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ENVIRONMENTAL PERCEPTION OF THE RESIDENTS REGARDING THE BOTANICAL GARDEN OF THE STATE UNIVERSITY OF GOIÁS AS A GREEN AREA, IN QUIRINÓPOLIS, GOIÁS, BRAZIL

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ABSTRACT

In Environmental Perception is the understanding of how much and how the individual interacts, what he expects and how he uses his environment. Differences in perceptions of natural environments, their values and importance impact the protection of these environments. In this area, this research aimed to evaluate the Environmental Perception of the residents of the surroundings of the Botanical Garden of the State University of Goiás (JB) as a Green Area, in Quirinópolis, Goiás. Interviews were conducted with the residents located in front of JB, using a questionnaire with open questions. The data resulting from the interviews were compiled, transcribed and analyzed by the R program with the use of free statistical packages through the word cloud. The results of the residents' environmental perception corroborate the advantages of living close to a Green Area, including the beautification of the place, the improvement in the ambient temperature conditions, the economic appreciation of the residential property, the possibility of practicing sports and leisure in contact with nature, which increases the feeling of peace, tranquility and well-being. The construction of the garden on the sidewalk of JB by them expanded the bond of belonging and appreciation for this Green Area. This fact is essential to ensure the perpetuation of the ecosystem functions and services provided by this natural environment in the urban environment of Quirinópolis.

Keywords: Urban Green Environments. Biodiversity. Town planning. Sociobiodiversity.

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INTRODUCTION

Human perception is related to the way the individual responds to external stimuli received by the five senses - sight, hearing, touch, taste and smell - as well as the purposeful activity, through which he registers or blocks certain phenomena, in a relationship between the sense organs and brain activities (Melazo, 2005; Tuan, 2012). This perception is highly relevant to their biological survival and is intertwined with the local culture, age, gender and moment experienced, in such a way that each individual perceives the world in a singular way, their own (Tuan, 2012). This way of perceiving and feeling the lived space occurs individually (Zanini et al., 2021) and it is through perception that the subject acquires, interprets, and organizes the information received from the environment (Moimaz; Vestena, 2017; Saccomori; Saccomori, 2023).

In Environmental Perception is the understanding of how much and how the individual interacts, what he expects and how he uses his environment. Through the senses, the individual knows and experiences nature, in a sensitive and self-contained way in relation to thought (Silva et al., 2024). Each individual perceives his or her environment with uniqueness, because in the community or society in which he or she is inserted, there are distinct particularities and needs, such as culture and geographical, spatial-temporal and ecological factors, thus existing different perceptions of nature (Leff, 2009; Tuan, 2012).

These perceptions determine the way in which the subject relates to the environment and to the environmental problem, because, by interpreting the space in which he or she is inserted in a different way, different interpretations also emerge for the crisis of natural resources, development problems and inequalities. Differences in perceptions of natural environments, their values and importance, is a problem for the protection of these environments (Fernandes et al., 2004). In view of this, the way people perceive natural spaces influences the way they relate to them, reflecting the interests and strategies of different social groups, understanding of the world, paradigms and conflicts of values (Tuan, 2012).

Knowing, then, that the way of perceiving the environment can lead the individual to the conservation or destruction of natural areas, studies of environmental perception seek to create links between naturalistic thinking and globalizing thinking (Torres; De Moraes; Delizoicov, 2008). These studies are essential for understanding expectations, sources of satisfaction and dissatisfaction, judgments and behaviors of the individual-environment interrelationship (Fernandes et al., 2004). However, according to Melazo (2005), this area of

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knowledge is not an easy task, since each individual confers different values to the environment, whether ecological, economic or aesthetic.

In order to know the "vision" that the residents of the surroundings or visitors to a conservation unit have about this area and their anxieties about it, it is important that studies on environmental perception are carried out (Dos Santos, 2020). Environmental Perception studies become an efficient instrument for the planning of Environmental Education actions, because, by identifying the relationship between the individual and the environment, the practices will start from the needs of the social groups involved, their reality, values and culture. Recognizing these different worldviews represents an increase in the probability of success in the planning, elaboration and implementation of efficient, participatory Environmental Education policies and programs aimed at conflict resolution, minimizing socio-environmental problems (Vasco; Zakrzevski, 2010; Pinheiro et al., 2011).

