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Truck drivers experience on the use of psychoactive substances: a descriptive study

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ABSTRACT

Objective: To understand the experience and the reasons that led truck drivers to use psychoactive substances. **Method:** A descriptive study with a qualitative approach, performed by means of the technique in chains, guided by the theoretical framework of symbolic interactionism. Data was collected through interviews with 30 truck drivers, who transit through the entire Brazilian road network, from March to August 2016. For the elements analysis, thematic analysis was used as a strategy. **Results:** Three analytical categories emerged: "work development facilitator"; "health repercussions of psychoactive substances"; "behavioral changes and impact on interpersonal relationships". It was verified that the truck driver's professional trajectory interferes with his health, since it makes him vulnerable to the use of psychoactive substances. **Conclusion:** Maintaining health or promoting it should not only be the responsibility of the health sector, but the result of inter-sectional and multidisciplinary actions supported by healthy public policies.

KEYWORDS: Worker's health; Mental health; Psychotropic drugs; Occupational risks.

INTRODUCTION

Road freight transport drives economic development in a number of countries, especially in those with large territories and insufficient and/or inadequate rail transport, as is the case with Brazil⁽¹⁾. Truck drivers are the main agents of this transportation system and their activity has unique characteristics about the organization of work such as short goals and deadlines to reach them and also the strenuous working hours⁽²⁾. These drivers are subjected to numerous factors that influence their professional practice, among which the use of psychoactive substances stands out⁽³⁾, used to reduce drowsiness while traveling and increasing work disposition and socialization^(1,3).

In 2017, in the National Register of Freight Haulers (*Registro Nacional de Transportadores Rodoviários de Cargas*, RNTRC) system, 1,680,219 haulers were registered⁽⁴⁾. Data from the National Land Transportation Agency (*Agência Nacional de Transportes Terrestres*, ANTT) in 2018 showed the existence of almost 500,000 autonomous or cooperative truck drivers. The exact number of truckers is unknown, but it is estimated that over one million people work in road haulage⁽⁵⁾. The use of psychoactive substances can have harmful effects on the individual and on society as it increases the risk of traffic accidents⁽⁶⁾.

It is noteworthy that the vulnerabilities raised by the use of psychoactive substances result in mental disorders, cognitive changes, as well as possible physical impairment, social isolation, violence, physical degradation, impairment in affective ties, which corroborate to minimize quality of life⁽⁷⁾.

Studies indicate that alcohol and amphetamines, respectively, are truck drivers' most used psychoactive substances, and amphetamines, when used to help reduce sleepiness, can cause agitation, tachycardia, vertigo and hallucinations. Both substances altered body perceptions and reactions, thus increasing the risk of traffic accidents^(2,8).

Given the above, the performance of a multidisciplinary team is essential to minimize the vulnerabilities arising from the use of psychoactive substances; this team needs to propose specific interventions with goals to reduce manifestations and consequences of psychoactive substance use and abuse⁽⁷⁾. For the interventions with these professionals to be successful, educational and assistance policies that include the participation of truck drivers and enable them to adapt their way of living to social daily life are required^(7,9).

From this perspective, the relevance of this research is to understand the experience of truck drivers facing the use of psychoactive substances, taking into account their motives in order to identify the priorities of this client. The present study has the following as questions: How is the experience of truck drivers facing the use of psychoactive substances? What reasons led them to use psychoactive substances in their daily work?

The development of this study is justified by the fact that it is a broad and current theme, due to the high prevalence of psychoactive substance abuse by truck drivers, in order to seek alternatives to minimize workers' difficulties regarding psychosocial well-being and health, including workplace changes^(1,8,10).

Given the above, the objective of the present study was to understand the experience and

the reasons that led to the use of psychoactive substances by truck drivers.

METHOD

This is a descriptive and qualitative study, guided by the theoretical framework of symbolic interactionism. This framework proposes an understanding of the way man makes his interpretations about the objects and the people that relate to him and how this interpretation interferes with individual behavior in equal situations⁽¹¹⁾. It is a reference that assists in studies of social life aimed at understanding experiences, changing opinions, behaviors, expectations and social demands⁽¹²⁾. This was chosen because it allows achieving better the study objectives by having as its differential the interpretation of meanings and interactions as the basis for explaining behaviors and experiences.

