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PROSPERO International prospective register of systematic reviews

Theory-based interventions to aid healthcare staff prevent and control healthcareassociated infections: an integrative review protocol

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Review question(s)

The objective of this integrative review is to synthesise the best available evidence on (i) what and (ii) how theory has been implemented in the development of interventions aiding healthcare staff to prevent and control healthcare-associated infections.

Consequently the specific review questions to be addressed are:

1. What theory-based interventions have been implemented to aid healthcare staff prevent and control healthcareassociated infections?

2. How are these interventions structured and applied?

3. To what extent are these interventions effective?

Searches

Published articles will be searched via the following databases:

Web of Knowledge;

CINAHL;

AMED;

MEDLINE;

PsycARTICLES;

ERIC;

TRIP;

American Doctoral Dissertations.

References from all eligible studies will be further scrutinised to identify additional possible studies. Published theses and dissertations databases will be searched.

Literature published in the English language will be eligible for inclusion.

Unpublished work and non-English language literature will be excluded.

Finally, all literature obtained from the search will be stored in RefWorks, and referenced according to Harvard



referencing style.

Types of study to be included

This review will consider any article with qualitative, quantitative and mixed-methods designs.

Identified articles with a less empirical character (e.g. no experimental design, exploratory approach) will be taken into consideration as long as there is an argument for the importance of a theory or theoretical framework in interventions aiming to aid healthcare staff prevent and control HAIs. Expert opinions, letters to editors and conference proceedings will be excluded from the review.

There will be no restriction in relation to the type of healthcare-associated infection (e.g. MRSA, Norovirus, C. difficile, etc.) or type of healthcare professionals (e.g. physicians, nurses, domestic staff, health visitors, support workers, medical educators etc.).

Condition or domain being studied

Healthcare-associated infections (HAIs) remain a significant problem across the globe in both developed and developing countries. Failure to adhere to hygiene best practice guidance by healthcare staff is one of the most important factors for high HAIs rates. Healthcare systems are increasingly facing alarming morbidity and mortality rates as well as financial losses – such rates are associated with HAIs.

Interventions aiming at tackling HAIs are focusing on increasing adherence to hygiene practices among healthcare staff but the extent and quality of evidence around effectiveness appears to be unknown at present. Initial scoping suggests that systematic study of the nature and scope of the evidence is required.

For this reason, an integrative review of studies which have implemented a theory or theoretical framework to inform the intervention would be of particular interest.

Participants/ population

All articles reporting:

- (i) Healthcare staff (e.g. physicians, nurses, health visitors, support workers, medical educators etc.); and/or
- (ii) Ancillary staff (e.g. domestic staff, catering assistants, etc.); and/or
- (iii) Academic student population from health-related disciplines (e.g. nursing, midwifery, etc.)

will be eligible for inclusion in the review.

Intervention(s), **exposure**(s)

Any theory (e.g. behaviour change theories such as the Theory of Planned Behaviour) or theoretical framework (e.g. Theoretical Domains Framework), that is implemented as part of an intervention, improvement programme or national guidelines aiming to aid healthcare staff prevent and control healthcare-associated infections.

The main focus will be primarily on psychological, social and human relations type theories or theoretical frameworks etc.

Comparator(s)/ control

Not applicable.

Context

Included studies will involve interventions and/or strategies implemented in primary, secondary and tertiary healthcare settings as well as healthcare in the community.

Studies reporting similar settings not included in the above list will also be considered for inclusion as long as their context belongs to healthcare.



Outcome(s)

Primary outcomes

1) To specify the nature, scope and quality of evidence relating to theory-based interventions in this field.

2) To identify the effectiveness of these theory-based interventions in terms of impacts ranging from increasing staff awareness and knowledge, through intention to change behaviour, to reported/observed behaviour change, to measures and proxy measures of infection.

Secondary outcomes None.

Data extraction, (selection and coding)

The databases will be searched by the lead reviewer. Using the inclusion and exclusion criteria, titles and abstracts will be independently screened by the two reviewers for potentially relevant studies. The selected potentially relevant studies will be further assessed by obtaining their full texts. Also, reasons for exclusion of studies will be provided. In the case of any discrepancies between the two reviewers disagreements will be resolved through consensus or arbitration involving a third reviewer. The retrieved records for all potentially relevant articles will be stored in a RefWorks database. Information and data from the included studies will be coded and extracted independently by the same two reviewers using an evaluation table. The evaluation table will be divided in columns where each article's essential elements will be entered as appropriate: author(s) names and year, country of origin, setting, theory/theoretical framework, design/method, sample, type of theory-based intervention, measurement, data analysis, findings, recommendations, appraisal of article. Missing data and information will be retrieved by contacting directly the author(s) of the articles.

Risk of bias (quality) assessment

Only these articles selected for retrieval will be assessed for their methodological validity.

All selected articles will be appraised using the Critical Appraisal Skills Programme (CASP; 2014) various tools and checklists according to the methodological approach of each article. Any studies which are employing diverse designs will be appraised using the 16-item quality assessment tool (QATSDD) (Sirriyeh, Lawton, Gardner, & Armitage, 2012).

Strategy for data synthesis

The expected variety of the retrieved quantitative and qualitative findings will be synthesised by an integrative approach (Whittemore and Knafl, 2005) implementing narrative synthesis. When needed and, if applicable, basic descriptive statistics will be carried out to the extracted quantitative data.

Analysis of subgroups or subsets

None planned.

Dissemination plans

The findings will be presented in national (e.g. Infection Prevention Society) and international (e.g. Int'nl Conference on Prevention and Infection Control (ICPIC)) conferences. Our dissemination plan will, include publication of the findings in peer reviewed journals appropriate to the field of infection control training and education.

Contact details for further information

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Anticipated or actual start date

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Anticipated completion date

31 March 2017

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Conflicts of interest None known

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Subject index terms status Subject indexing assigned by CRD

Subject index terms

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Stage of review Ongoing

Date of registration in PROSPERO 08 September 2016

Date of publication of this revision

08 September 2016

Stage of review at time of this submission	Started	Completed
Preliminary searches	Yes	No
Piloting of the study selection process	Yes	No
Formal screening of search results against eligibility criteria	No	No
Data extraction	No	No
Risk of bias (quality) assessment	No	No



National Institute for Health Research

Data analysis

No

No

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