



## Women's knowledge of placentophagy: scoping review


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### Abstract

*Objectives: mapping the evidence on women's knowledge of placentophagy.*

*Methods: this scoping review was conducted following the methodological guide of the Joanna Briggs Institute. Qualitative, quantitative and clinical studies published in English, Spanish or Portuguese were included, with no time restrictions. The search was conducted in the EMBASE, PUBMED/MEDLINE and Scopus databases on June 28, 2024, using a comprehensive search strategy with controlled and non-controlled descriptors.*

*Results: seven studies were included in the review, which evaluated everything from the practice of placentophagy to popular opinion on the subject. Among the main findings of this study, it stands out that the motivations for placentophagy among modern women are the belief in its health benefits. However, there is no scientific evidence assuring the impacts on people's health.*

*Conclusion: the review revealed that the scientific evidence on the benefits of placentophagy is limited and controversial, and that there is an urgent need for more well- controlled research to assess the real effects of this practice on maternal health.*

**Key words** Health knowledge, Attitudes and practice, Women's health, Placenta, Placentation, Evidence gaps



## Introduction

The practice of placentophagy has been attracting growing attention in the media, stimulated by the promotion by celebrities of its supposed benefits. In the United States and United Kingdom, the support of public figures and the media coverage expanded the visibility of the subject.<sup>1,2</sup> In other countries, such as Brazil, the practice is still little studied, although the interest has been growing, especially in social networks and among digital influencers.<sup>3,4</sup>

In the last years, the scientific community has been investigating more profoundly the effects of this practice. However, the results are still controversial and most benefits attributed to placentophagy are still based in anecdotal reports.<sup>2,5,6</sup> Studies demonstrate that the practice of placentophagy is not common within human beings, being more frequently observed in other mammals. It is suggested that the recent adoption by humans is associated with the rescue of ancient practices or the influence of alternative medicine and the promotion of natural health.<sup>1,2,5</sup>

A systematic review demonstrated that the main motivation for placentophagy within modern women is the belief on benefits to health.<sup>2</sup> According to Coyle *et al.*,<sup>2</sup> with the analysis of several studies, allegations such as post-partum depression and the improvement of milk production, are broadly based on subjective reports, without substantial support of thorough scientific evidence.

The quantity and bioavailability of nutrients and hormones present in the placenta, when consumed in form of capsules and other preparation, are still subject of debate. A review study highlighted that the method of preparation of the placenta, crude, cooked, dehydrated or in capsules may influence the presence and concentration of these nutrients.<sup>4,5</sup>

In spite of the growing interest, placentophagy is still a relatively little explored subject in robust scientific research. The practices related to placentophagy are based on profound cultural and historic traditions, offering a perspective of how this practice was understood and contextualized over time, which is necessary to compare with current perspectives and knowledge.<sup>2</sup>

In view of this controversial scenario, the contribution of a better understanding of the practice of placentophagy within women after delivery is the justification of this study.

## Methods

All stages of the review process were conducted in agreement with the ethical guidelines for literature review. The protocol of this review is registered in the Open Science Framework® platform.<sup>7</sup>

This scoping review (SR) was conducted according to the methodological manual developed and recommended by the Joanna Briggs Institute (JBI) Reviewer's Manual for Scoping Reviews and Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR),<sup>8,9</sup> following the stages proposed by the JBI for the operationalization of SR, which encompasses: definition of objective and question of the research; definition of the inclusion and exclusion criteria of studies; description of the approach for search, selection and extraction of data and demonstration of evidence; search; selection; extraction; analysis of evidence; demonstration of results and summarization of evidence.<sup>9</sup>

