

## Knowledge references: analysis of Brazilian health journal instructions to authors

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**Abstract** *Health researchers refer to the difficulty in publishing which is a barrier to conducting qualitative studies. We sought to identify which Brazilian publications indexed in SciELO in the area of health sciences include instructions to authors that allow the publication of original studies based on qualitative methods. Of the 88 current titles analyzed, more than half (52) impose conditions that are incompatible with the qualitative research, most of them medical publications. Some publications (19) do not provide information on the type of study, but do not present typical requirements of quantitative research, such as statistical tests and reproducibility. Magazines demonstrating the acceptance of qualitative research (17) allow longer texts, study designs that include interviews, and some even specifically state acceptance of studies with qualitative approaches. In general, these publications belong to the collective health or nursing areas and have higher scores in CAPES. The lack of clear instructions for qualitative manuscripts and the need for quantification are barriers to the publishing of qualitative studies, which does not favor the expansion of the clinical look to the human phenomena related to health. The scientific and accuracy criteria should be reviewed.*

**Key words** *Qualitative research, Scientific knowledge, Epistemology, Publishing formats*

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## Introduction

Qualitative research on health and more specifically on medicine has the potential to provide answers to problems that are not solved by epidemiological and experimental approaches and other quantitative-based designs<sup>1</sup>. Qualitative research offers the possibility of further knowledge production about human phenomena, contributing to the understanding of the subjective dimension that can be found in the illness and in the dynamics of the health-disease process, which is not translatable into numbers. The qualitative investigation is concerned with the subjective and relational level of the social reality, taking possession of the stories, experiences, meanings, motives, beliefs and values of the social actors<sup>2</sup>.

Despite its potential, the use of the qualitative method in health is still modest, especially when it comes to medical researchers and the approach of relevant topics to the clinical practice. Moreover, this methodological approach is almost unknown or unappreciated by doctors, on the pretext that the qualitative production is of little benefit to the reproducibility and generalization of results<sup>3</sup>.

The dissemination of qualitative studies is also hampered by the short editorial space that the scientific publications offer to this kind of research. And doctors, although in theory privileged actors for the conduction of the comprehensive investigations thanks to their proximity to people<sup>4</sup>, are a minority among the authors of scientific studies who use this approach<sup>5</sup>.

Although high impact medical and health publications such as JAMA and Lancet have opened the possibility of submission of qualitative studies, the number of published articles is still low. According to van Teijlingen et al.<sup>6</sup>, the quantity of qualitative research in health care publications is much lower than the multiplication of articles with quantitative approaches.

The receptiveness with which some medical publications have offered to publish qualitative articles happens for several reasons. Among them are the recognition of the relevance of social, psychological and subjective matters in the development of diseases and awareness of people about their rights, associated to the pressure for them to be heard in the solution of their problems<sup>7-9</sup>. Shuval et al.<sup>10</sup> agree, but point out that the increase of the percentage of studies and publications with a qualitative approach is still very low. In this sense, scientific editors play a fundamental role in establishing standards and

evaluation criteria that encourage the production of manuscripts produced in this perspective. Devers<sup>11</sup> points out that the traditional criteria for assessing the quality of scientific texts are still rooted in the positivist philosophical perspective, closely associated with statistics and mathematical requirements. The author suggests that appropriate guidance to induce and evaluate the qualitative research will reinforce this field and will facilitate greater provision of funding and publication of knowledge generated by them. Periodicals adopting an inclusive editorial policy of qualitative articles more frequently publish this kind of research and offer a greater chance of improvement to the authors. The journals which publish qualitative studies are challenged to deal with different epistemological positions, says Corradi-Webster<sup>12</sup> in an editorial article of the Health & Social Transformation publication, but without giving up the accuracy criteria of the qualitative research, such as the explanation of the steps taken within a context, taking into account the reflection on the participation of the researcher in accordance with the theoretical and methodological framework.

Review studies show this meager and almost negligible presence. A bibliographical research on the articles published in the 170 major clinical publications in 2000 revealed that from 60,330 papers analyzed, only 355 (0.5%) were qualitative and were disseminated in 48 different periodicals. However, most of their themes were nursing related. Only four studies had been published in high impact publications<sup>13</sup>. Another study, also a systematic review of articles related to health and management services, disseminated in nine major international periodicals in a period of three years (1995-1997), showed that only one in seven used a qualitative approach<sup>14</sup>.

