PROSPERO

International prospective register of systematic reviews

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The need for prospective registration

- Systematic reviews usually provide the evidence base upon which health and social care decisions are made so they should be robust and free from bias
- Health research resources are finite so need to be allocated carefully: avoiding unnecessary duplication

Why register systematic reviews: publication bias

- Likely that just as for clinical trials there may be publication bias associated with systematic reviews
- Evidence that unpublished systematic reviews exist (*Tricco et al J Clinical Epidemiology 2009)*
  - 248 survey respondents reported 12% of 1604 completed reviews as unpublished
  - Respondents reason for non-publication was lack of time
- 2009 PRISMA statement advocated registration

Why register systematic reviews: reporting bias

- Emerging evidence that reporting biases similar to those observed for clinical trials were also operating for systematic reviews *(Kirkham et al PLoS ONE 2010)*
  - New reviews from 3 consecutive issues Cochrane Library
  - 22% of 288 review/protocol pairings were discrepant in at least one outcome

- Prospective registration of systematic reviews could guard against bias - in the same way as for prospective registration of clinical trials

How registration can help avoid bias

- Registration facilitates transparency
  - Provides permanent public record of key features of a systematic review even if the completed review is never published
  - Enables comparison of what was planned with what is reported:
    - can assess if any discrepancies likely to have introduced bias
    - encouraging clear reporting of any changes with justifications
  - Reviews registered prospectively with audit trail of amendments (not unreasonable to make changes, but need to know why they were made and at what stage)
  - Unique registration number to enable linkage between the record and review publications

Duplication of reviews

- Unplanned duplication of reviews is a waste of resource
  - 73 meta-analyses: two thirds had at least one overlapping meta-analysis *(Siontis et al BMJ 2013)*
  - Call for sources to identify research in progress *(Chalmers et al Lancet 2014)*
- Registration allows those planning reviews to check whether there are any ongoing reviews that address their topic or specific question of interest
- Offers opportunities for collaboration

Requirements of a register

- Searchable and accessible to all
- Free to use
- Accept registrations from anyone
- Require provision of a minimum data set
- Validate entries (within scope and complete)
- Provide a unique identification number for each record
- Permanent entries

Criteria established by the ICMJE for clinical trial registers

Developing PROSPERO

- International advisory group
- Establishing a minimum dataset
  - Should not be overly burdensome
  - Aim to collect sufficient information to
    - enable informed judgement about potential risk of bias
    - determine whether reviews already in ‘pipeline’ meet identified need without undertaking a new review
  - Not to capture wider information that should be included in a full protocol for a systematic review

International consultation

- Inform register design
- Reach consensus on data items required for registration
- Generate support for registration
- Raise awareness of the forthcoming register

- Modified Delphi
  - *(Booth A et al. PLoS ONE 2011; 6(11): e27319)*

Registration minimum dataset: Review design fields (19/40)

- Review question(s)*
- Searches*
- URL to search strategy
- Condition or domain being studied*
- Participants/population*
- Intervention(s), exposure(s)*
- Comparator(s)/control*
- Types of study for inclusion*
- Context
- Main outcome(s)*
- Additional outcomes*
- Data extraction (selection and coding)*
- Risk of bias (quality) assessment*
- Strategy for data synthesis*
- Analysis of subgroups/sets*
- Type and method of review*
- Reference/URL to full protocol
- Dissemination plans
- Details of final report/ publication *(added over time)*

* *these fields are mandatory*

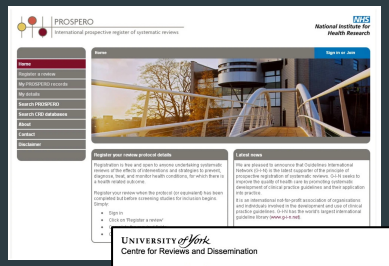
Registration minimum dataset: Administrative fields (21/40)