Environmental Education is essential for sustainable development, as it enables individuals and collectives to acquire knowledge and build new social and ethical values. This can, and is the desire, that results in changes in attitudes that lead to an ecologically balanced environment, promoting the conservation and adequate use of natural resources (Medina, 2002; Morais et al., 2021). In the implementation and construction of Environmental Education actions as a permanent process, the community involved acquires the ability to act and solve environmental problems. In this area, this research aimed to evaluate the Environmental Perception of the residents of the surroundings of the Botanical Garden of the State University of Goiás (JB) as a Green Area, in Quirinópolis, Goiás.

MATERIAL AND METHODS

CHARACTERIZATION OF THE UEG BOTANICAL GARDEN

The JB, Southwest Campus, Quirinópolis headquarters (Figure 1), is located on Avenida Brasil, Conjunto Hélio Leão neighborhood, Quirinópolis, Goiás. It is an ideal space for contact with nature, featuring several species of Cerrado flora. In it, scientific research and Environmental Education actions are carried out, involving students from Basic Education and Higher Education Institutions, from Quirinópolis and region.

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Figure 1. Aerial view of the Botanical Garden of the State University of Goiás (indicated by the arrow), Southwest Campus, Quirinópolis Headquarters, Goiás, Brazil

Source: Photo by Pedro Giongo (2023)

Being the largest urban green area in Quirinópolis, with almost 12 thousand m², JB has neighboring residents on its left side, facing Alceu Teodoro Street, with seven residences, and, at its bottom, facing Lázaro Xavier Avenue, with 12 residences. Neighboring residents along Lázaro Xavier Avenue began the construction of a garden on the sidewalk of JB (Figure 2). Each resident was responsible for the front area of their residence, creating "private gardens", in which they plant and take care of the plants, take out the garbage and decorate the place with a lot of creativity and colors. This attitude began to be adopted by some residents in front of Alceu Teodoro Street, although to a lesser extent. After the initiative of the construction of the garden by the residents on the sidewalk of JB, an outdoor gym was installed by the municipal government, inserted in the garden on the sidewalk (Figure 2h).

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Figure 2. Photos of the sidewalk around the Botanical Garden

Source: The authors

JB is surrounded by fencing and has the main entrance gate that is open for guided visits, by appointment. The main visits are carried out by the school community, mainly from Basic Education. The visits include a lecture that takes place at the José Ângelo Rizzo Herbarium (JAR), whose building is located inside the JB, and knowledge about the diversity of flora and fauna of the Cerrado, during the route on the Ecological Trail and, more recently, on the Ipê-branco Trail, in the Recreational Area and in the Sensory Garden, which are under construction.

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DATA COLLECTION AND ANALYSIS

Data collection was carried out with residents around JB, during two days in March 2024. The homes of all neighbors who make direct frontal contact with JB were visited. This stage began through an informal conversation with each resident of the JB area, with information about the objective and relevance of the research. In contact with each participant, the importance and objectives of the research were presented, as well as the guarantee of confidentiality as an ethical premise between researcher and interviewee. The participants' consent was formalized through a Consent Form. This research was carried out under the ethical precepts of CNS Resolutions No. 510/2016 and No. 738/2024, which establish that research involving human beings needs to be evaluated by the CEP/CONEP system (Research Ethics Committees/National Research Ethics Committee) (CNS, 2016, 2024) and submitted to the Research Ethics Committee (opinion no. CAEE: 71717723.3.0000.8113).

Semi-structured questionnaires were applied, with previously formulated questions. The residents who agreed to participate in this research answered the interview script, with open questions, which was divided into two stages: sociodemographic data and profile of the interviewees (containing six questions) and environmental perception of the green area studied (containing 13 questions related to the external and internal area of the JB and aimed to investigate the multiple forms of relationships and perception of the interviewee with the treated green area). The questions of the interview script are presented during the results and discussion.

The data resulting from the interviews were compiled, transcribed and analyzed by the R program (R Development Core Team R, 2024), with the use of free statistical packages through the word cloud. Specifically for the production of word clouds, the packages "tm", "SnowballC", "wordcloud" and "Rcpp" were used.

RESULTS AND DISCUSSION

SOCIODEMOGRAPHIC DATA OF THE INTERVIEWEES

In the interviews, of the 19 households visited, only one resident refused to participate. Thus, the sample refers to 18 households, in which 17 of the interviews were conducted at the interviewees' homes and one interview was conducted through the WhatsApp application. Most of the interviewees identified themselves as female (55.6%) and aged between 41 and 50 years (38.9%) (Table 1).

