Starting the conversation: Deadoption of low-value rehabilitation practices

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Objectives

1. Increase knowledge of deadoption key terms

2. Understand the theoretical basis of deadoption and current literature

3. Introduce the Niven et al. (2015) Deadoption Framework

4. Apply the concept of deadoption to examples outside and within rehabilitation

Methods

- Researchers conducted a literature review on deadoption and deimplementation in MEDLINE, CINAHL, and EMBASE, as well as the leading journal in knowledge translation science, *Implementation Science*.

- Literature was critically examined for foundational concepts on deadoption, as well as application of these concepts to practice.

What is deadoption?

Terminology:

43 unique terms that mean deadoption (Niven et al. 2015) (table 3)

- "Disinvest" and "decrease use" most commonly cited terms
- Median number of terms used **per citation** was 3

Definitions:

"Discontinuation of a clinical practice after it was previously adopted" (Niven et al., 2015)

Incidence of Low-Value Practices

There is a high incidence of ineffective medical practices in the medical literature (Prasad et al., 2011; Prasad et al., 2013; Prasad & Ioannidis, 2014),

Literature on deadoption at-a-glance

Niven et al. (2015)

- Evidence of growing literature base since 2010

- Mostly North American

- Most articles cited "risk of harm" as reason practices should be deadopted (73%)

Theoretical basis of deadoption

- Theoretical evidence-based rationale for deadoption as a separate process to adoption or implementation is unclear

- Preliminary research has examined psychological theories to assess theoretical basis
    - Operant Learning Theory (OLT) (Patey, 2016)

Deadoption Framework
Proposed by Niven et al. (2015)

Table 1 Proposed framework for conceptualizing de-adoption

Phase of de-adoption	Operational definition
Identify low-value clinical practices	Ascertain which clinical practices are of low value
Facilitate the de-adoption process	Reduce the use of low-value clinical practices
Evaluate de-adoption outcomes	Evaluate the outcomes of a strategy of de-adoption
Sustain de-adoption	Prevent resurgence in use of low-value practices after their initial de-adoption

1. Identifying Low-Value Practices

Identification
- Consultation with clinical stakeholders
- Monitoring for new scientific evidence
- Examining practices with large between-provider variation

Prioritization
- Availability and strength of evidence
- Safety of the low-value practice
- Potential cost impact of deadoption
- Availability of alternative practices

(Niven et al. 2015)

2. Facilitate the Deadoption Process

Most common in the literature (Niven et al. 2015):

- Restructuring of funding associated with the given practice
- Changes to local and/or regional policies

But also…

- Active (KT) interventions: Interventions specifically designed to de-adopt a practice e.g. audit and feedback interventions

3. Evaluate the Deadoption Process

Possible outcomes:

- Low value practice use

- Costs

- Potential harms

4. Sustain Deadoption

- Niven discusses the necessity of a "sustainability plan"
- High likelihood that providers will revert to using the habituated practice (Duhigg, 2012)

Entrenched in bias...

- Deadoption is a multi-dimensional construct
- Mastectomy example

"Evidence did play a role in the case of de-implementing radical mastectomy—but it was not the star of the performance as would be hoped for from an evidence-based medicine perspective." (Montini & Graham, 2015, pp. 5)

Examples from rehabilitation

- Cone Stacking

- Resting hand splits

- X-rays for low back pain

Take Home Messages

- Terminology problem
- Identification and prioritization of low value practices is key
- Low value practices are entrenched in social, political, and economic biases
- It's "early days"

Questions?

References

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