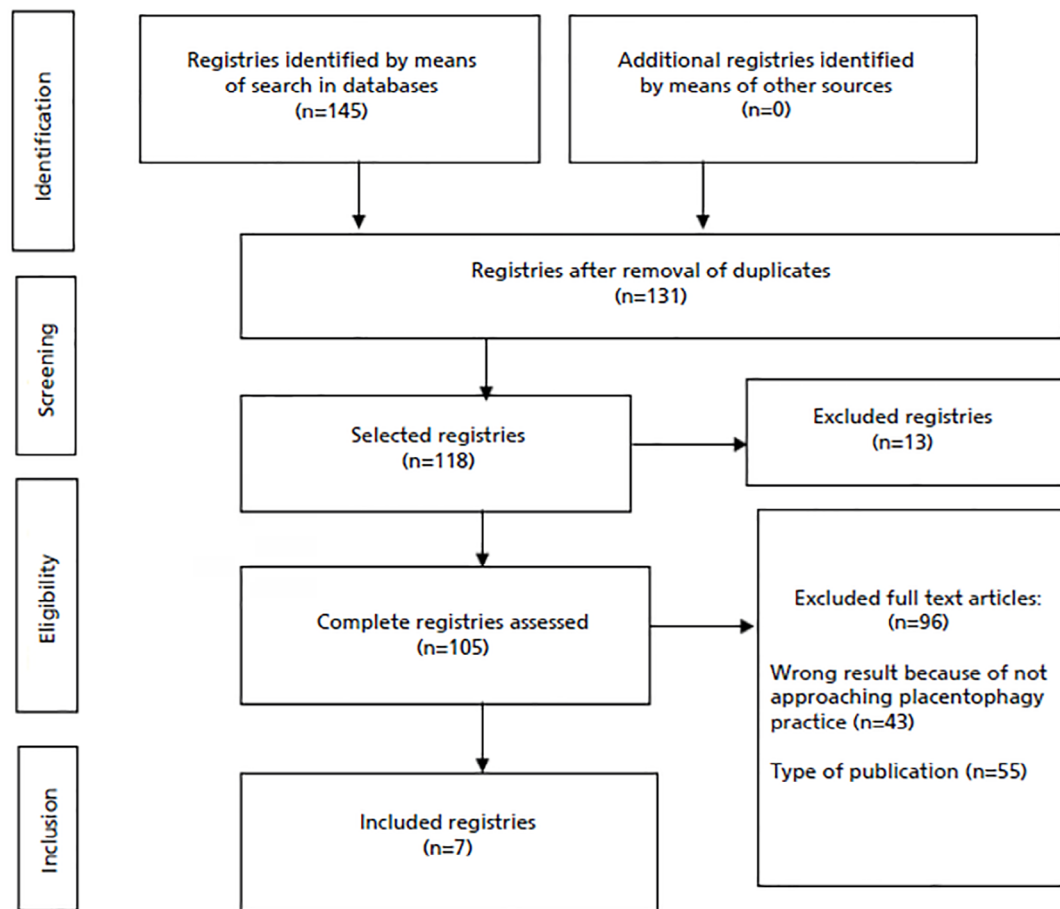
For the selection of studies, the inclusion criteria were: studies that approach placentophagy, studies with methodological designs such as qualitative, quantitative, cohort, case-control, randomized trials, case series and case reports, published in English, Spanish or Portuguese, without determined time frame, considering the scarcity of the subject studied. The exclusion criteria were: letters to the editor, editorials, reviews, experience reports and opinions, studies that did not meet the objectives of the study and the research question.

A broad research strategy was developed and implemented in order to identify studies in databases. The searches were performed on June 28, 2024, in the following databases: Excerpta Medica Database (EMBASE)®, Medical Literature Analysis and Retrieval System (PUBMED/MEDLINE)® and Scopus®. The search strategy was developed from controlled and non-controlled descriptors, present in the thesauruses, as well as keywords identified in the text and title of studies potentially eligible. Once selected the terms referring to the acronym PCC (Population, Concept and Context), we performed essays in PUBMED/MEDLINE with registry in the information sources. During the thorough selection of titles and abstracts, we considered such elements, in order to identify studies that were pertinent to the proposed review. The search in selected databases was performed with the individually selected descriptors, and, for its refinement, we used all possible crossings. The search strategy adopted used the vocabulary of the database (controlled descriptors) and Health Sciences Descriptors (DeCS – Portuguese acronym), respectively.

