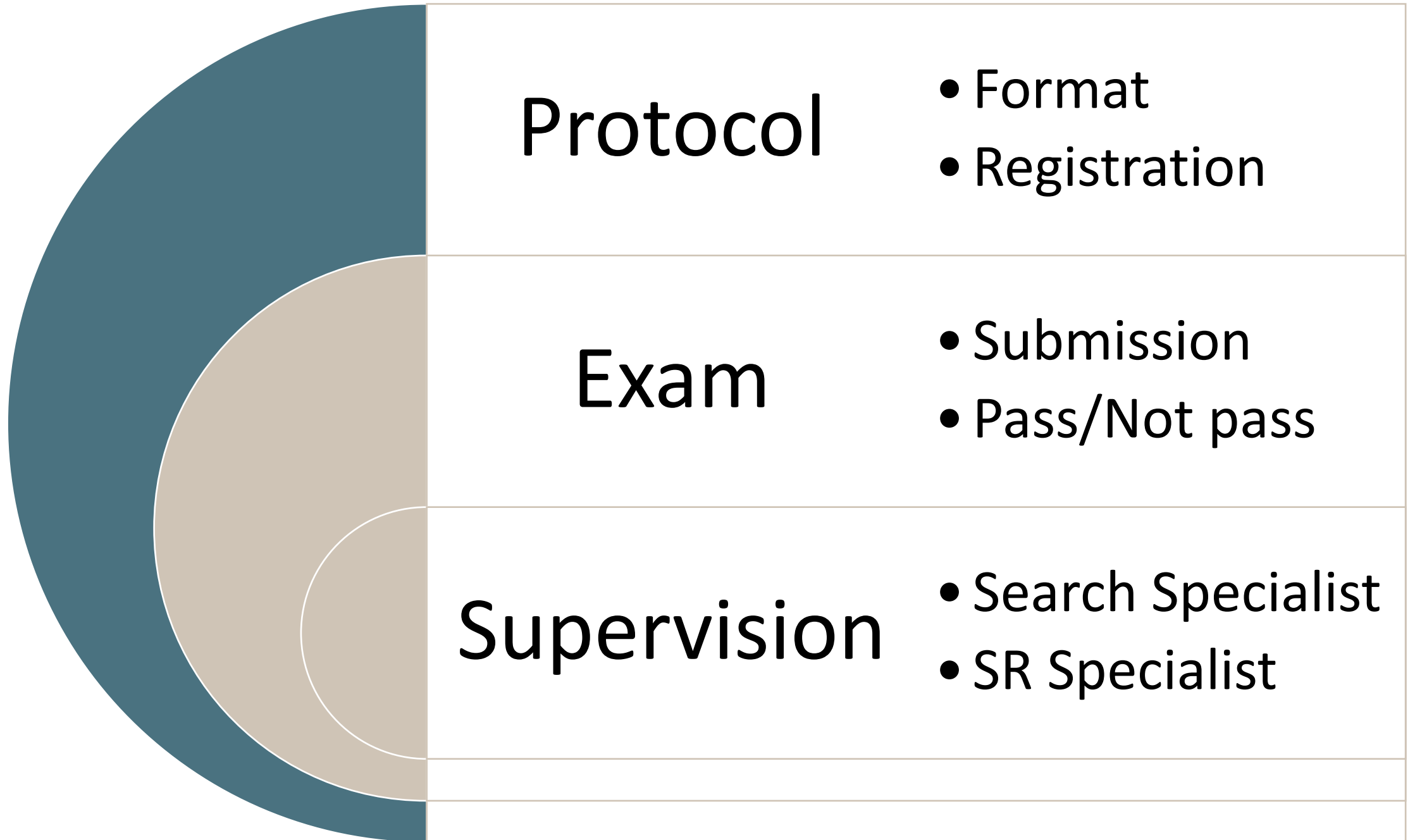


Protocol development and team composition

Exam

Supervision

Lillebeth-Larun@fhi.no Thanks to Julia Bidonde for use of slides



What is a protocol?

