



EXPERIENCES OF A PERSON WITH DISABILITIES AT WORK WITH A FOCUS ON ERGONOMICS AND ACCESSIBILITY: A CASE STUDY

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Abstract

Considering social relationships, personal experiences and the meanings attributed to work, this research aims to understand the experiences and perceptions of a person with a disability (PwD) about their work, taking into account ergonomic and accessibility issues. The research is applied in nature and in relation to the objectives it is descriptive. As for the procedures, it is a case study. The analysis and discussion have a qualitative approach. The participant was chosen for convenience and the uniqueness of the case. The field of study was the city of Linha Nova (RS). The collection instruments used were the in-depth interview and the field diary. The results indicated that José has great identification with his work, which is central to his life. He attributes work as his only means of social interaction. Regarding the difficulties faced by being PwD, it brings the lack of physical, structural and attitudinal accessibility, as well as issues of ergonomic non-adequacy of the workstation and machinery, as factors that make it difficult to carry out your work and interfere with your quality of work. life. Despite mobility and accessibility difficulties, in addition to a certain degree of ableism he experienced, José demonstrates self-realization and good self-esteem. Work as a means of personal fulfillment and social interaction ends up interfering with the worker's identity, and in the case of PwD, the possibility of working increases self-recognition of their capabilities, in addition to providing opportunities for social inclusion and citizenship.

Keywords: Work; People with disabilities; Ergonomics; Accessibility; Social inclusion.

1. INTRODUCTION

In contemporary society, work occupies a fundamental role, being an important factor in the expression of individuality and subjectivity. Lima *et al.* (2013) affirm that work and subjectivity have an interdisciplinary relationship, characterized by the importance of the experiences acquired in the world of work, as well as in its representation in everyday life. These experiences and representations influence the centrality that work has in the daily life of an individual. In this relationship, work ends up influencing the subject's identity. In the same

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proportion as the relevance of the work, there are the ergonomic conditions of the work, that is, a pleasurable job tends to have good conditions, both environmental and relational. Corroborating, Franz (2024) considers ergonomics inseparable from work and the environment where it is carried out. Still, according to the author, work is in almost everything when considering life in society.

As mentioned by Macedo *et al.* (2016), there is no neutrality of work, as it participates in the formation of the human being's identity, and harmony, balance and self-esteem depend on the recognition of the effort made. The work has an interrelational character that helps in social inclusion. In this sense, Lima *et al.* (2013) affirm that work enables encounters with other subjects, no longer being just an activity to also provide opportunities for social relationships. These relationships produce senses and meanings that, according to Tolfo and Piccinini (2007), are multidimensional and dynamic psychological constructs, resulting from the interaction of personal and social variables related to work.

According to the Continuous National Household Sample Survey (PNAD Continua) conducted by the Brazilian Institute of Geography and Statistics (IBGE), people with disabilities represent about 8.9% of the Brazilian population over 2 years of age (IBGE, 2022a), that is, more than 17 million people have motor disabilities (IBGE, 2022b). Although laws define vacancy reservations to try to ensure the right to work of people with disabilities and the increase in hiring (Lima *et al.*, 2013), there are still obstacles to the inclusion of this public in the labor market.

Understanding that work cannot be thought of only in the logic of capital, in the case of people with disabilities, this is even more pressing. Considering the variables that make up decent work, according to Carvalho and Gemma (2023), it should enable the worker to deal with the difficulties of the real professional activity, the recognition of the factors that prevent the action or execution of a job well done, the application of their intelligence to solve problems, thus providing ways to transform work. In other words, work must have meaning, it must have purpose, it must provide the power to act and it must be a means that contributes to the development of the individual. These factors, associated with the characteristics of people with disabilities, tend to raise work to a level of greater dignity.

Therefore, when referring to dignity at work, in the case of people with disabilities, a process prior to the execution of an activity, the right to hire this public, must be considered. These are still being passed over in relation to those understood as "normal people". Along these lines, Barth *et al.* (2022a) identified the main demands that exclude this public from



companies, composed of physical, physiological, and social demands that interfere in the hiring process and in the permanence in employment. Thus, considering the social relations of work, personal experiences and the meanings attributed to the activities, this research aims to understand the experiences and perceptions of a person with disabilities about their work, in view of ergonomic and accessibility issues.