For the initial stages of data selection, we used the Rayyan® platform.<sup>10</sup> The identified studies were imported to the software and duplicates were removed. The selection of studies was performed in two stages: screening of titles and abstracts, followed by the full reading of texts. Two independent reviewers performed the screening of studies and any disagreements were solved by consensus or a third reviewer, when necessary. (Figure 1).

**Figure 1**

Flowchart of Search, selection and inclusion of studies.



Source: adapted from PRISMA; 2024.

For the assessment stage, we opted to assess the methodological quality of included studies, with the use of the tool proposed by *Johns Hopkins Nursing Evidence-Based Practice*.<sup>11,12</sup> The data were extracted from the selected studies using a standardized form, which included information on the authors, year of publication, country of origin, objectives of the study, methodology, main findings and conclusions. Data extraction was performed by two independent reviewers and divergences were solved by consensus. Data extracted were synthesized descriptively, highlighting trends and gaps in knowledge about placentophagy. The results were presented in Table and Figures, as appropriate, and were discussed in relation to the objectives of the review.

For data processing and analysis, we used the *Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires (IRAMUTEQ®)* software,<sup>13</sup> which is supported in the R software and enables several statistical analyses about textual corpora.

## Result

As evidenced in Table 1, we presented a synthesis of studies related to placentophagy.

The analyzed studies about placentophagy were published between 2010 and 2020, most of them concentrated in the last decade, which reflects an increasing interest about the subject. Concerning localization, most surveys were carried out in the United States, with a single study in the United Kingdom. This North-American predominance may be related to the increase of the popularity of the practice in that country, mainly in women that opt for home-based birth or birth centers.

With regard to methodological design, most studies are qualitative, attempting to comprehend motivations, experiences and perceptions about placentophagy. Only one quantitative study was identified, approaching the familiarity and inclination of the patients in relation to

Table 1

Synthesis of knowledge and characterization of studies included. Brazil, 2024.

Authors	Title	Year of publication and origin country	Objectives	Type of study	Main results
Botelle R, Willott C <sup>14</sup>	Birth, attitudes and placenta: a thematic discourse analysis of discussions on UK parenting forums	2020 United Kingdom	How users of parents' forums from the United Kingdom discuss placenta	Qualitative study	Three main themes were identified: women reported predominantly positive attitudes in relation to their own experiences with placenta, and they were respectful towards the views and experience of others; some had negative perspectives, particularly related to the concept of disgust, but, again, they were respectful towards the other's experiences. Roughly speaking, the most common method of placenta consumption was by means of capsules.
Benyshk DC et al., <sup>15</sup>	Placenta among women planning community births in the United States: Frequency, rationale, and associated neonatal outcomes	2018 United States	To characterize the practice of placenta and its neonatal concomitant results within a large sample of women in the United States	Qualitative study	Almost one third (30.8%) of women consumed their placenta. Most mothers (85.3%) consumed placenta capsules, and almost half (48.4%) consumed capsules containing dehydrated and raw placenta. Women that had home births were more prone to placenta than women that gave birth in birth centers
Young SM et al., <sup>16</sup>	Effects of placenta on maternal salivary hormones: A pilot trial, part 1	2018 United States	To investigate women that ingested their own placenta in capsules during postpartum	Pilot study	Some hormones in the placenta capsules lead to small but significant differences in the hormone profiles of women who ingested placenta capsules compared to those who ingested placebo
Young SM et al., <sup>17</sup>	Placenta's effects on mood, bonding, and fatigue: A pilot trial, part 2	2018 United States	To investigate women who ingested their own placenta in capsules during postpartum	Randomized double-blind and controlled clinical trial	No robust differences were detected in postpartum maternal humor, maternal bond or fatigue between placenta and placebo groups. This finding may be especially important for women that consider placenta as a "natural" manner (that is, non-pharmacological) of preventing or treating sadness/depression
Schuetz SA et al., <sup>18</sup>	Perspectives from Patients and Healthcare Providers on the Practice of Maternal Placenta	2017 United States	To assess familiarity and the attitudes towards placenta and the disposition of patients in trying placenta	Quantitative study	Approximately two thirds of patients were familiar with placenta. Patients with self-reported history of mental disorders were more prone to consider placenta and believe that health providers should discuss with their patients
Selander J et al., <sup>19</sup>	Human maternal placenta: a survey of self-reported motivations and experiences associated with placenta consumption	2013 United States	To describe motivations and experience of women with placenta consumption	Quantitative study	Most of these women reported positive benefits and indicated that they would try placenta again in future births. More surveys are necessary in order to confirm described benefits.
Young SM, Benyshk DC <sup>20</sup>	In search of human placenta: a cross-cultural survey of human placenta consumption, disposal practices, and cultural beliefs	2010 United States	To describe about placenta consumption and cultural beliefs	Quantitative study	The noticeable absence of cultural traditions associated with maternal placenta in the ethnographic transcultural registry brings interesting questions related to its omnipresent occurrence between almost all of the other mammals and the reasons for its absence

