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NCRM Collaborative Project

The Grammar of the Reporting of Qualitative Research

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Background
The utility of research has been discussed in many arenas and for many reasons over the past few years. Given that most research is disseminated via reports and papers, the medium through which research is used has also been under scrutiny. Often, the quality of reporting has been criticised. This is particularly evident in health-related areas where many reporting guidelines have been developed. While some of this debate has surfaced in social science disciplines, there has not been the same level of activity in developing guidelines. One exception is REPOSE - developed for use in educational research. The authors of these guidelines found that some aspects of research were inadequately reported and that authors' guidance given by journals does not, in the main, specify how the research itself should be reported.

Aims
While qualitative research is increasingly recognised as having a valuable contribution to make, there has been far less attention paid, thus far, to its reporting. We therefore undertook this project to investigate how qualitative research is reported in terms of its 'mechanics': the reporting of participants' characteristics, their selection, methods of data collection and analysis etc.

Methods
Eight recent systematic reviews on health promotion conducted by the EPPI-Centre were identified as having included qualitative primary studies. These reviews covered topics relating to: children or young people and healthy eating, physical activity, obesity and sexual health; HIV health promotion and men who have sex with men; and accidental injury and risk taking behaviour. Some reviews sought to assess the effectiveness of interventions; some studied barriers and facilitators to healthy behaviours; some focused on the views, attitudes and perceptions of participants.

As part of the review process, the studies contained within the reviews had been coded by reviewers using the EPPI-Centre's software EPPI-Reviewer. Coding tools typically included questions on the aims and context of the research; study design; sample and sampling; methods; findings; and quality. Questions were also included on the explicitness of the reporting in the studies: explicit; implicit; unclear; or not stated.

Using the coding on EPPI-Reviewer, a total of 56 qualitative studies were identified which had been coded in sufficient detail to allow cross-study comparisons on the reporting of key characteristics of methodology. The dates of the studies ranged from 1991-2007. Studies were defined as 'qualitative' if they had used data collection methods traditionally considered to be qualitative, i.e. focus groups, semi-structured or in-depth interviews, observation, diary-keeping, drawing, use of vignettes etc. Studies were excluded from our analysis if they used both qualitative and quantitative methods. However, occasionally studies collected both

qualitative and quantitative data as part of the same research project but reported on these two datasets separately; in these cases, the report of the qualitative arm of the research was included, with a note made that the research project as a whole was mixed-method. It was also decided to include studies which collected summary descriptive statistics to describe their sample, but which otherwise used qualitative data collection methods (again, with a note to this effect).

The reporting of the 'mechanics' of qualitative research
Using the coding text on EPPI-Reviewer, details of each study were entered into an Excel spreadsheet. The level of explicitness of reporting was recorded for: characteristics of participants (number, age, sex, SES, ethnicity); sampling (use of sampling frame and methods of sampling); data collection; data analysis; and aims. In addition, the methods of data collection used were also recorded. Since it was found that the aims were generally recorded verbatim in EPPI-Reviewer, their exact wording was broken down into a range of components: the verb used by the researchers to describe what they were doing; the object of the research (e.g. attitudes, views, barriers, concerns); whether there was an attempt to produce new data/information/understanding; whether the research aimed to study the relationship between factors; whether the research aimed to study external factors; the 'what' of the research (i.e. whose concerns, what were they relating to); the 'why' of the research; and what was it for (i.e. whether or not it aimed to directly inform policy and practice).

The verbs in the aims were further coded, according to level of explanatory power: explaining (the greatest explanatory power); understanding; or describing (the least). (One study, which stood out from the rest as having an upfront political agenda, was coded as 'advocating'). Recognising that this last exercise was to a degree subjective, we sought to establish inter-rater reliability by debating and agreeing the coding of each study between the three authors.

Results
(N.B. Results are indicative, as space does not permit full reporting. The full results will be made available as a working paper.)

Sample reporting
The vast majority of studies explicitly reported key sample characteristics such as the number of participants (93.8%), their age (94.4%) and sex (92.5%), but were less explicit with regard to socioeconomic status (43.6%) and ethnicity (46.3%). While, the concept of a 'sample' is less well described, with methods of sampling being reported in 62.3% of studies and 70.7% of studies describing a sampling frame, these figures account for approximately two-thirds of the studies, suggesting that the concept of a sample is important to many authors (and may be greater than might be expected for qualitative studies).

Reporting of methods of data collection
Perhaps surprisingly, over a third of studies (36.4%) did not report their methods of data collection explicitly. In total, 35 studies explicitly reported their methods of data collection (63.6%) (15 not stated or unclear (27.3%); and 5 implicit (9.1%))

The most commonly used methods of data collection were focus groups/group interviews (40.5% of all methods), followed by one-to-one interviews (32.9%). Approximately one in ten

methods employed in these studies were self-completion questionnaires (10.1% of all methods) with vignettes and observations being amongst the other significant methods of data collection employed (6.3% and 5.1% of all methods respectively).

Some important variations in the quality of reporting by methods of data collection used were found with, for example, over a quarter of focus groups/group interviews (28.1%) and one-to-one interviews (26.9%) being reported unclearly, compared to just 12.5% of self-completion questionnaires being reported unclearly.

Reporting of methods of data analysis

This is probably one of the weakest areas of reporting given the importance of data analysis in any study: just 52.8% of studies explicitly reported their methods of data analysis (41.5% not stated or unclear; 5.7% implicitly reported).

Studies that did not report (or clearly report) their methods of data analysis were more likely (than other studies) to not (clearly) report their sample (numbers, framework, or sampling methods) – a very strong relationship here in the quality of reporting between sample and data analysis. However, such studies were only slightly more likely to not (clearly) report their methods of data collection – a much less clear relationship suggesting, perhaps, that reporting of methods of data collection is not a good predictor of reporting quality in other aspects of the research design

Interestingly, the two studies that employed drawing as a method of data collection both did not state or state clearly their method of data analysis, possibly reflecting problems in the development of a new grammar for innovative or non-traditional methods of data collection.

Outputs

The project team is currently writing a working paper for the NCRM website.