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A Guide to Planning Qualitative Research

Rebecca J. Syed

Abstract

Introduction: Research in psychiatry overwhelmingly relies on quantitative methodology. However, qualitative research may be an invaluable tool in psychiatry. Its potential under utilisation is multi factorial: it is still regarded by some as a “soft option”, relatively few qualitative papers are accepted for publication in medical journals, some assert that health researchers would benefit from training in or collaboration with appropriately trained social scientists and numerous social scientists have produced various checklists, guidelines or manuals for qualitative research, which can be confusing and even contradictory. Aims: This article seeks to describe how to plan a qualitative study, with the aim of reducing apprehension and encouraging further qualitative research in the field of psychiatry. Methods: The main considerations when planning qualitative research will be outlined particularly with regard to: the question and background of the research area, the underlying philosophy, bias, ethical consideration followed by a nuts and bolts description of the methods. Discussion: There are many potential pitfalls in conducting qualitative research. These may involve poor planning, attempting unselectively to fulfill all of the quality criterion suggested in all the various checklists, or under estimating the resources necessary to meaningfully analyze qualitative data. Conclusion: With adequate planning, training and supervision, qualitative methodology is a valid, useful and publishable tool for those researching within the field of psychiatry.

Key words: Qualitative research, depression, adolescents.

Título: Guía para planear una investigación cualitativa.

Resumen

Introducción: Aunque la investigación en psiquiatría se apoya predominantemente en metodologías cuantitativas, la investigación cualitativa también constituye una herramienta invaluable. Sin embargo es subutilizada por diferentes causas: algunos la consideran una opción “blanda”, se publican pocos trabajos cualitativos en revistas médicas, algunos afirman que los investigadores en salud se beneficiarían al trabajar en colaboración con los de las ciencias sociales, y las ciencias sociales han producido encuestas, guías y manuales de investigación cualitativa que pueden ser confusos o incluso contradictorios. Objetivos: Describir cómo planear un estudio cualitativo para reducir la aprensión y estimular la investigación cualitativa en psiquiatría. Métodos: Las consideraciones principales al planear una investigación cualitativa se definirán particularmente por la pregunta y el trasfondo del área de investigación, la filosofía subyacente, los sesgos y las consideraciones éticas, seguidas de una descripción básica de los métodos. Discusión: Existen riesgos potenciales al llevar a
una investigación cualitativa, como mala planeación, intentar de manera poco selectiva completar los criterios cualitativos de las encuestas o subestimar los recursos necesarios para analizar los datos cualitativos de manera significativa. **Conclusión:** Con la planeación adecuada, entrenamiento y supervisión, la metodología cualitativa es una herramienta válida, útil y publicable para las investigaciones en el campo de la psiquiatría.

**Palabras clave:** investigación cualitativa, depresión, adolescentes.

**Introduction**

Qualitative research is an umbrella term describing several specific research methods that rely on the collection, analysis and interpretation of non-mathematical data. Research in psychiatry overwhelmingly relies on quantitative methodology (1). However, qualitative research may be an invaluable tool in psychiatry not only to assist in the resolution of current policy imperatives, such as calls for patient involvement and more thorough evaluation of services but also providing insights into the phenomenology, diagnosis, treatment, management, prevention, and general understanding of psychiatric disorders.

Many factors may contribute to this potential under utilisation of qualitative methods in psychiatry. It is still regarded by some as a “soft option”, lacking scientific rigour, open to possible bias or even fraud (2) and a form of research unsuited to evidence based practice. The fact that relatively few qualitative papers are accepted for publication in medical journals (3) may reduce its production. Also, for health researchers, discouragement may result from the assertion that they would benefit from training in or collaboration with appropriately trained social scientists (4). Numerous social scientists have produced various checklists, guidelines or manuals for qualitative research, which can be confusing and even contradictory (5). Those working in psychiatry may therefore come to the conclusion that qualitative research is not worth even attempting, and should be left to social scientists.

**Aims**

This article attempts to provide an outline of how those in the field of psychiatry can go about planning high quality qualitative research whilst avoiding potential pitfalls, using examples from the protocol “A qualitative study investigating depressive prodrome in adolescents” which is published in this edition.

**Methods**

The main considerations when planning qualitative research will be outlined particularly with regard to the question and background of the research area, the underlying philosophy, bias, ethical consideration followed by a nuts and bolts description of the methods.
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The study background and question

Is the area being considered important and relevant?

Considerable time and expertise can be saved if these essential questions are thought about at the planning stage. Research can be relevant when it either adds to knowledge or increases the confidence with which existing knowledge is regarded. Another important dimension to relevance is the extent to which the findings can be generalized beyond the setting in which they were generated, this also needs to be considered in planning the sampling strategy.

How will conducting a qualitative study contribute to the field of study?

Often qualitative research generates hypotheses. If we were to conceptualize research as reducing uncertainty, when a field is evolving, not only is there uncertainty about answers but about what the right questions might be and how to frame them in order to get answers and about where and to whom these questions should be addressed. Therefore qualitative studies are invaluable in new fields of study and are often used when developing theories or conceptual frameworks. For example, they have been useful in the developing field of early intervention research in psychotic disorders (6) and have potential for similar use in depression, hence the development of the protocol for "A qualitative study investigating depressive prodrome in adolescents".

