



RESEARCH ARTICLE

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PHYSICAL AND MENTAL HEALTH OF WORKERS IN RED CERAMICS: POOR WORKING CONDITIONS SHOWS PRECARIOUSNESS

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ARTICLE INFO

Article History:

Received 17th April, 2019
Received in revised form
29th May, 2019
Accepted 13th June, 2019
Published online 28th July, 2019

Key Words:

Workers; Health;
Red ceramic industry;
Precariousness.

ABSTRACT

The article presented is a study about the red ceramic industry workers in the town of Sangão, located in the south of Santa Catarina state. In this research, we approach, by means of interviews and bibliographical research, situations that denote the health of the ceramic industry worker being strongly affected by the labor activities to which they are submitted. In providing a voice to the workers, the study denounces the precarious conditions of these individuals, relegating them to a life of abandonment, physical incapacity and lack of hope.

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Citation: Gabriela Rech Salib and João Henrique Zanelatto. 2019. "Physical and mental health of workers in red ceramics: poor working conditions shows precariousness", *International Journal of Development Research*, 09, (07), 28828-28832.

INTRODUCTION

The ceramic segment is an important driver of the Brazilian economy. Be it the production of red, white or coating ceramics, the sector moves the economy. According to SEBRAE's¹ Intelligence Bulletin, dated December 2015, it represents 4.8% of the construction industry, responsible for 300,000 direct jobs and 1.5 million indirect ones, with an average turnover of 18 billion Brazilian reais per year. In Santa Catarina's south state, a significant amount of this production is concentrated. In this region is located the town of Sangão, which is the focus of our research. Sangão is an important ceramic hub with 85 ceramic plants producing tiles and bricks for a population of 10,400 citizens.² The Sector's Routes Report for the Santa Catarina's Industry, developed by FIESC³, indicates that Sangão is the third largest provider of jobs in ceramic industry: 61% of its active population. According to RAIS⁴, in December 2017, Sangão had a total of 3702 workers in formal employment.

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¹ Brazilian Service of Support to Micro and Small Companies.

² Information from the Demographic Censo 2010, conducted by the Brazilian Institute of Geography and Statistics (IBGE).

³ State of Santa Catarina's Federation Industry.

⁴ Annual Social Information Report

Of the five main occupations of the city, three are directly or indirectly related to the work in the ceramic factories: roof tiles industry worker (39.92%), truck driver (23.90%) and brick industry worker (16, 46%). The average remuneration of those workers was R\$ 1668,94 to the roof tiles industry employment, R\$ 1909,72 for the truck driver employment, and R\$ 1790,74 for the worker who manufactures bricks. None of them receives more than two minimum wages as a monthly remuneration. Being the greater relevant segment within the municipality and responsible for a large part of the economic activity and the main source of jobs, questions surface about the aspects of the activities performed by these workers. Are ceramic industries unhealthy? Is the work too heavy and wages too low? Are these people exposed to physical harm and mental health degradation?

MATERIALS AND METHODS

To answer these questions, we conducted interviews with five workers who are still working or are retired from these occupations. In addition, bibliography on the subject helped to further our research. Interviews are important sources of knowledge in cases where, according to Creswell (2010, p. 213), a qualitative research is carried out and there's no direct observation of the interviewee. In these instances, the subject

can provide historical information and the researcher can conduct an appropriate line of questioning. Therefore, the following discussion highlights the health-related aspects of workers in the ceramic industries.

DISCUSSION

The daily routine in the ceramic industry is quite strenuous, all the interviewees agree. And it takes its toll. João,⁵ 63, retired in June 2017, after years of hard work. He's unable to work after losing movement in the left arm and hand:

My job there was hard labor, okay, very heavy labor, I would do something like this: the tasks I did there, the weight I used to lift there was about three thousand kilos, that I pulled with my arm there, and today my handicap troubles were caused because of the great weight I used to carry, so the nerve "got tired", okay? Then that is it, everything got complicated, okay? I was always truthful, hard work was my life, always. Since when I started working, seven years old, until last year, always hard work. I never said no, I'm not going to work today, because today I can't. No. (João, interviewed, 2017).

In his testimony, João shows that, despite having become used to hard work from a young age and doing it without complaint or hesitation, he has developed a chronic health problem that prevents him from doing simple activities. He tells us that when carrying groceries at the supermarket, he can't hold two kilos bags and needs to ask other people for help because his arm is completely unable. Maria is also 63 and retired after working for 22 years in a ceramic industry. She went through a long period of suffering after developing health problems.

