2016) and serious games (DeSmet
et al. 2014) DBCI for a range of behaviours
- User engagement is essential for successful DBCI
(Yardley et al. 2016)

- Many studies on individual determinants of successful DBCI
- Professional and organisational determinants received less attention
- However, they are essential to ensure adoption, integration and sustainability of DBCI

THEORY FOR DIGITAL HEALTH ADOPTION

- Theories provide a structured way to understand factors influencing digital health adoption and integration
- Psychosocial theories (e.g. Diffusion of Innovation, Technology Acceptance Model, Theory of Planned Behavior...)
- Theory of professions
- Organisational and institutional theories
- Sociopolitical theories



PROFESSIONAL DETERMINANTS OF DIGITAL HEALTH ADOPTION

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- Reviews of individual determinants of digital health adoption by healthcare professionals
(Gagnon et al. 2016)
- Very few studies focus on DBCI acceptance from the providers' perspective
- Indirect evidence available from e-health intervention adoption in general



PROFESSIONAL DETERMINANTS OF DIGITAL HEALTH ADOPTION



Most common determinants of m-health acceptance by professionals (Gagnon et al. 2016):

- Time issues
- Risk-benefit equation
- Agreement with the technology
- Familiarity and ability with digital tools



PROFESSIONAL DETERMINANTS OF DBCI ACCEPTANCE



Determinants of e-health intervention acceptance (Hennemann et al. 2017)

- Social factors: expected attitude by colleagues and patients toward the use of e-health
- Performance expectancy (professionals' beliefs in e-health benefits)



PROFESSIONAL DETERMINANTS OF DBCI ACCEPTANCE

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Conditions for successful e-health coaching (Brandt et al. 2018)

- Establishing an empathic relationship
- Identifying realistic goals based on personal barriers
- Staying connected in asynchronous coaching



ORGANISATIONAL DETERMINANTS OF DIGITAL HEALTH ADOPTION

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- Few studies focused on organisational determinants of digital health adoption
- For older technologies (telehealth), the size of the organisation, the presence of physicians in executive positions, and the localisation (rural/remote) positively influenced adoption
(Gagnon et al. 2005)



ORGANISATIONAL DETERMINANTS OF DIGITAL HEALTH ADOPTION

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Organisational determinants of successful digital mental health interventions (Hill et al. 2017):

- Lack of evidence-based solutions for mainstream implementation (*the number of available e-therapies far outstrips the number of evaluations*)
- Healthcare organisations lack experience in both producing and commercialising usable and engaging products



ORGANISATIONAL DETERMINANTS OF DIGITAL HEALTH ADOPTION

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For digital mental health interventions (Mohr et al. 2017):

- Technological requirements
- Time available from staff
- Allowable operations in a clinic
- Processes and constraints of routine care settings (designing and implementing referral processes; managing coaching or support in the context of a clinic; ensuring communication among providers)

- Individual determinants of DBCI adoption are well documented, but there is a paucity of evidence on professional and organisational factors affecting the success of these interventions
- Indirect evidence is available from studies on digital health in general, but are the determinants similar in the case of DBCI?

- There is a need to consider the professional and organisational determinants for successful DBCI using relevant theories and frameworks
- These factors should also be documented in a structured way in implementation studies of DBCI, for instance by using the Consolidated Framework for Implementation Research (CFIR) (Damschroder et al. 2009)

- Include professionals and healthcare organisation managers in the design of DBCI
- Use theories to study the professional, organisational and systemic determinants of successful DBCI
- Consider these dimensions in the evaluation of DBCI implementation and effectiveness



Questions or Comments?

THANK YOU!

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