

Masterclass:

Choosing Appropriate Research Methods

SUMMARY

Wednesday 15 May 2024

1pm - 2pm, via Zoom

#QNIRearch

Dr Ben Bowers QN, Community Nursing Research Consultant, The QNI, ben.bowers@qni.org.uk, [@Ben_Bowers__](#)

- Welcome to everyone - this forum is for nurses who are undertaking or considering carrying out research in the community and those keen to be more research aware. It aims to strengthen the capacity of community-based nursing research through peer support, mentorship, and supporting personal development and research opportunities. We offer monthly newsletters about research and research activities, webinars, masterclasses.
- We have a private Facebook group, join it here:
<https://www.facebook.com/groups/qnicommunitynursingresearchforum>
- This is the second masterclass of 2024. The next one will be on 11 July and will be on 'Applying for clinical academic fellowships' To sign up and/or find out more, go to:
<https://qni.org.uk/nursing-in-the-community/community-nursing-research-forum/> or scan the QR code below:



Choosing Appropriate Research Methods

Professor Clare Jinks, Keele University

- I've been involved in research for 30 years and I'm a research methodologist.
- I work in multi-disciplinary teams and alongside patients to help design and deliver research projects. No research project is the same and that's why I still like to be involved in research.
- Excellent statement from Ruth May CNO for England in England's Strategic Plan for Research, **'Research is the golden thread for the future of our profession.'**
- The report also says, **'Research led by nurses and contributions they make as members of multidisciplinary research teams can drive change. It is the cornerstone of high-quality, evidence-based nursing.'**
- There's been a drive to recruit nurses into research, it's a good time to be interested and get involved in research.

Where to start?

- Choosing research methods: what is the research question and what is the study aim, that's where you start.
- Types of research questions:
 - **prediction question:** for example, how many people are likely to use this service in the next 6 months?
 - **intervention question:** about the intervention, the treatment
 - **exploration question:** what is people's experience on being involved in this service?



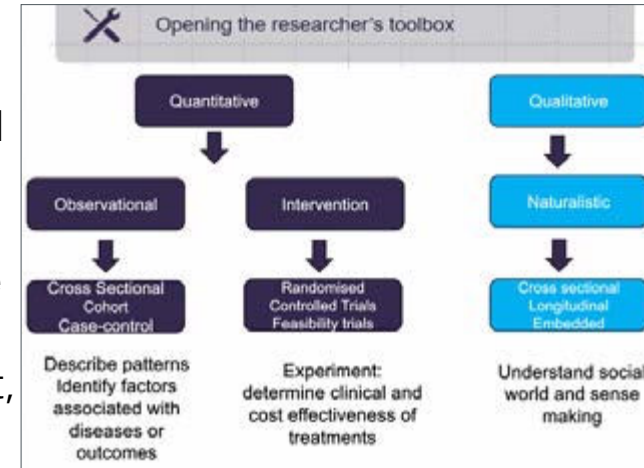
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- The previous masterclass was on Developing Research Question and you can find the recording and a summary of it here, it's well worth looking at:

<https://qni.org.uk/news-and-events/events/developing-research-questions-masterclass/>

- There are broadly two types of study: quantitative and qualitative
- In quantitative study, key methods are surveys, questionnaires and you use these in a single point in time so you get a snapshot, or you can do repeated measurements over time, so you'd generate a cohort.
- Key features** include validity, reliability, responsiveness etc. Because we're talking about describing patterns in quantitative research if you do a survey, you'll be needing statistical analysis, descriptive statistics, analysis of comparisons, measures of effect etc see graphic to the right.



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- The photo to the right is of the 9000 surveys I sent out as part of my PhD. Each questionnaire was 30 to 40 pages. It was about the prevalence of knee pain in the population. You can see the scale of this - nowadays we've moved to more online techniques, online surveys, so not everybody has to go through the pain of stuffing 9000 envelopes!



Key things to think about when choosing research method:

- 1. Will you use an established survey instrument
- 2. Will you develop a new survey instrument
- There are 10000s of questions using all kinds of topics, but in quantitative methods, most important is psychometric validation, there are rigorous design rules and procedures
- There are over 200 studies a year that use this scale, it's been used in many different areas, translated into many different languages in different settings (healthcare, schools etc)
- If you have a question about mental health you don't have to make your own you can use this questionnaire as it's been very well tested.