2. METHODOLOGICAL PROCEDURES

As for the characterization, this research is of an applied nature and in relation to the objectives it is descriptive. According to Prodanov and Freitas (2013), applied research focuses on generating new knowledge that contributes to the advancement of science and, according to the authors, descriptive research seeks to know and interpret, classify, explain, record and describe the facts that happen.

As for the procedures, it is characterized as a single case study. According to Minayo *et al.* (2005, p. 93), the case study is "a qualitative research strategy to deepen the how and why of some situation or episode, over which the evaluator has little control". Zanini *et al.* (2011) point out that there are several situations in which it is precisely the study of a particular view that allows the most valuable insights into a given situation. The choice of the research participant was intentional and made for convenience, considering that he is a person known to the researchers, as well as for the uniqueness of the case. The participant has a particular experience and numerous experiences in his life trajectory, being a wheelchair user with the peculiarity of having full sensitivity of the lower limbs, although these are with muscle atrophy due to complications during pregnancy. Stake (2003) proposes that the use of a single case is appropriate, for example, when it is rare or extreme, that is, when there are few similar situations for other comparative studies to be carried out. The participant was born in a municipality on the slope of Serra Gaúcha, Rio Grande do Sul. She lived in the Rural Zone until adulthood, when she moved to the central area of the city. Currently, he lives in the interior of another municipality in Serra Gaúcha, bordering his city of origin.

After the initial contact made by chat application, the objective of the study was explained and the interview was scheduled. As the main research instrument, an in-depth open interview was conducted, addressing various aspects of their experiences at work, such as workload, machines and equipment used, displacements, accessibility, adaptations, among others. In this form of interview, the participant can speak freely and is eventually guided by the researcher's questions to deepen the reflections (Minayo *et al.*, 2005). Before the beginning



of the conversation, the participant was presented with the Free and Informed Consent Form (ICF)⁵ regarding the research. The interview was recorded and transcribed. To preserve the identity of the informant, the fictitious name of José was attributed. The field diary was also used as a singular instrument to record the researchers' personal perceptions and the discourse not expressed verbally. Rocha and Eckert (2008, p. 15) express that "it is in the field notebook where the anthropologist usually records data, graphs, notes that result from the participant's interaction and the attentive observation of the social universe in which he or she is inserted and which he or she intends to investigate".

The analysis and discussion of data was carried out under a qualitative approach. The analysis of the collected data was performed by the triangulation method. Marcondes and Brisola (2014) explain that in the data triangulation method, a *modus operandi* is based on the preparation of the collected material and the articulation of three aspects to proceed with the analysis: the empirical data collected in the research; the dialogue with the authors who study the theme in question; and the analysis of the conjuncture. Prodanov and Freitas (2013, p. 129) point out that triangulation is a "process of comparison between data from different sources in order to make the information obtained more convincing and precise".

3. ANALYSIS AND DISCUSSION OF THE RESULTS

Initially, the subject of the case study is presented – José. José is 45 years old, divorced and currently lives alone. He was born in a city in the Serra Gaúcha, having been born in the city and lived in the Rural Zone until adulthood, when he moved to the Center. Today he lives in the neighboring municipality, close to the border with his hometown and, even though he lives in another city, he actively participates in the activities and circulates daily in the municipality. As informed by the participant, his disability stems from problems in the mother's pregnancy, when the umbilical cord wrapped around the fetus's legs, restricting the passage of blood, causing atrophy and motor loss in the lower limbs, but without loss of sensitivity. Regarding schooling, he completed the 5th year of Elementary School. José informed that he has an income of about two minimum wages, and that he receives one salary as a beneficiary of the National Institute of Social Security (INSS) and another in the furniture manufacturing company where he works informally. Souza and Faiman (2007) consider that due to the difficulties faced to be included in the labor market, some people with disabilities choose to

⁵ This research is part of the institutional macroproject entitled Development of products and educational actions for wheelchair users: a focus on ergonomics, health and quality of life, approved by the CEP of the educational institution where the authors are affiliated.



work informally and ensure the financial stability provided by the INSS, such as disability retirement, although Federal Law No. 12,470/2011 (Brasil, 2011) guarantees the suspension of the benefit only for the duration of the labor relationship or paid activity, including as an Individual Microentrepreneur. The law guarantees that "once the labor relationship or entrepreneurial activity is extinguished [...] the continuation of the payment of the suspended benefit may be requested, without the need to carry out a medical examination or reassess the disability and the degree of incapacity for this purpose" (Brasil, 2011, sp). Barth *et al.* (2022a) also argue that this possibility, combined with the reservation of vacancies for people with disabilities, can encourage those insured with the Continuous Cash Benefit (BPC) to aim for greater financial gains and to be able to be socially included through work.

