The Qualitative Report

Volume 25 | Number 13 Article 7

12-4-2020

Critical-Emancipatory Workshop Analysis Through Qualitative Analysis Software

Lucimara Fabiana Fornari
University of São Paulo, lucimarafornari@usp.br

Rosa Fonseca
University of São Paulo, rmgsfon@usp.br

Critical-Emancipatory Workshop Analysis Through Qualitative Analysis Software

Abstract

Critical-emancipatory Workshop is a data collection technique and interventional strategy for emancipatory education aimed at participants involved in the research. It usually results in a significant amount of data in text, audio, image and video formats. Taking this into account, qualitative analysis software usage is paramount to data treatment optimization and promotion of results credibility. This research aimed at identifying the potentialities and limits of webQDA for a Critical-emancipatory Workshop qualitative analysis. To this end, a case study based on the researchers' experience was conducted. It revealed that webQDA is a powerful digital tool for broadening and deepening the analysis of qualitative data; however, some of its features might be improved depending on specificities of the data collection technique.

Keywords

Critical-Emancipatory Workshop, Qualitative Research, Software, Collective Health

Acknowledgements

Process number 2017/11960-6, Fundação de Amparo à Pesquisa do Estado de São Paulo [São Paulo Research Foundation] (FAPESP). An earlier version of this paper was presented at the 4th World Conference on Qualitative Research (WCQR2019) in Oporto, Portugal, October 16th to 18th 2019. https://2019.wcqr.info/world-conference-on-qualitative-research/

The Qualitative Report 2020 Volume 25, Number 13, Article 7, 90-103

Critical-Emancipatory Workshop Analysis Through Qualitative Analysis Software

Lucimara Fabiana Fornari and Rosa Maria Godoy Serpa da Fonseca
Department of Nursing in Collective Health, School of Nursing of the University of São Paulo, Brazil

Abstract

Critical-emancipatory Workshop is a data collection technique and interventional strategy for emancipatory education aimed at participants involved in the research. It usually results in a significant amount of data in text, audio, image and video formats. Taking this into account, qualitative analysis software usage is paramount to data treatment optimization and promotion of results credibility. This research aimed at identifying the potentialities and limits of webQDA for a Critical-emancipatory Workshop qualitative analysis. To this end, a case study based on the researchers' experience was conducted. It revealed that webQDA is a powerful digital tool for broadening and deepening the analysis of qualitative data; however, some of its features might be improved depending on specificities of the data collection technique.

Keywords: Critical-Emancipatory Workshop, Qualitative Research, Software, Collective Health

Introduction

Critical-emancipatory Workshop is based on critical-emancipatory education and feminist pedagogy. This type of pedagogy seeks to analyze, highlight and deconstruct the authoritarian discourses and practices underlying the dominative power relations between men and women. It is a social and critical pedagogical approach that aims to overcome power inequalities between genders (Martín, 2018).

In the 1970s, the Brazilian feminist movement integrated the workshops into the educational process to promote reflections on femininity and gender issues, as well as to contribute to individual development and collective change (Fonseca, Oliveira, & Fornari, 2017).

The Gender, Health and Nursing Research Group has developed a matrix of Critical-emancipatory Workshop with the purpose of researching and intervening in the participants' concrete reality. The matrix is based on the assumptions of Paulo Freire's emancipatory critical education, on the dialectical method of exposition and analysis and on emotion as a knowledge builder. It is structured in four moments: warm-up, individual reflection, group reflection, and synthesis. During the warm-up, an activity is carried out to prepare the group and strengthen interpersonal relationships. Individual reflection is based on the experience lived and reported by the participants, whereas group reflection is based on the collective discussion about a given theme. The synthesis includes an analysis of the main points discussed in the previous moments. Also, new knowledge is introduced (Fonseca et al., 2017).

In workshops, participants may share experiences and knowledge through participation, interaction and reflection. In addition, they appropriate learning through speech and listening, as well as through the horizontal relationship established among the people involved (Fonseca et al., 2017).

Participants' speech is recorded through texts, audio, videos and / or images, so that the information can be captured and understood in the process of data treatment and analysis.

Workshops generally produce a significant number of reports, feelings, senses and meanings, as they involve individual and collective moments responsible for stimulating free expression. In this perspective, using Computer Assisted Qualitative Data Analysis Software (CAQDAS) is an essential support in the organization, treatment and expansion of analyzing data from various sources produced from workshops.

CAQDAS are digital tools that support the development of qualitative research and are often used in economics, education, health and the humanities (Woods, Macklin, & Lewis, 2016). Their functionalities promote the development of the methodological trajectory even though they do not ethically exempt the researcher from ethically participating in data treatment and analysis (Paulus, Jackson, & Davidson, 2017; Paulus, Woods, Atkins, & Macklin, 2017).

Assuming this perspective, the authors have opted for using the Web Qualitative Data Analysis (webQDA) program, due to their experience in using this digital tool. WebQDA is focused on analysis of qualitative data individually and collaboratively. It enables the researcher to edit, view, interconnect and organize data, as well as create categories, code, control, filter, search and query data (Minayo & Costa, 2019).

