Abstract  Sex-gender-diverse and non-monogamous strain cisnormativity and mononormativity. In scientific terms, the parenting arrangements of these people are uncertain. Thus, this ethnography aims to understand the perception of non-monogamous sex-gender-diverse people about parenting. The theoretical framework adopted is derived from non-monogamous studies, love and sexuality from the Social and Human Sciences in Public Health and the digital ethnography methodological framework. Fieldwork occurred from 2021 to 2022 through an online WhatsApp group. Participant observation was employed in the group, and semi-structured online interviews were held. Two categories emerged: a) The non-monogamous parenting nodes and b) Collective parenting. In the first, the importance of bonds in affective networks is explored, and the barriers to these family arrangements are exposed. The second describes the importance of living in a community, and Indigenous and Black ancestry is revived. The revived ancestry and ways of living in a community gain importance as we understand their relevance in the experience of parenting for sex-gender-diverse people who are non-monogamous.

Key words  Non-monogamy, Affections, Sex-gender-diverse people, Parenting
A brief introduction to the object of study

The family concept has changed through modernity and capitalism. Although the ‘new’ family formulations have taken on other ‘hues’ in recent decades, encompassing family arrangements of people who strain cis-heteronormativity, which families does society conceive as ‘legitimate’? This question confirms rather than casts doubt on naturalized parentings, namely, monogamous, cisnormative, and heterosexual.

This text is situated at the heart of this issue and dialogues with Collective Health, with a bold intention of broadening the understanding and visibility of other parenting arrangements some social groups build for themselves. These are historically and socially stigmatized groups made invisible, denied the right to citizenship, and demand recognition for building families outside of mononormativity – where the family, affective, and sexual regimen is monogamous, centered on the heterosexual couple and romantic love1 – and cis-heterosexuality, notably confrontational2,3 or sex-gender-diverse people.

Thus, non-monogamy gains a unique dimension and importance in this context since it rejects naturalized formulations of relationships and debating monogamy and enhances emancipation, autonomy, self-knowledge, equality, and breaking down stereotypes, standing as a political project that recognizes the structures that operate insidiously in social relationships4-6.

Political non-monogamy4,5 is established to designate these subjects since a political identity is built from a counter-hegemonic non-monogamic project4,6.

Thinking about non-monogamy as a political project that breaks down colonialist barriers to affection emerges as a powerful axis for reorganizing individuals’ social actions and ways of life. However, its use as a political identity is recent5,7,8. The intersection between markers – such as race, gender, sexual orientation, and disability – and how they mutually influence the elaboration, engagement, and advocacy of non-monogamy8 is highlighted.

In Collective Health, the actions, practices, discourses of health professionals, services, and public policies that support and reproduce mononormativity8 evidence the gaps in the reality of political non-monogamous people in their parenting arrangements and the multiple complexities that these arrangements have to address, especially regarding access to health equipment and health policies. Discussions of non-monogamous parenting arrangements for sex-gender-diverse people are enigmatic and nebulous, if not embryonic, in this scientific knowledge field. Besides their invisibility, they tend to be stigmatized and not recognized as legitimate.

Considering this situation, we aim not to essentialize or homogenize people’s experiences regarding their perspectives and views on parenting arrangements that strain mononormativity but rather highlight how the context and the production of other narratives by confrontational subjects2,3 are powerful in broadening and cracking ‘given’ perspectives, thus glimpsing other paths to be followed, especially by Collective Health. Thus, against this backdrop, we aim to understand the perception of sex-gender-diverse non-monogamous people about parenting.

The text is structured in three sections, besides this brief contextualization: a) the choices of the methodological path and fieldwork, where the techniques and positions we took in and during fieldwork are underscored; b) the two empirical categories that emerged from the material analyzed; and c) some final considerations on the radical imagination of the parenting of sex-gender-diverse non-monogamous people.

Navigating the group: the methodological path and fieldwork

The theoretical-methodological framework employed in this work was digital ethnography10. Thus, considering that the empirical field takes on an essential dimension in Anthropology, as it considers much more the relationships established between researchers and interlocutors than the physical or material dimension where the research will be conducted, we opted to have an online WhatsApp group as the locus of data production. The group was chosen because of the researchers’ knowledge of the ‘NM em Foco’ project, built by Black, neurodivergent and confrontational people. NM em Foco currently manages three WhatsApp groups to guide the discussion on non-monogamy based on political and intersectional thinking. Moreover, we use literature on non-monogamy, gender, sexuality, and love from Collective Health and Social and
Human Sciences in Health as theoretical references.

