CORRECTING LANGUAGE MISTAKES IN QUALITATIVE RESEARCH ARTICLES

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Abstract
Scientific authors must write simply and authentically. They should use clear and focused language when drafting qualitative research reports to allow for a deeper understanding of the experiences and concepts extracted. The authors must strive to correctly use subject-verb, matching, and comparing constructions. They must concisely structure the objectives, methods, and discussion. Their manuscript should have a logical flow to avoid rejection due to any ambiguous meaning.

Keywords: Writing, Research design, Science editing

INTRODUCTION
Writing clear and coherent scholarly articles remains a major undertaking for researchers and authors. Researchers should clearly describe and interpret their scientific observations and processed literature data to convey a message to the scientific community [1, 2]. Scientific authors explore new phenomena, interpret original data, and generate hypotheses by adhering to various research reporting standards and recommendations [3, 4, 5]. Qualitative research writing is inductive and involves formulating concepts based on collected data (i.e., from data to theory) [6]. Quantitative research writing is deductive and involves testing established theories based on experiments (i.e., from theory to data or rejection or non-rejection of null hypothesis) [7].

There are a few recommendations for non-Anglophone authors on proper writing and editing different article sections. This article aims to provide some pointers on how to draft and identify language mistakes in qualitative research works.
Title
When structuring the title, it is essential to correct language and reflect on the subject (Box 1). When appropriate, the title should indicate the study design (e.g., interview, survey) [9].

Box 1. Improving the title to convey the nature and topic of the study

Original title
The Effectiveness of Aromatherapy Treatments on Fatigue and Relaxation for Mothers during the Early Postpartum Period

Edited title
Effectiveness of Aromatherapy Treatment in Alleviating Fatigue and Promoting Relaxation of Mothers during the Early Postpartum Period

Editing pointers
Concise and declarative titles are advisable. Dropping the article "The" may help. The use of qualifying words (i.e., "Alleviating", "Promoting") clarifies the specific actions of the aromatherapy treatment.

Introduction
When writing the Introduction section, it is important to describe the significance of the problem or phenomenon being explored (Box 2). Relevant theories or empirical works must be carefully reviewed and referenced. The objectives and research questions must be explicitly stated [9, 10].

Box 2. Improving the objective statement to clarify the target population and specific items being investigated

Original sentence (objective in the Introduction)
The objective of this study was to investigate into early adolescents’ Physical knowledge, secondary sexual characteristic, and appropriate contraception for teenagers in primary school in Zambia.

Edited sentence
The objective of this study was to have a closer look at early adolescents in a primary school in Zambia and investigate their knowledge of their physical body, secondary sexual characteristics, and appropriate contraception.

Editing pointers
Although the meaning of the original study objective can be deciphered, it is better to make the statement more plain by initially identifying the target population and location (i.e., early adolescents in a primary school in Zambia), and then specifying the knowledge items being investigated in this population (i.e., physical body, secondary sexual characteristics, appropriate contraception).

Methods
When writing the Methods section, it is crucial to specify the qualitative approach and research paradigm, researcher characteristics and reflexivity, study context (i.e., settings, site, contextual factors), sampling strategy, ethical issues pertaining to human subjects, data collection methods, data collection instruments and technologies, units of study, data processing, data analysis, and techniques. Clearly describing these aspects of the study will highlight its trustworthiness [9, 10].

The research paradigm is written by explaining the authors’ basic set of beliefs (e.g., paradigm of positivism) and how these influence their approach to scientific research (i.e., view of reality, conception of nature of knowledge, roles and values of research process) [11]. Reflexivity is described by writing the authors’ own position within the research process with consideration of their own biases [12]. The sampling strategy is explained by writing the means of selecting a representative portion of the target population [13]. The trustworthiness or rigor is described by referring to the methods used to ensure the study quality [14]. The authors must also write about the credibility of their study as an indication of their confidence in the truth of their work with findings representing information drawn and correctly interpreted from the participants’ original data and views [14]. This involves linking their findings with reality to show the truth of their findings via triangulation or member-checking [15]. Providing sufficient detail in the Methods section will help readers to better understand how data were collected and analyzed (Boxes 3, 4).