- *The plan* or set of steps to be followed in a study.
- A Protocol for a **Systematic Review** should describe the rationale for the review, the objectives, and the methods that will be used to locate, select, and critically appraise studies, and to collect and analyse data from the included studies.

Writing your protocol

- Time and Commitment
 - Writing a protocol can take 2 to 6 months depending on the complexity of your topic and the time and resources available to your team
- Make sure your proposal does not duplicate any work already published or registered
 - Search for published protocols or reviews in the area
- Identify a team of authors for your review/protocol
- Use future tense “we/review authors will”

Review team

- Content knowledge
- Time and interest takes - 4-6 months
- Methodological knowledge i.e. statistics, analytical skills, experience with the primary study methods (qualitative)
- Project management
- 4-6 people (smaller is better for QES)
- Authorship sequence

Registering or Publishing

- review protocols are typically registered at conception
 - Cochrane Systematic Review
 - PROSPERO / <https://www.crd.york.ac.uk/prospero/>
 - OSF *Open Science Framework - <https://osf.io/>

OR

- Published / academic journals
(from Systematic Review) “Protocol articles will only be considered for proposed or ongoing research that has not yet started the final data extraction stage of the review at the time of submission, and should provide a detailed account of the hypothesis, rationale and methodology of the study.”

Format of the protocol

Depends on where you will publish your protocol

➤ Registers:

- PROSPERO
- Open Science Network
- Institutions homepage

➤ In Journals – individual journals standards

- for example Cochrane Handbook, MECIR standards

<https://community.cochrane.org/mecir-manual>

Why and when to register your protocol

- Prospective registration and before the work starts
- Registration helps avoids duplication, allows peer review and provision of other support
- Review protocols follow a highly structured format and their preparation follow a structured process



The screenshot shows the top portion of a web page for 'Systematic Reviews'. The page title is 'Why prospective registration of systematic reviews makes sense', published on 09 February 2012. The authors listed are Lesley Stewart, David Moher, and Paul Shekelle. The article is identified as 'Systematic Reviews' 1, Article number: 7 (2012). It has received 11k accesses, 68 citations, and 19 Altmetric mentions. The abstract states that prospective registration promotes transparency, reduces bias, and avoids duplication. The introduction begins by discussing the launch issue of 'Systematic Reviews' and the increasing attention to prospective registration, referencing the 2009 PRISMA guidelines and subsequent developments.

Systematic Reviews

Home About Articles Submission Guidelines

Editorial | [Open Access](#) | Published: 09 February 2012

Why prospective registration of systematic reviews makes sense

Lesley Stewart [✉](#) David Moher & Paul Shekelle

[Systematic Reviews](#) 1, Article number: 7 (2012) | [Cite this article](#)

11k Accesses | 68 Citations | 19 Altmetric | [Metrics](#)