Yamazaki et al.<sup>15</sup> reviewed articles published between 2000 and 2004 in the journals of general medicine of highest impact in the world, BMJ, Lancet, Jama, Annals of Internal Medicine and the New England Journal of Medicine. From these publications, only 11% were based on qualitative studies. According to Meneghini<sup>16</sup>, SciELO coordinator in Brazil, in the recent years there was a great increase in the Brazilian production of health sciences that occupied the 3rd position worldwide in 2008, only surpassed by the United States and England. Despite this large increase which also includes the publications in the field of collective health<sup>17</sup>. Despite this large increase which also includes the publications in the field of collective health, the qualitative studies did

not have great visibility. Therefore, according to Morse<sup>18</sup>, editor of the *Qualitative Health Research* magazine, qualitative investigations remain on the fringes of science. In his view, doctors still consider qualitative approaches biased, not replicable, lacking evidence – therefore, unacceptable.

Given this situation, the objective of this study is to know the editorial standards of the health-related Brazilian scientific journals and see how they stand in relation to the acceptance of original articles using qualitative methods.

## Material and methods

To meet the proposed objectives, there was an analysis of the instructions given to the authors of the current titles of Health Sciences journals indexed in the *Scientific Electronic Library Online* (SciELO) in Brazil, focused on the publication of original articles resulting from research.

From the 93 journals identified in SciELO, five were excluded for not being dedicated to research involving human beings or for having an interdisciplinary character, not specifically related to health.

The 88 remaining journals were then classified according to the areas of knowledge and the best scores obtained in webqualis of the College Education Personnel Improvement Coordination (CAPES) of the Ministry of Education. It should be noted that the CAPES score was taken as a quality and relevance proxy in the national academic scenario. Then, the analysis of the instructions to authors of original articles, seeking appropriate guidance to the qualitative studies, such as the non-requirement of statistical and reproducibility and generalization related tests of the results, were considered. Aspects such as limits to the manuscript size, the number of authors and the study design, when present, were also considered. From the reading and rereading of the instructions to authors, the categories for the classification of the editorial stance ranking of the journal concerning the original qualitative studies emerged: favorable, indifferent/dubious, and not favorable. Favorable were the journals that showed in their instructions to authors the written acceptance of any kind of original research, and the ones that made some reference to the qualitative method or study designs that included interviews, focal groups and participant observation. Periodicals classified as non-favorable to qualitative studies showed the typical requirements of quantitative studies, such as

statistical tests, reproducibility, results that allow generalization and texts with very limited discourse. Editorial positions considered indifferent or dubious were those which, despite not having guidelines in favor of qualitative studies, did not impose specific conditions for quantitative studies, or when they did include such impositions, they allowed the possibility of acceptance of other study formats.

After classification, the content of journals included in each group was examined to ensure the instructions are properly followed in the published works.

## Results and discussion

As shown in the Table 1, the distribution of periodicals according to the thematic areas shows the predominance of medical journals, followed by the magazines classified in the field of collective health. The nursing journals, followed by the collective health ones, show the best scores in webqualis.

It is noteworthy that the Brazilian Journal of Geriatrics and Gerontology (RBGG) and also the Brazilian Journal of Bioethics (RBB) were included in the area of Medicine, although their contents are not typical of this field, for the philosophical dimension that underlies the bioethics or the multi-professional character that typifies both Geriatrics and Gerontology.

Considering the distribution of journals by area, according to instructions to the authors more or less favorable to publication of articles based on qualitative research, it was observed that the medical magazines are those with the least-friendly publishing standards. The chart also shows that some magazines, even with rules favorable to the publication of qualitative studies, in fact do not publish them. The opposite also occurs, since an article based on qualitative research can be divulged even in magazines whose standards are not in favor of this approach. However, these two situations are not typical, since there is in the group of publications analyzed a clear predominance of those which publish exclusively or predominantly studies based on measurements and statistical analysis (Table 2).