I worked at company X for 22 years, then my "tendons broke", I began to have a problem with my arm, so I was put on sick leave, you know... Then I went, they put me on the sick leave but I wouldn't get it, they use to say like this: You have the disease, everything is broken but you can work. Then I kept working in this state for ten years, you know, with that pain, taking medicine, getting sick notes, and I kept like this. When this situation was not possible anymore, and my arm would do like this (makes a gesture showing the useless arm), couldn't catch a thing, then I went to the reception and said to her: Look, I will work until ... until May 1st. I'm gonna work from May 1st through May 15th, I will work, after that the next fifteen days will be your call. Then you can put me on sick leave. Because I'm here, I can't do anything, will it be ok with you if I just sit down and do nothing? Okay? I'm not going to ask to quit my job, after all these years you also not going to dismiss me. Later, she put me on sick leave (Maria, interviewed, 2017).

By Maria's words, we can see several situations that refer to the precariousness to which the ceramic industry's workers are submitted. The first is the illness itself, which originated during the years of work. According to Maria, she had a ruptured shoulder tendon.⁶ It is inferred that the labor execution in the ceramic factory, intense and repetitive,

contributed very much to Maria's illness. Another aspect to be considered is that, even with the need to pause activities because of pain, Maria remained working for another ten years. She tells that she asked to be put on sick leave, in other words, to qualify for sickness aid. According to the INSS⁷, the sickness aid "is a disability benefit due to the INSS' insured affected by an illness or accident that makes him temporarily unable to work." It can be granted to the employee who has been away from work for more than fifteen days. It requires a doctor attesting to the worker's health condition.

However, in Maria's words, the doctor attested to her problem, but stated that she could keep working. She insisted on working for ten years still before making the decision to get away from work permanently. For three years, she waited for a SUS's⁸ surgery to attempt to solve her constant pain. She tells a little bit about her suffering while struggling in retirement, since she had not yet the minimum age and contribution time to do so. The doctor's document didn't show any handicap:

So ... I got desperate because I had an energy bill, water bill, I used to look at my kitchen cabinets and there was no food there, people helped me, bringing me groceries and stuff, and I cried a lot and went: My God, I've only depended on myself all my life, I've never depended on anyone. (Maria, interviewee, 2017).

For such an independent and resourceful woman, the humiliation denoted in her speech when she found herself depending on donations for her basic survival needs show the precariousness of her situation. The harsh working conditions in the ceramic industry are not restricted to the physical effort carried out by the workers, but also the inhospitable environment to which they are submitted. When asked about this matter, the interviewee Lucia says:

It was very hard. It was hard work. We used to work in a tile/brick dryer, and close by this dryer that is an exhaust fan that sucks the oven heat into the dryer to dry the tiles. And there was a lot of smoke, steam, heat, so it was quite complicated. We just worked, I worked because I needed to. It was the gain, it was the job I had, I had to work. It was pretty bad. Today it is better, but before it was too bad. It was a lot of dust. Lots of dust. Pretty strong smell of oil and gas. It was a lot of stuff. Very, very bad. (Lucia, interviewed, 2017).

Lucia's description is shocking, and even though it is a report of situations that occurred long ago, it can still be found in present days. Everyday, the workers suffer with the heat, breathing dust, and the noise that makes it difficult to hear the sound of their own voices. In addition to these everyday risks, the handling of machinery, contact with the oven's heat and being subject to possible burns exemplify the terrible conditions to which they are subject. Work precariousness in the ceramic industry isn't a reality only in Sangão. Maciel, (2013, p.93) when interviewing the workers in Amazonas's state, relates that workers developed hernias and suffered abdominal pains believed to be a hernia after standing for long periods of time. The number of workers interviewed by researchers who relate to feeling tired at work is 87%, and all the respondents who made this statement had been working

⁵ We choose to use fictitious names for the interviewees, in order to ensure the confidentiality of the information contained in the interviews.

⁶ This kind of injury is caused by the exaggerated and intense repetition of movement over the years, which triggers in early chronic degenerative process to tendon, generating rupture.

⁷National Institute of Social Security.

⁸ Health Unic System.

more than five years in the company and were over 30 years of age. The 13% who opposed these characteristics were younger, with less time working in the company. That is, the researchers concluded, that tiredness is gradual: the longer you work in the company and the older you are, the more exhausted at the end of the work day you feel.