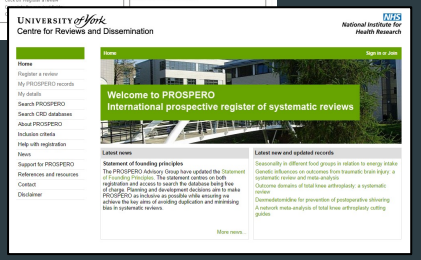
- Review title*
- Original language title
- Anticipated or actual start date*
- Anticipated completion date*
- Stage of review*
- Named contact*
- Named contact email*
- Named contact address
- Named contact phone number
- Organisational affiliation*
- Review team members and affiliations*
- Funding sources/sponsors*
- Conflict of interests*
- Collaborators
- Language
- Country*
- Other registration details
- Key words
- Existing review by same authors
- Current review status*
- Any additional information

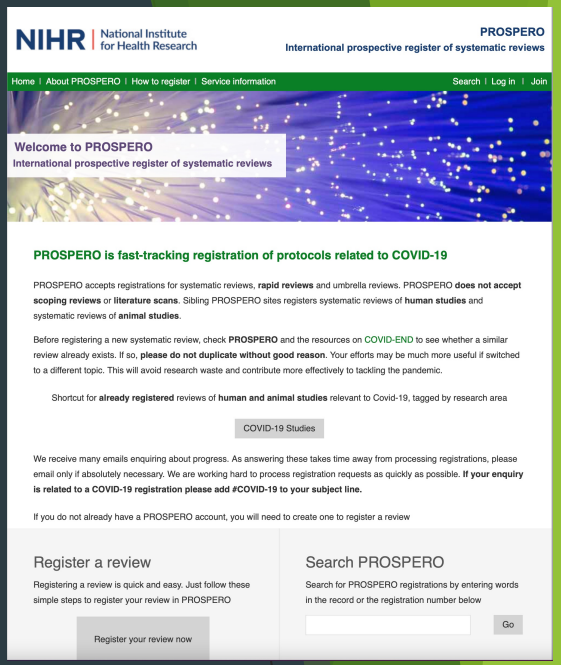
** these fields are mandatory*

PROSPERO

Launched in Feb 2011







- Web based
- Free to search
- Free to register
- Registrants create, amend and update their own records
- Minimum data set to be completed
- Record content is the responsibility of the named contact
- Administrators check for “sense”: there is **no** peer review
- Provide a unique identification number for each record
- Entries are permanent

(Booth A et al. Syst Rev. 2012;1)

What will you find in PROSPERO

Systematic reviews of

- Interventions (including qualitative and IPD reviews
- Diagnostic accuracy
- Prognostic factors
- Prevention
- Epidemiological reviews relevant to health and social care
- Public health
- Service delivery in health and social care
- Methodology