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Table 1. Sociodemographic variables of the 18 participants of the research

Variable	n	%	Variable	n	%
Sex			Schooling		
Male	8	42,1%	Incomplete Elementary School	4	22,2%
Female	11	57,9%	Complete Elementary School	2	11,1%
Marital status			Incomplete High School	0	0,0%
Single	6	33,3%	Complete High School	4	22,2%
Stable Union	1	5,6%	Incomplete Higher Education	2	11,1%
Married	10	55,6%	Complete Higher Education	5	27,8%
Kneading	1	5,6%	Postgraduate studies	1	5,6%
No. of people in the house			Age		
1	3	16,7%	20 a 32	4	22,2%
2	5	27,8%	33 a 45	7	38,9%
3	5	27,8%	46 a 58	5	27,8%
4	4	22,2%	59 a 71	1	5,6%
5	1	5,6%	72 or more	1	5,6%

Source: Prepared by the authors

Regarding the level of education of the residents, the lowest level of education is Incomplete Elementary School (22.2%), with the highest percentage represented by residents with Complete Higher Education (27.8%) (Table 1). Higher levels of education and positive Environmental Perception are reported in the scientific literature (Meyer, 2015; Costantin et al., 2019; Rodrigues et al., 2020). Research has shown that schooling impacts personal responsibility, ethics and social awareness. An example is that of Magalhães et al. (2010), a study in which the authors evaluated the participation of civil society in the management of PAs in the state of Mato Grosso do Sul and showed a direct proportion between schooling and knowledge of environmental issues. In this sense, a higher level of education, such as the one found here, may favor Environmental Perception (Meyer, 2015).

Inherent to marital status, most of the interviewees are married or have some type of stable union (66.7%). Regarding how many people live in the residence, the answers were: two or three people (27.8%), four (22.2%), one (16.7%) and five (5.6%) (Table 1). With regard to monthly family income, there was a greater number of residents with up to one minimum wage (22.2%) and between three and four minimum wages (22.2%) (Table 1). In view of these data, the majority (55.56%) of the residents have a family income above three minimum wages.

RESIDENTS' ENVIRONMENTAL PERCEPTION OF JB AS A GREEN AREA

Understanding the relationship between the individual and the environment in which he or she is inserted is crucial, and Environmental Perception plays a fundamental role in this understanding. Thus, the first question of the interview was "What do you feel when you

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look at JB?". The results show that the most frequent words were "good", "beautiful", "neighbor", "feel", "peace", "part", "green", "too much", "home", "care", "city", "brings", "better" and "lacks" (Figure 3a).

The words most used by residents in their answers reflect the feeling of well-being brought by constant contact with green areas, citing statements such as "I feel part of it", "good climate", "happiness and tranquility", "best neighbor". Confirming that contact with nature has the potential to relieve the stress caused by the routine of the urban environment, "I live in the city with a country air", in addition to some interviewees feeling privileged to live in front of a green area and feeling this environment as an extension of their home.

The relations of identity and belonging to the place of residence are intrinsic to the process of appropriation and territorialization of space, subsidized by values added to their feelings and their cultural, historical and symbolic identity (Raffestin, 1993). This feeling is known as topophilia in the sense that environmental perception is an influencing factor of human life through behavior, sociability, and well-being (Duarte et al., 2021). The feeling of belonging is the key to triggering the affective approximation of the residents with the place where they live with the desire to take care of, protect, clean and make beautiful this space that is theirs. As already reported, this affective bond culminated in special care by the residents with the JB (as if it were an extension of their backyards), such as the construction of the garden on the sidewalk (Figure 2) and garbage collection. Some interviewees claimed to use the space on the sidewalk of JB for family socializing, especially in the late afternoons and weekends, and for sports practices such as walking.

In order to understand the importance that the green area in question has for residents, the second question used for the elaboration of the data was "What is the importance of JB for you?". The word cloud (Figure 3b), extracted through the answers of the interviewees, identified as the most frequent words "green", "refreshes", "quality", "have", "shade", "life", "everything", "area", "street", "environment", "preservation", "nature" and "way". These words explain the understanding of nature conservation by residents and the value they give to this green area, and it is interesting to highlight statements such as "it is super important to have green", "it makes the environment cooler", "it refreshes the street", "it reduces air pollution", "green area with a wide variety of plants", "to develop research", "better quality of life", "values the property", "contact with nature".

