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### ATTENTIVE LISTENING, STRONG ARMS AND AN OPEN MIND: essential elements for the analysis of qualitative research data

Over the last three decades, qualitative research has been widely employed in the health area, and such popularity is mostly due to the inclination of researchers to problematize the aspects that are behind the numbers presented in quantitative researches, and due to the need to make known the manifestation of voices that emanate from the community<sup>(1)</sup>. In addition, the accessibility to qualitative studies has also allowed the dissemination of this line within the scientific context, but critics alert that many people engage in the conduction of qualitative investigations without due preparation. This implicates the reproduction of aspects of quantitative research, which is aggravated by the reduced number of subjects studied, with presentation of transcriptions of reports or even of written records, besides errors related to the epistemological approximation<sup>(2)</sup>.

In view of this panorama, it is worth highlighting that qualitative research data should be subjected to a careful analysis procedure, adequate to the objectives of the study and to the analytical perspective chosen, in addition to complying with a rigorous methodological framework. The analysis of this data allows revealing a variety of themes, besides the knowledge of the way the subjects of the research present themselves and shape their communication<sup>(3)</sup>. For this reason, researchers should be committed to the reading, re-reading, organization, integration and genuine interpretation of data.

The data analysis stage implies at least three big challenges for qualitative researchers: a) the inexistence of analytical patterns, resulting in difficulties of description, validity and reliability of the analysis; b) exhaustive and careful work, because signification needs to be attributed to a large volume of material; and c) need for inductive skills (collective induction from individual manifestations) coupled with creativity<sup>(4)</sup>. As it is possible to notice, the challenges to be overcome in this type of analysis are significant, and the large volume of data, important difference of this research modality, is the characteristic that “scares” researchers the most, especially those starting the qualitative research journey.

On the other hand, as a way to better delimitate the material that will be effectively explored, or even the *corpus* of the study (main data to be considered), analysis in qualitative research requires data control, which is, naturally, a reductionist stage. It is constructionist, however, as it allows aggregating conceptual and significant patterns. Data organization and control may demand the development of a category scheme that, if well defined, can point information that will be seen and re-seen continuously, an exercise necessary to answer research questions. The category scheme, in turn, can be established before the obtainment of data (molded style) or after their obtainment (editorial style)<sup>(4)</sup>. Such classification is little disseminated, especially in methodological descriptions of scientific articles; however, it can constitute a reference for consultants in the evaluation of the analytical path walked by the authors of qualitative works.

Just as categories, themes are important elements in data analysis in qualitative research. Theme is an abstract unit that transmits meaning and identity to a current experience and to the variants of its manifestation<sup>(4)</sup>. The identification of themes hardly constitutes an orderly process, because the researcher can come up with the initial themes, revisit data and discover that the latter is no longer capable of translating the

content or even meeting the objectives of the study. The sensitivity of the researcher can be reflected from recurring questions about the themes that emerged, which can be presented as subtitles of the results. It is worth stressing that the process of obtainment of themes is very important and should move away from descriptions and dive into more refined and deeper levels.

After the category scheme is developed, all data needs to be read and codified, so that it corresponds to the categories. In data organization and codification, manual or computational methods can be used. Manual methods are characterized as the development of physical files for each category and codes, products of literally manual work with paper, such as cutting and collage. On the other hand, computational methods, represented by computer-assisted qualitative data analysis software (CAQDAS), allow for the insertion of data files, and facilitate the codification and the review of the material. However, the codification and the analysis itself remain inherent to the researcher. Thus, there are advantages and disadvantages, and every method has its supporters <sup>(4)</sup>.

In any case, the evaluation of a qualitative research must be careful, essentially regarding the analysis process, but it is not an easy task. Several aspects should be taken into consideration, including the judgment in the process of codification of the materials, the coherence of the real examples mentioned, the description of the inductive process (which is not even a bit simple), the documentation of the analytical process, and the delimitation of the approach used for the analysis (ethnography, phenomenology, founded theory, content analysis, discourse analysis, etc.). The evaluation of the consistency in the use of the delimited approach provides subsidizes for the verification of possible mistakes or even of the merging of different perspectives <sup>(4)</sup>.

Finally, it should be recognized that, currently, the complexity of qualitative researches has been often hidden behind a simplistic image that demerits and reduces their applicability and demoralizes the scientific relevance of their findings. A sufficiently good data analysis in qualitative research requires attentive listening to capture what the world has to tell/show us, strong arms for the transcription of this reality or its representation, and a mind open to perceive the context, the nuances and connections in which the data is immersed.

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