129,470

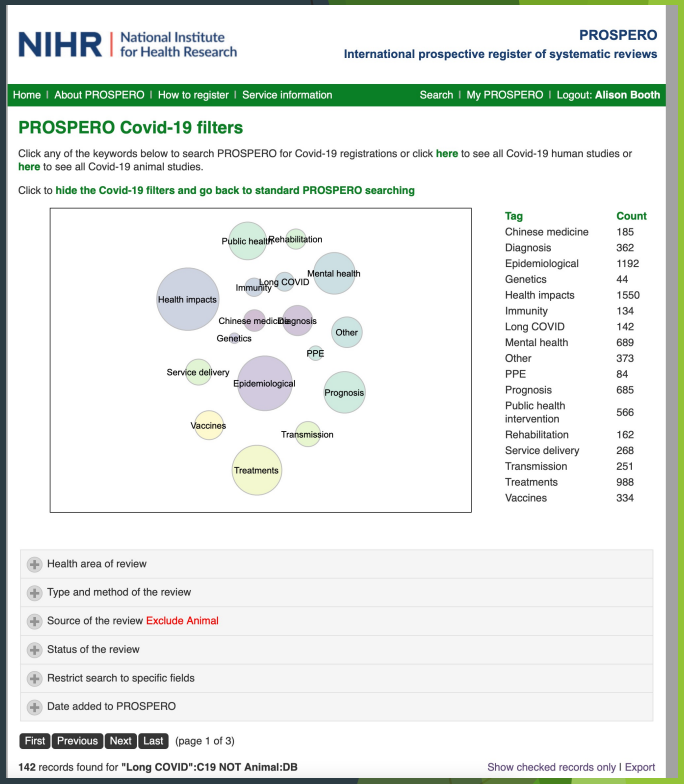
2,633

- Cochrane reviews automatically uploaded (technical issue in Feb 2020)
- Protocols for systematic reviews of animal studies for human health (separate form: administered by SYRCLE-CAMARADES team)

1,113

Searching PROSPERO

- No need to log in
- MeSH interface available
- PROSPERO search filters
  - Health area of review
  - Type and method of the review
  - Source of the review
  - Status
  - Restrict search to specific fields
  - Date added to PROSPERO



Searching PROSPERO

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PROSPERO
International prospective register of systematic reviews

Home | About PROSPERO | How to register | Service information — Search | Log in | Join

Click to **show your search history and hide search results**. Open the **Filters** panel to find records with specific characteristics (e.g. all reviews about cancer or all diagnostic reviews etc)

Click to **hide the standard search and use the Covid-19 filters.**

social prescribing | Go | MeSH | Clear filters | Hide filters

- Health area of review
- Type and method of the review
- Source of the review Exclude Animal
  - (•) All protocols
    - [ ] Exclude Cochrane protocols
    - [x] Exclude reviews of animal studies for human health protocols
  - ( ) Cochrane protocols only
  - ( ) Reviews of animal studies for human health protocols only
- Status of the review
- Restrict search to specific fields
- Date added to PROSPERO

First | Previous | Next | Last (page 1 of 2)

53 records found for **social prescribing NOT Animal:DB** — Show checked records only | Export

Registered	Title	Type	Review status
22/09/2020	A realist review of the impact on individuals' physical, mental, psychological or social health and well being through participation in Parkrun [CRD42020175448]		Review Ongoing
13/08/2019	A systematic review of social interventions for depression [CRD42019137185]		Review Completed published
09/03/2020	A systematic review of the effectiveness of gardening interventions for reducing mental ill health and increasing wellbeing in adults with mental health issues [CRD42020162187]		Review Ongoing

Export

Export the results of your search to a tagged text file. The file will be prepared and downloaded to your device when you click "Export now" below

An Endnote import filter is available for these records here.

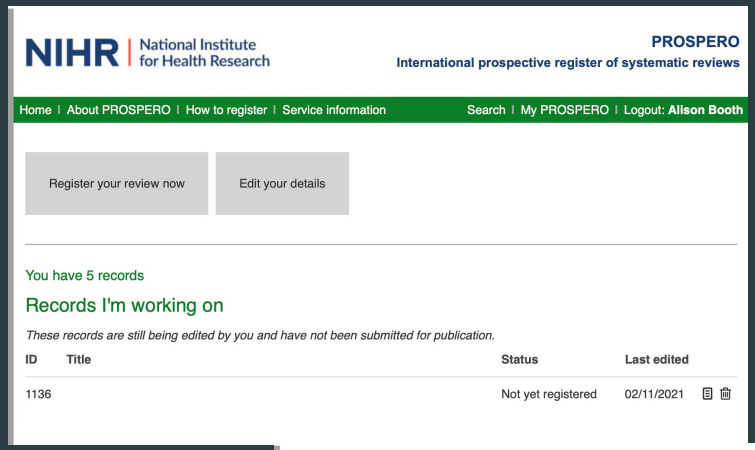
- ( ) Export all results
- (•) Export checked results only