Box 3. Removing redundancy to describe data collection comprehensibly

Original sentence
The collected samples were immediately froze in a -80˚C in freezer. We assayed the oxytocin level using the assay method of Jones…

Edited sentence
The collected samples were immediately stored in a freezer at -80˚C. Oxytocin level was assayed using Jones’ method…

Editing pointers
Although the meaning of the original study objective can be deciphered, it is better to make the statement more plain by initially identifying the target population and location (i.e., early adolescents in a primary school in Zambia), and then specifying the knowledge items being investigated in this population (i.e., physical body, secondary sexual characteristics, appropriate contraception).
Box 4. Removing nominalization to clearly explain data collection

**Original sentence**
Collection of saliva was performed from 1100-1400.

**Edited sentence**
Saliva was collected from 11:00 to 14:00.

**Editing pointers**
The original sentence contains a verb nominalization (i.e., “Collection”) and an unnecessary verb (i.e., “was performed”). It is best to take out the unnecessary verb (i.e., “was performed”) and change the verb nominalization (i.e., “Collection”) to a verb (“was collected”).

**Results**
When writing the Results section, it is essential to report the main findings. It is equally important to provide empirical data (e.g., interview quotes) to support the findings [9]. This section may include evidence to substantiate further analyses and graphics/photographs to enrich the findings.

Box 5. Improvement of the statement and comparison of results using parallel construction

**Original sentence**
The mean knowledge score of danger signs for patients aged 30 years and above was 3.82 compared with those aged 20 years of low (mean score 2.76).

**Edited sentence**
The mean score for knowledge of danger signs among patients aged 30 years and above was 3.82, whereas that among patients aged 20 years and below was 2.76.

**Editing pointers**
The original sentence needs to be improved in terms of wording and sentence construction using parallelism. In this case, parallelism involves the use of the same grammatical construction in the corresponding clause. The use of parallelism ensures that the content, that is, the mean scores for knowledge of danger signs between the two groups of patients, is contrasted in a parallel or balanced manner, with the conjunction “whereas” indicating the contrast between the two facts.

**Discussion**
When writing the Discussion section, a short summary of the findings can be presented at the beginning. It is essential to clearly interpret the current work in the context of related publications, and discuss its implications and contributions to the study field (Boxes 6, 7). The study limitations must be clearly stated. It is also critical to specify the target audience (e.g., researchers, patients, or practitioners) [16].

Box 6. Comparing by identifying the subject

**Original sentence**
This is the same result with previous study researched response about the one-day oxytocin from breast stimulation…

**Edited sentence**
The result of this study is similar to that of a previous study which investigated the oxytocin level one day after breast stimulation …

**Editing pointers**
The subject being compared (i.e., “result” between the two studies) must be initially and plainly identified, followed by improvements in the wording of the rest of the sentence to achieve a comprehensible comparative statement.

Box 7. Improving the wording and logical flow using correlative conjunction

**Original sentence**
Furthermore, not only are approaches for supporting healthcare workers important, it is also important to empower women to know that they have rights to be treated respectfully.

**Edited sentence**
Furthermore, it is important to not only identify approaches to supporting healthcare workers, but also empower women to know their rights, especially on being treated respectfully.

**Editing pointers**
The wording and flow of the sentence must be improved by appropriately using the correlative conjunction “not only…but also” to denote parallelism.

**Conclusion**
When writing the Conclusion section, it is critical to reflect on the main findings of the study (Box 8). An explanation of the implications of the findings and a practice recommendation could be also presented [10].
Box 8. Improving clarity using shorter but more detailed statements

<table>
<thead>
<tr>
<th>Original sentence</th>
<th>Edited sentence</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Early Essential Newborn Care program is acceptable in the Indonesian settings, and they have some demands for learning new procedures of newborn care. However, some barriers exist for implementation of the new procedures in their settings.</td>
<td>The Early Essential Newborn Care program is acceptable in Indonesian settings. There is also a positive demand among Indonesian nurses to learn new procedures for newborn care. However, they also face the reality of overcoming certain barriers to the implementation of new procedures in their own settings.</td>
</tr>
</tbody>
</table>

**Editing pointers**

Long sentences are confusing. These can be divided into two shorter but more detailed sentences. The newly written second sentence can be clarified further by adding words that specify who “they” stands for. The last sentence has additional details to connect it more logically with the revised first and second sentences.

