Alberta Health Services

Alberta Addiction and Mental Health Research Partnership Program

QUICK REFERENCE: IMPLEMENTING EVIDENCE-BASED PRACTICES IN HEALTHCARE

The implementation of new practices and treatments in healthcare provides returns on research investments, increases cost effectiveness, and significantly improves health outcomes. Moving evidence into practice may vary between diffusion (a passive spread of new practices), dissemination (an active spread of new practices), or implementation (the process of integrating new practices) (Nilsen, 2015). This document provides a summary of implementation strategies and related factors to consider in knowledge translation activities that target healthcare professionals.

Implementation Strategies

Select implementation strategies are presented that may be used to actively integrate evidence into practice (W. V. Chan et al., 2017; W. S. Y. Chan et al., 2018; Chauhan et al., 2017; Flodgren et al., 2011; Forsetlund et al., 2012; Gillam et al., 2012; Goldner et al., 2014; Grilli et al., 2009; Grimshaw et al., 2012; Grol et al., 2003; Ivers et al., 2012; Ndumbe-Eyoh et al., 2016; O'Brien et al., 2007; Pantoja et al., 2017; Powell et al., 2012; Prior et al., 2008; Rolls et al., 2016; Scott et al., 2011; Sinclair et al., 2015; Squires et al., 2014; Vaona et al., 2018; Yamada et al., 2015).

Strategy	Effectiveness	Description
Audit & feedback	Effective	• An individual's performance is compared to targets and the results are shared with the individual • Larger effects when baseline performance is low or intervention decreased current behaviors. Feedback more effective from a senior position, when written, when provided more than once
Distribution or dissemination	Ineffective	• Passive dissemination of educational materials • Examples: posting guidelines on a website, distributing guidelines or peer-reviewed publications to clinicians
Education (interactive)	Effective	• Examples: meetings, workshops, practical sessions • More effective for changing simple behaviours and serious outcomes
Education (outreach)	Effective	• Academic detailing • Trained educators meet with healthcare professionals at the place of practice to provide training, feedback, materials, reminders, follow-ups
Education (traditional)	Ineffective	• Lacking active participation • Examples: conferences and lectures
Educational materials	Effective, variable	• Printed educational materials with recommendations for clinical care • Examples: clinical practice guidelines, audio-visual materials
Incentivization	Ineffective, variable	• Financial incentives to encourage implementation • May negatively affect person-centeredness of clinician-patient interactions • Improvements may be short term
Local opinion leaders	Ineffective, variable	• Individuals in an organization who have substantial influence on the community use this influence to persuade healthcare providers to adopt a new intervention • Effect of the educational method or frequency of involvement is unknown
Mass Media	Lack of evidence	• Organized and purposive activities using a variety of media channels • Examples: Television, radio, newspapers, billboards, posters, etc.
Multifaceted	Effective, variable	• More than one implementation strategy used together
Reminder system	Effective, variable	• Examples: checklists, notices, electronic reminders • Known to improve care, but effect on patient outcomes i
Social Media	Variable	• Examples: wikis, blogs, podcasts, social media networks, vlogging
Toolkits	Effective	• Packaged groupings of multiple KT tools and strategies, where users select the KT strategies to use

Barriers & Facilitators of Implementation

There are a variety of domains that surround provider implementation strategies that ultimately affect the implementation process (Fixsen et al., 2005; Geerligs et al., 2018; Grol et al., 2003; Innis et al., 2015; Lau et al., 2016)

Domains	Facilitator	Barrier
System-related		
Policy	• Supportive policy • Audits or accreditation	• Restrictive regulations
Organizational Culture	• Effective leadership • Receptive to change & innovation • Readiness. Implementation taskforce • Sharing intervention success stories	• Ineffective leadership • Lack of strategic planning or staff preparation • Feelings of forced changes
Organizational Support & Resources	• Adequate time, funding, staff & technical support	• Limited funding, lack of planning & training time, insufficient equipment, insufficient administrative support
IT Compatibility & Support	• Compatibility with current IT systems	• Inability to accommodate new systems • Poor IT functionality & accessibility • Lack of IT training
Staff-related		
Relationships	• Positive & trusting inter-professional relationships • Bidirectional communication with opportunities for discussion or input	• Conflict with patient expectations
Team Dynamic	• Support from peers & superiors • Shared vision, collective agreement on goals • Trust between clinicians	• Lack of collaboration • Miscommunication • Fragmentation
Staff Attitudes	• Popularity of intervention • Commitment & motivation	• Negative feelings or beliefs about implementation • Negative feelings from previous failed implementation efforts
Roles & Skills	• Flexible & diverse team for interdisciplinary interventions • Confidence in skills & ability to carry out tasks	• Lack of clarity on who is responsible to implement changes • Lack of required skills
Training	• Regular training & monitoring. Repeated training • Engagement with end users	• Lack of allocated time or resources • Feelings of inadequate training
Workload	• Hiring additional staff to handle increased workloads • Providing staff with sufficient time for implementation	• High workload. Competing priorities • Lack of time or perceived lack of time for implementation • Staff shortages. High staff turnover
Intervention-related		
Intervention Complexity	• Customizability of intervention • Make user-friendly with simplified forms & tools	• Complexity leads to lower adoption • Large number of sites • Number & diversity of health professionals
Intervention Evidence	• Clear & consistent evidence of intervention benefit • Evidence available to staff • Staff knowledgeable about intervention	• Skepticism. Questions of intervention validity • Disagreement with evidence • Misinterpretation of intervention
Ease of Integration	• Interventions that fit within existing systems & workflows • Flexible & iterative implementation	• Interventions with changes to standard processes
Safety & Ethics	• Protect staff & patients by addressing issues of safety or legality	• Concerns about implementation safety & ethics • Perception of liability

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