Other aspects are apparent. Working all day standing up is one of the most unpleasant factors pointed out by our interviewees. Pedro, 61, was used to heavy farm work, therefore the effort in the ceramic factory is not a huge hardship, but his choice would be to do another job where he didn't have to stand up the whole day:

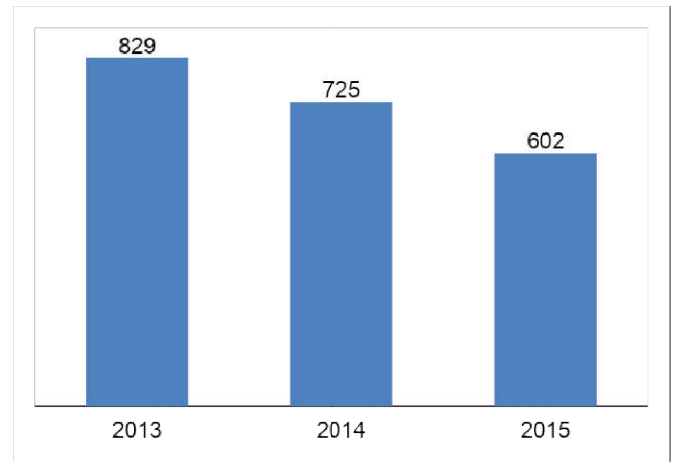
To put the bricks on shelves is not tiring. I get tired because I stand up all day. We just have a pause to sit down when the wire that cuts the bricks brakes down. Okay, they have to replace it. Then, we get what ... two minutes. Then the guy gives a slack on the back, takes a walk ... or when you need to go to the bathroom, drink some water, right? Then we get a little break. Then we can stretch our "leg". But otherwise, it the whole morning until noon and from 13pm to 17pm. Okay? Just like that. Then we get tired, but what for? Because we stand up the whole day. I would rather do another service but not this one. But is only that this service ... is because we have to stand up all day. (Pedro, interviewed, 2017).

Pedro's words show the difficulties of the day by day schedule, because any quick breaks are linked to machinery problems or physiological needs, such as going to the bathroom or drinking water. He also told us about an accident he had days before our interview, where he had hurt his foot.

Ah, I was pushing the troller up, we took it out of the dryer, okay, put it up the rails to complete the wagon, and... I had already taken a troller. Came back to get the second one and it was heavy, and I asked for help. When I did that, the other guy comes from behind and pushes the troller on my foot, okay, almost cut my foot out of my leg, my foot's nerves it all came out. It got me right here, see, I still have the scar and still...today is not that swollen, but yesterday... yesterday it was swollen. The swollen disappeared, then I went to Jaguaruna⁹, went to do an exam...X-Ray but thank God it was not broken. Not even a crack, there was nothing...this thing. Then was just the problem of...the nerves, okay, that came out. (Pedro, interviewed, 2017).

This kind of accident can be avoided if the Regulatory Standard number 12 which deals with Machinery and Equipment is completely followed. Dal Molin (2014, p.31) brings the content of the standard, in which both machines and equipment must have on and off devices, located in a way that can be used by the operator quickly. Therefore, proper guidance for workers handling the equipment and the existence of appropriate safety devices would contribute to less accidents. The event shows negligence on the part of the employer by not offering adequate conditions for the prevention of accidents. In the Social Security's Statistic Yearbook, it is possible to observe the number of accidents that still happen in the ceramics industry. The chart below records the incidents for three consecutive years, as well as

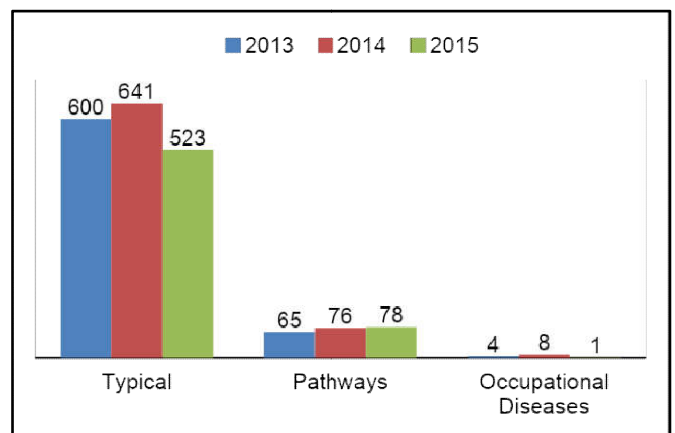
their origin. For this matter, only the records of the occupation called number 2342, referring to the Manufacture of Ceramic Products Non-Refractory to Structural Use in Construction were considered.