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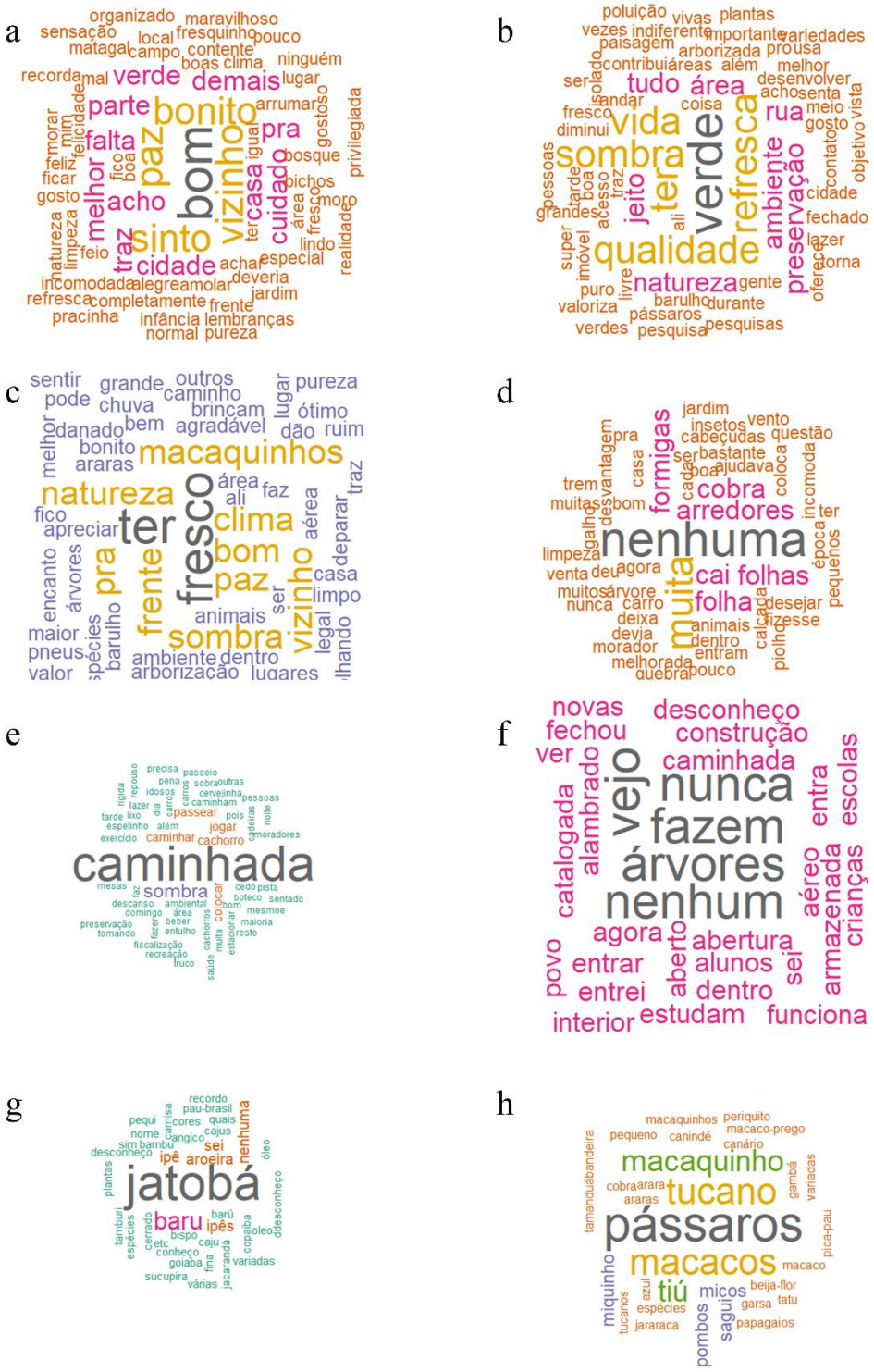
Figure 3. Cloud of words built with subsidies in the responses of the residents in front of the UEG Botanical Garden, Southwest Campus, Quirinópolis Headquarters, GO, inherent to their Environmental Perception of this Green Area



Source: The authors

These data corroborate that the environmental perception of the residents about the JB is in line with the functions of the green areas disseminated by the scientific literature (Londe; Mendes, 2014; Morais et al., 2021). And they also reveal several values of JB

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through the eyes of the residents, which are related to their daily lives. Subsidized by the concept of topophilia, the meaning and valuation for each person is built based on their personal and collective experiences, and these are a reflection of how each person will interact and engage with their local reality. The worldview derives from the contextualization of experiences (Duarte et al., 2021) intrinsic to each individual.