The field research was conducted from September 2021 to September 2022 in one of the NM em Foco groups, ‘NM em foco-Debates NM 1,’ which gathers neurodivergent and neurotypical people from several regions of the country of different ages, ethnicities/skin colors, classes, sexual orientations, and gender identities. Two hundred fifty-six members were participating in the group, the maximum capacity allowed by the app at the time.

After the project was drawn up, submitted to the Research Ethics Committee of the Federal University of Pernambuco, and approved under Opinion No. 5.246.355, under Resolution 510/2016 of the National Health Council, the researchers contacted the group’s administrators requesting their permission to conduct the research in that environment. We presented the research to the administrators and obtained their approval to begin the study, after which we introduced ourselves to the group.

We joined the group by getting closer to the other social networks of the NM em Foco project – such as the website and the official Instagram profile. In October 2021, we were officially introduced as new members and researchers. At that time, around 100 participants were active daily. Upon being introduced to the research, some members showed interest in participating and made propositional comments about the initiative. There was a specific relief on our part at this first moment after the presentation, as there was a fear that some members would feel uncomfortable being included in a research context and having their comments and discussions observed and analyzed. Initially, we kept a daily participation frequency, interspersing shifts – aiming for a smaller amount of accumulated material. After three months, we changed the frequency to at least three weekly shifts.

We clarified to the members that the research followed ethical precepts, with the relevant Ethics Committees’ approvals. Those who felt uncomfortable or uninterested in participating in the research were asked to indicate this in our private chat so that we could take the appropriate steps to exclude their information from the research. In order to ensure that everyone was aware of the research conducted, the administrators authorized us to post the research information and the researchers’ contact details for any questions in the group description.

The position we took towards the members in the fieldwork was less that of knowledge holders and more that of learners since we aimed to produce non-symmetric hierarchies in that environment. We understood and agreed with what Tim Ingold\(^\text{12}\) said about learning from people’s life experiences since we listened to and participated in what they were saying and talking about rather than observing the discussions with the group members. Briefly, we learned “from them, rather than studying them”\(^\text{11}\)(p.12).

The first few months were interesting for us as we got into the reality of the interlocutors and related to them, understanding the perspective of collective construction that political non-monogamy believes in and advocates for. Thus, the relationships built in that environment were valued, making immersion necessary in fieldwork\(^\text{12}\). We gradually became familiar with the participants of and in the group, and it became common for us to position ourselves not only in that environment but also in others that involved discussions about political non-monogamy and that involved certain people in the group.

We also engaged in debates that exceeded the confines of the group, such as the lives that NM \textit{em Foco} provided on Instagram and the posts that the project published every week – the so-called 'Non-monogamy pills,’ which addressed topics that were hot on social media and had something to do with non-monogamy. Moreover, the relationships established with the group members transcended that environment. After a few months, invitations to participate in parties in São Paulo, such as Stereo, became common. These parties were held and organized by group members and aimed to celebrate non-monogamous emotional networks.

During the fieldwork, we followed what Marilyn Strathern\(^\text{12}\) discusses about the ethnographic effect and looked for small revelations in the field. We identified particularities in the debates that made us reflect, mainly because some points, or instead connections, had to be made between people’s discourses and practices. We adopted individual interviews to grasp them in depth to gain deeper insight into the perceptions of affective networks, parenting, and the interlocutors’ views and perspectives on political non-monogamy.

During the first semester of fieldwork, we observed the most active members who interacted daily. We systematized data from the field diary – when members were most active, the number of times that members had participated in discussions in recent weeks, and the interaction frequency so that we could choose potential interlocutors for the interview. Subsequently, we
selected ten members and potential interlocutors for invitations and individual in-depth interviews.

The invitation to participate in the research was made in each interlocutor's private chat. We explained the reasons and interests that guided the invitation and why we had chosen them, which characterized it as a non-probabilistic and purposive sample. Also, in this regard, we chose inclusion criteria that guided the participation of the interlocutors in the study, notably sex-gender-diverse people and members of the group in question and being non-monogamous, over 18, and agreeing to participate voluntarily in the research by accepting the Informed Consent Form.