In the reading of the instructions, it was observed that the publications whose rules are favorable to the inclusion of qualitative studies allowed for longer texts, texts without statistical tests, or specifically stated acceptance of this type of research. There was information regarding

**Table 1.** Distribution of periodicals by area and higher Qualis Capes.

Area	Nr.	Qualis A1/A2	Qualis B1/B2	Qualis B3
Medicine	49	8	32	8
Collective Health	11	6	5	0
Nursing	7	5	2	0
Dentistry	7	3	2	2
Sports Education	5	0	5	0
Physiotherapy	3	1	2	0
Pharmacy	2	0	2	0
Speech Therapy	3	0	3	0
Nutrition	1	0	1	0
<b>Totals</b>	<b>88</b>	<b>25</b>	<b>57</b>	<b>11</b>

**Table 2.** Distribution of the periodicals by area, editorial posture compared to original studies of qualitative nature and number of quali articles published last year.

Area	Nr.	Favorable	Non-favorable	Indifferent/ dubious	Published quali articles last year
Medicine	49	02*	35	12	3
Collective Health	11	07	1	3	10
Nursing	7	5	0	2	7
Dentistry	7	0	6	1	1
Sports Education	5	2	2	1	2
Physiotherapy	3	1	2	0	0
Pharmacy	2	0	2	0	0
Speech Therapy	3	0	3	0	1
Nutrition	1	0	1	0	1
<b>Totals</b>	<b>88</b>	<b>17</b>	<b>52</b>	<b>19</b>	<b>25</b>

\* Includes RBB and RBGG.

the inclusion of complete articles which focus on the discussion, comparison and evaluation of important methodological aspects for the field, either in the drawing area studies, data analysis or method. These publications were classified as favorable.

Some such publications accept manuscripts with up to six thousand words or even longer. Others indicate that texts are accepted if their themes are related to the understanding of human needs, motivations and behavior. In such cases, the object of the study is built by in-depth analysis of a particular issue, which includes the understanding and interpretation of opinions, attitudes, motivations and behavior patterns. These magazines also point the acceptance of

documentary research and ethnographic studies.

Some of the analyzed publications, classified as indifferent or dubious, demonstrate some ambiguity in their guidelines to the authors, or do not provide specific information or requirements regarding the method.

These journals, despite their requirement of replication or generalization, state that submissions are allowed in other article formats. In such cases, the maximum number of words in general is around 3000 to 4000. However, they do not give guidance on study design, data collection techniques or the need of statistical tests. Some of these magazines require the presentation of statistical treatment and the generalization of the results, while they also accept data categorization.

Periodicals whose instructions were assessed as unfavorable to the publication of qualitative original studies are characterized by requirements incompatible with qualitative studies, such as: information on the statistical analyzes, detailed description that enable the replication of the study or the generalization of its results. That is, even when they do not show explicit information about the rejection of qualitative studies, they impose clear restrictions to their submissions. The excerpts taken from the guidelines to the authors from two analyzed publications illustrate this situation:

*Procedures should be described in sufficient detail to allow reproduction of the study. [...] In the results, key data, confidence intervals and statistical significance must be informed.*

We believe qualitative studies allow replication, although this does not mean that the results are similar. The dissimilarities among the results are considered elements to enrich the understanding of the studied phenomenon and catalysts of the formulation of new hypotheses<sup>19</sup>. Similarly, the idea of generalization in the qualitative studies in fact is not applicable, since the intention is not to produce a statement that may be valid in general, but to produce information about dimensions of the human experience marked by the social-cultural context that produces them. The assumption is that the unique experiences are historically and socially circumscribed human possibilities, which can be experienced by different individuals, though not in a deterministic or linear way. Thus, it is not about generalizing, but about identifying how the socio-cultural rules can enroll in the individuals' lives. One of the important features of the qualitative method consists of the heterodoxy at the time of the data analysis, which relies on intuition and creativity. More than generalizations, diversity and deepening are welcome<sup>20,21</sup>.

In publications classified as showing unfavorable instructions to qualitative studies there are still limitations in size (usually no more than 3000 words). Other information that seem to hinder the submission of qualitative studies relate to the control of the study subjectivity and the need for impartiality from the researcher, as exemplified in the excerpts below, taken from the guidelines to authors of other publications in this group.

*The results should present the data obtained with the minimum personal judgment. [...] It should be described as the subjectivity of the observations was controlled. [...] The manuscript must be written in 3rd person.*

The concern with the control of subjectivity demonstrates the positivist, scientific logic of these journals, based on the perceived stable and independent reality of the observer. In this perspective, the mission of science is to unveil this reality within its objectivity. This viewpoint, now quite overcome by the advancement of science in several areas, ignores the impossibility of a static world, one without continuous interference from observers/researchers<sup>22</sup>. Moreover, it seems that such a vision does not even consider the academic production guided by political, social and economic interests, which can lead the search towards some objects while dribbling around others<sup>23-25</sup>.