Qualitative methods may be more suited than quantitative methods for describing many kinds of complex settings and interactions; including interactions amongst patients, families, clinicians, within and between professional groups and organizations, in communities and within markets (7). This may be useful in psychiatry in exploring areas such as attitudes, stigma (8), relationships and social interactions.

Underlying Philosophy

As stated earlier there are contrasting ideas on quality assurance and assessment in qualitative research, as evidenced by the contrasting and sometimes even contradictory guidelines, checklists and manuals. These spring from different views on the philosophical foundation of qualitative methods held by different academics. Some believe that qualitative research has entirely different theoretical underpinnings to quantitative research and therefore cannot be assessed in the same way. Others believe that although there are some differences in the underlying theory, qualitative research can be assessed using similar ideas as quantitative research.

On one end of the spectrum are those that say that each research perspective is unique and equally valid in its own terms. This would mean that research could provide no unequivocal insights relevant to
action, and would therefore be of little use in applied health research (9). With a more realistic approach in relation to health research, the anti-realists reject the belief that there is a single, unequivocal truth that is independent of the research process and as such cannot be judged by conventional measures (such as those used in quantitative research). They have an inductive approach to qualitative research; theory is made from and grounded in the data. This is known as grounded theory.

In subtle realism, a perspective advocated by Mays and Pope (10), it is agreed that all research involves a subjective position but unlike the anti-realists, argue that there is some underlying reality that can be studied. They, therefore advocate the broad concepts of relevance and validity to evaluate qualitative research.

The underlying philosophical perspective is pivotal in understanding both how qualitative research is conducted and evaluated. The checklists and manuals produced by different social scientists reflect their particular philosophical viewpoints. When conducting qualitative research there is a danger in attempting to improve rigour by ticking all the boxes of all of the different checklists; in the attempt to fulfil all suggested technical procedures, the overall, broad understanding of the research may be lost. In other words the use of “quick fix” procedures and blind adherence to checklists becomes, as stated eloquently by Barbour (11), “a case of the tail wagging the dog”.

Instead, when planning qualitative research, it may be a more useful strategy to consider the purpose and area of research and how adopting a particular philosophical perspective may aid the research. We can then implement methodologies, analytical strategies and tools aimed at improving quality with sense and judgement.

For example, when planning “A qualitative study investigating depressive prodrome in adolescents” we hypothesised that the period leading up to the first episode of depression could be retrospectively reconstructed. We were attempting to gain insight into an underlying “reality”. We felt that a qualitative study was necessary; we could not assume that this period is merely a milder form of depression. We wanted to explore the evolution of these symptoms, possible patterns and associations, and see if it was possible to “characterise” this period. Our purpose was not to explain why it happens, but rather what happens and how it feels. In other words we needed a qualitative study to work out what questions need to be asked in order to potentially identify individuals during this period.

Bias

Qualitative research, like all research, is prone to bias. However in qualitative research bias may be more difficult to identify, quantify and reduce.
Reducing potential sources of bias is essential at the planning stage of a qualitative study. Consideration of sources, strength and direction of potential biases when planning a study influence both its the conduction and analysis. A systematic approach to reducing bias and adequate explanation of potential bias then relates to the quality of the final piece of research. Reflexivity means the sensitivity to the ways in which the researcher and the research process have shaped the collected data. According to Mays and Pope (10) personal and intellectual biases need to be made plain at the outset of any research report to enhance the credibility of the findings. Also Hoddinott and Pill (12) emphasise the importance describing explicitly who conducted the research, who and how the subjects were recruited and how the research was explained to participants.

Transparency is however different to reproducibility. Hoddinott and Pill suggest that adequate methodological data be included in every paper so that a reader would then be able to “replicate the study and confirm the finding of required”. However others argue that due to the nature of and subject of qualitative research this may be neither appropriate nor desirable (13).

**Ethical considerations**

As with any research, qualitative research involving human subjects must undergo ethical review and approval. This is particularly important in when working with vulnerable populations such as those with mental health problems. Also, special ethical dilemmas are encountered in qualitative research. Thus when planning qualitative studies involving mentally ill subjects this must be given priority. The depth and extent of personal information collected is much greater than in quantitative research, therefore informed consent, handling and security of research materials, de-identification of data and other issues of confidentiality need to be considered and planned in detail. Special ethical dilemmas should be evaluated in the ethics and peer review of the study protocol before the commencement of the research. This should also involve the development of a plain language statement, which standardises the written explanation to participants of the research project. For example in “A qualitative study investigating depressive prodrome in adolescents”, ethical considerations included the informed consent of adolescents, and consent for corroborative interviews. This important and complex subject cannot be covered in detail here, however these references may be of some use to the interested reader (14-15).

**Nuts and Bolts**

I set out to follow step by step the development of a protocol and
draw attention to some of the more important and controversial issues involved in producing high quality research.