Two people refused to participate in the interviews because they felt uncomfortable or unprepared to discuss a subject as complex as non-monogamy. Four interlocutors were unavailable to participate in the study due to conflicting schedules. The other four invitations were accepted, and the interviews were conducted via video calls using the Google Meet platform, scheduled per the interlocutors’ availability. We used an open-ended questionnaire that guided – rather than limited – the questions. The main themes explored in the questionnaire focused on the idea of family, political non-monogamy, non-monogamous parenting, and the difficulties of experiencing it. Four people participated in the interviews, which lasted an average of 90 minutes and were audio-recorded for later transcription and analysis.

The content of the group’s public chats and the field diary notes were considered empirical material. This methodological choice aligns with what Fravet-Saada conjectures about granting epistemological status to involuntary and unintentional communication situations when engaging in fieldwork interlocution (p.160). In analytical terms, this movement has given us some clues as to how to do ethnography. Furthermore, for didactic purposes, we used the term ‘interlocutors’ to refer to the people we interviewed and engaged with in the online group and ‘participants’ or ‘members’ to the people we only engaged with in the group during fieldwork.

We analyzed the empirical material using Flick’s thematic analysis, where data were organized, systematized, coded into categories, and interpreted based on the literature underlying the theoretical framework. Two thematic categories emerged from the triangulated empirical data. The first, ‘Non-monogamous parenting nodes’, highlights how the construction and bonding of affective networks encompass relevant sociability environments against a revived ancestry. The second, ‘Collective parenting’, characterizes how multiple networks of affection, collectivity, and community parenting are genuine ways of reflecting on the sex-gender-diverse non-monogamous people’s arrangements. The names used in this text have been changed so as not to expose the identities of the members/interlocutors. Finally, foreign terms and emic categories are marked in italics and double quotation marks to indicate passages from the interviews or chats.

Non-monogamous parenting nodes

On Wednesday, October 6, 2021, after our arrival and introduction to the group, we were immediately greeted by the members with receptive comments, and many of them made themselves available to help in any way they could during the research. It was an interesting moment because, while we were explaining the research and its aims, Fernanda (a cisgender, bisexual, Black woman) exclaimed, "Now we are going to have research into political non-monogamy!", complemented by João (a cisgender, gay, white man), who said, "Guys! This research is vital!"

As we thanked them for their receptivity, the discussions and countless conversations that exceeded the group’s central objective gained ground, and our presence was gradually blurred and forgotten by other matters convenient in that environment. Throughout the day, we were not contacted or called into our private chat to clarify or answer any questions about the research – although we had made our contact details explicit. Despite investigating that space, we were two other people who still seemed invisible to the vast number of members’ messages and personal comments. We used this situation to observe the main themes that mobilized them to engage in discussions and identify the prominent people who interacted there.

On November 15, 2021, it was already past 11 pm, and there was still some movement of messages in the group. The reason was a post made by some people who were organizing the Stereo party and were part of the group. Unfamiliar with Stereo, we asked how it worked and the event’s purpose. Joana (a Black cisgender and bisexual woman) promptly told us that it was a party for non-monogamous people, in which a safe environment was provided for them to experience their affections and affectivities. Joana commented that past editions had been phenom-
enal because they allowed people who had been communicating and friends on social media for years to meet or meet again in person. The last edition, which had already been scheduled, had to be suspended due to the COVID-19 pandemic. Since then, there has been a collective desire to resume the party. Stereo, it seemed to us, offered a reunion to celebrate the autonomy, friendship networks, and affections of non-monogamous people. In short, it was "an environment of belonging and celebration", as Lily (a cisgender, lesbian, white woman) said in response to our question.

Thus, as we participated in these experiences of reaffirming spaces for the celebration of autonomy and affective networks, we identified that a critical connection established the members’ relationships and acted as a backdrop in the engagements of non-monogamous political people: the multiple and complex affective networks. Stereo seemed an essential space for (re)building and (re)connecting these affective networks. Extrapolating these meanings, we understood that the discussion about political non-monogamy and non-monogamous parenting could only make sense when situated within the discussion about affective networks, exposing the densities and complexities in the daily lives of these people.