Given the above, this research's guiding question was: what are the potentialities and limits of webQDA for qualitative analysis of data generated through Critical-emancipatory Workshop? Our goal was identifying the potentialities and limits of webQDA for a qualitative analysis of Critical-emancipatory Workshop.

Methodology

This qualitative study is a part of a larger project entitled "Potentials and limits of the *Violetas* game to confront gender violence." This research is based on the authors' experience regarding using webQDA software as a support for qualitative analysis of data collected in Critical-emancipatory Workshops.

Violetas (Portuguese word for "violets") is a cooperative and strategic board game. Its objective is to support learning and sharing experiences among professionals who participate in the network for preventing and confronting gender violence (Pires et al., 2017). In the game, each participant takes the role of one of the characters (educator, legal professional, member of public policies or health professional, and citizen of the women's movement). All of them play collectively against violence in the cities on the board. Violence is fought through answers to questions related to film scenes and strategic actions in the defense of women.

The study included 30 professionals responsible or involved in the care of women victimized by violence. All of them were working at the *Casa da Mulher Brasileira* ("Brazilian Women House") institution in the cities of Brasília (located in the Brazilian Federal District), Campo Grande (Mato Grosso do Sul state) and Curitiba (Paraná state) when the study was conducted.

Casa da Mulher Brasileira (CMB) is a strategy implemented by the Brazilian federal government in a partnership with states and cities to confront violence against women. Its objectives are integrating, expanding and articulating public services that make up the victims' care network (Brasil, 2013). The service network consists of specialized and non-specialized services related to justice, health, education, economy, and social assistance.

The study data were collected through a Critical-emancipatory Workshop held through two three-hour sessions, totaling six hours in each CMB unit. We have used a schedule with questions that served as a guide to understanding the studied object as an instrument for implementing this data collection technique.

The study complied with all the requirements proposed by the Brazilian resolution that establishes rules and guidelines for research involving humans (Brasil, 2012). The research project was approved by University of São Paulo's School of Nursing Research Ethics Committee. It was also analyzed and authorized by the institutions that comprised the study scenario. The professionals participated voluntarily, and anonymity was guaranteed by replacing their names with the letter P followed by an Arabic numeral (P1, P2, P3, ...).

The first session of the Critical-emancipatory Workshop, entitled "Professionals Play to Confront Violence Against Women," was targeted at presenting the *Violetas* game to the CMB professionals, observing participants' expressions, comments, thoughts and feelings during the match, as well as getting to know the players' experience after the board game was over.

The second session, entitled "Confronting Violence against Women through the *Violetas* Game" was aimed at understanding participants' perceptions of the concepts gender and gender violence, along with the structure and content of the game, identifying what was easy or difficult for the professionals during the match, and reflecting on confronting gender violence through the potentialities and limits of the *Violetas* game presented by the participants.

The data were produced using text, audio, image, video, and field notes. All of the qualitative data generated from texts, field notes, and audios has been transcribed into digital format compatible with webQDA. This research has adopted the thematic content analysis technique, which follows five steps: pre-analysis, material exploration, result treatment, interpretation, and inference (Bardin, 2011).

The thematic content analysis technique has been adapted to the webQDA software. This software provides online access and compatibility with various operating systems while enabling information sharing among researchers (Freitas, Ribeiro, Brandão, Souza, & Costa, 2017). The first author has participated in this research as a project manager, whereas the second author has participated as a guest.

The software was incorporated into the qualitative analysis of data from workshops, with the purpose of organizing and systematizing information, due to its data management flexibility and results configuration (Costa & Amado, 2018).

WebQDA is structured into four systems: Sources (data insertion), Coding (creation of descriptive and empirical categories), Questioning (crossing of data sets), and Management (organization of individual and collaborative workflow). The Sources System is divided into internal, external and notes. The Coding System has free and tree codes, descriptors and classifications. The Questioning System has more frequent words, text or code search, and matrices. The Management System presents the inclusion of users and the logbook (Costa & Amado, 2018).

The Sources System supports the insertion of documents stored in a computer (Internal Sources) in formats .docx, .txt, .xls or .xlsx, and .pdf, available on the internet (External Sources) and from databases in formats BibTex, RIS and XML (Annotations). The Coding System enables the characterization of participants (Descriptors or Classifications) and the construction of empirical categories through Free Codes and Tree Codes. Free Codes support grouping codes into categories, whereas Tree Codes enable grouping them into both categories and subcategories. The Questioning System can be applied either at the previous moment, during or after the codification of the participants' discourse. The questions are defined according to the researcher's interest and are frequently used for mapping and associating information. The Management System provides for both simultaneous and non-simultaneous collaborative work among research team members.

Results

The data collected from the three workshops amount to 18 hours of audio, 18 hours of video and 20 images. The audios have been fully transcribed, totaling 400 pages. The audio transcription has been validated by the authors in two steps: in the first one, there was independent reading, whereas in the second they reached consensus regarding differences identified in the text.