Source: adapted from PRISMA; 2024.

the practice. Moreover, two studies were carried out as pilot clinical trials to assess potential physiological and psychological effects of the consumption of placenta.

Figure 2 demonstrates the frequency distribution of words according to Zipf's law, generated by the IRAMUTEQ software. This law describes a linguistic standard in which the frequency of a word is inversely proportional to its position in the occurrence ranking. Accordingly, the most frequent word appears approximately two times more than the second most frequent, three times more than the third, and so on. The descending curve observed in the graph characterizes this distribution, evidencing the predominance of central terms in the analyzed corpus.

The most frequent words (to the left) appear many times, whilst the least frequent (to the right) appear few times. Many times, Zipf's Law is visualized in a log-log scale, where both axes are in logarithmic scale. This is not

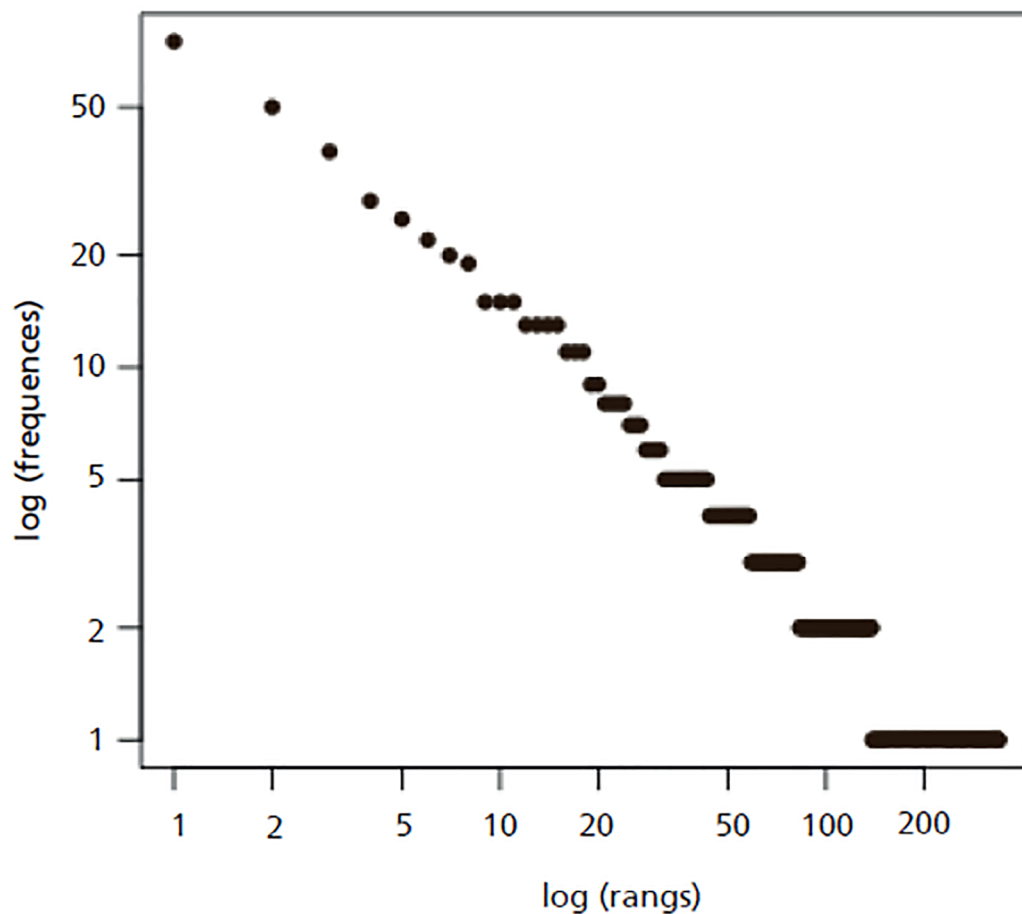
explicitly visible here, but the general form of the curve suggests this distribution.