Source: Statistical Yearbook of Social Security

Graph 1. Number of Work Accidents registered in the Santa Catarina's Ceramic Segment

Although the numbers have decreased over the years, they are still quite significant, especially when compared with other industrial segments. If we observe, for example, the manufacture of packaging for plastic materials, the numbers show 536, 441 and 411 accidents per year, respectively. In the case of manufacturing concrete, cement, fiber cement and plaster, the recorded number of accidents are 384, 215 and 195. So we can strengthen the claim that the ceramic industry offers risks to the worker such as accidents that may occur during the fulfillment of work activities. To show a few examples, in 2016, a ceramics industry worker in Sangão died after being crushed when the forklift he operated fell on him. In the same year, another case brought great repercussion, the victim being a 16 year old teenager. The young man had his arm swallowed by a machine, amputating the limb. Incidentally, he was working in the factory irregularly and without registration. The same yearbook also shows a record of the reasons for accidents recorded in ceramic industry in Santa Catarina, divided by typical, pathways or occupational diseases.



Source: Statistical Yearbook of Social Security

Graph 2. Reason to Work Accident

Law No. 8213 of July 24, 1991, includes in its article number 19, the definition of an occupational accident as "that which occurs by the exercise of work at the service of the enterprise,

⁹ Town next to Sangão.

or by the work of the special insured, causing bodily injury or functional disturbance of a temporary or permanent nature. " The typical accident is that which occurs as a result of the work activity itself, such as described in the examples previously cited. Pathways accidents occur during the worker's way to work, either at the company's service or during the trip to and from the workplace. Occupational diseases are caused by the exercise of the function and usually develop over time, such as repetitive strain injuries. It is clear that the vast majority of occurrences originate in the exercise of everyday functions. Also, it is important to remember that in the Social Security Yearbook only the occurrences for which CATs¹⁰ were opened are registered. Incorrectly, many companies still interpret that, if there is no removal of the employee for a period exceeding 15 days, there is no need for registration. This information is misleading because even if the period of removal is only a few hours long, the registration of the event is mandatory, and the absence of CAT can generate a fine. However, even with the penalties for noncompliance, there are still many cases in which there is no formal record of occurrence with the Social Security Fund. It means that the existing numbers may be much higher than those presented in the yearbook, which would make the situation even more delicate for these workers, subject to constant risks in their daily work. There is another situation to be considered, that of workers in all segments suffering from physical or mental illness continuing to work for fear of removal, or losing their job when they return to work. With the economic instability still faced by the country, which in March 2019 registered 13.1 million unemployed, the worker may prefer to remain working even if sick, instead of taking the risk of being dismissed and part of the unemployment statistics even if their state of health will become worse as a result of continuing the work activity. However, regardless of the "epidemic" of unemployment that ravages Brazil, the uncertainty about stability in employment is not homegrown. The University of East Anglia, in Great Britain, has developed a recent study talking about the so-called "presentism." People are obliged to work even when sick, for fear of removal as well as being dismissed or considered unnecessary or replaceable during their absence. Still, they feel pressed and discriminated in missing work for being sick.'

These are just a few aspects that we considered when talking about workers' health. In dealing with the risks and illnesses that affect these workers, it is necessary to remember that not only the physical aspect of the workers must be considered. The psychological factor can cause serious damage and discomfort to the worker. Amorim (2016), in a study about the perceived stress of the workers of a ceramic industry located in the Northeast region, talks about the situations that are generated when the employee lives with this condition. They become more vulnerable to illness, with a tendency for family and work problems and their productivity decreases. Countless reasons can cause stress, and many may be work related, such as an overbearing superior, dissatisfaction with the work environment, insufficient wages or even lack of benefits. During the application of questionnaires to 68 employees of the surveyed ceramic industry, Amorim (2016) concluded that 54.4% intermittently considered their work to be stressful and 39.7% said it is stressful all the time. It should also be

considered that there are other questions that help us understand the work in this segment as prone to lead to a condition of physical and mental exhaustion: 66.2% of those interviewed by Amorim (2016) answered that noise within the industry always or eventually interferes with their performance. The same problem happens regarding temperature for 73.4%, and in the case of lighting, interference is always or sometimes described by 92.6% of the respondents. Given this situation, we can understand that the working conditions to which they are subjected within the ceramic industries not only affect workers' physical health but their mental health as well. Worker's assistance should be seen by the employer as a priority, both to preserve the life and health of the employee and for its own benefit. Employing company workers able to perform their duties not only technically but also with their mental health preserved should be paramount. Points Amorim (2016, p.64):