Abstract

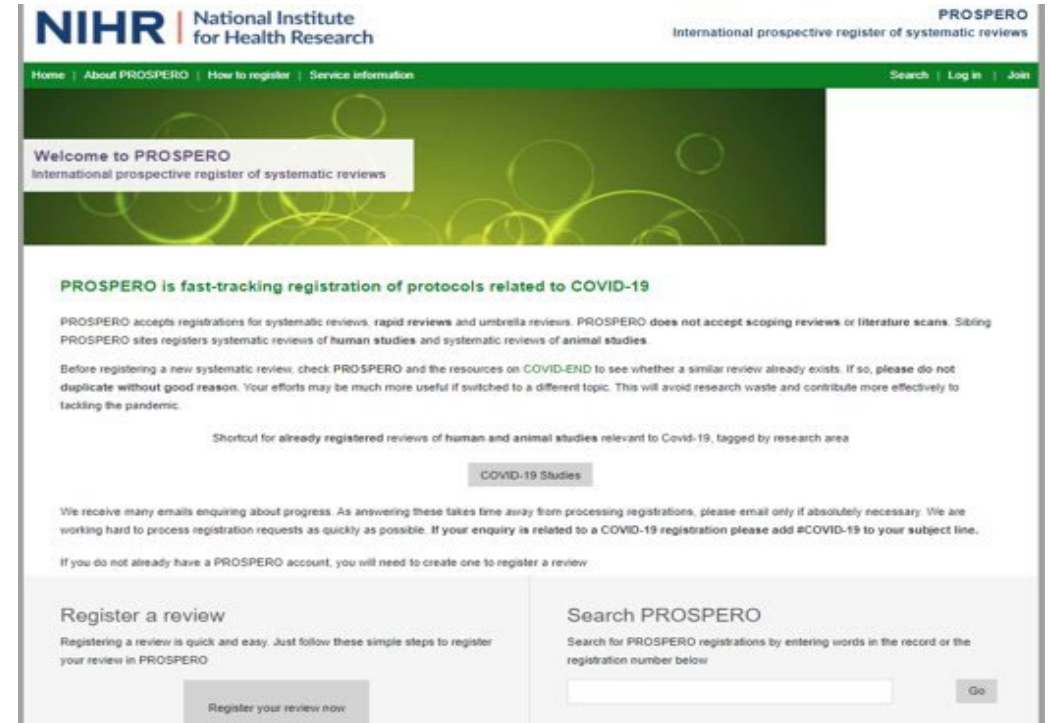
Prospective registration of systematic reviews promotes transparency, helps reduce potential for bias and serves to avoid unintended duplication of reviews. Registration offers advantages to many stakeholders in return for modest additional effort from the researchers registering their reviews.

Introduction

In this launch issue of *Systematic Reviews*, we publish a series of linked articles about prospective registration of systematic reviews. This is a topic which has received increasing attention in recent years, notably in the 2009 PRISMA guidelines for preferred reporting items for systematic reviews and meta-analyses [1] and the subsequent development [2] and

PROSPERO

Registration in PROSPERO requires provision of 22 data items, with the option to provide details of a further 18 items, and generally takes around 30 minutes to complete.



The screenshot shows the PROSPERO website homepage. At the top left is the NIHR logo (National Institute for Health Research). At the top right is the PROSPERO logo (International prospective register of systematic reviews). Below the logos is a navigation menu with links for Home, About PROSPERO, How to register, Service information, Search, Log in, and Join. A large green banner with a white box contains the text "Welcome to PROSPERO" and "International prospective register of systematic reviews". Below the banner is a section titled "PROSPERO is fast-tracking registration of protocols related to COVID-19". This section contains text explaining that PROSPERO accepts registrations for systematic reviews, rapid reviews, and umbrella reviews, but does not accept scoping reviews or literature scans. It also mentions that PROSPERO registers systematic reviews of human studies and systematic reviews of animal studies. A link for "COVID-19 Studies" is provided. At the bottom of the page, there are two main sections: "Register a review" and "Search PROSPERO". The "Register a review" section includes a button labeled "Register your review now". The "Search PROSPERO" section includes a search bar and a "Go" button.

The place to share your research

OSF is a free, open platform to support your research and enable collaboration.

Get started

Discover public research

Discover projects, data, materials, and collaborators on OSF that might be helpful to your own research.

Nielsen et al. *Systematic Reviews* (2018) 7:232
<https://doi.org/10.1186/s13643-018-0898-z>