In the cloud of words generated by IRAMUTEQ (Figure 3), we identified that "placentophagy" is the most frequent term, reinforcing its centrality in the research. Other words such as "placenta", "delivery", "maternity", "woman", "group" and "hormone" are also highlighted, suggesting that the corpus emphasizes aspects related to pregnancy, puerperium and the potential hormonal effects of the practice. Moreover, terms such as "to consume", "benefit", "research", "difference" and "significant" indicated discussions about potential impacts of placentophagy, its scientific relevance and significant comparisons between different approaches of the subject.

Figure 4 presents a similarity map and reveals connections between different terms within the corpus. Central words such as "placentophagy" and "placenta" appear strongly associated with several concepts,

**Figure 2**

Distribution of frequency of words in the corpus by Zipf's Law analysis.



Source: extracted by IRAMUTEQ® software; 2024.

Figure 3

Cloud of words of the main themes and frequency of terms of studies about placentophagy.



Source: extracted by IRAMUTEQ® software; 2024.

demonstrating their relevance in the textual analysis. The presence of clusters such as “benefit” and “to prevent” suggests the existence of discussions about potential protective effects of the practice.

The term clusters indicate specific thematic areas that are discussed in the corpus. For example, “benefit” and “to prevent” associated with “placentophagy” suggest discussions about the potential preventive benefits of the practice. The diversity of words connected to central terms such as “placentophagy” and “placenta” indicates that the corpus encompasses a broad range of topics related to the practice of consuming the placenta. The textual analysis evidences that the corpus is in line with the central subject of the research, approaching both cultural aspects and potential benefits of placentophagy to maternal health. Furthermore, the distribution of the words suggests an approach based on evidence, exploring scientific studies, comparisons and significant results about the subject.