*Who or what will be studied?*

Sampling is an important consideration when conducting any study. It is necessary to both ensure relevance of the sample to the research question (16) and document your reasoning comprehensively. It is important to remember that the “units” of research are often not as easily conceptualised as in quantitative research. It may be useful to think about a choosing a sample that is theoretically likely to produce the type of knowledge necessary to understand the structures and processes within which individuals or situations are located (17).

Sampling in a qualitative study can involve different sampling methods to that used in a quantitative study. Quantitative studies often use random or consecutive sampling in order to gain a representative sample. Sampling in qualitative studies aims to achieve a qualitatively representative sample by covering a range of potentially relevant social phenomena and perspectives from an appropriate array of data sources. Purposive sampling is often used in qualitative research. This effectively means that researchers deliberately seek to include outliers. These would conventionally be discounted in quantitative approaches.

Another consideration is that of representativeness of cases (18-19). How widely and with what confidence can these results be applied outside this specific situation? At the planning stage consider the potential usefulness of combining qualitative and quantitative methods to support generalisations (20). The external validity of the research has many implications for its usefulness. Any assertions made in the final document should describe this process.

It is important to consider the context of the research as well as practical aspects. For example as explained in “A qualitative study investigating depressive prodrome in adolescents”, a more convenience method of sampling was more appropriate to gain a relevant sample without loss of qualitative representability.

It may be useful to access our subjects again after data collection for a process known as member checking. This includes techniques in which the investigators account is compared with those of the research subjects to establish a level of correspondence between the two sets. These reactions to the analysis are then incorporated into the study findings. Some researchers consider this the strongest available check on credibility of the research project (21).

*How will data be collected?*

There are several ways of collecting data in qualitative research.
The most commonly used methods are field observations, interviews or document analysis, separately or in combination. These are described in more detail in other texts (22).

What is the data collection process?

The important issue in planning data collection is not only the type of data collection but also the data collection process. This needs to allow rich and robust descriptions of the observed event and be comprehensive enough in both breadth and depth to generate and support interpretations.

For example in “A qualitative study investigating depressive prodrome in adolescents” in depth interviews were 1.5-2 hours long. In qualitative studies the collection of data and sampling can take place at the same time—an iterative approach, and rely on each other. Especially in an inductive study, with little theorised previously, sampling and analysis may occur in a constant feedback loop in which the qualitative researcher at first makes theories and then sets out to find cases that disprove the theory.

Other data collection may also be needed in order to corroborate the findings. This needs to be planned in terms of what information is going to be useful and practically feasible? This is known as triangulation in qualitative research and addresses the internal validity of the study. In triangulation the results from either two or more different methods of data collection or more simply, two or more data sources are compared. The researcher looks for patterns of convergence to develop or corroborate an overall interpretation. In “A qualitative study investigating depressive prodrome in adolescents” corroborative interviews were planned.

How will the data be recorded?

When choosing the method of recording data, aspects such as detail, accuracy and practicality must be considered. For example in the case of interviews, audio-taping may be the first stage of recording data, which can then be transcribed as planned in “A qualitative study investigating depressive prodrome in adolescents”. However, the process of transcription for qualitative research purposes is different from that used for medical dictation. Details such as pauses, background noise etc may provide invaluable data for the elaboration of the meaning of the spoken word.

How will the data be analysed?

When planning a qualitative study the volume of data generated and therefore the analysis of this data is labour intensive. Far more time must be set aside for this time consuming part of the study than in quantitative research.

The analysis itself will very much depend on the specifics of the study and the extent to which it sets out to either generate or test theory. Analytical categories are used to
describe and explain social phenomena. These categories can be derived inductively, that is obtained gradually from the data or deductively either at the beginning or part way through the analysis as a way of approaching the data.

Software packages can be used to aid analysis programmes such as NUDIST (22) or N-VIVO. These are effectively data handling kits; use of them does not ensure that the analysis is adequate, neither is the use of them necessary (13) although they may save considerable time. If they are intended for use in a study, prior experience or training in their use at the planning stage is invaluable.

Some have found that the consistency and reliability of the analysis can be improved by the involvement of more than one analyst (23). However this is a contentious issue as others argue that the person who collected interview data is more likely to have insight and understand the context in which the interview took place. Morse (24) stated “the quantitative view of ensuring reliability and validity by using external raters is not recommended for qualitative research”. The value of involvement of external analysts, team members and the extent of supervision need to be considered at the onset and throughout the analysis of a study.

During the analysis stage steps can be taken to not only to search for alternative explanations but also to find and discuss elements that seem to contradict the emerging theory.

Planning the write up

It can be helpful to plan how this data will be explained and represented when the research is completed. The study needs to be recorded in sufficient detail so that at its conclusion a clear account can be provided of how early simpler systems of classification evolved into more sophisticated coding structures and thence into clearly defined concepts and explanations. This is known as the audit trail.

Discussion

There are many potential pitfalls in conducting qualitative research. These may involve poor planning, unselectively attempting to fulfill all of the quality criterion suggested in all the various checklists, or under estimating the resources necessary to meaningfully analyze qualitative data.

Conclusion

With adequate planning, training and supervision, qualitative methodology is a valid, useful and publishable tool for those researching within the field of psychiatry.

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