**COMMON WRITING MISTAKES OF NON-ANGLOPHONE AUTHORS**

The following are some of the common writing mistakes in qualitative research articles of non-Anglophone authors: 1) subject-verb disagreements; 2) incorrect comparisons; and 3) mismatched sentences. Basic scientific writing rules can be consulted to avoid such mistakes [17].

**Subject-verb agreement**

Non-Anglophone authors often mistakenly connect the subject and verb in singular and plural. These mistakes involve the use of 1) compound subjects; 2) the word “data”; 3) collective nouns; 4) “each”, “every”, and “everybody”; and 5) indefinite pronouns.

1) **Compound subjects** [18, 19]. A singular verb is used when a compound subject is treated as singular in popular usage or is referring to the same person (e.g., The developer and producer of the COVID-19 vaccine is arriving soon. [both subjects refer to the same person]).

2) **“Data”** [17]. A singular verb is used when the entire data is referred to (e.g., After the survey data is collected, it will be analyzed.). A plural verb is used when the data is considered as individual results (e.g., The survey data were collected and analyzed.).

3) **Collective nouns** [20]. A singular verb is used when the group as a whole unit is meant (e.g., The number of patients treated with the new COVID-19 vaccine was the largest in history.) A plural verb is used when individuals in the group are being referred to (e.g., A number of patients were treated with the new COVID-19 vaccine.).

4) **“Each”, “every”, and “everybody”** [21]. A singular verb is used for compound subjects containing the words “each”, “every”, and “everybody” (e.g., Everybody in the organization and every supervisor is assigned a different work each day.).

5) **Indefinite pronouns** [22]. A singular verb is used for the indefinite pronouns “each”, “either”, “neither”, “no one”, “everyone”, “anyone”, “anybody”, “somebody”, and “everybody” (e.g., Each treatment intervention was evaluated for its effect on the symptoms.). A plural verb is used for the indefinite pronouns “several”, “few”, “both”, and “many” (e.g., Many healthcare workers were selected for the vaccine trial.).

**Comparisons**

In a comparison statement, the second element in the comparison is usually introduced using “than” (subordinating conjunction) [17] (e.g., The mental condition of patient A is better than that of patient B.).

**Parallelism**

The following indicate parallelism: coordinating conjunctions (and, but, or, nor, yet, for, so) [23], correlative conjunctions (either, or; neither, nor; both, and; not only, but also; not, but) [24] (e.g., The sample was stored either in a freezer or in an ice chest.), and correlative constructions (as…as) [17].

**CONCLUSION**

The writing approach in qualitative research articles is one that is narrative, longer, and more detailed. Scientific authors should be flexible and explorative when providing descriptive insights gained from the analyses of phenomena. This requires mastery of writing to provide clear descriptions and details, aiming at clarity. The authors should share their reasoning by carefully choosing words and tone.

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**AUTHOR CONTRIBUTION**

The authors substantively contributed to writing and revising the manuscript. They take full responsibility for all aspects of the work.

**CONFLICTS OF INTEREST**

None
REFERENCES

17. Parallel structure. Available at: https://owl.purdue.edu/owl/general_writing/mechanics/parallel_structure.html [Accessed December 26, 2020].
ИСПРАВЛЕНИЕ ЛЕКСИЧЕСКИХ ОШИБОК КАЧЕСТВЕННЫХ НАУЧНЫХ СТАТЕЙ

Резюме
Авторы научных работ должны излагать материал подлинно и просто. Чтобы обеспечить более глубокое понимание читателями полученных результатов, при составлении отчетов о выполненных исследованиях авторы научных работ должны использовать четкие формулировки и максимально понятный язык. Авторы должны стремиться к правильному использованию сравнений, сопоставлений, конструкций подлежащее-глагол. Цели, методы и обсуждения должны быть четко структурированы. Во избежание двусмысленности и неправильного толкования готовая рукопись должна иметь логическую последовательность.

Ключевые слова: Написание статей, Дизайн исследования, Редактирование науки