

The use of Protection-Motivation Theory to support patient adherence in perioperative care, rehabilitation and other settings: protocol for a scoping review. (Version 2.0, 26 September 2023)

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Contributions of Protocol Authors

RJ and DH conceived the review. All authors contributed to the design of the review. DH gave final approval for this version to be published.

Guarantor of the review

DH.

INTRODUCTION

Rationale

In scoliosis, the spine develops in a curved shape, leading to distress and discomfort. An effective treatment for scoliosis is the use of a back brace, which helps to adjust the spine to a normal curve. For the best outcomes, patients are advised to wear their back brace for 18 hours each day, often over a period of several years. Adherence to the 18 hour treatment reduces the risk of needing subsequent back surgery from 48% to 28%. However, research has found that compliance can be poor, with one randomised controlled trial identifying that the mean time spent wearing a back brace is only around 12 hours per day. The gap between ideal adherence and actual adherence exists for many treatments, leading to worse outcomes.

One approach to improving adherence could be through the use of theory when developing an intervention. The MRC suggests that theory should be used to guide the development and implementation of interventions to improve health.

Protection-Motivation Theory (PMT) has the potential to improve adherence to treatment. PMT proposes that health-related behaviour, like adherence to treatment, can be understood according to two broad themes - threat appraisal and coping appraisal. Threat appraisal considers how severe a threatening event is and how vulnerable an individual perceives themselves to be. Coping appraisal is the individual's appraisal of their ability to respond to that threat. PMT holds that people are more likely to engage in healthy behaviour if the threat of harm is high and they are well equipped to cope with that threat. Conversely, where the perception of threat is low and a person's perceived ability to cope with that threat is low then healthy behaviours are less likely to occur.

This scoping review will aim to look at the extent to which PMT has been used in the development of interventions to improve adherence to treatment.

Aims and objectives

The aim of this review is to characterise the literature on the application of Protection-Motivation Theory to healthcare interventions aiming to change the behaviour of patients with a medical diagnosis.

The specific objectives are to:

- Conduct systematic searches and identify studies on the application of PMT in patients with a medical diagnosis, where adherence will directly benefit the research participants.
- Extract data from eligible studies
- Produce narrative, tabular and graphical syntheses
- Conduct a gaps analysis showing research priorities

METHODS

Eligibility Criteria

Population:

Included

Clinical populations.

Risk of condition progression (not risk of new diagnosis)

Excluded

Non-clinical populations (e.g. university students, disease/condition free healthy individuals, healthy pregnant women)

Currently disease free but at high risk of developing conditions (smokers, obesity)

Context

Included

Adherence outcome must directly affect research participants

Excluded

Outcome of intervention does not directly benefit participant (i.e. exclude intervention to promote adherence of condom use in HIV+ve patients)

Concept

Included

Healthcare delivered interventions and support / adjunctive interventions for clinical populations (e.g. adherence support)

Smoking cessation in a clinical population (e.g. TB)

Excluded

Preventive interventions (e.g. vaccine hesitancy, smoking cessation, breast screening behaviour etc)

Search Strategy

MEDLINE, PsycINFO, and Embase (via Ovid) will be searched to identify relevant literature using the search strategy below. Language will be limited to English but there will be no restriction on publication period.

A search for grey literature, defined as literature not indexed by a bibliographic database, will be carried out in Google Scholar. The first 200 relevant references will be screened as recommended in the literature (1)

Search terms

Single search string:

1. Protection Motivation Theory.mp.

Controlled vocabulary search:

1. Protection motivation theory.mp.
2. Exp Rehabilitation/
3. Exp Surgery/
4. 2 or 3
5. 1 and 4

Selection of sources of evidence

Two reviewers will screen the titles and abstracts then full texts of all records against the eligibility criteria. Any disagreements on study selection will be resolved by discussion with a third reviewer.

Data charting process

Data will be extracted by two reviewers into a pre-designed form in Google Sheets.

Data items

The following data items will be charted:

Study characteristics

- Author
- Year of publication
- Study design
- Setting

- Condition
- PMT construct targeted

TIDieR checklist items (2)

- Brief name
- Why
- What (materials)
- What (procedures)
- Who provided
- How
- Where
- When and how much
- Tailoring
- Modifications
- How well (planned)
- How well (actual)

Synthesis of results

Narrative and tabular summaries will be used to synthesise the results.

1. Haddaway NR, Collins AM, Coughlin D, Kirk S. The Role of Google Scholar in Evidence Reviews and Its Applicability to Grey Literature Searching. PLoS One [Internet]. 2015 Sep 17;10(9):e0138237. Available from: <http://dx.doi.org/10.1371/journal.pone.0138237>
2. Hoffmann TC, Glasziou PP, Boutron I, Milne R, Perera R, Moher D, et al. Better reporting of interventions: template for intervention description and replication (TIDieR) checklist and guide. BMJ [Internet]. 2014 Mar 7;348:g1687. Available from: <http://dx.doi.org/10.1136/bmj.g1687>