The main researcher produced audio transcriptions and read them thoroughly. This process was time-consuming due to discourses being often produced by two or more workshop participants involuntarily at the same time. Repeatedly listening to the audios for discourse comprehension was thus necessary. Subsequently, the second researcher read the transcript, pointing out unclear words and phrases. Finally, the two researchers held a face-to-face meeting to discuss the inconsistent excerpts.

In the first moment of data analysis, the texts were divided according to each unit of the CMB and subdivided in sessions 1 and 2, since the software bears limitations regarding the size of documents inserted in the Sources System. Textual data were entered as internal sources in .docx document format (Figure 1).

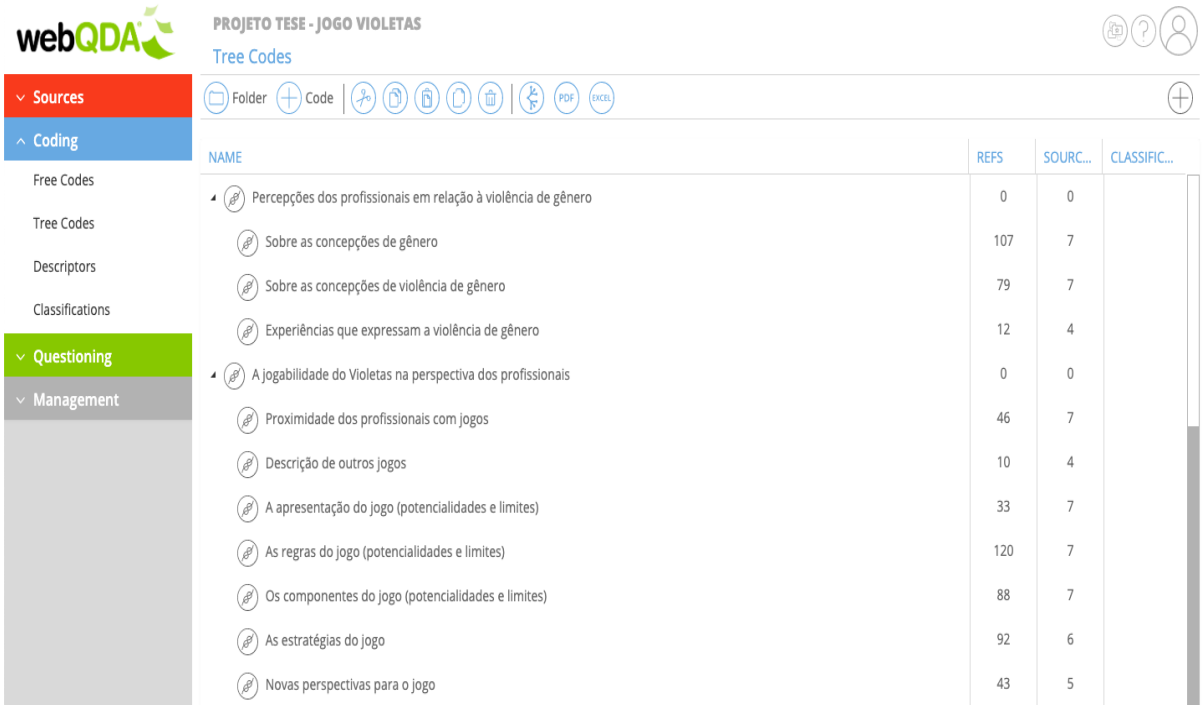
Figure 1
Textual data entered as internal sources in webQDA

Although the program limits the length for each document, this did not negatively influence the data analysis process, since all discourses have been inserted fractionally into the digital tool. The storage of empirical material in the program has granted facilitated access to the information.

In the second moment, the textual data were coded through the tree code functionality, since the thematic content analysis technique enables the construction of categories and subcategories. These empirical categories have been elaborated from the analytical categories of Gender, Gender Violence and Critical-emancipatory Education previously defined in the research project.

When validating the workshop transcripts, a data pre-analysis was performed, since successive readings were conducted to verify the text's fidelity to the discourses recorded in audio. Afterwards, to construct the empirical categories, textual data inserted in the webQDA were read in order to explore the content (Figure 2).