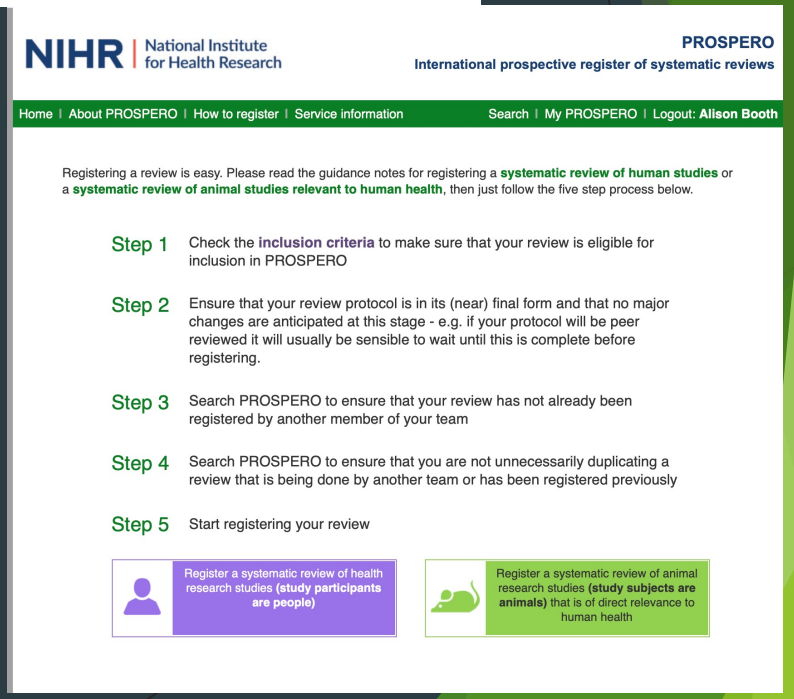
- (•) Export in legacy PROSPERO format
- ( ) Export as RIS

Export now

Registering a review

- Join/log in on the home page
- Go to My PROSPERO
- Select Register your review now
- Follow steps 1-4

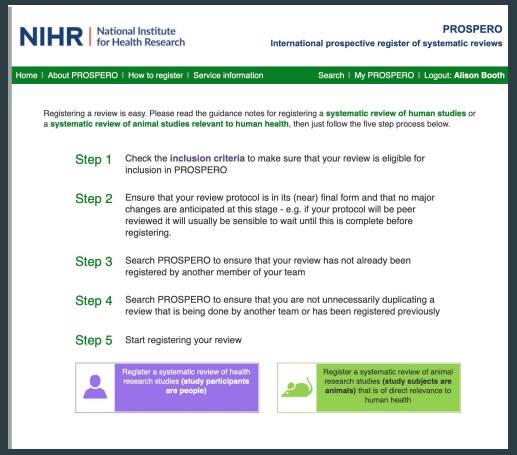




Step 1: eligibility

- PROSPERO includes details of any planned or on-going systematic review that has a health related outcome
- Exclusion criteria:
  - Systematic reviews without an outcome of clear relevance to the health of humans
  - Scoping reviews
  - Literature reviews that use a systematic search
  - Systematic reviews assessing sports performance as an outcome
  - Methodological reviews that assess ONLY the quality of reporting
- Step 2: Full protocol should be (near) ready before registering
- Submission must be before data extraction commences (from Oct 2019)
- Forms must be complete and in English
- Steps 3 and 4: Search PROSPERO for existing registrations