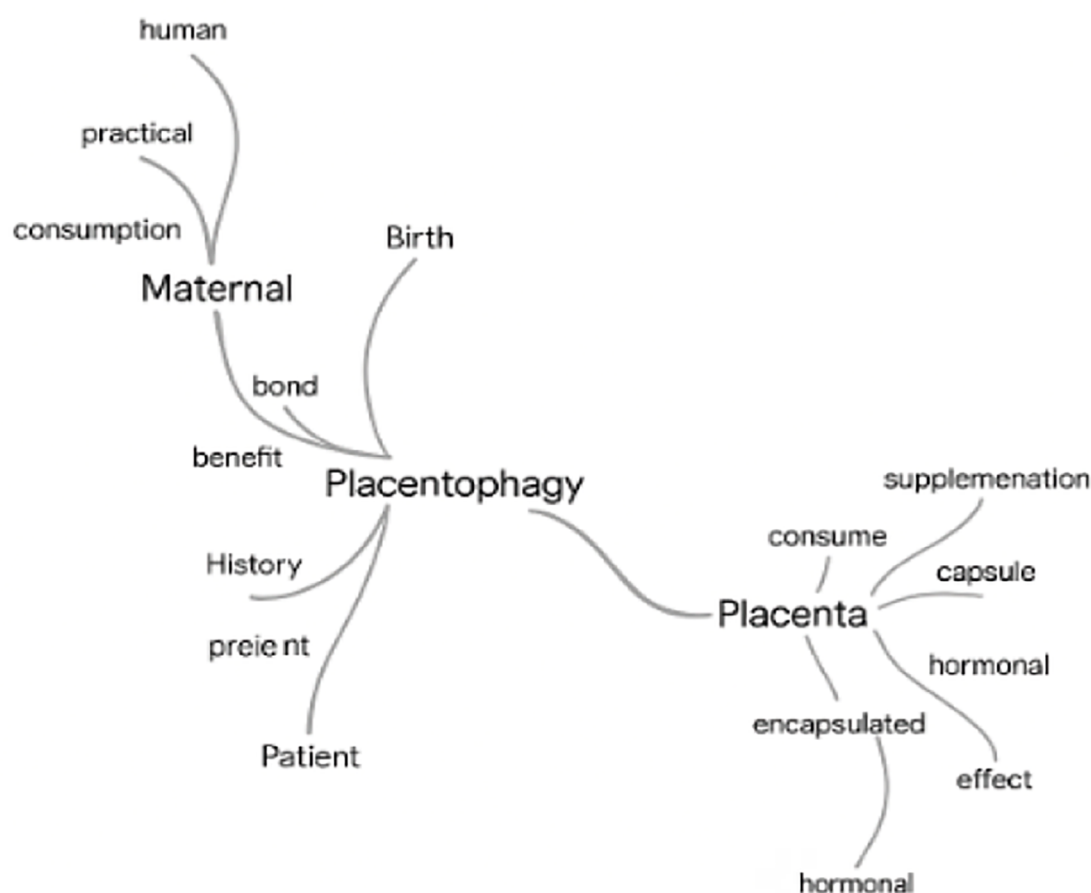
## Discussion

The findings of this review indicate that placentophagy is still a controversial subject, with limited evidence on its real effects in maternal health. The studies analyzed suggest that the motivation of women to consume the placenta is broadly based in subjective reports and cultural influence, without a robust support of scientific evidence. This trend reinforces the need for more rigorous and controlled surveys to assess the potential benefits and risks of the practice.

The present SR analyzed the knowledge and perception of women about placentophagy, highlighting existing evidence and identifying gaps in the literature. Studies included indicate that, in spite of the increasing interest in the subject, there is a significant scarcity of robust scientific evidence that ensures the supposed benefits of this practice. The perceptions vary between

Figure 4

Map of similarity of concepts related to placentophagy.



Source: extracted by IRAMUTEQ® software; 2024.

different social and cultural contexts, and most studies are concentrated in the United States and in the United Kingdom.<sup>14,15</sup>

Qualitative research revealed that several women that practice placentophagy do so based on subjective experiences and anecdotal reports. The analysis of discourses in forums of parents in the United Kingdom demonstrated that most participants reported positive experiences, in spite of the feelings of repulsion in some women.<sup>14</sup> Data suggest a connection between choices of delivery and the adoption of non-conventional practices of postpartum care.<sup>15</sup>

A pilot study demonstrated small, but significant changes in the hormonal profiles of women that ingested placenta capsules compared to those who ingested placebo.<sup>16</sup> Another study explored the effects of placentophagy on humor, maternal bond and fatigue and it was not found robust difference between groups that consumed placenta and placebo groups.<sup>17</sup>