With the emergence of worker stress, comportamental changes occur which lead many times to uncontrolled activities performed in their routine. Stressful work leads to bodily wear and a reduction in work efficiency. It is important to observe the attitudes and practices that can trigger work stress and take actions that minimize these practices, improving the quality of services in the industry.

The employer must be aware that taking preventive measures to preserve the worker's health can have a beneficial outcome for both parties. On one side, the industry profits by having employees producing more, with lower incidences of remoteness and withdrawal. Likewise, a worker more motivated and committed to the company is less prone to illness. Small company attitudes in these cases can bring a completely different result, and, most of the time, more positive for all involved. The meager compensation paid to these workers is also an issue that deserves to be highlighted. As we discussed in the introduction to this article, wages are very low, and even inadequate for such arduous work. This affects the mental health of the worker. They live in a situation of vulnerability, always worried about being able to bear the expenses of their survival and with little hope for the future, having so little remuneration. This statement fits very well into Pedro's story, for example. When he suffered the accident that injured his foot, some expenses were generated, like trips to the public hospital, medicines, dressings, and so forth. These are unexpected costs that, for families that survive on tiny wages, can compromise the satisfaction of other needs, and even basic needs such as food. Another factor to be considered is that the Sangão ceramic industries don't have compulsory provisions of benefits for employees, such as health insurance, food stamps, transportation vouchers, pharmacy aid, etc. When offered by companies, these benefits work as motivational sources for workers, who, despite low salaries, see them as a wage boost: knowing, for example, that in a case of illness they will be insured and not only dependent on public service. Lucia, who quit her job in the ceramics industry some time ago but whose son and husband are still at work, says that neither she nor her family members have ever received anything but salary. In addition, we can note the sadness she reports on the delay of her retirement, because of the absence of registration when working in the ceramic industry. Here, she reports her journey since the beginning:

¹⁰ CAT (Work Accident Communication is a document issued to recognize both an accident at work or commuting as well as an occupational disease.

I was married for five months, in the sixth month on I went to work. Then I worked for a year and a half, got pregnant and worked until eight months pregnant ... Then I left, I stayed at home for another year, until my daughter became older, then I paid someone to take care of my girl, and I went back to work. And with all this I already had seven years registration itself, of contribution, and there I don't know, went unnoticed and I worked and lost five years of contribution. I could be retired today. My retirement is still four years ahead. Complicated. (Lucia, interviewed, 2017).

There are several cases similar to Lucia's. Pinheiro (2012, page 153), only seven years ago, found out 20% of the workers in the ceramic industries she researched in a informal situation, some of them even refused to be interviewed for fear of harming themselves or the boss, who observed discreetly the employee's contact with the researcher. Regardless, the situation of workers can't be ignored who, when they reach the age required for retirement or having worked the necessary time to receive this benefit, find themselves unable to enjoy the payment that would give them a means of living after a lifetime of work. In addition, informality also denies the worker access to sickness benefits and the Time Service Warranty Fund.

Conclusion

In this article we seek to explore aspects of the health of workers from ceramics industries, specifically in the city of Sangão, Santa Catarina. There, we found evidence that the daily work to which they are subjected, as well as low remuneration, lack of benefits and daily stress contribute to a physical and psychological deterioration for these individuals. We have brought, by means of interviews, examples of events that occurred with these people, in which they describe several types of situations that show their precarious condition: work accidents, absence of safety equipment, unhealthy work environment, company negligence, repetitive strain injuries, modest wages in relation to the activities performed, and the absence of benefits that compensate or at least balance the wage precariousness. In listening to the interviewees' dismal experiences, we also conclude that they are resigned to the situation in which they live. We have the impression that their situation is even worse than it seems, by the simple fact that they accept without question. In this way, we can conclude that in Sangão, the ceramic industries, their tiles, bricks and, mainly, the economy moved by these, are the protagonists of this history. The workers are the assistants, relegated to live with their insignificance, giving their health, their sweat and even their life to move the gears of the ceramic factories.

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