NIHR CATCh-uS ADHD Transition Research Project (2015 – 2020)

Qualitative Study – Detailed Account of Analytical Approach

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Data were managed using QSR International's NVivo11 qualitative data analysis software (QSR, 2012). Data analysis followed a Framework Analysis approach, an approach to thematic qualitative analysis that has been explicitly developed in the context of applied social science research (Gale et al., 2013). This method facilitates systematic and transparent data analysis, allowing the researcher to move between levels of abstraction while maintaining clear links to the original data (Ritchie & Spencer, 1994). The approach allows the researcher to identify patterns or commonalities, as well as contradictions in and between participants' accounts, and explore and test explanations for those patterns. It is also open to external scrutiny and the systematic nature of the process means it can be replicated and facilitates analysis to be conducted by different researchers.

Framework analysis involves five distinctive stages:

1. Familiarisation with the data: immersion in the raw data to gain an overview of the data collected. A selection of interviews are read and indexed: that is, topics or issues that are of interest, recurrent across the selected data set and relevant to the research question are identified. This process yields an inventory of what appear to be important items of interest within the data.
2. Create a thematic framework: the inventory of items is rationalised and structured into an overall thematic framework.
3. Coding: the thematic framework is applied to the data to identify where particular themes have been discussed.
4. Charting: data summary and display using Framework. Thematically sorted data are summarised and displayed in a framework matrix. Each subtheme becomes a column and each participant has a separate row.
5. Abstraction and interpretation: reviewing the charts and research notes to compare and contrast, search for patterns and connections and provide explanations for the emerging findings. Categorising and classifying or constructing typologies, and, if the data allow it, ordering categories along a dimension to create typologies.

Figure 1 provides an example of an overview of the researchers involved in each of the different stages of the analyses of the group 1, 2 and 3 young people.

WHAT	WHO?							
Indexing (10 interviews; 3-4/researcher)	🟠	🔵	🟡	🟢	⚫			
Developing coding framework	🟠	🔵	🟡	🟢	⚫			
Coding (4 interviews double coded)	🟠	🔵	🟡	🟢	⚫			
Framework Summaries (🟠 double summary)	🟠	🔵	🟡	🟢	🟢			
Column Summaries + Reorganising subthemes	🟠						🟣	🔵
Categorising and Classifying (Typologies/models)	🟠						🟣	🔵

🔵 A. Stimson 🟡 H. Eke 🟢 A. Price ⚫ A. Woodley

🟠 A. Janssens 🟣 T. Newlove-Delgado 🔵 S. Blake

Figure 1: Overview of the different steps in framework analysis, illustrating researchers' contribution for the young people's samples

Data from each of the seven target populations (three groups of practitioners, three groups of young people – at different stages of transition, and one group of parents of young people at different stages of transition) were analysed separately. In a later stage, findings from the different populations were compared and integrated to look for consensus and differences in views and perspectives between the stakeholder groups.

The interviews were analysed using a thematic and framework analysis by the research team (AJ, AP, AS, HE, SB, TND). This approach has traditionally been used in social policy research but has more recently been developed and used in medical and health research (Gale et al., 2013). Thematic analysis involves working systematically through the texts to identify topics, patterns and contradictions, while framework is an analysis tool that sorts the themes that are common across the data, summarises them and displays them in a matrix, whilst maintaining a link to the original data (Ritchie et al., 2003).

The analysis for each group began by a detailed examination of the transcripts; all members of the team read and re-read interviews not conducted by themselves. Subsequently, four researchers (AJ, AP, AS, HE) indexed and coded all transcripts using an inductive technique. HE, AP, AS underwent extensive training with the lead investigator of the CATCh-uS project (AJ, supervised by BB) before data analysis to ensure reliability and validity of the reported findings. The first stage of the analysis involved 'indexing' a small sample of interviews, to gather an insight and overview of the data. The indexing process allowed the researchers to become familiar with the data and identify key issues or themes from the data that were relevant to the research questions. Each researcher indexed three or four interviews, of which at least one was also indexed by another member of the team to allow for cross-validation of theme identification. After coding ten interviews, all researchers met to discuss their indexing, and identified and labelled all

codes. A thematic framework or 'coding tree' was developed using these key codes; the four researchers defined and reviewed the definition of each code and discussed identified examples of data that would match each code. The tree was then applied to a set of transcripts before researchers met again to discuss themes and subthemes; discrepancies in coding or use of the tree were resolved through group discussion. Changes were made to the tree and definitions of codes and themes were recorded in NVivo. This provided an overall framework of codes and themes which was then applied to all interviews to code the data and identify occurring themes.

The final stage involved creating a framework matrix; interviews represented rows and codes columns. Summaries were written for each cell; that is, all coded sections of an interview for a certain code were summarised. Identical to the thematic analysis, researchers (AJ, AP, AS, HE) created summaries for a limited set of themes before completing the whole set of transcripts. One researcher (AJ) created summaries for all selected themes to allow for comparison and alignment of the summary crafting process. At the end of the process, summaries were made for each code (over all interviews) (AJ, TD, SB). These code or theme summaries were used to compare and contrast within a framework and between the seven frameworks, to identify patterns or links, and to provide explanations of the findings (Ritchie et al., 2003, Braun and Clarke, 2006).

We applied an analytic procedure of constant comparison to comply with the request of the ethics committee not to overrecruit. We started the thematic analysis (coding) after a critical number of participants were interviewed. At that point we paused recruitment – except for group 2 young people – and completed a thematic analysis, the coding procedure of the thematic analysis. We adjusted the topic guides to better reflect themes and topics that required confirmation of theme development and or more exploration. We also focused on the "under-recruited" groups, using our sample framework. We continuously compared our data with our initial thematic coding tree to decide when to stop additional interviews.

References

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