Step 5: Select the required form



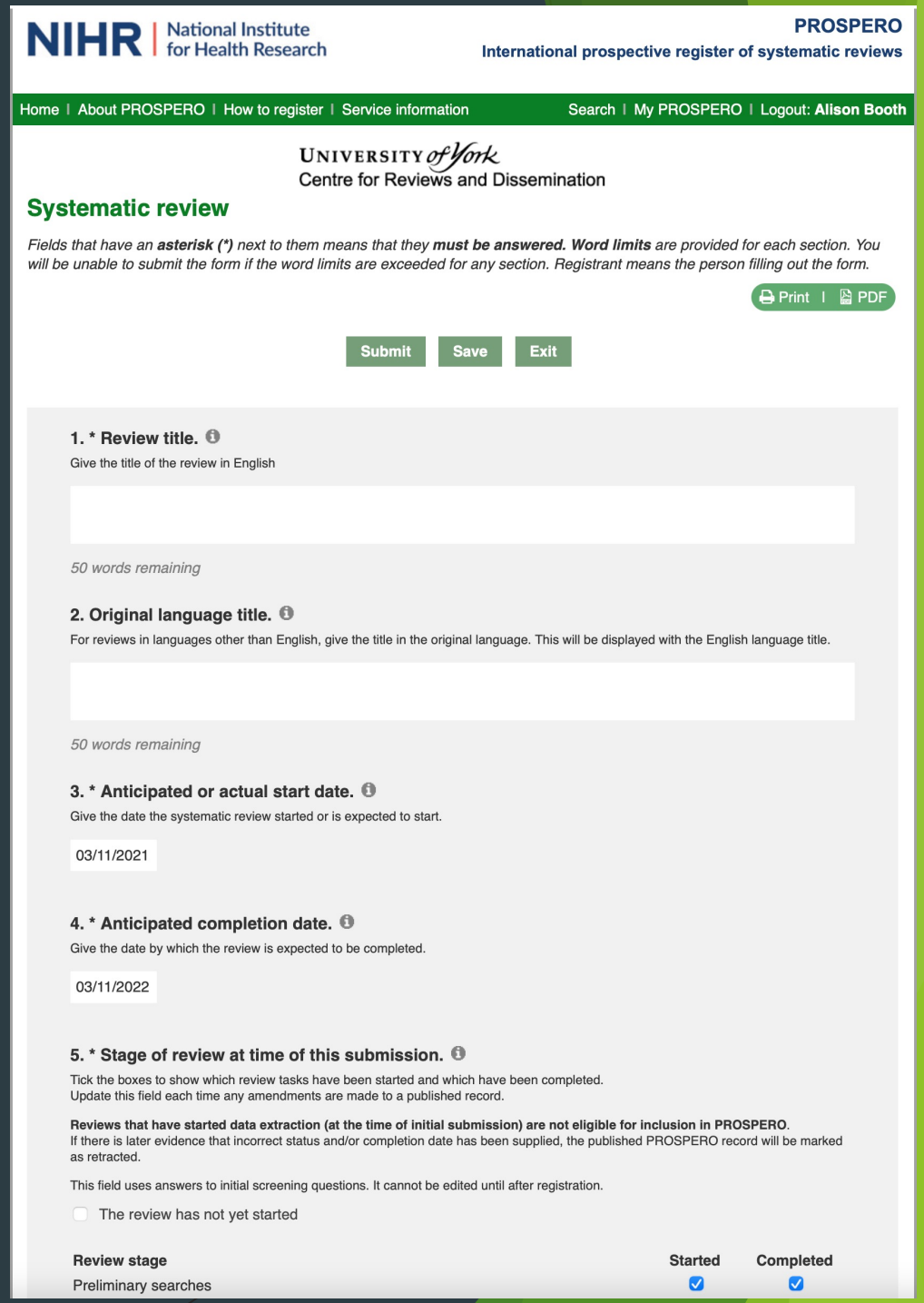
Respond to a series of questions…

…if you make it to the end – click on the link to register your review

Registration form

- Form has 40 fields: *mandatory fields
- Text can be typed or “pasted” in
- Form can be saved as a pdf
- Brief and full guidance available

- Can upload pdf of:
  - Search strategy
  - Published protocol



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PROSPERO
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Home | About PROSPERO | How to register | Service information Search | My PROSPERO | Logout: **Alison Booth**

University of York
Centre for Reviews and Dissemination

Systematic review

*Fields that have an **asterisk (*)** next to them means that they **must be answered. Word limits** are provided for each section. You will be unable to submit the form if the word limits are exceeded for any section. Registrant means the person filling out the form.*

Print | PDF

Submit Save Exit

1. * Review title.
Give the title of the review in English

50 words remaining

2. Original language title.
For reviews in languages other than English, give the title in the original language. This will be displayed with the English language title.