According to José's account, his first experiences and personal experiences in relation to work date back to his childhood, still in the rural area, when he started working at about 8 years old, doing small jobs with family members in the day-to-day rural routine:

My first job was that cigarette straw "cigar bläter" [German dialect], you know? From the haystacks? I would go to the shed and take the leaves from the corn and cut them, pack them in packets with 13 sheets and a guy would come and buy. [...] I was 8 years old, 8 or 9, 10 years old, around. [...] I went along in the fields. [...] I pulled, yes, when I pulled the firewood out with the cart [...] I reached for them, to pile it up. [...] he cut pasture. [in dealing with animals?] Yes, I helped. Milhe ab sriba. Did you understand? [speaks in German dialect: husked/threshed corn]. I was always together, always, always. (José, 2022)

The work done by José was always done with him on the ground, that is, "crawling" with the help of his arms, according to the following report, when he helped in the fields: "Bah. I got dirty, I dragged myself on the ground, weeded, I went together in the woods, ah, to remove the bark from the firewood, put it on the ground and removed it. Until today I was still going to do that" (José, 2022). It is noteworthy that the relief of most rural cultivation areas makes it difficult or even impossible to use a wheelchair and José, because he had motor control, was able to perform some activities even with atrophied legs. He says that he still rarely uses a wheelchair today, because crawling "is faster for me" (José, 2022). When asked about his relationship with the wheelchair, he reports that he does not like the chair and that he only uses it at parties and social events with the presence of many people, because "since I was little, since I was young I was like this. I never liked the wheelchair. [...] I don't like it. I prefer it this way, to go out like this [crawling]" (José, 2022). The exemption from the use of the wheelchair may be associated with its usability. According to Iida and Guimarães (2016), usability is related not only to the comfort of a product, but also to its efficiency. Also, for the authors, the product must allow the objectives to be achieved efficiently, effectively and satisfactorily.



Apparently, José does not perceive the wheelchair as fulfilling these requirements and prefers to perform the activities as he has done since childhood, crawling.

When asked about the act of "crawling", José emphasizes "Like I said, only at parties like this, in a large audience [...] then I don't feel well" (José, 2022). It is clear that there is a feeling of shame when you need to move in places with more people. This feeling is probably due to the stigma associated with people with disabilities. According to Goffman (2013), shame becomes central when the individual realizes that one of his attributes is impure. Also according to the author, society establishes ways to categorize people and attributes and in some situations inappropriate categorizations are used, causing discomfort.

José, apparently, prefers to use the wheelchair at parties because he must feel less embarrassed than when "crawling" on the floor, since he would be "seen from above" by everyone else, as corroborated by the statement: "Because I feel strange, walking like this, underneath, in the movement in the middle of a lot of people, you know?" (José, 2022). According to Barth *et al.* (2022c), the wheelchair is closely associated with disability as a symbol of difference and inferiority, although it contributes to the independence of people with mobility difficulties and social life. Thus, it is perceived that the participant chooses the chair because it provides less embarrassment when he is under the judging gaze of society.

Due to the difficulty of commuting, José started to work from home. According to his account, another job he had, while still living with his family, was sewing shoes. The sewing of the upper part of the shoe on the rubber sole was done by hand. Every day a person passed by who collected the finished shoes and left others to be sewn and collected the next morning. This form of production reflects the logic of Fordism/Taylorism, of mass production, fragmented and paid per unit produced. In this type of production, there are usually overlapping ergonomic problems of different nature, especially repetitiveness, since José performed the same activity day after day, regardless of being a person with a disability. Vidal (n.d., p. 3) refers to the concept of ergonomics as being a "professional attitude that is added to the practice of a defined profession". In this sense, Ergonomics aims to modify work systems to adapt the existing activity to the characteristics, abilities and limitations of people with a view to their efficient, comfortable and safe performance (ABERGO, 2000). In the system in which José did his work, the factories produced the upper part of the shoes and "outsourced" the sewing on the sole to people who stayed at home, without having any rights, in a kind of underemployment. Doing and repeating a single activity on a daily basis, in terms of the meaning of work and the relevance of cognition (cognitive ergonomics) opens a huge gap. Abrahão, Silvino and Sarmet (2005, p. 165) argue that cognitive ergonomics "investigates these processes to understand how



an individual manages his work and the information made available in order to apprehend the articulation that he builds and that leads him to perform a certain action". The authors complement by stating that the analytical and intervention procedures adopted consider capacities and limits, whether of a physiological or cognitive nature of the human being, and it is sometimes possible to explain the origin of errors and incidents attributed to human error.