Example of validated measure

The Warwick-Edinburgh Mental Wellbeing scale

Two versions a 14-item scale and short 7-item scale

Questions cover key aspects of psychological functioning

Questions are framed positively e.g. I've been feeling good about myself (none of the time – all of the time)

Provides a single score indicating participant's overall level of mental wellbeing

Validated for use different:

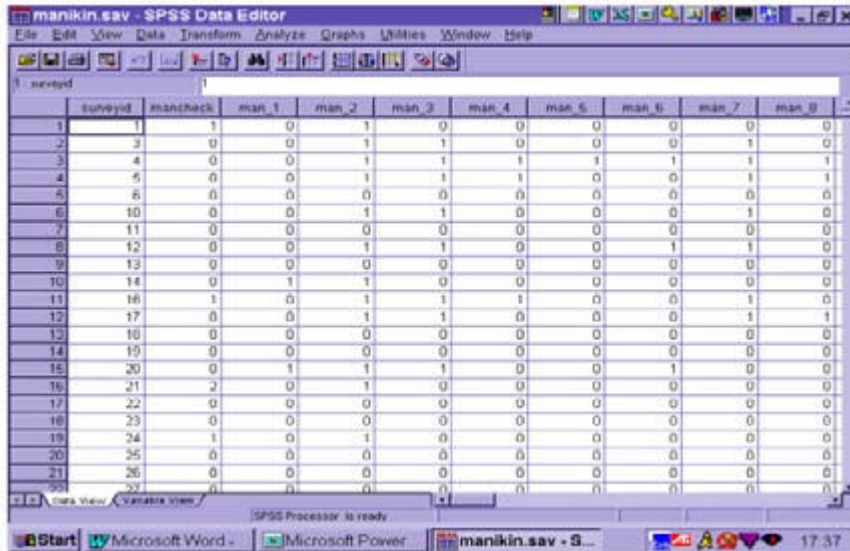
- geographical locations
- languages and cultural contexts
- settings (workplace, schools, health services and community wellbeing projects)

<https://warwick.ac.uk/fac/sci/med/research/platform/wemwbs/>

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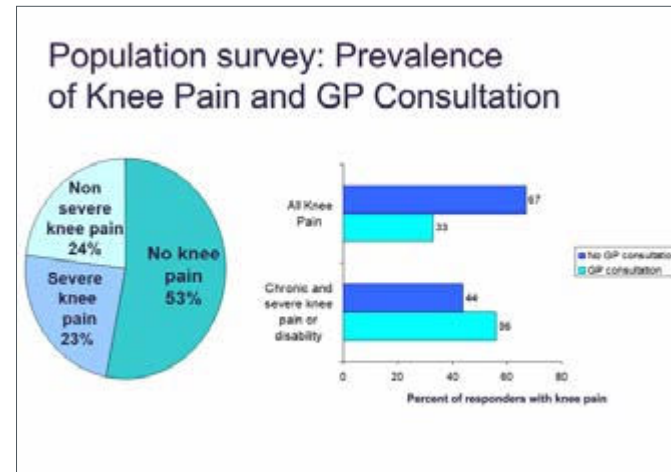
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- If you choose to do a quantitative study, the output can look like this below over 7500 rows for example:



1	surveyid	manchack	man_1	man_2	man_3	man_4	man_5	man_6	man_7	man_8
1	1	1	0	1	0	0	0	0	0	0
2	3	0	0	1	1	0	0	0	1	0
3	4	0	0	1	1	1	1	1	1	1
4	5	0	0	1	1	1	0	0	1	1
5	6	0	0	0	0	0	0	0	0	0
6	10	0	0	1	1	0	0	0	1	0
7	11	0	0	0	0	0	0	0	0	0
8	12	0	0	1	1	0	0	1	1	0
9	13	0	0	0	0	0	0	0	0	0
10	14	0	1	1	0	0	0	0	0	0
11	16	1	0	1	1	1	0	0	1	0
12	17	0	0	1	1	0	0	0	1	1
13	16	0	0	0	0	0	0	0	0	0
14	19	0	0	0	0	0	0	0	0	0
15	20	0	1	1	1	0	0	1	0	0
16	21	2	0	1	0	0	0	0	0	0
17	22	0	0	0	0	0	0	0	0	0
18	23	0	0	0	0	0	0	0	0	0
19	24	1	0	1	0	0	0	0	0	0
20	25	0	0	0	0	0	0	0	0	0
21	26	0	0	0	0	0	0	0	0	0
22	27	0	0	0	0	0	0	0	0	0

- from this, you can make a bar chart, for example



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- **Qualitative methods** are very different to quantitative. It's the how and the why of a topic not what it is. There might not be a single truth, it's very interpretative, not about precision techniques. It's about understanding thoughts, perspectives, lived experiences, understanding the meaning of their experiences in relation to their life.
- We listen, we respond, we can be flexible in contrast to quantitative methods. We don't need to ask the same things in the same way, we can respond to things that emerge during the study.
- The unit of analysis is words, and these can include thematic discourse, conversation, narrative analysis.
- **4 stages of discussion:** very useful to have a framework to use, Arthur et al Designing Fieldwork in Ritchie, Lewis McNaughton Nicholls and Ormiston Qualitative Research Practice:
 1. Introduction and context setting
 2. Easy opening questions, background, contextual information (eg experiences/circumstances)
 3. Core part of the interview, questioning and discussing in depth, move from general to specific
 4. Winding down, questions about future, summarise, explain what comes next.