Initially, truckers were selected with the help of a key informant; in this case, it was a professional who is part of the social network of one of the researchers. It is noteworthy that he did not participate in the interview due to the likelihood of generating bias. However, this truck driver indicated the first research participant⁽¹³⁾.

Selection continued through the chain technique (*snowball*)⁽¹⁴⁾, that is, from the identification and location of a trucker using psychoactive substances in the context of work, which was used as an inclusion criterion, as well as professionals over the age of 21, working for more than one year in the profession, as it is understood that it takes a minimum time for the person to adapt to the profession needs and to feel the difficulties arising from it. These interviewed truck drivers were also

informants to identify other participants with the same characteristics to be included in the investigation, and the process was repeated successively, in order to identify the largest number of truck drivers who could contribute to the study⁽¹³⁾.

This recruitment method choice was justified due to the truck driver population, which usually makes use of psychoactive substances in a hidden way, since these workers rarely attend health services, travel to different places in a short time and are aware of that the consumption of this type of substance is prohibited.

First, an informal contact was made to verify the professional's availability to be part of the research; subsequently, each interview was held in a private location chosen by the participants, according to their availability. The interviews were recorded and later transcribed in full. It is noteworthy that the interviewees did not have any kind of family relationship.

The exclusion criteria were the following: truck drivers who had no personal availability to participate in the interview and without psychoactive substances use in their daily work.

Data was collected through semi-structured interviews prepared by the authors and based on the objectives of the study, from March to August 2016, residing in the state of Minas Gerais, the largest Brazilian road network (269,546 km of highways)⁽⁴⁾. However, it is noteworthy that all of the study participants were traveling throughout the country's road network. The script consisted of two parts, the first with data to characterize the participants and the second with the guiding

questions: How do you experience the use of psychoactive substances in your daily work? What are the reasons why you use psychoactive substances in your work? Are there any consequences of this use on your work and health? And how about in your family and social relationships?

The elaboration of these questions was based on symbolic interactionism as it sought to understand the experience that the truck driver brings about the use of drugs. In this context, as well as in conducting the research, the following aspects of symbolic interactionism were considered: 1. People orient their actions toward things/people according to their assigned meaning. 2. Human behavior is permeated by symbolic communications that depend on the situation in which it operates and consequent expectations⁽¹²⁾.

Truck drivers, anchored in the meaning the drug has for them, develop actions and interactions. These interactions enable their individual perspectives to be re-signified or not in a given situation, underpinning decisions about whether or not to use psychoactive substances.

For the information analysis, thematic analysis with pattern recognition within the data was used as a strategy, where the emerging themes are formed into categories⁽¹⁴⁾. Included in this assessment are different ways of approach, such as deductive, based on predetermined codes (template); and inductive, data driven. In this study, the chosen method was a hybrid model, which combines the deductive and inductive models⁽¹³⁾. Thus, the data were first analyzed inductively, originating codes/themes, and later the template

was applied. This research used symbolic interactionism to identify deductively significant text units⁽¹⁴⁾.

The previously elaborated code model was based on the research guiding questions and on the theoretical framework. Therefore, symbolic interactionism directed the code model that, after transcription, was applied to the raw data. The themes emerged in this interpretative process, and their grouping resulted in three main categories described in Figure 1.

Sample closure was due to theoretical saturation⁽¹⁵⁾. 30 truck drivers participated in the survey.

The study was conducted according to the ethical principles. The project was approved by the Research Ethics Committee of the Federal University of São João Del Rei, Opinion No. 1,350,248; CAEE: 51214315.4.0000.5545.

RESULTS

All of the 30 truck drivers were between 23 and 65 years old. They had been in the profession for at least three years and the maximum working time was 39 years, and they made use of psychoactive substances for a period between four months and 32 years, with a mean of 12 years. Most were single and had children.

The apprehension on the experience of truck drivers about the use of psychoactive substances at work was divided into three main categories: "facilitating factor for work development"; "health repercussions of psychoactive substances" and "behavioral changes and impacts on interpersonal relationships" (Figure 1).