The affective network formed from these engagements underpinned the exchange of experiences between the interlocutors about the amenities, discomforts, and hardships that arise from the multiple experiences of political non-monogamy. The difficulties, insecurities, and fears about taking a more radical perspective in managing affections and how they thought about the practicality of political non-monogamy in everyday life, especially in access to the jurisdiction of relationships and health services, were highlighted. As for amenities, aside from preserving autonomy, self-knowledge, and valuing individuality – in the sense of making decisions, choices, and multiple agencies in life – expectations and desires about parenting stood out.

It was January 7, 2022, 10 am, when Lucas (a cisgender, gay, Black man) asked if he could share his thoughts on non-monogamous parenting. Luana and Felipe agreed. Lucas finally asked, “Is there non-monogamous parenting?” He went on to say that for some time, he had noticed the absence of fathers and mothers in the discussions on political non-monogamy in the group. He went on to say that as a cisgender and gay man, he wants to start a family, but he does not know exactly how in a non-monogamous context and that he would like to “get out of the box and not have a family along traditional marriage lines”. While we watched him explain his viewpoint, Caio, another cisgender, gay Black man, replied that there are non-monogamous fathers and mothers in the group, and they are building another way of thinking about the family, in a broader sense, much closer to the idea of communities and without establishing social or gender hierarchies. He then began recording an audio while others continued to like his comment.

Several conversations like the one described above prompted reflections on non-monogamous parenting, and especially sex-gender-diverse parenting. There were indeed many members from different regions of the country in the group, and it is also true to say that there were more than just confrontational people there. However, as the discussions focused on perspectives on family arrangements, it was with this audience that the tensions were most highlighted precisely because they rejected mononormativity and cis-heterosexuality, which is when the discussions became more heated.

Members and the interlocutors put their viewpoints to the test. We saw the possibilities and alternatives to rejecting the nuclear family and the power of emotional networks. It seemed that the path and alternatives to the monogamous family were being gestated as the members were sharing – or building – their choices. Unlike monogamy, political non-monogamy and parenting arrangements were not given or considered static. There were paths to be paved that required dialog and some trial and error – a veritable stitching together of threads produced in and by the affective networks of the interlocutors.

Likewise, the perspective that the interlocutors were challenging the structure that privileges the nuclear family and places bodies that go against the hegemony of race, gender, and sexuality at the borders was in the making, as demonstrated by Vassalo. Unsurprisingly, issues that articulated the establishment of these family arrangements gained visibility when intersectionality emerged in the discussions, mainly when the contexts of racialized sex-gender-diverse people were triggered or even when the contexts mobilized were situated within health and the institutionalized healthcare for these family arrangements. There was an implicit and explicit fear of experiencing violence when such parenting arrangements came into view in healthcare, especially in the Family Health Strategy.
Mid-May 2022, and it is almost 8 pm. The group is once again discussing non-monogamous parenting. That day, new members were added, and it was necessary to announce, once again, that research was underway in that space. While the new members were introducing themselves, Stefani, a Black, pansexual transvestite who had been following the discussions on political non-monogamy on the other NM em Foco social networks for some time, highlighted issues that she believed were important in the discussion on love and parenting and that had occurred before the new members joined: trans people affectivity.

In her case, Stefani pointed out that she had been experiencing tough times regarding relationships. Her experiences were precarious, so she believed it was impossible to envision the family arrangements often present in these discussions. She ended by emphasizing how important and necessary affective networks are in her life, especially trans ones, but that she could not help but be critical of the viewpoint she had just explained. She went on to point out issues that challenged the very notion of parenting and affectivity, generally centered on cisgender and sometimes white perspectives. Health production was mentioned, highlighting two spheres in its context: a) mental health that many trans people have to address when they break with monogamy and b) the well-known denial of rights and access to health trans people experience daily. From there, other people corroborated Stefani’s viewpoint, especially non-binary people. They stressed the importance of everyone there being aware of the discourses that invisibilize and ignore the reality of trans people in the production of affectivity, care, and parenting.

Collective parenting

Although the members and the interlocutors rejected the concept of a nuclear family, there was still no consensus on what family perspective non-monogamous political people would conceive for themselves. This point gained density as we progressed through the group’s engagements. It was interesting to see how many interlocutors stressed that they were unable to replace the hegemonic model of relationships in their daily lives, as Emanuel (a 26-year-old white bisexual, non-binary person) said while we were talking about a live event promoted by the NM em Foco on the subject of non-monogamous people’s affectivities and parenting, “I do not know exactly what it [the family model] would be like, but I believe that the current model out there is not the best for us who follow and believe in political non-monogamy”.