Green areas provide better learning opportunities because they are "outdoor classrooms", have natural beauty and are a respite from traffic and noise. There is also the real estate appreciation of residential properties near these areas (Harnik, 2003). These green spaces in the urban area, in addition to increasing the value of residential and commercial properties, are directly related to quality of life, provide several environmental, social and community development benefits, make neighborhoods more habitable, offer recreational opportunities, and are also important for child development (Sherer, 2003). In this way, encouraging people to reflect on their behaviors in front of urban green areas can guide them to become aware of the importance of their conservation in urban space (Silva et al., 2020).

The next question was "What are the advantages for you of having this green area in front of your house?" with the intention of knowing what was the perception of the residents about the benefits of living in front of a green area. According to the answers, the words "ter", "fresh", "climate", "good", "peace", "neighbor", "shade", "front", "nature" and "little monkeys" were more frequent (Figure 3c). This issue is closely linked to the previous one and it is noted how the fact of living in front of a green area is treated with importance by the residents. This importance of JB is reflected, for example, with the transcription of some statements such as "a privilege", "good climate", "health", "feeling of peace", "fresh and pure air", "appreciation of the house", "inestimable value". In a similar survey, on the perception of residents living in the vicinity of a forest fragment in the municipality of São José do Rio Pardo, São Paulo, the interviewees were asked about the advantages of living in the surroundings of a forest and the majority considered it to have more advantages than disadvantages, the main advantages being cited: cool climate, shade, diversity of birds, landscape, appreciation of the neighborhood, privacy and less noise (Cândido et al., 2020).

In order to encourage the research participants to express their opinion regarding their experience with an expressive green area as a neighbor for the municipality and to exhaust the arguments regarding the perception of the green area in question, the following question was asked: "What are the disadvantages for you of having this green area in front

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of your house?". In the word cloud (Figure 3d), constructed with the answers, the word "none" can be highlighted, but other words appear in lesser prominence "much", "ants", "snake", "surroundings", "falls", "leaves" and "leaf". With this, it can be seen that, although the vast majority do not find disadvantages, there is a concern on the part of some residents to find some venomous animal.

In a similar survey, residents were also asked about the disadvantages of living around the green area, the most cited answers reflect this concern with their safety: venomous animals, dirt on the streets, safety, presence of garbage, conflict with public lighting and high flow of people, referring to the answers, the dirt on the streets is caused by falling leaves and the lighting is precarious at night, there is a lot of darkness and the presence of wanderers (Cândido et al., 2020).

The fifth question "For what purposes do the residents use the surroundings of the JB?" aimed to identify how the residents are interacting with the environment and making use of the areas around the JB. Among the answers to this question, the word "walking" was the most frequent (Figure 3e), corroborating the use of the surroundings of the JB for this type of physical activity. Other uses of the surroundings of JB mentioned by residents also deserve to be highlighted, such as "leisure", "walking the dog" and "exercising". Green areas provide quality of life for residents as they cause contact with nature. The structures and environmental quality of these green environments, when appropriate and attractive, are decisive for physical activity and leisure. These activities bring different psychological, social and physical benefits to the health of residents, including the reduction of sedentary lifestyle and alleviating the stress of urban daily life (Szeremeta; Zannin, 2013).

However, it is worth mentioning that it is necessary that these environments are perceived positively so that residents feel attracted and motivated to attend them, and still enjoy, in a satisfactory way, the benefits that the development of activities in these places can provide (Duarte et al., 2021). The implementation, adequate planning, maintenance of cleanliness and conservation of Green Areas are essential strategies for an effective urban design and public health policy.