Systematic Reviews

PROTOCOL

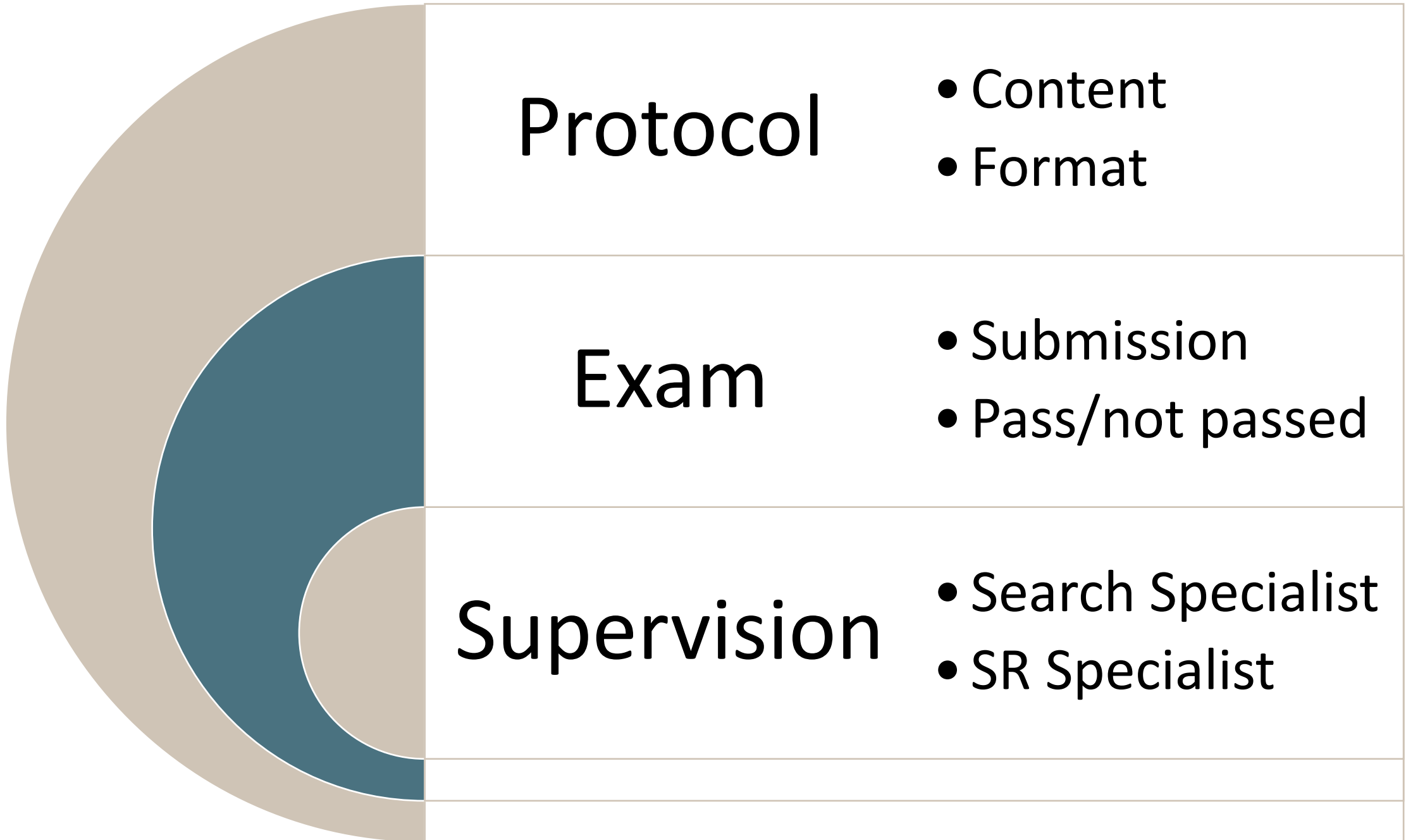
Open Access

Protocol for a systematic review and meta-analysis of research on the associations between workplace bullying and sleep



Morten Birkeland Nielsen^{1,2*}, Ståle Pallesen², Anette Harris² and Ståle Valvatne Einarsen²

Abstract



Protocol

- Content
- Format

Exam

- Submission
- Pass/not passed

Supervision

- Search Specialist
- SR Specialist

Exam

Content – max 10 pages

1. **Introduction**
 1. Background
 2. Description of the intervention
 3. Rationale
 4. Objectives
2. **Methods**
 1. Eligibility criteria
 1. Inclusion criteria
 2. Exclusion criteria
 2. Outcomes and prioritization
 3. Information sources
 4. Summary of search strategy
 5. Study records
 1. Data management
 2. Selection process
 6. Data extraction
 7. Risk of bias of included individual studies (Move to appendix if conducting a scoping review)
 8. Data synthesis (Move to appendix if conducting a scoping review)
 9. GRADE assessment (Move to appendix if conducting a scoping review)
3. **Timeline and resource use**
4. **References**
5. **Appendixes**
 1. Complete search strategy for one database
 2. Other as needed for example if conducting a scoping review