August 15, 2022, and it was more than 5 pm. Marcos (27 years old, Black cisgender, non-heterosexual) shared a post about non-monogamous parenting. The post was part of the ‘Non-monogamous pills’, which aimed to bring small everyday discussions about political non-monogamy. The post questioned how much non-monogamous parenting still needs visibility, the need to discuss the gender and social roles that non-monogamous mothers and fathers face daily, and their influence on domestic violence. The post concluded by suggesting that other paths should be taken and need to be named based on the experiences of these people, affirming that the way out of the monogamous family necessarily involves recovering Indigenous and Black ancestry.

We realized from posts like this that the discussions and reflections on non-monogamous parenting placed collectivity, the revival of ancestry, native peoples’ practices, and multiple affective networks as possibilities and fundamental points in family arrangements guided by political non-monogamy. On another occasion, we asked how Marcos saw this issue daily. “I believe in building collectivity and creating support networks as possibilities for the non-monogamous family. Thinking about parenting is about bringing the people we already have close to us. The aunt helps out, the cousin sometimes looks after the child, the neighbor helps in an emergency, and the church gives you emotional support and is even receptive. This whole network is closer to where these people feel involved and responsible for their children. So, the way to overcome the monogamous family is through collectivity, you know? Through these affective networks, reviving ancestry”.

When we come across this statement, we understand that for Marcos, networks, affective bonds, and exchanges based on mutual affinities – without necessarily having any degree of biological kinship – are much closer to the arrangements that must be achieved to live when reflecting on parenting. This thought aligns with what bell hooks15 described about the potential of communities, defending them as movers and feeders of worlds15. Thinking about communities to establish these family arrangements points to the need to stress and denaturalize the ideal of motherhood and gender roles in raising children, the logic of care, and domestic work. This perspective challenges the upbringing of children
in a nuclearized logic based on the Western Judeo-Christian kinship model16.

The members’ and interlocutors’ formulations underscored the importance of children growing up in an environment free from social and gender roles. In Marcos, Emanoel, and Fernanda's views, children’s experience of a more traditional upbringing would be limited since care and affection are restricted by the hierarchy established by the monogamous cell. Thinking of a family arrangement based on political non-monogamy, the context of living in a community would be ideal for breaking with this reality – which reminds us of the way the original people lived. The artisanship of affections17 is attractive for (re)thinking about the context of collectivity and communities in producing family arrangements and affective reforestation. Care takes on other dimensions that transcend the notion of compartmentalized, individualized care centered on a purely biological perspective. The affective or community network would play a unique and crucial role in restoring health. This aspect should be valued from a perspective that exceeds the biomedical logic of healthcare.

Moreover, the perspective of communities and collectivities has led us to discuss affective networks that decentralize the importance and responsibility of affective-sexual relationships, expanding and removing the hierarchy embedded in the couple cell15. Thinking about establishing a network of affectivities as affective collectivities can lead us to reflect on the place of friendships, neighbors, care, and even acquaintances in relationships – mainly relegated to a secondary space, as hooks15 and Brigitte Vassalo2,3 describe. Collectivity would break with this way of being in society, so compartmentalized and hierarchical, resulting in an emotional network not guided by hierarchical relationships. This perspective would tend to pulverize the notions of responsibility, care, and reception, so entrenched and centralized in the role of the mother and sometimes father and mother.

Receiving would be given pride of place, highlighting how affective relationships based on living in and with a community could help address different types of violence that undermine people’s subjectivity, especially confrontational and Black people. The meaning of affective networks moves towards decentralizing the focus from the couple unit to those interrelating in their daily lives. Conjecturing that these bonds are not secondary, as the monogamous system itself establishes and imposes2,3, is one way of subverting the nuclear notion of the family, where the focus is redirected, redistributed, and made jointly accountable for all those comprised in one person’s emotional network. Gender roles that essentially assign care to women would be pulverized.

Emanoel often expressed his views on non-monogamous kinship and raising children, although he clarified that he did not intend to have children. Despite this, he managed to engage in a dialog with what Marcos had said earlier, reinforcing the role of communities and affective networks. When we asked him what he thought about non-monogamous political parenting, he said: “The future lies on the side of parenting being stripped away, and everyone can interfere and take responsibility for the child's upbringing and education as citizens. So, having autonomy and saying, 'No, that is wrong, you cannot do that', you know? In other words, everyone influences the child's upbringing”.