Some journals do not accept the discussion to be presented along with the results, as is common in qualitative studies. Others require the description of the level of evidence based on the Evidence-Based Medicine Center in Oxford, UK.

About half of the studied publications report that their statements are supported by the recommendations of the International Committee of Medical Journal Editors<sup>26</sup>. This document, in the section corresponding to the method, points out that its guiding principle is the clarity about how and why the study was done, and that the work should aim to be sufficiently detailed so that other researchers are able to reproduce the results. As shown, to be able to reproduce the study and find the same results is a premise of quantitative studies, since, as already pointed out, the reproduction of the results is not a requirement of qualitative studies, in which the scientific guarantee comes from the accuracy in the analysis and interpretation of results, as well as their theoretical consistency.

However, not all the publications give instructions to authors as a guideline that explains and consolidates their editorial policy. In some journals, these instructions to authors are limited and with few methodological or format requirements. In others, in addition to the impositions on the details of the method, there are guidelines on the format of the manuscript. There are also rules that appear to be very outdated, since they require the submission of printed copies and floppy disks by mail.

It is also worth mentioning that some journals (34 from 88) require the submission of manuscripts in English, and charge fees for submission, publication and translation into English. One of them also forbids references in Portuguese. Therefore, not only does the methodological constraint format knowledge to be disseminated through the publication in indexed

journals, but other requirements also contribute to selecting the type of information to be made available, the authors and their readers.

Thus, the results of this analysis highlight that the dissemination of qualitative research is hampered by the limited editorial space in scientific journals for this kind of research. In addition to the non-inclusion of these studies in the guidelines to the authors, the texts that use this approach are often rejected by analysts who consider them unscientific, of dubious quality, as if they were just curious stories about experienced events with inaccurate data collection and analysis that does not go much further than common sense<sup>4</sup>. In a study by Taquette et al.<sup>3</sup>, medical researchers point out the little resonance of such studies in the world literature.

It is noteworthy that the journals with editorial policy which includes qualitative studies publish a greater quantity of this kind of research, which is confirmed by the data from this study: magazines with favorable instructions properly published a higher number of qualitative articles than the magazines with unfavorable or dubious standards<sup>5</sup>.

Despite the growing recognition of the importance of the qualitative research to clinical practice, the empirical evidence is that articles with qualitative approaches hardly received support from the most important journals: in 10 years there was an increase of 3.4 times of international grade publications: 1.2 % in 1998 and 4.1% in 2007<sup>10</sup>.

One of the most criticized points about this scientific method is that there is no intention to generalize data. However, based on the assumption discussed earlier, in which the unique experience is nuanced and social-culturally signified, Collingridge and Gantt<sup>27</sup> point out that it is possi-

ble to generalize study results in similar contexts with some degree of confidence. And they compare it with the jurisprudence in the area of Law, where in a relevant precedent the generalization is established through the analysis of the similar characteristics between particular cases.

### Concluding remarks

We conclude that the lack of clear instructions about the possibility of submitting qualitative articles, as well as the requirement of study reproducibility are barriers imposed by journals against qualitative studies and are a great impediment to the expansion of this type of research in the health sciences. Thus, many health care issues remain unanswered. On the other hand, the increased participation of physicians in qualitative studies with researchers from other areas can help to reduce the gap between collective health and clinical practice and also to the formulation and implementation of health policies.

It is worth mentioning that the demands to the authors related to quantitative studies from most scientific journals in the health area are also present in the public calls of some funding agencies. Among them we highlight the main Brazilian agency, the National Council for Scientific and Technological Development (CNPq) of the Ministry of Science and Technology, whose latest Universal call forced applicants to include quantitative targets in their projects, without which proposal submissions were denied. This shows that the hegemonic and almost single vision in the scientific community is that science is a synonym of quantitative research, which makes it ever clearer that there is a need to reflect on and revise the criteria of science and accuracy.

## Collaborations

SR Taquette and WV Villela contributed equally to the study, data analysis and writing of the manuscript.

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