Checklist /template

- For quantitative studies
 - Equator Network - [Prisma – P](#)
 - [Cochrane Handbook – Chapter 4](#)
 - [Institute of Medicine – Standards for systematic reviews \(section 2.6\)](#)
- For qualitative studies
 - EPOC [Qualitative Evidence Synthesis Template](#)

PRISMA – P – quantitative

PRISMA-P (Preferred Reporting Items for Systematic review and Meta-Analysis Protocols) 2015 checklist: recommended items in a systematic review protocol*

Item and topic	Item No	Checklist item
ADMINISTRATIVE INFORMATION		
Identification	1a	Identify the report as a protocol of a systematic review
Update	1b	If the protocol is for an update of a previous systematic review, identify as such
Registration	2	If registered, provide the name of the registry (such as PROSPERO) and registration number
Authors:		
Contact	3a	Provide name, institutional affiliation, e-mail address of all protocol authors; provide physical mailing address of corresponding author
Contributions	3b	Describe contributions of protocol authors and identify the guarantor of the review
Amendments	4	If the protocol represents an amendment of a previously completed or published protocol, identify as such; otherwise, state plan for documenting important protocol amendments
Support:		
Sources	5a	Indicate sources of financial or other support for the review
Sponsor	5b	Provide name for the review funder and/or sponsor
Role of sponsor or funder	5c	Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol
INTRODUCTION		
Rationale	6	Describe the rationale for the review in the context of what is already known
Objectives	7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)
METHODS		
Eligibility criteria	8	Specify the study characteristics (such as PICO, study design, setting, time frame) and report characteristics considered, language, publication status) to be used as criteria for eligibility for the review
Information sources	9	Describe all intended information sources (such as electronic databases, contact with study authors, trial registries, grey literature sources) with planned dates of coverage
Search strategy	10	Present draft of search strategy to be used for at least one electronic database, including planned limits, search filters, and search dates
Records:		
Data management	11a	Describe the mechanism(s) that will be used to manage records and data throughout the review

doi:10.1136/bmj.g7647 (Published 2 January 2015)

RESEARCH METHODS & REPORTING

Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015: elaboration and explanation

David Moher¹, David Moher¹, Mike Clarke², Davina Ghera³, Alessandro Liberati (deceased)⁴, Paul Shekelle⁵, Lesley A Stewart⁷, the PRISMA-P Group

¹McGill Graduate Program in Health Services Research, ²McGill Graduate Program in Health Services Research, ³McGill Graduate Program in Health Services Research, ⁴McGill Graduate Program in Health Services Research, ⁵McGill Graduate Program in Health Services Research, ⁶McGill Graduate Program in Health Services Research, ⁷McGill Graduate Program in Health Services Research

PRISMA–P Administrative information

PRISMA-P (Preferred Reporting Items for Systematic review and Meta-Analysis Protocols) 2015 checklist: recommended items to address in a systematic review protocol*

Section and topic	Item No	Checklist item
ADMINISTRATIVE INFORMATION		
Title:		
Identification	1a	Identify the report as a protocol of a systematic review
Update	1b	If the protocol is for an update of a previous systematic review, identify as such
Registration	2	If registered, provide the name of the registry (such as PROSPERO) and registration number
Authors:		
Contact	3a	Provide name, institutional affiliation, e-mail address of all protocol authors; provide physical mailing address of corresponding author
Contributions	3b	Describe contributions of protocol authors and identify the guarantor of the review
Amendments	4	If the protocol represents an amendment of a previously completed or published protocol, identify as such and list changes; otherwise, state plan for documenting important protocol amendments
Support:		
Sources	5a	Indicate sources of financial or other support for the review
Sponsor	5b	Provide name for the review funder and/or sponsor
Role of sponsor or funder	5c	Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol

PRISMA–P Introduction

INTRODUCTION

Rationale	6	Describe the rationale for the review in the context of what is already known
Objectives	7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)

