

# Understanding research. Questionnaires 2

In the previous article in this series (Ellis, 2025a), we identified that surveys, which are usually quantitative, predominantly use questionnaires for data collection. We identified that as well as being useful for research, questionnaire surveys can also be useful for collecting data about the quality of a service and people's experiences of care.

We saw how quantifiable questionnaires are useful when comparing people's satisfaction with or experiences of care over time (i.e. following a change in practice). For example, if a questionnaire is scored for some questions, the score attained can be compared over time or between services to help managers understand how people experience their care delivery.

We identified how questionnaires are about the cheapest and quickest way of collecting a lot of data from several people. We also saw how questionnaires can be delivered in a variety of ways, making them an accessible way of data collecting.

We identified that while questionnaires have many positive points, they can be problematic especially if they are not expertly written or when they have not previously been used in practice or previously validated. We identified how some people can develop questionnaire/survey fatigue because surveys using questionnaires are an almost daily fact of life for many of us.

In this article we will consider what is needed to create a good questionnaire. In the next paper in this mini-series about questionnaires, we will consider some issues about delivering questionnaires and consider the use of validated questionnaires.

## Types of questions

There are multiple forms of questions that can be used on a questionnaire, the choice of question type will be informed by the main issues which need addressing, the level of detail needed in the answer, the number of questionnaires being completed and the ways in which the questionnaire data are going to be analysed.

- Open or open-ended questions — these are questions which allow the respondent to free text the answer. While they have the benefit of gaining a qualitative insight into what people think about a topic, they have the drawback of being difficult and time consuming to analyse. Sometimes they are used to gain further insight and detail into ratable answers which people have given, e.g. please explain why you gave this score.

- Binary (or dichotomous) questions — these are simple yes/no questions. They are useful if one is not looking for detail, often called granularity, and simply want to put people's opinions or attitudes into one of two groups. Clearly, however, they are unable to capture neutral answers
- Multiple choice questions — these can be used to elicit a single or multiple responses (as in a multi-answer multiple choice question) to a question. These types of questions are typically easy to answer and to analyse and might collect simple data, such as respondents job title. These are easy to collate and analyse but can pigeonhole respondents' answers, that is some people may find that the answer they want to give is not available to them
- Opinion scales — these are used to collect data which scores an answer, for example out of 10 or 100. They might ask, for example, "on a scale of 1 to 10, with 1 being the least satisfied and 10 the most, how satisfied were you with your waiting time in clinic at your most recent visit?". These are easy to collate and analyse. They are also somewhat more precise than many other forms of scale, however, people do tend to avoid the extreme scores (central tendency bias)
- Likert scales — are used to measure people's perceptions, opinions and attitudes towards something. They are known to be reliable at collecting data about what people really think or feel. Likert scale frequently ask questions such as "I was satisfied with the care I received in the clinic today", and ask the person if they strongly agree, agree, are neutral, disagree or strongly disagree. While Likert scales collect data which are easy to analyse and collect a range of people's feelings, there is a tendency for people to agree with statements (acquiescence bias) and well as central tendency bias being an issue.
- Rank order questions — these can be extremely helpful for service design where they enable planners to understand the things people consider to be important. Rank order questions ask people to rank options in the order of importance to them. They can be time-consuming to complete and should, therefore, be used sparingly in surveys.

As an example one might ask patients being visiting a wound care clinic to rate the following in order of priority: range of options for appointment times, being able to see the same nurse, having

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## Key words

- Complaints
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- Open culture
- Reflection

options as to venues, parking availability, having the option of being seen at home.

### Questionnaire design

Before embarking on the design of a questionnaire be that for research purposes or for considering service delivery, it is important to consider what it is one is trying to achieve, the research/survey objectives (Patten, 2017). Having a list of objectives helps to keep the questionnaire focussed and aids in choosing the form questions might take.

For example one might return to the example of the wound care clinic manager trying to appraise what patients feel about their service, so some objectives might be:

To understand patient satisfaction with their visit to the wound clinic in terms of:

- Their wait for an appointment
- Ease of getting to the clinic
- Ease of parking
- Their wait in the clinic
- The welcome at reception
- The quality of the waiting room facilities
- The welcome in the clinic
- The information shared by the clinic staff
- The comfort of the clinic furniture
- The cleanliness of the clinical area
- Satisfaction with the dressing process.

These objectives give clues as to the type of questions which may be used throughout the survey. For example, welcomes might be rated using a Likert scale which asks patients how strongly or not they agree with the statement "I was made to feel welcome by the reception/clinic staff", while a questions about cleanliness for example could be binary, "was the clinic clean" yes/no.

Questionnaire design is also about how many questions to ask. Setting objectives for the survey really helps with this as it keeps the questions focussed on answering the important issues the survey needs to answer, rather than every question which someone can come up with.

It is also important to consider the question types, as discussed above. Fink (2020) makes the important point that while open questions are easy to compose, closed, sometimes called closed-ended, questions are not. There are a number of reasons for this which include:

- Respondents all need to interpret the question in the same way.
- Relevant choices need to be available for scaled questions and multiple choice.
- All choices need to be mutually exclusive (where the respondent can only pick one answer).
- The questions need to be sensible.

These rules apply to all forms of closed question, as we saw in the previous paper, even the simplest question can be interpreted in many different ways. Ellis (2025b) makes an additional important point for healthcare professionals to consider when writing questionnaires to be completed by the public. He notes that professionals use language in different ways to the public and so terms like "ulcer" or "lesion" might mean nothing to them or indeed prove scary, so consider alternative words, perhaps like "wound" or "sore". Of course, using technical and professional language is totally appropriate for questionnaires aimed at fellow professionals and might actually be expected.

Polit and Beck (2014) also make an important observation in that while closed-ended questions can be difficult to design, so too can the answers to them, with the author always running the risk of omitting important options in the responses. This is where pilot studies are important as we will discuss in the next paper in this series.

### Conclusion

In this paper we have seen that the best way to start the process of questionnaire design is to ensure that one uses objectives to keep the questions focussed on what is important. We have identified that questions need to be carefully framed and asked using language which is suitable to the people answering the questionnaire and so it is important to consider one's audience.

We have further identified some of the ways in which questions can be answered from free text answers to open questions through to scaled and rated answers. We identified that the choice of answering mechanism needs to reflect the question being asked and the level of detailed required from the answer.

In the next paper in this series we will look at some of the ways in which a questionnaire might be put together, what order questions and question types might be put in, along with how to check the validity within a questionnaire as well as the use of validated questionnaires in research. ●

### References

- Ellis P (2025a) Understanding research: Questionnaires. *Wounds UK* 21(2): 86-88
- Ellis P (2025b) *Understanding Research for Nursing Students* (6th edn.) London: Sage
- Fink A (2025) *How to Conduct Surveys: A Step-by-Step Guide* (7th edn.) London: Sage
- Patten ML (2017) *Questionnaire Research: A Practical Guide* (4th edn.) London: Routledge
- Polit DF, Beck CT (2014) *Essentials of Nursing Research: Appraising Evidence for Nursing Practice* (8th edn.) Philadelphia: Wolters Kluwer; Lippincott Williams and Wilkins.