There are concerns about safety and lack of scientific evidence in order to support its benefits. Diverging opinions between patient and health professionals highlight the need for clear guidelines based on evidence.<sup>18</sup>

However, this positive perception may be influenced by cultural trends and the increasing support of *influencers* and public figures.<sup>15,19</sup>

The practice of placentophagy has been more common among women that opt for home births. A study in the United States demonstrated that approximately one third of women that experienced home birth consumed their own placenta, and the most common type of consumption was via capsules.<sup>15</sup>

With regard to scientific evidence, experimental studies still present inconclusive results. Pilot clinical trials indicated that the consumption of placenta capsules may lead to small, but statistically significant differences, in the hormone levels of postpartum women. However, significant improvements in humor, maternal bond and fatigue were not detected.<sup>16,17</sup>

Another relevant aspect of the discussion is the lack of consensus between health professionals about safety and potential benefits of placentophagy. In a quantitative study, most health professionals expressed concern with regard to the absence of regulation and the potential risk of contamination of the placenta by pathogens or toxins.<sup>18</sup> The literature suggest that placenta may contain

bacteria such as *Streptococcus* and *Escherichia coli*, which represent risks to both neonatal and maternal health.<sup>2,5,16,17,20</sup>

The perceptions about placentophagy also vary according to cultural context. Whilst in the United States and the United Kingdom the practice has been achieving more adepts, other studies suggest that the absence of cultural traditions associated with placenta consumption may explain its relative scarcity in the human history.<sup>19</sup> The practice of placentophagy has been object of increasing interest and debate in the scientific literature.<sup>21,22</sup> Some reviews describe a potential biological explanation for placentophagy in humans, but it still inconclusive.<sup>2,5,23,24,25</sup>

Lastly, in spite of the changes occurred in the last decades concerning the model of care, the United Kingdom presents a reality of birth and delivery care with more respect to physiology, with judicious use of interventions and incentive to vaginal delivery.<sup>26</sup> Nevertheless, a study indicates that several professionals do not possess adequate information on the practice and therefore, tend to advise against it, as a precaution.<sup>27</sup>

The limitations of the study about placentophagy include some important points that may impact the interpretation of results and the generalization of conclusions. Many studies about placentophagy depend on self-selected samples, which may lead to bias in the analysis. Women that opt to participate in studies about placentophagy may have preexisting opinions or specific experiences that diverge from the general population. The findings of this study highlight the need for further surveys, mainly national, better communication and education about the subject, besides promoting respect to diverse cultural practices. This pioneer study may act as a catalyst for future investigations and for the development of more inclusive and informed public policies. The applicability of the findings of this study for public health policies is relevant, mainly considering the increasing interest by placentophagy between postpartum woman.

The studies included in this review reflect a diversified panorama of practices and perceptions on placentophagy. While some studies highlight potential benefits, such as the positive impact on humor and hormone levels, others point to the need for more robust surveys in order to confirm these benefits and understand better the risks involved.

The recent literature suggests that, in spite of the growing interest for placentophagy, there is still a significant division in the scientific community about its effects and safety. In essence, the practice of placentophagy is still a controversial and multifaceted subject. The current evidence, although promising in some aspects, highlight the need for more surveys in order to provide a solid base for clinical guidelines, including studies carried out in Brazil. The comprehension of women's attitude, the methods of preparation and potential

effects on health are critical fields that should be explored in further studies.

## Authors' Contribution

Fialho VA: development of the virtual field research, conceptualization of the project, data collection, analysis and interpretation of results, writing and review of the manuscript; Santos GG: conceptualization of the projects, data collection, analysis and interpretation of results, writing and review of the manuscript; Aguiar CA, Mattos DV: analysis of material, writing and review of the manuscript. All authors approved the final version of the article and declared no conflicts of interest.

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