The question "What uses of JB have you seen carried out in your interior?" aimed to analyze the perception of the residents regarding the activities that are carried out inside the JB and had as the most frequent answers the words "never", "do", "trees" and "none" (Figure 3f). This shows that some residents are still unaware of the activities that are carried out inside JB. However, it is interesting to bring statements from some interviewees who

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observed some uses of JB, such as "research", "they study trees", "I see a lot of children inside, visiting their schools and I have had the pleasure of seeing up close how plant research works, how it is stored, cataloged and registered", "park construction", "openness to visits", "trails". The reference to these last words and or phrases is due to the fact that there are two Ecological Trails and a Sensory Trail within JB that is open for guided visitation, by appointment. There is also a recreational space with a playground and picnic place, which is usually the end of visits. These activities are developed within the scope of actions subsidized by Environmental Education. It is worth mentioning that one of the functions of Green Areas that has been investigated at present is to try to evaluate the presence of vegetation and its relationship with child development. The presence of vegetation in outdoor play areas - such as playgrounds built interspersed with trees - has been associated with an increase in the level of interaction and diversity in the types of play (Luz; Kuhnen, 2013; Freire, 2024).

In order to find out which species of plants the interviewees identify within the green area in question, they were asked "Which species of plants do you know that you have in JB?". There was a higher frequency of citation for the species "jatobá" and "baru". However, it is also worth mentioning other species mentioned such as "ipês", "aroeira", "camisa fina", "angico", "copaiba", "guava", "jacaranda", "sucupira", "pequi", "bispo", "tamburi", "caju" and "oleo" (Figure 3g). Some of the residents never entered JB. Therefore, they observe its interior through the fence and, even so, all the species mentioned, with the exception of the sucupira, are present in the JB. This corroborates that the residents have popular knowledge about the species and the floristic composition of JB. The JB encompasses an expressive variety of Cerrado flora, which contributes to its relevance, since the urban area of Quirinópolis has a predominance of exotic species in its afforestation, as identified by Morais et al. (2023). In this research, the authors warn that native species of the Cerrado are being little used for urban afforestation purposes.

Question 8 "Which animals from the Cerrado have you seen here in JB?" is intended to know which animals that frequent or live in the Botanical Garden that are seen by the residents. The animals highlighted in the citations were "birds", "monkeys", "toucan", "little monkey" and "tiú" (Figure 3h). In JB, there is a frequent presence of a group of marmosets (Callithrix penicillata) that enchant the residents around JB and visitors, especially children (Resende, 2012; Morais et al., 2021). This animal received several common names: "little monkey", "monkey", "monkey", "tamarins", "miquinho", "little monkeys", "marmoset",

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"capuchin monkey" (Figure 3h). In JB, 97 plant species were recorded, distributed in 26 families and 66 genera, with 1,803 young individuals and 487 adults. Among these plant species, 83% are native (Cruz, 2019), which makes this space so important for the urban area of Quirinópolis, as it is the largest vegetation group in the city. This vegetation serves as a place of landing, nesting, and foraging for a wide diversity of birds, in addition to the importance for the maintenance of several other taxa of the local fauna (Morais et al., 2021).

In order to detect the residents' perceptive elements about the construction of the garden on the sidewalk of JB, the following question was asked: "What did you think of the residents' initiative to build a garden on the sidewalk around JB?". In the answers, the most frequent words were "embellished", "positive", "excellent", "street", "changed", "because", "here", "fazer", "prefeitura" (Figure 4a). These data corroborate the residents' appreciation for this garden and that the example of a good attitude can transform the environment, as it began with the action of a resident and the other residents adhered to the idea and expanded the garden. They also mentioned the positive impacts that the project had, one of them being the city hall recovering the pavement around JB and installing an outdoor gym (Figure 2h). This visibility also appeared in the phrases "valued the environment", "people pass by and watch", "before people threw garbage and dead animals" and "that they would like to expand". This denotes that Environmental Education can happen spontaneously, informally and be done by any citizen.

The tenth question was "Did you contribute to the construction of the garden on the sidewalk around JB?". Among the answers, the word "yes" predominated, followed by "plantei", "plantas", "frente", "moro" (Figure 4b). Most of the interviewees participated in the construction of this garden and, some who did not plant directly, contributed with plant donation. Personal values about the environment affect the patterns of valuation of a space by other people within the concept of "hierarchy of behavioral values" (Rossi et al., 2015). Thus, the environmental values of one resident have shaped the way they perceive other residents and the adoption of the construction of the garden on the sidewalk of JB. Several studies corroborate that, despite global social transformations, the place still causes important affective bonds (Lewicka, 2011; Duarte et al., 2021), especially the place of residence. This care and beautification provided by the residents on the sidewalk of JB, who began to consider this space as an extension of their residence, is essential to ensure

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the functions of JB as a Green Area, especially regarding ecosystem services essential for human well-being.