In this work of making shoes, according to José's report, there was a great effort due to the workload he practiced: "also, I started at 5 am, there were days when I started at 5, 5:30 am and stopped at 11 pm. He was crazy. To stay awake I drank coffee, to stay strong" (José, 2022). It is evident that it exceeds the recommended daily workload, with implications not only physical, but in view of the workload practiced and the content and characteristics of the task, it also presupposes a mental overload, which in ergonomic terms is extremely harmful to health. As Moraes and Mont'alvão (2010, p. 53) point out, "the human costs of work result from the workload, which are expressed in physical and psychological symptoms, occupational and occupational diseases, accidents with death, mutilations and permanent or temporary injuries". According to the record in the field diary, the researcher recalls a situation in which he visited the family home and found José on the floor of a living room, surrounded by pieces of shoes and soles of different sizes that would be sewn. The sewing was done by hand and the only protection was a piece of leather on the fingers with which he threaded the thick needle through the rubber sole. For 7 years this was José's work.

3.1. I'm an upholsterer, there I go until I can't anymore!

After these years working from home, José started working in a furniture factory. There is an identification with the current job, when he states that "there I go until, if it is, for the rest of my life, until I can no longer do so" (José, 2022). In other words, work has a central motivation in the current moment of life, as already seen in all its experience. Asked about his activities in the company, he reports that he works "with furniture, upholstery. Assembler. A little bit of everything. [...] I cut foam, I'm an upholsterer, I'm an assembler, that's it" (José, 2022). He has been in this job for 19 years. It is noticed that "he gets more excited when talking about his current work, his eye shines" (Annotation in the Field Diary). In other words, there is a full identification with what he does in the company. Pereira and Souza (2016) state that work is a source of pleasure and suffering and, in addition to building identity, it is a form of belonging and inclusion, and there will be an internal harmony if the current Self is close to the Ideal Self, which is idealized by the parents and groups in which the individual is inserted.



Joseph seems to be in harmony with the Ideal Self and has found himself in the activity he performs.

When asked about the difficulties faced in the work environment, José reported several problems, mostly centered on the company's physical accessibility and unadapted machinery: "That you don't even know how to cut a band saw like that? Not that, you can't [...] because you have to stand up and you have to do the lap like that and cut corners. [...] hence I do not have the firmness" (José, 2022). In addition to accessibility, it is relevant in this case to bring the concept of strategies, which in general can be understood as an ordered set of steps that involve reasoning and problem solving, enabling action (Montmollin, 1995). In Jose's case, it is evident that he created operative and regulatory strategies to support the difficulties inherent in his work. Operative strategies are defined by Silvino and Abrahão (2003) as a regulatory process that presupposes cognitive mechanisms such as categorization, problem solving and decision-making. Guérin (2001 *apud* Abrahão *et al.*, 2005) reports that the procedures are called operative modes, which are a consequence of a regulation between what must be done, the conditions available for its execution and the internal state of the individual.

In structural terms, accessibility is defined by the Brazilian Standard (NBR) 9050:2020 as the

possibility and condition of reach, perception and understanding for the use, safely and autonomously, of spaces, furniture, urban equipment, buildings, transport, information and communication, including their systems and technologies, as well as other services and facilities open to the public, for public or private collective use, both in urban and rural areas, by people with disabilities or reduced mobility. (ABNT, 2020, p. 2).

And, according to Law 13.146/2015, known as the Brazilian Law for the Inclusion of Persons with Disabilities (Brasil, 2015), people with disabilities are free to choose their work, which must be in an accessible and inclusive environment and with equal opportunities with other people. Therefore, accessibility and the elimination of barriers are essential to ensure an equal and inclusive work environment.

