WRITING A RESEARCH QUESTION

OVERVIEW: INTRODUCING THE ACADEMY OF PC WORKSHEET

A common question is to ask, how do I write a good Research Question. It's a topic that isn't commonly written about with few courses tackling just this point.

Here we share the Writing a Research Question workshop that we have developed and run for academic clinical trainees at the Academy of Primary Care.

You can work through the sheet with local colleagues. Or at the end we'll offer you ways to contact others to help.

In this worksheet, we consider: what is a good research question, how do I go about creating one, and what do I do with it once I have it.

A GOOD RESEARCH QUESTION

A well-articulated research question is a crucial first step in doing research. It defines the research: telling you what you need to look at (and what you don't). It therefore also starts to define how you will do the research (the methods you will use).

A good research question therefore supports the **ROBUST**[1] generation of **NEW KNOWLEDGE**[2] (the theoretical or practical understanding of a subject).

Therefore, a good research question needs to

- Recognise/be grounded in a **CLEARLY DEFINED GAP** in our understanding of something
- **FOCUS and JUSTIFY** the data collection and analysis approach
- **ENGAGE** others in recognising that this issue matters. (Research is a TEAM effort)

IT IS THE FIRST STEP WITHIN GOOD RESEARCH

But only the first – of 5 steps of research*

1. **Framing a question**
2. Finding the expertise needed to do the research
3. Collecting data
4. Analysing data

---

[1] *ROBUST = trustworthy, with a defined/define-able framework for assessing/demonstrating trustworthiness. A framework which varies for different research. Again, beyond the scope of today!*

[2] Beyond the scope of today, but to briefly recognise that knowledge is a contested concept. See our worksheet on **Fake news and alternative facts: how do we know what we know**

5. Sharing the findings

* which we can map to the stages of SCHOLARSHIP: Discovery, Integration, Application, Inspiration – see https://sapc.ac.uk/content/understanding-scholarship

THREE STEPS TO WRITING A RESEARCH QUESTION

There are many ways to go about this (see bibliography). For this worksheet, am going to propose three steps

- Formulating a **Dangerous Idea**: creating a *public narrative* that outlines a problem and proposes a possible solution. A tool to help us *engage* other people in understanding why our RQ matters. And to *focus* our thinking on a problem.

- Construct a **Mind Map**: to help order the multiple thoughts and ideas that are in our head; to consider what elements are involved (and identify gaps…the bits we haven't thought about yet); to make transparent our assumptions. And so help you refine your question

- **Checking in:** allows you to take a step back from the creative mind map you have drawn. And consider – is this still a question/topic I am interested in? That others will be interested in?

We'll consider each step in more detail using an example: Tackling Treatment Burden

1)   Formulating a Dangerous Idea

Using the **Dangerous Ideas worksheet**, I started to think about a growing problem of Treatment Burden.

- What needs to change: a growing number of patients are living with treatment burden. For them healthcare has become part of their daily health-related problem, rather than the solution.
- The solutions I offer: my previous research has described a number of issues relevant to tackling this – including why we need to change the way we talk and consult with patients, and the importance of personal illness narratives in understanding capacity and burden. I have used narrative approaches to change the way we work with patients when tackling use of medicines, mental health, needs assessment.
- Why is it all our problem: overmedicalisation is creating burden for patients, professionals and systems alike.

My suggested solution is therefore to use narrative medicine to reduce treatment burden in people living with multiple long-term conditions.

2) Scoping out the idea: a mind map

One approach to scoping the idea is to use a technique called Mind Mapping. Essentially this involves getting everything down on a piece of paper so we can see what is there (TRANSPARENCY). Which then means we can identify potential LINKS and GAPs between the ideas.

For my treatment burden/narrative medicine solution, I started to think about

- WHO NEEDS OUR HELP
  - Does everyone living with LTC have the same needs/issues?
- WHAT DO WE NEED TO KNOW ABOUT NARRATIVE MEDICINE
  - How does/could narrative medicine work?
  - Who could I use it for?
  - What would patients and practitioners need to make it happen?
- WHAT COULD BE THE IMPACT OF OUR RESEARCH
  - At individual/team/systems level
  - On quality, safety, burden
- IMPLEMENTATION CONSIDERATION
  - Can we, should we
  - Enablers and barriers

With all these ideas on the map, can I start to see an emerging question?

- A CLEAR GAP that needs to be filled
- A POINT OF FOCUS that I can build a project round
- A SPARK OF CURIOSITY that makes me want to engage with this question

There are several resources out thee to help you with mind mapping. For example, this one: www.mindmeister.com/blog/students-guide-to-mind-mapping/

3) Sense checking

Once we've started to draft a question, we need to sense check it. There are several ways we can do this. We might ask local colleagues. We can contact topic Experts, or Research Ambassadors in our local department.

There are also published checklists we can use, for example this one from O'Leary: https://study.sagepub.com/oleary3e/student-resources/forming-research-questions/checklist-for-%E2%80%98good%E2%80%99-questions

Which asks us to think through

- Is the question important? To me, and to other people?
- Is my question clear? Have I clearly defined my concepts?

- Is my question do-able? *Is it possible to collect the data, and do I have access to the skills/resources I need to do each stage of the research*
- Are there people to support me? (A supervisor, expert in the field?)

TIPS FROM THE ACADEMY OF PRIMARY CARE

The Academy of PC at Hull York Medical School has been running workshops on writing Research Questions for a while. Based on the feedback we have had from students in the past, we have put together a few tips and suggestions.

- TAKE YOUR TIME: this is not the stage to rush. Get this right (or right-ish) and the rest will be so much easier. *But balancing that against being brave and taking the plunge! It doesn't need to be perfect…only thoughtful?*
- TELL THE STORY: and share it with as many people as will listen. Partly because research is a team sport…but much more, this is about making transparent/explicit every assumption and uncertainty
- FIND THE GAP: you are about to embark on a lot of work. The end result needs to matter. So be clear what this research adds – either what gap it fills, or how it adds to a growing body of knowledge in a gap.
- FOCUS: on similar lines, be clear what it is you are intending to offer (and what it won't be). And be SPECIFIC. *What, when, why, how, how much are research questions. Explore, consider, describe, understand are not research questions…they are context/curiosities. But they need focus and refinement*
- PEDANTRY: define everything!
- WHAT'S IN IT FOR ME?: having spent so much time addressing all these other issues, have you lost sight of what was in it for you in the first place? *What is your reason for doing this research? What's in it for you? What are your drivers for this work? This is both about making sure you have the energy etc to do the research, but also about making visible your tacit assumptions.*