50 words remaining

3. * Anticipated or actual start date.
Give the date the systematic review started or is expected to start.

03/11/2021

4. * Anticipated completion date.
Give the date by which the review is expected to be completed.

03/11/2022

5. * Stage of review at time of this submission.
Tick the boxes to show which review tasks have been started and which have been completed.
Update this field each time any amendments are made to a published record.

Reviews that have started data extraction (at the time of initial submission) are not eligible for inclusion in PROSPERO.
If there is later evidence that incorrect status and/or completion date has been supplied, the published PROSPERO record will be marked as retracted.

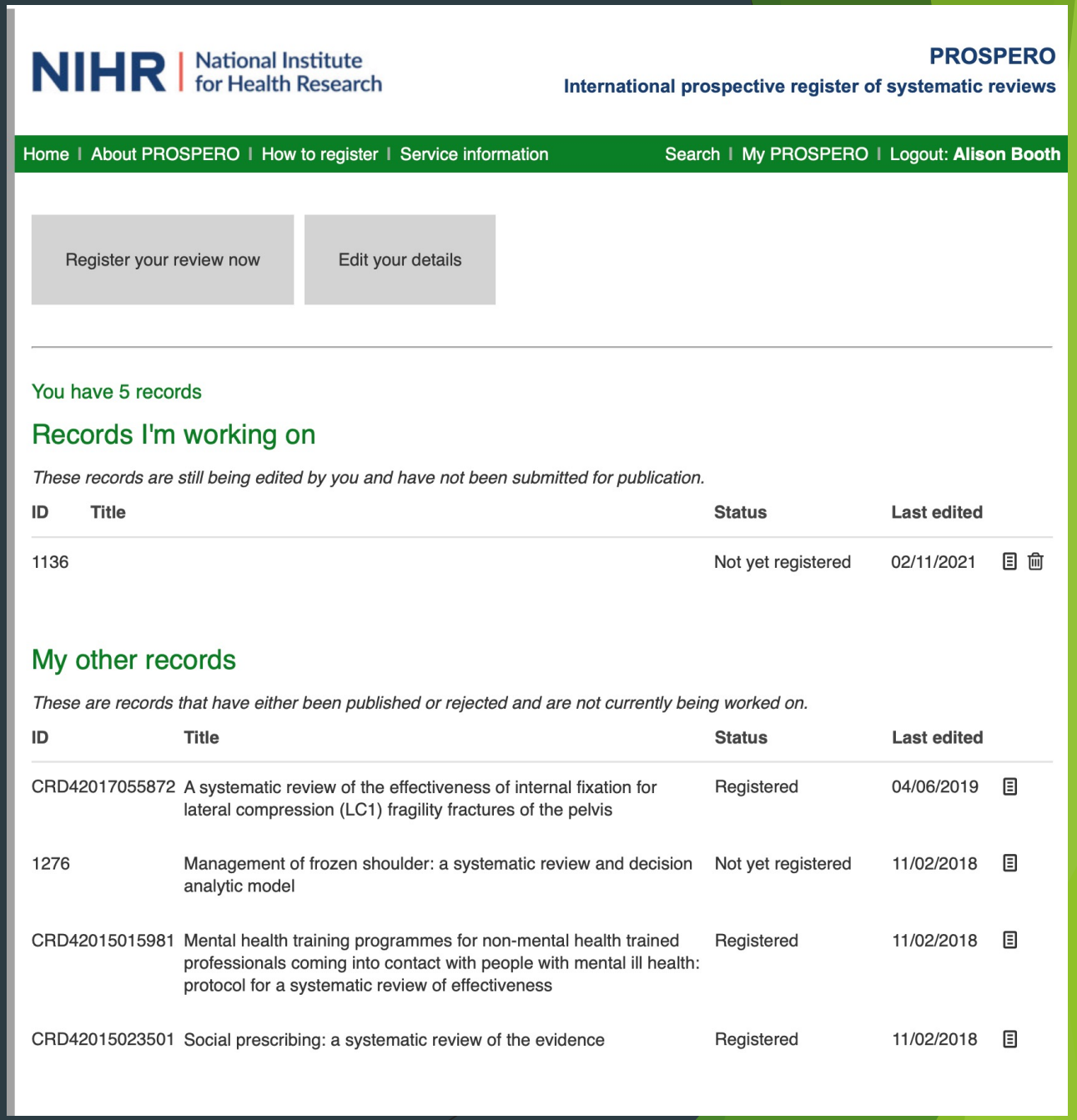
This field uses answers to initial screening questions. It cannot be edited until after registration.