Figure 2
Textual data coding for building categories and subcategories

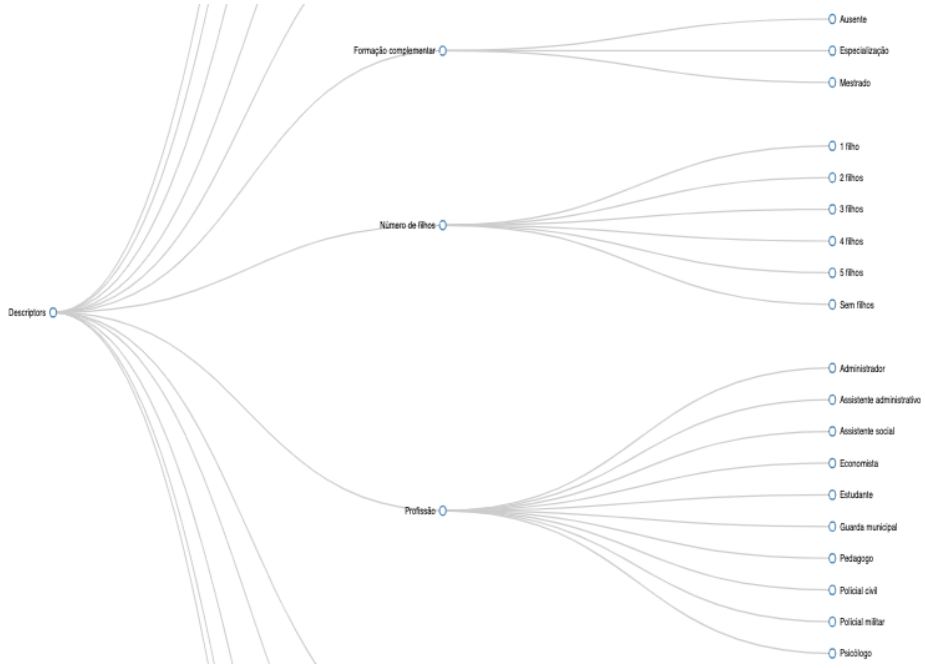


Through successive readings, three empirical categories have emerged: Professional perceptions regarding violence against women; Professional perceptions regarding the game *Violetas*; and Limits and potentialities of the *Violetas* game for confronting gender violence. The last two categories presented three other subcategories, respectively: *Violetas* Game: art mimicking life and promoting the deconstruction of gender stereotypes; *Violetas* Game: when action and omission are recreated on the board; Pedagogy of the *Violetas* Game: the construction of knowledge to confront gender violence; Limits of the *Violetas* game to confront gender violence; Potentialities of the *Violetas* game to confront gender violence; Reflections stimulated by the game *Violetas* on professional practice.

The categorization of the empirical data was optimized through webQDA, as it was possible to encode, decode and recode them at all stages of treatment and analysis. Taking this into account, the software was found to positively support the implementation of the data analysis technique while not supplanting the research design previously defined by the authors.

The program has also provided the presentation of a code map of categories and subcategories, facilitating the visualization of emerging categories. This code map was also generated from the descriptive categories (Figure 3), responsible for characterizing the participants according to their sex, age group, marital status, number of children, religion, race, education, complementary education, profession, professional experience, employment relationship, CMB's sector of activity and time of experience at CMB.

Figure 3
Partial code map generated from descriptive research categories



The coding stage of the descriptors proved to be laborious, since, during workshops, participants are invited to express themselves freely, constrained to no order and speaking time. Thus, in the program, it was necessary to code each of the reports according to the characteristics presented by the participants.

Each discourse was coded according to the participants' characteristics. Considering the heterogeneity of the group, this action was necessary, as it was believed that the different characteristics could influence perceptions about the game, gender issues and gender violence. Consequently, a double codification of the text occurred, the first for the emergence of empirical categories and the second for the description of the participants' characteristics.

In the third moment, the authors questioned the data by selecting the 100 most frequent words in each of the workshops. This questioning enabled mapping the main words mentioned by the participants during the workshops. This software functionality identified automatically the frequency and relevance of words in relation to the discourses in their entirety (Figure 4).

Figure 4
100 most frequent words in the workshops held in Brasília, Campo Grande and Curitiba

When searching for the 100 most frequent words in each of the workshops, we identified the similarities and differences between the concepts most frequently mentioned by the participants in the different research scenarios. Such concepts were also associated with empirical categories, as they addressed the most relevant issues identified in data collection.

Data questioning was also performed through the matrices, which allowed drawing relationships between the data sets. In this research, the most used association was between descriptive categories and internal sources. The matrices were displayed in a table (Figure 5), in which the rows were formed by the descriptive categories and the columns matched the internal sources.

Figure 5

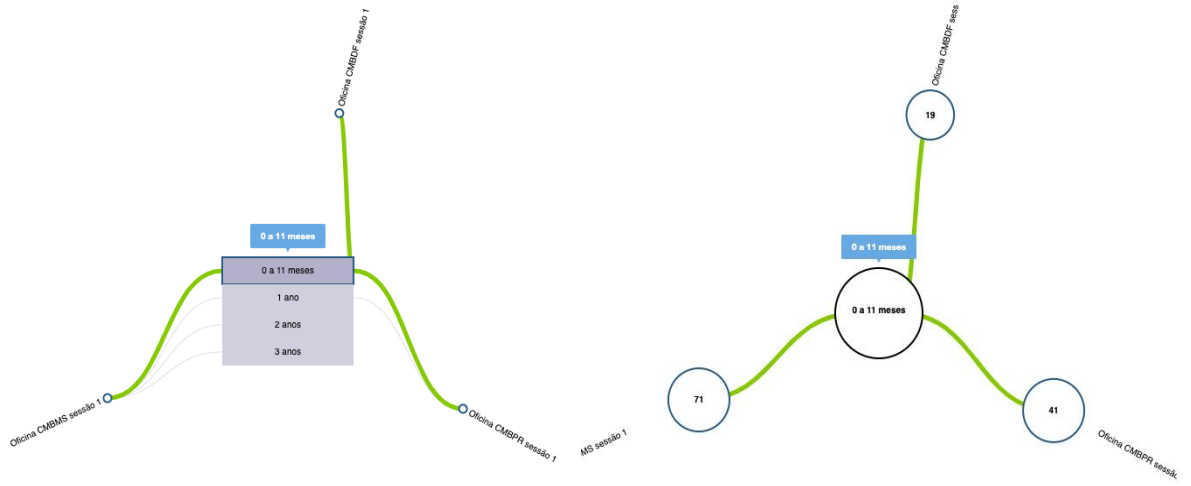
Matrix of number of comments from participants of each CMB unit by profession