PRISMA–P Methods 8-12

METHODS		
Eligibility criteria	8	Specify the study characteristics (such as PICO, study design, setting, time frame) and report characteristics (such as years considered, language, publication status) to be used as criteria for eligibility for the review
Information sources	9	Describe all intended information sources (such as electronic databases, contact with study authors, trial registers or other grey literature sources) with planned dates of coverage
Search strategy	10	Present draft of search strategy to be used for at least one electronic database, including planned limits, such that it could be repeated
Study records:		
Data management	11a	Describe the mechanism(s) that will be used to manage records and data throughout the review
Selection process	11b	State the process that will be used for selecting studies (such as two independent reviewers) through each phase of the review (that is, screening, eligibility and inclusion in meta-analysis)
Data collection process	11c	Describe planned method of extracting data from reports (such as piloting forms, done independently, in duplicate), any processes for obtaining and confirming data from investigators
Data items	12	List and define all variables for which data will be sought (such as PICO items, funding sources), any pre-planned data assumptions and simplifications

PRISMA–P Methods 13-17

Outcomes and prioritization	13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale
Risk of bias in individual studies	14	Describe anticipated methods for assessing risk of bias of individual studies, including whether this will be done at the outcome or study level, or both; state how this information will be used in data synthesis
Data synthesis	15a	Describe criteria under which study data will be quantitatively synthesised
	15b	If data are appropriate for quantitative synthesis, describe planned summary measures, methods of handling data and methods of combining data from studies, including any planned exploration of consistency (such as I^2 , Kendall's τ)
	15c	Describe any proposed additional analyses (such as sensitivity or subgroup analyses, meta-regression)
	15d	If quantitative synthesis is not appropriate, describe the type of summary planned
Meta-bias(es)	16	Specify any planned assessment of meta-bias(es) (such as publication bias across studies, selective reporting within studies)
Confidence in cumulative evidence	17	Describe how the strength of the body of evidence will be assessed (such as GRADE)

47 | <https://www.cochrane.org/prisma-p>

Prisma- P check list and E&E

<https://prisma-statement.org/Extensions/Protocols>

- Checklist to see you have addressed all expected elements
- 17 items
- Do **not** fill in 2,3,4 and 5 for the exam
- Use the additional methods literature
- Remember to use references
- Check the elaboration and explanations for detailed information

BMJ 2014;349:g7647 doi: 10.1136/bmj.g7647 (Published 2 January 2015)