☐ The review has not yet started

Review stage	Started	Completed
Preliminary searches	☑	☑

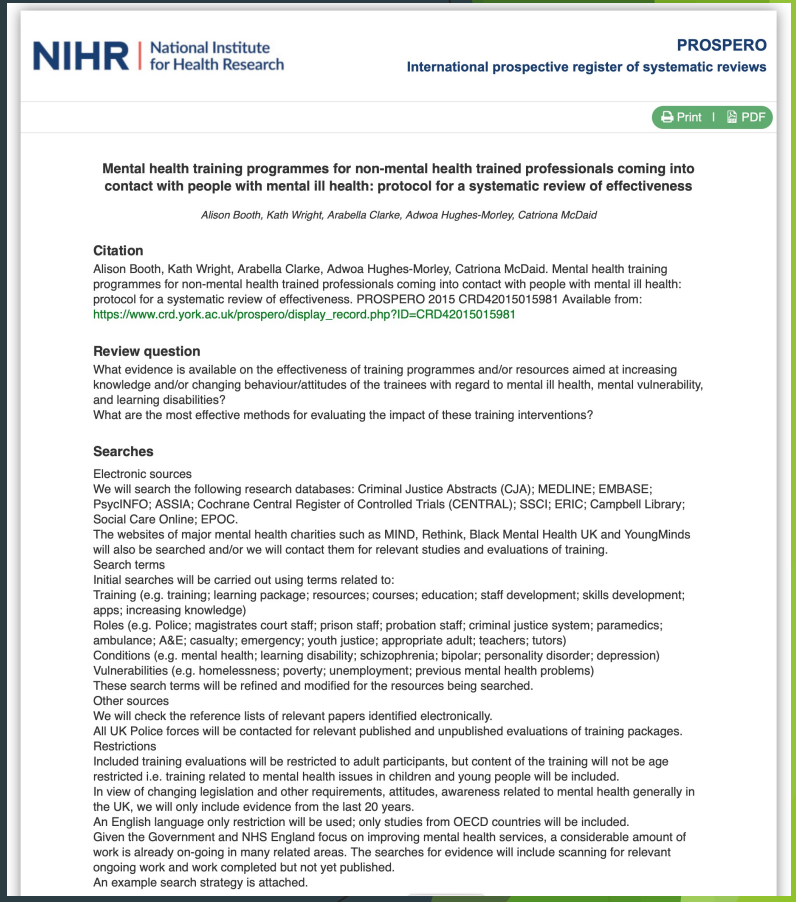
My PROSPERO

- Edit your details
- Start new registration
- Ongoing records
- Published or rejected records
- Records not submitted
- Access to email trail



PROSPERO public interface

- Published records immediately available on the PROSPERO site
- Named contact details available in records
- Fields displayed in a different order to registration form
- Can print or save as pdf