Then the residents were asked "Are you helping in the maintenance of this garden built by the residents? If so, how?". For these questions, among the answers the word "yes" appeared more frequently, indicating that the residents are indeed contributing to the maintenance of the garden. Words that show how they act in the maintenance of the garden also appeared: "water", "plants", "seedlings", "fertilizer", "pruning", "fertilize", "water" and "agoa" (Figure 4c). The residents said they take care of the garden by watering the plants, removing the damaged plants and planting new ones, removing the garbage that appears on the sidewalks, usually disposable cups, bags, cans and food packaging, pruning the plants and watching so that there is no theft of the plants and objects installed in the garden.

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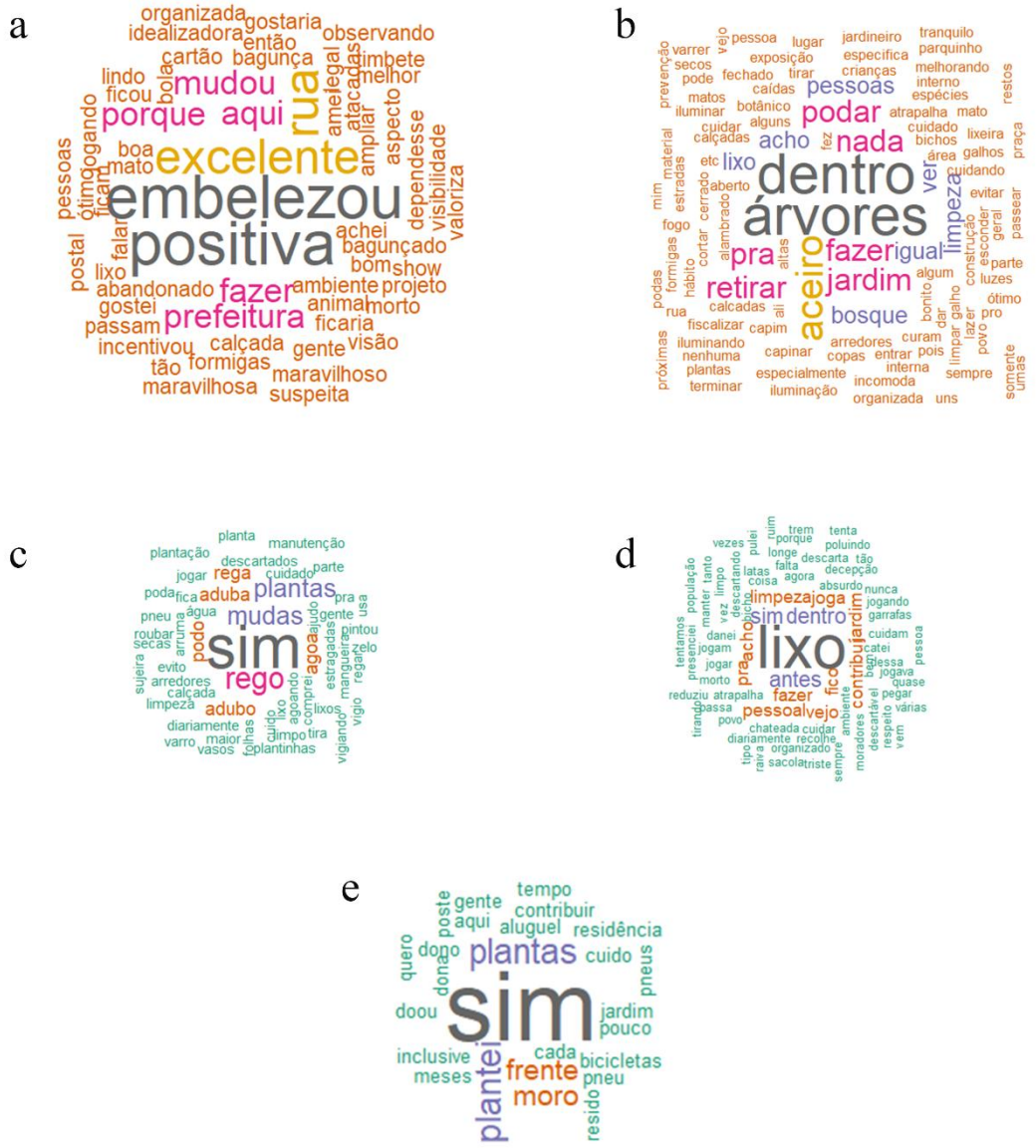
Figure 4. Cloud of words built with subsidies in the responses of the residents in front of the UEG Botanical Garden, Southwest Campus, Quirinópolis Headquarters, GO, inherent to their Environmental Perception regarding the garden built on the sidewalk around this Green Area