Page 1 of 25

RESEARCH METHODS & REPORTING

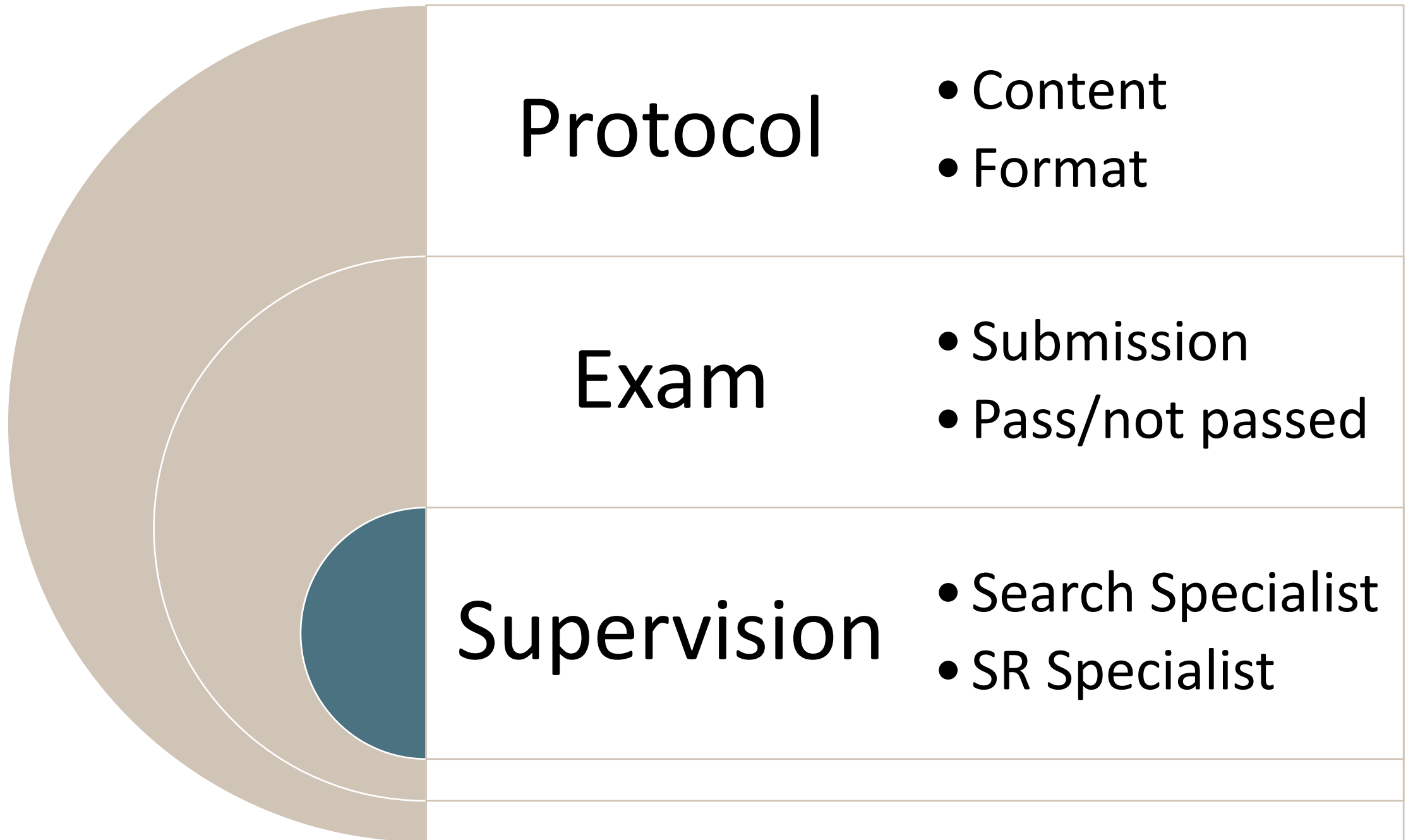
Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015: elaboration and explanation

Larissa Shamseer¹, David Moher¹, Mike Clarke², Davina Ghera³, Alessandro Liberati (deceased)⁴, Mark Petticrew⁵, Paul Shekelle⁶, Lesley A Stewart⁷, the PRISMA-P Group

¹Ottawa Hospital Research Institute and University of Ottawa, Canada; ²Queen's University Belfast, Ireland; ³National Health and Medical Research Council, Australia; ⁴University of Modena, Italy; ⁵London School of Hygiene and Tropical Medicine, UK; ⁶Southern California Evidence-based Practice Center, USA; ⁷Centre for Reviews and Dissemination, University of York, UK

Exam submission

- Lillebeth Larun will send you the exam
- To be handed in by October 31st 2022 at 1:00 pm
- We use Inspera – to **upload** your exam.
- <https://ntnu.inspera.no>
- Remember that you need to have **a user account and password at the NTNU system**, to log into Inspera (not your home institution)
- Questions: please contact Elin Yli Dvergsdal elin.y.dvergsdal@ntnu.no



Protocol

- Content
- Format

Exam

- Submission
- Pass/not passed

Supervision

- Search Specialist
- SR Specialist

Supervisor – Systematic Review Specialist

Your supervisor will contact you and suggest a time

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Lubna

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Mina

Attika

Ricardo

Brian

Lillebeth.Larun@fhi.no

Maria

Nora

Yamikani

Mojdeh

Search supervision

Marit Johansen and Ingvild Kirkehei

- You will receive an e-mail from Doodle where you can sign up for one supervision hour with Marit or Ingvil

After the exam

- Create your team
- Revise your protocol with your team
- Publish/register your protocol
- Write your systematic review!



<https://www.youtube.com/watch?v=QUW0Q8tXVUc>