Returning to Brigitte Vassalo2,3, we see that this author defends the argument for collectivized affections, stating that such a strategy necessarily involves recognizing the extraordinary power of the nuclear family over shaping our lives. We believe that these other possibilities mentioned by the author align with the worldviews of Marcos and Emanoel when they talk about affective networks, collectivities, and communities in non-monogamous kinship. We underscore the willingness of these two members to explain the marks exerted by different oppressions on the lives of confrontational people2,3, especially sexual and gender dissidents, in establishing their non-monogamous family arrangements.

In João’s context (a cisgender, Black, pansexual man), he highlights how hard it is to address everyday situations when it comes to children in non-monogamous parenting. He points out that “it is complicated to deal with broader issues that are not big issues for monogamous families, such as the school environment – where there is concern about how one's daughter is going to represent the family and how her teachers and friends are going to address this situation; in healthcare – when there is a demand that requires the legal representation of guardians – or even in medical or nursing care”. João reflects on the role of health institutions in offering healthcare to these arrangements, the construction of public policies that consider these arrangements, and the training of health professionals to deal with the demands of a public increasingly claiming space and visibility9. These issues challenge how the Brazilian society, and its social facilities are structured in the medium and long term.
The collective nature that members and interlocutors discussed involves moving toward reviving Black and Indigenous ancestry, reviving because thinking of collectivity in these terms reminds us of what psychologist Guarani Indigenous activist and researcher Geni Núñez showed in her text on Jesuit letters when she highlighted how crucial the imposed monogamy was in implementing the colonial project. In the text, the author highlights the resistance of native peoples to the imposition of monoculture. Also, we consider it a revival because the meaning of life has always been collective and communal; it makes us imagine possibilities, reflections, and perhaps other worlds that can establish cooperative and non-confrontational living environments.

Breaking with the nuclear family logic and "shaping relationships collectively reinforces the idea that the meaning of life is collective". It is a proposal to reorder relationships in order to break with the problems of domestic work, which is seen as an obligation for women. Thus, rethinking parenting and child-rearing responsibilities is being taken up again from a collective interest and responsibility, highlighting the need to subvert social roles and paving the way for discussions within the health field, which are still incipient.

**Final comments on the radical imagination**

By relativizing the interlocutors' realities, we see an affective activism underway. This activism encompasses the construction of parenting for the interlocutors: a perspective that revives ancestry, collective living, and affective networks. Reviving Indigenous and Black ancestry and the ways of living in communities gain prominence in this work as we understand their importance in the interlocutors' experience.

Our interlocutors say parenting demands a break with paradigms that place the nuclear family in the private sphere, with cracks in the discourses that institutionalize and consolidate the monogamous family's legitimacy. What stands out is the dimension that strengthens other family arrangements, which are often not associated with those of blood but rather those that recognize in the other life's trajectory, the power of friendships, and the construction of collective affections.

Imagining oneself radically could be a possible way of understanding the multiple realities that our interlocutors experience. Although they are at different points in their lives, each producing a political non-monogamy for their reality, they all somehow produce cracks in the monogamous system. Accessing health and public policies, while they are not the focus of this text, has a unique aspect for in-depth macro-political discussions, demarcating the need for institutional recognition of these family arrangements and research that stresses the discourse on 'families' in the area of health, and especially Collective Health. After all, how can we think about establishing public policies within this context? How do we reflect on the care provided by health professionals considering these arrangements, which are not given but exist and produce cracks in the monogamous and cis-heterosexual structure? These are unanswered questions that, as we presented throughout the text, arise from these parenteral arrangements underlying the Brazilian reality.

Finally, we would like to highlight the need for research in Collective Health and its coordination with the Social and Human Sciences in Health that consider race, gender, sexuality, class, and disability markers in non-monogamous relationships between sex-gender-diverse people. Using the term 'new' to refer to family arrangements that strain mononormativity and cisnormativity is not appropriate, given that family arrangements have cracked and expanded the 'given' conceptions throughout history.
Collaborations

ADS Santana conceived the study, read the manuscript, participated in data search and analysis, drafted the article, and approved the manuscript's content. AS Galdino read the manuscript, participated in data search and analysis, drafted the article, and approved the manuscript's content. EC Araújo read the manuscript, participated in data analysis, drafted the article, and approved the manuscript's content.
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