MATRIX (E)	OFICINA CMBDF SESSÃO 1	OFICINA CMBMS SESSÃO 1	OFICINA CMBPR SESSÃO 1
Assistente social	88	59	59
Psicólogo	46	56	40
Pedagogo	0	13	0
Estudante	0	8	0
Assistente administrativo	0	1	0
Guarda municipal	0	5	0
Policial civil	0	7	0
Policial militar	0	0	42
Economista	0	0	25
Administrador	19	0	0

The matrices were also represented by first and second level concept maps (Figure 6). In the first level, the contents contained in the table rows and columns are presented briefly, and in the second level, the information corresponding to each row is specified.

Figure 6

First and second level concept map on the proportion of participants' comments from each CMB unit in relation to the time of experience in the research scenario



The associations made through the matrices made it possible to broaden the analysis of qualitative data, as they enabled relating different coding modalities, identifying similarities and differences between empirical data sets and overcoming the perspective of individualized interpretation of each category and subcategory. This functionality has also provided other ways to comprehend and present research results.

The Management System made it possible to plan the data treatment and analysis steps. This system's Workflow is divided into four software systems with particular functions. In this study, each completed step was checked off by the main researcher in the workflow. This software functionality is limited to presenting fixed steps, which impedes the researcher from adapting them to the specificities of the methodological and technical approach of the study's analysis.

The fourth software system also facilitates collaborative work. The two researchers had access to the data and the actions carried out at all stages of treatment and analysis. Although only the main researcher had full access to the software license, the second researcher was able to access the information as a guest. Thus, the software supported the interactive and reflective dialogue between the researchers.

Discussion

Qualitative data analysis requires rigor and transparency at all stages of the methodological path. Nevertheless, rigor and transparency are put at risk when processing a large volume of data full of senses and meanings that need to be unveiled by the researcher over a limited period.

In Brazil, writing a doctoral dissertation, for example, is limited to a period of up to four years. During this period, doctoral students need to develop the research project and submit it to a qualifying exam, as well as collect, treat and analyze the data. This research project usually presents as a result a significant amount of information that will constitute a thesis to be defended before a panel of qualified experts on the study object's domain of knowledge.

Given this, the use of qualitative analysis software has become frequent in the academic space, since it is linked to the optimization of the researcher's work process and, consequently, to the reduction of time spent on manual actions that could be processed automatically.

A study in Croatia with Social Sciences graduate students found a growing use of digital tools associated with qualitative methodologies in doctoral research. The use of qualitative analysis software with young researchers was thus highlighted (Rodik & Primorac, 2015).

This aspect draws attention to two questions: while realizing the interest of young researchers for the use of digital tools in qualitative approach studies, perhaps due to the idea that it improves scientific rigor, the quality of doctoral students' theoretical and methodological basis prior to software usage is questioned. Such issues should be widely discussed and reflected on in the academic context in order to overcome possible methodological biases while conducting research.

It is noteworthy that the qualitative analysis software is a support tool, since implementing actions aimed at producing results according to the research objectives is the researcher's role (Zhao, Li, Ross, & Dennis, 2016). Hence, the quality of the qualitative results' production with the digital tool support depends on the knowledge regarding the functionalities and on the researcher's ability to implement them.

In addition, software as a support tool cannot define the research design and methodological steps. Instead, it must be flexible to the methodology proposed by the researcher in the study project. In this context, the researcher has autonomy for selecting and

adapting the software's functionalities to conduct data treatment and analysis according to the research's theoretical and methodological framework (Paulus et al., 2017).

Therefore, whether digital tools will be employed as a support for qualitative analysis needs to be previously discussed by the research team in order to verify how this can improve analysis. In this research's previous stage of data analysis, the authors aimed at getting acquainted with the different qualitative analysis software available in the academic market, considering cost-benefit and learning time of their functionalities in training courses and technical support.

Regarding cost-benefit, the researcher needs to consider the digital tool's potential for promoting critical thinking and implement actions according to the study's methodology. The researcher must recognize the limitations of each software, as the commercialization of most software involves profit and marketing the idea that they support working with all types of qualitative methodology (Zhao et al., 2016).