It should be noted that Law 13.146/2015 conceptualizes barriers as "obstacle, obstacle, attitude or behavior that limits or prevents the person's social participation" and classifies them as urban, architectural, transport, communications, attitudinal and technological (Brasil, 2015, p. 1-2), and José experiences these limitations and obstacles daily in his workplace. In this sense, Rocha (2024) recommends that the industrial sector plan facilities in order to keep all spaces free of barriers that prevent or hinder circulation, whether for people with or without disabilities. Especially in industrial facilities, where the dynamics of manufacturing processes



bring constant conflicts and interactions, accessibility is essential for anyone, even more so for people with disabilities.

The reality cited by José is corroborated by the study by Barth *et al.* (2022a), in which physical accessibility was one of the most cited demands by wheelchair users seeking employment as a factor for exclusion from the labor market. Problems such as non-adapted toilets, problems with access to the building and elevators, in addition to the non-adapted workstation and parking without reservation of spaces or with accessibility problems were cited. José also mentions that accessibility problems start already in the yard of the company where he works, as there is no specific space adapted for him to park and disembark. It is evident that there is still a great distance between what standards and laws recommend and the reality in the industries, a situation corroborated by José's statement about the accessibility to his workspace:

"I go down like this and get in like this [Researcher's question: Do you leave the car in the company's parking lot and go "crawling"?] Yes, so far I leave it here in front, in the office, so you don't have to climb steps. Before, I always left it in the back, then there was a step or two there" (José, 2022).

Throughout the course of José's report, ergonomic problems can be seen in the relationship between man – machine and man – work environment, with the inversion of ergonomics assumptions that are centered on work, adapting to man and not man to him (Iida & Guimarães, 2016). In this line, the ergonomics of the built environment can be a way to seek the adaptation of spaces, since it seeks to understand the person-task-environment relationship with an ergonomic look and, thus, propose design solutions that serve everyone, regardless of individual condition (Vergara, 2024). According to José, the building where the factory operates is old and predates the time he started working, being adapted several times to serve as a furniture factory. This can contribute to making some necessary adaptations difficult and expensive.

It should be noted that José believes that it is possible to adapt the place where he works to make his daily life easier, but that the owner does not carry out the works "while you can go down there, he does not move there, also from there" (José, 2022). In this sense, the lack of accessibility permeates the work environment and, as an example of this, José reports that he performs his duties in the basement of the building and needs to climb an internal staircase to access the kitchen and bathroom: "No, it's a staircase, below in the basement, that I go down, it's my sector that I work in. Down in the basement. [...] It must have... How many steps should it have? About 11. [...] Then to go to the bathroom too. He didn't even make a bathroom



downstairs" (José, 2022). It is verified that only part of the requested adaptations are carried out and that there would probably be more assertiveness of the company with a greater participation of the workers in the spatial and productive organization, because, as Iida and Guimarães (2016) comment, no one knows the work and the spaces better than the workers themselves, and when negotiated together, the acceptance of the changes is more likely.

It is also noteworthy that the owner, according to the reports, is open to dialogue and attentive to José's needs, having adapted the machinery, although there is not the same willingness to adapt the physical spaces of the factory. Renner and Barth (2024) mention the adaptation of workstations and machinery to anthropometric measurements as an important requirement for the development of products that are appropriate to the principles of ergonomics, providing comfort, well-being, and quality of life to workers. Along these lines, Iida and Guimarães (2016) emphasize usability and pleasantness as qualities that are more directly related to ergonomics, providing the improvement of products and work environments, including equipment and assistive technologies for workers with disabilities.

The participant reports that "he [the owner] asked me, how can we do it here? You can do this service too. [...] Then he asked, oh, if I adapt a chair here, would you be able to go up?" (José, 2022). It is highlighted, as Barth (2024, p. 106) points out, that the "dialogue with the person with disabilities who will use the environment is essential to understand what the adaptation needs are for their autonomy, comfort and safety". Faria and Elali (2012) comment that one of the mistakes of designers is to adapt the clients' way of life to the projects, and the ideal would be to adjust the built space to everyday needs, valuing the participation of users in the process. It is verified that José is an active voice in the adaptations and that, as far as possible, they fulfill the proposed functions. It should be noted that these adaptations should be guided by professionals, such as designers, architects, engineers and others with knowledge in ergonomics, aiming to combine the demands of users with technical qualifications and legal requirements, contributing to the improvement of the "efficiency, reliability and quality of industrial operations" (Iida & Guimarães, 2016, p. 20).