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Mental health training programmes for non-mental health trained professionals coming into contact with people with mental ill health: protocol for a systematic review of effectiveness

Alison Booth, Kath Wright, Arabella Clarke, Adwoa Hughes-Morley, Catriona McDaid

Citation

Alison Booth, Kath Wright, Arabella Clarke, Adwoa Hughes-Morley, Catriona McDaid. Mental health training programmes for non-mental health trained professionals coming into contact with people with mental ill health: protocol for a systematic review of effectiveness. PROSPERO 2015 CRD42015015981 Available from: https://www.crd.york.ac.uk/prospero/display_record.php?ID=CRD42015015981

Review question

What evidence is available on the effectiveness of training programmes and/or resources aimed at increasing knowledge and/or changing behaviour/attitudes of the trainees with regard to mental ill health, mental vulnerability, and learning disabilities?
What are the most effective methods for evaluating the impact of these training interventions?

Searches

Electronic sources
We will search the following research databases: Criminal Justice Abstracts (CJA); MEDLINE; EMBASE; PsycINFO; ASSIA; Cochrane Central Register of Controlled Trials (CENTRAL); SSCI; ERIC; Campbell Library; Social Care Online; EPOC.
The websites of major mental health charities such as MIND, Rethink, Black Mental Health UK and YoungMinds will also be searched and/or we will contact them for relevant studies and evaluations of training.
Search terms
Initial searches will be carried out using terms related to:
Training (e.g. training; learning package; resources; courses; education; staff development; skills development; apps; increasing knowledge)
Roles (e.g. Police; magistrates court staff; prison staff; probation staff; criminal justice system; paramedics; ambulance; A&E; casualty; emergency; youth justice; appropriate adult; teachers; tutors)
Conditions (e.g. mental health; learning disability; schizophrenia; bipolar; personality disorder; depression)
Vulnerabilities (e.g. homelessness; poverty; unemployment; previous mental health problems)
These search terms will be refined and modified for the resources being searched.
Other sources
We will check the reference lists of relevant papers identified electronically.
All UK Police forces will be contacted for relevant published and unpublished evaluations of training packages.
Restrictions
Included training evaluations will be restricted to adult participants, but content of the training will not be age restricted i.e. training related to mental health issues in children and young people will be included.
In view of changing legislation and other requirements, attitudes, awareness related to mental health generally in the UK, we will only include evidence from the last 20 years.
An English language only restriction will be used; only studies from OECD countries will be included.
Given the Government and NHS England focus on improving mental health services, a considerable amount of work is already on-going in many related areas. The searches for evidence will include scanning for relevant ongoing work and work completed but not yet published.
An example search strategy is attached.

Challenges: volume of records

- Volume of registrations
  - October 2019 - around 54,800
  - October 2021 – around 133,216
- Highlighted by COVID submissions *(Dotto et al 2021)*
  - “a massive number of SRs about COVID-19 have been conducted, whose PROSPERO records present varied characteristics. Furthermore, many of the assessed records were poorly reported and would be difficult, if not impossible, to replicate...”
- Can see that unplanned duplication occurs – cannot see where it is prevented

Challenges: level of detail

- Published protocol +/- registration
  - of the 96 reviews included, 91 (95%) had not published their protocol in a journal, making their PROSPERO registration the only source for planned methods *(Tricco et al 2016)*
- Incomplete records
  - Significant short fall in items reported compared to those recommended in PRISMA_P *(Booth et al 2020)* – so registration is not a substitute for a published protocol for identifying potential biases

Future

New opportunities for transparency

- Text mining, machine learning technologies
- Open data repositories
  - + is that everything for a study can be in one place
  - - is no single searchable site for ongoing reviews
- Drivers for change
  - Limited resources need to be used wisely
  - Public now more aware and asking the right questions

Thank you for listening

- Any questions

- alison.booth@york.ac.uk

www.crd.york.ac.uk/PROSPERO

FUNDED BY NIHR | National Institute for Health Research

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