In this study, the decision to use webQDA was justified by the fact that it is available in Portuguese, the researchers' native language. This aspect favored understanding its functionalities and acquiring familiarity with the digital tool. In addition, the software development team offers Brazilian users face-to-face and e-learning courses for qualification comprising the different types of qualitative analysis, as well as provides free webinars for continuing education.

For the treatment and analysis of this research's data, the main researcher participated in a basic and advanced level course on the usage of the software. The course made it possible to understand the tool's potentials and limitations for analyzing the different types of data sources produced from the workshops.

We emphasize that opting for the adoption of a qualitative analysis software depends on the researcher's knowledge on adapting its functionalities to the study's methodological design. A systematic review on using qualitative analysis software found that software choice also influences researcher consideration, since it is necessary to know its potentialities and limits so that the digital tool can effectively support research development (Woods et al., 2016).

Among the potentialities of using qualitative analysis software, the following stand out: storage, compression and managing capacity for a vast amount of data, fast and accurate access to information, preservation of original data, transparent, systematic and rigorous construction of categories, so as to reduce data analysis complexity, and report creation functionalities. In addition, software should make data clearer by presenting ideas and concepts visually (Kaefer, Roper, & Sinha, 2015).

Qualitative analysis software supports quickly searching for codes. However, it does not exempt researchers from analytical and interpretative reading, in which meanings are attributed to words and phrases. The software also helps to identify convergences and divergences inside data. The divergence patterns, for example, enables the research team to broaden the understanding, and enhance assumptions and discussions, reducing the interpretive bias (O'Kane, Smith, & Lerman, 2019).

Concerning webQDA, even though it grants the storage of large data volumes, inserting the empirical material in the digital tool required document segmentation. The software was verified to be adaptable to the data analysis technique, since the researcher has autonomy to elaborate and set the empirical categories according to information emergence. In this research, for example, categories and subcategories have been configured in different ways until the final interpretative synthesis was achieved. Thus, time allocated for document segmentation was offset by data management easiness.

In addition, visual presentations, configured according to the associations of internal sources and encodings, were considered another feature of webQDA. Word cloud, tables and

concept maps generated by the Questioning System granted clearness to result presentation, as well as new interpretative analyzes based on the analyzed empirical material.

Regarding the limits of using qualitative analysis software, the following have been identified: time necessary for functionality learning, tool usage ease, licenses cost, and expectations regarding automatic and effortless data coding (Kaefer et al., 2015; Rodik & Primorac, 2015).

Although webQDA's usage license is paid, which needs to be accounted for in the research project budget, it offers free online training courses, as well as technical support via email and interactive forum on the software's website. The authors' qualifications on the usability and functionalities provided by the software are believed to have been paramount when planning data analysis using this digital tool.

Regardless of the type of qualitative analysis software, the researcher plays an irreplaceable role in the organization and treatment of empirical data. In the organization stage, researchers may be influenced by the information, observations and senses attributed to the participants. During data treatment, researchers are responsible for creating subsets, identifying similarities and differences. Data analysis is deepened by understanding, establishing correlations and comparing the sets. Throughout these steps, the software's role is supporting and facilitating data differentiation (Minayo & Costa, 2019).

Using a qualitative analysis software is believed to stimulate reflection on each of the steps. Given that using different features is necessary, it is up to the researcher to understand how data will be better organized and treated within the digital tool. This understanding will also encompass monitoring and describing research processes, actions, and interpretative conclusions (Woods et al., 2016).

At the beginning of the data organization process, the researchers had planned to work with all the discourses in a single file, but due to the limited size of the files inserted in the source system, they chose to divide the files according to each research scenario. This division favored the identification of convergences and divergences between the perceptions of the participants inserted in different geopolitical spaces, since the institutions were present in three Brazilian states. Hence, the reflection on data organization influenced the production and interpretation of the research results.

Another significant moment of reflection was in the process of empirical categories' construction. The successive readings of the discourses modified the groupings and regroupings of the data into categories and subcategories during the data treatment according to the research objectives and the analytical categories described in the study methodology. The software's code management flexibility fostered an expanded view on the parts and on the totality of the codified discourses and consequently the interpretative conclusions concerning the results.

Interpretative conclusions are the result of categorization of empirical data. Such a process consists of a procedure for classifying the information in the collected material, carried out by structuring the relevant content and reiterated speech topics. As this process progresses, synthesis tends to decrease the number of subsets of information without losing its interpretive value. At this stage, the qualitative analysis software optimizes the verification of discourse incidence according to each category or subcategory (Minayo & Costa, 2019).

The discourse coding process can be optimized by employing digital qualitative analysis tools, since researchers can easily and promptly edit, retrieve, review and compare codes, organize the data, quickly search for words and phrases, audit the data processing steps and expand the possibilities of teamwork (O'Kane et al., 2019).