Other examples of adaptation cited by José are a "ladder bench", with steps so that you can climb on the table, be able to cut the foam and use the sander and the kitchen space, which is small. According to José, only he has lunch at the company and that is why the kitchen received the adaptations. Even though they are improvised solutions made in the company itself, the adaptations meet José's immediate needs, allowing him to have equality in the use of equipment with other workers. In this sense, Law 13.145/2015, in its article 37, determines the "competitive placement, in equal opportunities with other people, [...] in which the rules of



accessibility, the provision of assistive technology resources and reasonable adaptation in the work environment must be met" (Brasil, 2015, p. 8). Galli (2024) also points out that companies must ensure accessible and inclusive work environments through reasonable accommodations, that is, with adaptations, modifications, and adjustments that are appropriate, but without entailing a disproportionate or undue burden on the company.

José mentioned another adaptation, that of a cart, similar to a "skateboard", illustrated below in Figure 01, to enable a less exhausting displacement after a problem he had in the tendons of the shoulders.

Figure 01 – Trolley adapted for commuting in the company



Source: Image courtesy of the participant (2022).

So José can go through some internal spaces of the company just by "pushing", not having to crawl and force his arms:

And up there in the company [...] my boss adapted a cart for me too, to walk in the company, until then, until... I leave it there at the door, get out of the car, open the door of the company and sit in a cart [...] yes, softly like that, like a skateboard. [...] After I came back, I had hurt my arm so he adapted the cart for me there. Then I don't have to strain my arms so much. (José, 2022)

The cart was manufactured with materials found in the company itself, using a wooden board, metal wheels and applying foam used in the upholstery. Apparently, the cart fulfills its function efficiently. As Hohmann and Cassapian (2011) point out, low-cost adaptations are important, and there is creativity in Brazil in the way these adaptations are produced, with the use of alternative and cheap materials, in the search for equal opportunities for people with disabilities. It is noted, within the scope of these specific adaptations, that there is a mutual relationship between José and his employer, seeking to improve the work environment. As suggested by Barth *et al.* (2022a), managers must be aware that each disability has peculiarities



and that each one needs specific adaptations, in order to contribute to greater autonomy in the work environment, through a permanent dialogue between employee and employer. Again, as previously exposed, it is the responsibility of professionals with adequate training, such as architects, engineers, designers, and others, to design ergonomic environments and workstations. It is also necessary to interact and cooperate with health professionals, occupational therapists, physiotherapists and others who can provide substantiated information about the physiology and functionality of people with disabilities.

According to reports, José was affected by a near rupture in the tendons of his shoulders due to the effort of crawling and working, requiring three weeks of rest and physiotherapy. There is a clear consequence of the overload at work combined with the mode of locomotion, and the company's management, according to Iida and Guimarães (2016), needs to always be aware of cases of fatigue, taking measures to select, train and assign tasks appropriately, taking into account the individual capabilities of the worker, in addition to the guidance of medical professionals, psychologists, physiotherapists and production engineers.

The following report reinforces the centrality of work in José's life, when he comments on the feelings he had during this time without working: "Ah, crazy. I almost went crazy. I almost went into depression, because I couldn't go to work. Because I'm used to it, I've been getting up early and going to work for years" (José, 2022). There is a focus on work that comes from childhood and that may be an escape valve or form of compensation for José, who uses work to demonstrate to society his productive capacity and that he can be included in the current system. In this sense, raising awareness among managers, technicians, entrepreneurs, and other workers can help change the mistaken view that people with disabilities are incapable of working in the labor market (Barth, 2024) and, consequently, are inserted in society.

It is inferred that the financial issue is not a central point in their relationship with work, since at no time does the interviewee report the salary received as the main and motivating element. On the contrary, Joseph brings up more than once that he wants to occupy his time and his head:

Yes, to occupy time. That's why I work, if I don't have sales on the weekend, I work there at the company. Like Saturday, I worked all day" and "It's to occupy my head, like. Yes, if you sit watching TV, or looking, playing with the phone, at some point you fall into a depression, and everything, just stay at home. That way you can leave. (José, 2022)

As corroborated by Lima *et al.* (2013), material issues alone are not enough to explain the reasons for work, which involves self-realization, self-esteem, autonomy and others as a



source of satisfaction for people with disabilities. In this way, when asked about the importance and meaning of work, José evaluates it as a central part of life, as in the report: "Oh, it's very important, that I can't sit still, you know? Sit. I really like to work with furniture. That's everything to me" (José, 2022).