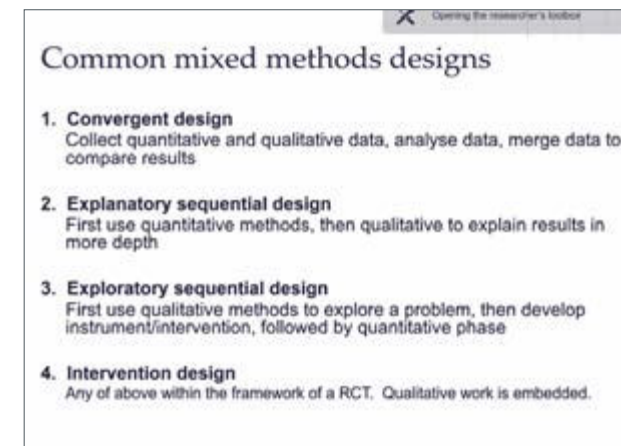
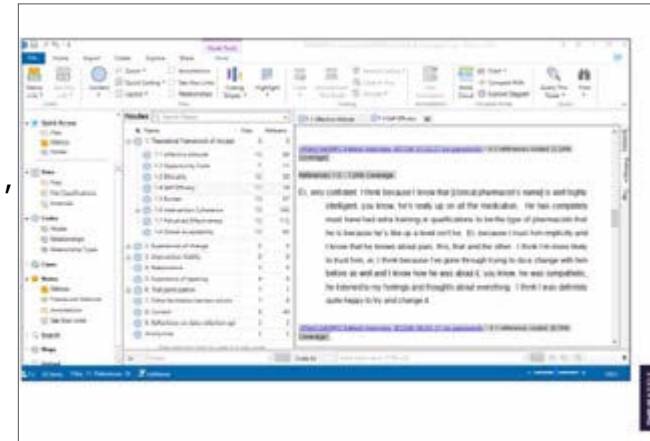


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- To help manage qualitative data, we use NVivo software, a program used for qualitative and mixed-methods research; used for the analysis of unstructured text, audio, video, and image data, including interviews, focus groups, surveys, social media, and journal articles, very different to the excel spreadsheets used for qualitative methods.
- **Mixed methods:** where you use qualitative and quantitative data and draw interpretations based on combined strengths of both sets of data to understand the research problem, it's for when you need more description than just words or numbers, using both provides better understanding than either forms of data alone.
- All these methods (right) are more traditional ones.
- **Arts-based methods:** there are growing methods around creative methods these can include:
 1. visual methods such as painting or drawing, photography.
 2. performance art-based methods (dance, theatre, singing)
 3. literary methods (story telling or even poetry)
- There's a great paper on creative methods here:

<https://www.sciencedirect.com/science/article/abs/pii/S1747938X17300301?via%3Dihub>



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- Another new methodology is Lego Serious Play created in 2010 its goal is improving creative thinking and communication. People build with Lego bricks 3-dimensional models of their ideas and tell stories about their models.
- These creative methods can be helpful in getting people who would not normally join in research to get involved (for eg people with literacy issues)
- **Inclusive research methods:** when you're choosing a method, you need to ensure people who have the potential to benefit from the research have the opportunity to take part.
- NIHR has guidance here: <https://www.nihr.ac.uk/documents/improving-inclusion-of-under-served-groups-in-clinical-research-guidance-from-include-project/25435>
- EDI toolkit is very useful: www.rdsresources.org.uk
- Another very useful resource: www.learningforinvolvement.org.uk
- **Research methods** are the various approaches and tools used to gather data for analysis, aiming to reveal new insights or enhance understanding of a subject. Different types of research methods employ different tools for data collection.
- QNI's CRNF masterclasses are a great resource: <https://qni.org.uk/nursing-in-the-community/community-nursing-research-forum/research-masterclasses-on-demand/>
- Remember to reach out to people who can help you, work in multi-disciplinary teams, we don't often do research in isolation!

EDI Toolkit (rdsresources.org.uk)



Thank you to all delegates who attended the Masterclass.

The next masterclasses:

- 25 September - [Conducting systematic reviews and critical literature reviews](#), with Dr Diane Bunn.



To join the forum or book your free place on a masterclass, scan the QR code

or go to www.qni.org.uk/news-and-events/events/



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