However, we highlight that qualitative analysis programs do not substitute human coding. It is the researcher's responsibility to assign codes to the discourses according to the theoretical framework, method and analysis technique adopted in the study design (Costa &

Amado, 2018). In this perspective, digital tools are emphasized to support qualitative analysis while not interfering in the construction of the methodological path and in the interaction between researcher and qualitative data.

Although the use of software to improve quality in data processing is recognized, as it enables working with a large volume of information with rigor and audit, the software functionalities are not described with detail. Therefore, part of the studies that support methodology development in analysis software do not clearly describe the role of both the digital tool and the researcher in guaranteeing research quality (Paulus et al., 2017). In addition, how the researcher used the software to produce the results must be considered, as this may occur in a correct or incorrect manner.

Consequently, the methodological quality of the research depends on the researcher's knowledge on the methodological approach and analysis technique, as well as on the skills concerning the functionalities of the digital tools. Just stating the use of a digital tool does not guarantee transparency and credibility to the results of qualitative research.

Whenever well used by the researcher, the functionalities can favor results presentation and reader understanding. Digital visualizations, for example, warrant the understanding of encodings, associations and the procedures for data extraction and codification. The detailed description of these visualizations' production process can offer greater transparency to the research method, along with presenting the qualitative results with better clarity (Davidson, Thompson, & Harris, 2017).

Finally, another element that should be taken into consideration when choosing qualitative analysis software is the possibility of collaborative production among researchers. In this research, we have verified the potential of webQDA in the data validation process carried out independently by the authors and followed by joint discussion. However, another research has revealed little interest or awareness among researchers in developing collaborative work in scientific research (Costa, 2016). Therefore, such a potentiality needs to be better explored by qualitative approach researchers, aiming especially at reducing interpretative bias in data coding.

Conclusions

WebQDA qualitative analysis software has proved a powerful tool for analyzing data produced in the Critical-emancipatory Workshop, as it has supported data organization, expanded treatment and deepened empirical material analysis.

However, the research has emphasized the role of the digital tool solely as a supporter of data analysis, since these are not automatically coded by the software and the analysis path follows the method and technique proposed in the research methodology.

Research results have also revealed the need for training researchers to get acquainted with the digital tool's features in order to use it properly. In addition, the authors highlight that the digital tool should include user manuals, training courses and technical support.

The importance of discussing qualitative analysis software in undergraduate and graduate courses is also emphasized, especially in disciplines dealing with methodology. Such a discussion should aim at deepening the methods and techniques of qualitative analysis supported by digital tools, promoting their ethical and efficient use by researchers.

The observance of ethical principles in digital tool usage is fundamental for conducting qualitative research with quality and credibility. For this, it is important that the steps of data treatment and analysis developed with the support of qualitative analysis software are described in detail in the methodology, so that readers reckon the potentials and the limitations of the functionalities in the organization and management of data entailed in producing coherent results.

It should be noted that the authors of this research have experience in developing research with a qualitative approach and have continuously sought to improve the use of digital tools through the participation in scientific events in the area of qualitative research. This continuing education aims at the conscious and critical use of digital tools as a support for the development of methodological pathways for studies with a qualitative approach.

References

Aparicio Martín, E. (2018). Aproximación a la producción artística de las mujeres al servicio de una pedagogía feminista. Ejemplos en Latinoamérica y España. *Comunicación y Género*, *1*(2), 211–226. https://doi.org/10.5209/cgen.62676

Bardin, L. (2011). *Análise de conteúdo*. São Paulo: Edições 70.

Brasil. (2012). Resolução nº 466, de 12 de dezembro de 2012. Retrieved March 28, 2019, from http://bvsms.saude.gov.br/bvs/saudelegis/cns/2013/res0466_12_12_2012.html

Brasil. (2013). *Programa mulher, viver sem violência. Casa da Mulher Brasileira. Diretrizes gerais e protocolos de atendimento*. Brasília: Secretaria Especial de Políticas para as Mulheres. Retrieved from http://www.spm.gov.br/assuntos/violencia/programa-mulher-viver-sem-violencia

Costa, A. P. (2016). Cloud Computing em Investigação Qualitativa: Investigação Colaborativa através do software webQDA. *Fronteiras: Journal of Social, Technological and Environmental Science*, *5*(2), 153–161. https://doi.org/10.21664/2238-8869.2016v5i2.p153-161

Costa, A. P., & Amado, J. (2018). *Content analysis supported by software*. Aveiro - Portugal: Ludomedia.

Davidson, J., Thompson, S., & Harris, A. (2017). Qualitative data analysis software practices in complex research teams: Troubling the assumptions about transparency and portability. *Qualitative Inquiry*, *23*(10), 779–788. https://doi.org/10.1177/1077800417731082

Fonseca, R. M. G. S., Oliveira, R. N. G., & Fornari, L. F. (2017). Prática educativa em direitos sexuais e reprodutivos: a oficina de trabalho crítico-emancipatória de gênero. In Associação Brasileira de Enfermagem (Ed.), *PROENF Programa de Atualização em Enfermagem: Atenção Primária e Saúde da Família: Ciclo 6* (pp. 59–120). Porto Alegre: Artmed Panamericana.

