Research & Innovation

North Bristol NHS
NHS Trust

How do I write a research proposal/protocol?

A **research proposal** is an initial set of **ideas for a research study** which are supported by a literature review and/or pilot study. A proposal should be concise and must address the question of what you **plan to achieve, why** you want to and **how** you are going to do it. In preparing a research proposal, the first thing that you have to do is to decide what it really is that you want to know more about. The questions that you want to research have to be viable as a research project and lead to the creation of new knowledge and understanding.

As a general guide research proposals are concise, usually no more than 1500 words in length.

A **research protocol** is a **detailed set of activities** for the project you propose and these activities are supported by evidence from other research and from your preliminary investigations. It is a valuable practical timetable and guide to your activities and shows some foresight into what you are trying to achieve. It shows above all, **evidence of planning**, including anticipation of potential problems and how you intend to deal with them.

Some tips from the Research Design Service – South West (RDS-SW) on things to consider when writing a proposal/protocol.

Is it a good research idea?

- Does the proposal make a convincing and coherent case for the importance of issues to be studied in health, economic and societal terms?
- Does the proposal make a convincing and coherent argument for the need for the research to fill gaps in current knowledge?
- Does the research proposal frame the issues in a way that makes them amenable to research using the methodologies and design proposed?
- Does the research proposed address the key questions in the field?
- Are the aims and objectives of the study clearly described and explained?

Are the methods sound and appropriate?

- Are the design and methods for the proposed study fully described, explained and justified? Will the design and methods of the study deliver the aims and objectives?
- Are the design and methods of the proposed study the most efficient way to deliver the aims and objectives?
- Will the results of the study be generalisable or transferable beyond the immediate research setting?
- Does the proposed study design take account of issues of representativeness?
- Does the proposal describe and explain the approach(es) the study will take to avoid potential sources of bias?
- Can the proposed study meet the relevant legislative and regulatory requirements?

Is the study practical and feasible?

- Is the way that the study will be undertaken described in sufficient detail for an assessment of its feasibility to be made?
- Is it possible to complete the study to the timescale described in the proposal?
- Is it possible to complete the study with the resources described in the proposal?
- Is the proposed recruitment rate realistic?
- Does the team of investigators incorporate the range of disciplines and experience needed to carry out the study?
- Does the proposal describe the benefits and limitations of the proposed setting for the study?

How do I write a Research Proposal/Protocol?

Structure of a Research Proposal/Protocol

Title

- This should be concise and descriptive

Investigator's Details

- All investigators should be named and their contact details given

Background and Rationale

- Explain the background and context of your proposed research
- Summarise the published literature that supports your research idea. Where are the gaps in the existing literature? You must make a convincing case as to why your research would create valuable and useful knowledge and the potential impact of your study findings

Research Questions

- Here you need to formulate your research questions clearly. You should have an answerable question that is clear and sufficiently well defined/focused for you to do the research implied within an appropriate time frame

Aims and Objectives

- Outline concise and precise objectives that should follow on from the hypothesis

Study Design and Methods

- **Study Design** What study design is most appropriate to answer your particular research question?
- **Setting** Where will the research take place? Your study may take place in a number of different sites
- **Subjects/Patients** Detailed information regarding your subjects should be given. For example, describe the study population, including a rationale of why they were chosen. Describe the methods by which subjects will be identified and recruited and what inclusion & exclusion criteria will be used. You will need to justify your sample size and state whether sample size calculations have been used. It may also be necessary to describe the criteria for participation or completion of the study, participant retention strategies and withdrawal criteria
- **Randomisation methods** Some research strategies require a random allocation of patients to the different experimental groups or interventions. You will need to explain what randomisation methods you will use
- **Methods of assessment or measurement** What data will be collected and why. For example how will you measure your participant's quality of life, what instruments will you use and are they the most appropriate? If you are using any equipment it should be clearly described
- **Outcome measures/objectives** The measurement outcomes used to support or reject the hypotheses can be stated and separated into primary and secondary outcomes
- **Interventions (if applicable)** A description of the study intervention should be provided. If you are giving a treatment or investigation, the dose, timing, method of providing, administering and receiving the treatment should be detailed. All necessary safeguards and potential risks should be made clear, including the methods by which intervention will be monitored

Ethical Considerations

- You should read any appropriate ethical guidelines and ask yourself how/whether your project follows these
- Outline the methods by which the patient/subject's interests will be safeguarded. For example, the process of risk limitation, how you will maintain confidentiality or anonymise patient's data and how you will monitor any adverse side effects

Timescales

- It is important that you map out a reasonable schedule of your work so that you can monitor your own progress and manage your project effectively
- Start with your intended finishing date and do not underestimate the amount of time that it takes to finalise your drafts into a finished product

Dissemination

- You might like to give some consideration at this stage as to what sorts of things might be publishable and where you would like them to appear
- Get other people, your peers as well as those more experienced than you, to read it and comment
- Also think about the adoption of your research findings. Discuss any barriers you forsee to the adoption of your research findings either in a healthcare setting or to the next stage of research. What can you do to overcome these and ensure your research findings have the maximum impact?
- Have you spoken with healthcare commissioners or to NBT service improvement?

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For more information and advice, contact Research & Innovation on 0117 323 6468 or email research@nbt.nhs.uk