Source: The authors

To analyze the perception of the interviewees about garbage being discarded on the sidewalks and even inside JB and what feelings emerge with this attitude, the question was asked "Garbage discarded in improper places can become a focus of Aedes aegypti, a mosquito that transmits dengue and other diseases. Have you ever seen someone disposing of garbage in this location? If so, how do you feel about it?" The most frequent words in the answers were "garbage", "before", "yes" and "inside" (Figure 4d). Most residents said that before building the garden on the sidewalk around JB it was common to see people passing by and throwing garbage, but now with the garden, you can hardly see people throwing garbage anymore, however, there is still garbage in the place.

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For this issue of garbage, it is interesting to mention some statements such as "I don't see it discarding it, but when I see garbage I'm always taking it out, I'm sad, because the residents take care of it so well and the people try to keep it organized and clean inside", "I've seen it before making the garden, anger, how much we try to take care of it", "I haven't seen it, but I've seen the garbage and I've already collected it, I think it's bad, polluting the environment." Some feelings were mentioned, such as "sad", "disappointment", "anger", "I think it's bad", "I think it's absurd", "I get upset". In a similar survey, which investigated the environmental perception of the community surrounding Parque do Cinquentenário, a municipal conservation unit located in the municipality of Maringá, Northwest of Paraná, carried out with 20 residents, the interviewees raised the disposal of garbage by the population as an environmental problem, with the residents having a passive and accommodating posture, attributing this function only to the public power (Vendramel et al., 2012).

The last question was prepared with the aim of knowing the residents' desires for the future of JB. What improvements do they believe there have to be for this Green Area to be better. The question was "What changes could be made in JB to make this environment better?". The most frequent words in the answers were "inside", "trees", "firebreak", "prune", "nothing", "do", "garden" and "remove" (Figure 4e). These words express that the residents do not want many changes and consider this environment good as it is. This is corroborated by the phrases present in the answers such as: "for me it's fine, nothing bothers me", "none", "nothing, just finish around the garden", "I saw that there is a playground, it's improving", "nothing, it's great". Some statements bring the concern with the "cleanliness" of the internal part, referring to the removal of branches, tree pruning and firebreak.

From the experience with the Green Areas, the place becomes known and valued by the population, both individually and at the community, collective level. Providing this relationship with the natural environment and understanding of ecosystem services is an important way to develop more sustainable environmental policies. People are more motivated to protect environments that have a positive meaning for them and or a bond of belonging. From the moment residents assume this motivation to protect a Green Area, relationships of responsibility are created and strengthened, both with future generations and with the biotic community. However, it is known that the protection of Green Areas cannot come only from the result of personal connection, but serves as a path to their conservation.

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CONCLUSION

The results of this research, about the environmental perception of the residents neighboring the UEG Botanical Garden, corroborate the advantages of living close to a Green Area, including the beautification of the place, the improvement in the conditions of the ambient temperature, the economic valuation of the residential property, the possibility of practicing sports and leisure in contact with nature, which increases the feeling of peace, tranquility and well-being.

The environmental perception of the neighboring residents of the Green Area under study shows how Environmental Education can begin in non-formal actions and of any citizen who adopts an attitude of care for nature. The construction of the garden on the sidewalk around the UEG Botanical Garden, with the initiative of a resident, was replicated by most of the neighbors and, with that, resulted in a space of care and beauty provided by ornamental plants, culminating in a source of pride for the Quirinopolitans and a place of visitation.

It can be inferred that the construction of the garden on the sidewalk of the UEG Botanical Garden expanded the bond of belonging and appreciation for this Green Area, which is essential to ensure the perpetuation of the ecosystem functions and services provided by this natural environment in the urban environment of Quirinópolis.

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