Freitas, F., Ribeiro, J., Brandão, C., Souza, F. N. de, & Costa, A. P. (2017). Experiência do utilizador em pacotes de software de análise qualitativa: da usabilidade à (auto)aprendizagem. In A. P. Costa, M. C. Sánchez-Gómez, & M. V. M. Cilleros (Eds.), *A prática na Investigação Qualitativa: exemplos de estudos* (pp. 138–163). Aveiro - Portugal: Ludomedia.

Kaefer, F., Roper, J., & Sinha, P. (2015). A software-assisted qualitative content analysis of news articles: Example and reflections. *Forum Qualitative Sozialforschung*, *16*(2). https://doi.org/10.17169/fqs-16.2.2123

Minayo, M. C. de S., & Costa, A. P. (2019). *Techniques that use speech, observation and empathy: qualitative research in action*. Aveiro - Portugal: Ludomedia.

O'Kane, P., Smith, A., & Lerman, M. P. (2019). Building transparency and trustworthiness in inductive research through computer-aided qualitative data analysis software. *Organizational Research Methods*, 1–36. https://doi.org/10.1177/1094428119865016

Paulus, T. M., Jackson, K., & Davidson, J. (2017). Digital tools for qualitative research: Disruptions and entanglements. *Qualitative Inquiry*, *23*(10), 751–756. https://doi.org/10.1177/1077800417731080

Paulus, T., Woods, M., Atkins, D. P., & Macklin, R. (2017). The discourse of QDAS:

Reporting practices of ATLAS.ti and NVivo users with implications for best practices. *International Journal of Social Research Methodology*, *20*(1), 35–47. https://doi.org/10.1080/13645579.2015.1102454

Pires, M. R. G. M., Silva, L. V. S., Fonseca, R. M. G. S. da, Oliveira, R. N. G., Gessner, R., & Gouveia, E. de P. (2017). Ludicidade, gênero e poder no jogo de tabuleiro Violetas: cinema & ação no enfrentamento da violência contra a mulher. *RICS*, *3*, 99–115.

Rodik, P., & Primorac, J. (2015). To use or not to use: Computer-assisted qualitative data analysis software usage among early-career sociologists in Croatia. *Forum Qualitative Sozialforschung*, *16*(1).

Woods, M., Macklin, R., & Lewis, G. K. (2016). Researcher reflexivity: exploring the impacts of CAQDAS use. *International Journal of Social Research Methodology*, *19*(4), 385–403. https://doi.org/10.1080/13645579.2015.1023964

Zhao, P., Li, P., Ross, K., & Dennis, B. (2016). Methodological tool or methodology? Beyond instrumentality and efficiency with qualitative data analysis software. *Forum Qualitative Sozialforschung*, *17*(2). https://doi.org/10.17169/fqs-17.2.2597

Author Note

Lucimara Fabiana Fornari is a Post-doctoral researcher at the Postgraduate Program in Nursing, University of São Paulo School of Nursing, Sao Paulo State, Brazil (2019-). Sh earned her PhD in Science from the Inter-institutional Doctoral Program in Nursing at EE-EERP / USP (2015-2019) and a Master in Nursing Science from the Federal University of Paraná, Paraná State, Brazil (2012-2014). She also graduated in Nursing at the Paraná Midwest State University, Paraná State, Brazil (2007-2010). She works in research and teaching on the following themes: gender violence, educational technologies, nursing care in Primary Health Care, critical-emancipatory workshop, collective health and public policies, qualitative methodology and use of digital tools. Please direct correspondence to lucimarafornari@usp.br.

Rosa Maria Godoy Serpa da Fonseca earned her PhD in Nursing from the University of São Paulo (1990) and a Master in Public Health from the University of São Paulo (1982). She also graduated in Nursing and Public Health Nursing from the University of São Paulo (1971). She is a Full Professor in Collective Health Nursing and is currently Senior Professor at the University of São Paulo. She works in research and teaching on the following themes: gender and nursing, nursing in public health, women's health, violence against women and violence against children. She is a Full Member of the Strategic Council University and Society of the Federal University of São Paulo and a member of the Technical Chamber of Primary Care of the National Health Council. Please direct correspondence to rmgsfon@usp.br.

Funding: Process number 2017/11960-6, *Fundação de Amparo à Pesquisa do Estado de São Paulo* [São Paulo Research Foundation] (FAPESP).

Acknowledgements: An earlier version of this paper was presented at the 4th World Conference on Qualitative Research (WCQR2019) in Oporto, Portugal, October 16th to 18th 2019. https://2019.wcqr.info/world-conference-on-qualitative-research/

Article Citation

Fabiana Fornari, L., & Godoy Serpa da Fonseca, R. M. (2020). Critical-emancipatory workshop analysis through qualitative analysis software. *The Qualitative Report, 25*(13), 90-103. https://nsuworks.nova.edu/tqr/vol25/iss13/7