In addition to his weekly work at the furniture company, on weekends and some moments at night during the week, José also performs the function of seller and delivery of preserves, as an intermediary between the company that produces the preserves and the final consumer. According to him, the neighbor helps to carry the windows in the car, which is adapted, and "then I sell alone, then I go out to sell. [...] I have fixed customers, who have been buying for two [...] years" (José, 2022). Thus, Lima *et al.* (2013) agree that work gives people with disabilities the opportunity to leave social isolation and a condition of dependence and create social relationships in other spaces by performing other activities.

It can be seen in José's reports that the work in the company added to that of salesman occupies practically all the hours of the week. According to him, the workday at the company starts at 6 am until 11:30 am, with an hour break, starting again at 12:30 pm until "6 am [in the afternoon], sometimes even longer" (José, 2022). About the salesman's journey, he reports that he does it on "weekends, like that, out of hours, like that, at night. I make the deliveries" (José, 2022). There are at least 11 hours a day dedicated to work. Even confessing to an unusual workload, apparently he is slowing down "to rest a little". As he explains,

I do 2 hours of evening every day. It will be 2 years old in September. Direct. From 6 a.m. to 7:30 a.m. And from noon to 1 am there will be another half hour. And Saturday mornings, sometimes. Sometimes, the whole weekend. But now I took a break from working on the weekend. (José, 2022)

Even so, it is perceived that work has a central function in José's experiences, and apparently this is his main means of social interaction and, despite the difficulties of mobility and accessibility, it demonstrates self-realization. According to Morin (2001), one of the characteristics that gives work some meaning is the satisfaction it provides. Work, according to the author, has some motivators, among them, being fulfilled and satisfied exercising creativity and talents; acquire security and autonomy; relate to other people; make their contribution to society; and to give meaning to life, fulfilling spiritual functions.

4. FINAL CONSIDERATIONS

The present research aimed to understand the experiences and perceptions of a person with disabilities about their work, in view of ergonomic and accessibility issues. Work as a



means of personal fulfillment and a means of social interaction ends up influencing the worker's identity, and in the case of people with disabilities, the possibility of working increases the self-recognition of their own abilities, in addition to allowing an intense social exchange. In this perspective, accessibility and ergonomic conditions are fundamental for the safe and comfortable performance of the functions of any worker with physical disabilities, whether in rural or urban areas. Eliminating physical, attitudinal, urban, technological and organizational barriers is to ensure the accessibility and adaptation of jobs in companies, which is the duty of employers. Thus, it will be possible to provide the necessary conditions for the safe use of equipment and physical structure, expand organizational cooperation and provide opportunities for a wider range of activities that can be carried out.

The wheelchair for some people is a stigmatizing symbol, however, for people with disabilities it usually represents a condition of dignity and autonomy. However, depending on the degree of autonomy, for certain people with disabilities the chair can also be considered a mobility limiter. The personal perceptions, self-esteem and experiences of people with disabilities can influence the way the wheelchair is seen, as well as the reactions to society. In the present study, for example, it was evident that aspects related to stigma stood out in relation to issues of usability and ergonomics of the product, since the participant reported feeling less different using the wheelchair than crawling in public.

There is an urgent need for companies and employers to provide adequate conditions for adaptation in equipment and accessibility in buildings. Thus, it will be possible to expand the participation of people with disabilities in the labor market, in addition to allowing more diversified activities to be carried out by this public. Even simple and "homemade" solutions can make a difference in the worker's daily life, allowing greater comfort and safety, in addition to increasing efficiency in carrying out tasks. However, the need for an interdisciplinary and multiprofessional look is highlighted in the search for appropriate solutions to the complexity of the theme.

For further studies, it is suggested to deepen issues related to the meanings of work as a factor of remuneration and perceptions about happiness and quality of life, considering that these are essential issues linked to work, but which were not contemplated in the participant's narratives, in addition to studies on accessibility and mobility in rural environments, strongly impacted by variations in relief and difficult access. It is observed that few studies address the theme, focused mainly on urban accessibility. It is verified that the adaptations made in the workplace were made in an improvised and amateur way, without professional guidance. In this line, a subsequent study could bring the opinion of several professionals involved with



accessibility and ergonomics, and could constitute a case study with practical application of adaptation solutions and projects.

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