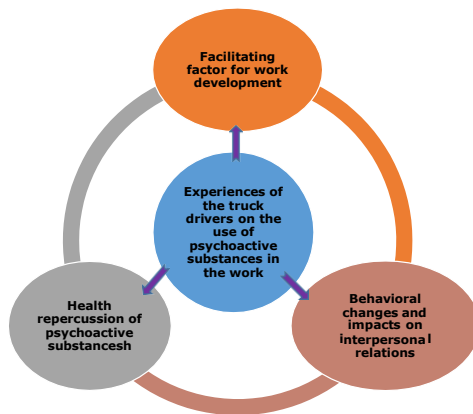


Figure 1 - Categories about the experiences of truck drivers on the use of psychoactive substances in the work. Minas Gerais, Brazil. 2016. Source: Prepared by the authors, 2016.

Facilitating factor for work development

Psychoactive substances were described as an indispensable component for roadwork. Physical and mental tiredness that came from long working hours, especially at night, the responsibilities that are imposed on them by companies in the context of delivery of cargo in a predetermined time or even, for the self-employed, and economic factors of daily life were mentioned by the respondents for the use of psychoactive substance:

The first reason is the companies' pressure on cargo loading and unloading [...] Drivers end up using this substance to meet these schedules. Unfortunately, your boss just says the following if you don't do it, there will be another one who will come and do it.(E12).

Reason is financial difficulties [...] debt! To see if I paid the debts, owing a truck.(E10).

The job, for me was the job, I only drive at night, these things (psycho-

active substances), it has to be [...] it has to be used unfortunately, if you don't, you sleep [...] the work seems to lead you to use it, do you get it? (E22).

In my work it was only a benefit [...] I had to make the schedule, so I take the "rivet" to arrive [...] because otherwise I die [...]. (E21).

It had a positive consequence because through schedule I was able to save money, as I worked a lot, 21 or 22 hours a day, so I could double my wage [...] I was able to buy my little house, today I work for myself. (E16).

Repercussion of psychoactive substances on health

There were participants who reported that the use of psychoactive substances directly interfered with their health, evidenced in the following reports:

It damaged my health because it speeds up my heart. Substance speeds up our hearts and everything else, it muddles me a little bit, but as it's said, we have to work. (E4).

Affects my blood pressure, has affected a lot. (E14).

Well, in health, it gave me stomach trouble, and a bad gastritis, it was because of the rivet [...]. (E21).

By the time I took this I had depression, I had psychiatric treatment [...]. (E17).

Today I have diabetes, it must be because of the pancreas, because of the use of the rivet. (E3).

Oh! Slimming a little bit (laughs). (E6).

Oh no, we feel [...] we do not feel well. It speeds up the heart, there are times when you are excited at the time you take it, when the effect is ending, it gives us a kind of depression [...]. (E10).

Although several respondents reported such impairments, there were participants who felt no health consequences at the time of the interview:

The health [...] all my life was good I never had a health [...] problem, I never got to be hospitalized, thank God. Until today I have never been admitted, never been in hospital. I myself noticed that it was good to stop taking the rivet. (E7).

I haven't had any problems so far. (E8).

Behavioral changes and impact on interpersonal relationships

Behavioral changes such as stress, arguments, impatience and isolation, besides the short time for leisure activities, caused harms in the interactions with family and friends:

The consequences in my family relationships are due to stress, I had no patience, I was very nervous, I argued with my parents, my family, my brothers. (E16).

I lost a five-year relationship because I had no time for anything, just traveling [...] just making money, I had no life. So I was supposed to be married, have children, a family, so today I miss that, having a family. (E16).

[...] we have little time to go out [...] social life. (E14).

[...] I was ashamed to be around people, I thought people were looking at me with different eyes, it's exactly like the drug, like cocaine. (E16).

As they say, we came home nervous, angry, sometimes fighting for no reason. Sleep, I wanted to sleep, sometimes I didn't sleep, that was a bit of a mess. (E17).

Unfortunately this substance changes you [...] you get a late sleep, it happens that you drive there, two, three nights straight, you get home; until you recover, what you had, it disturbs you, because you get home altered, you can scream [...] your eye is open, but your brain is almost shutting down. (E12).

DISCUSSION

The daily life experienced by cargo carriers is intense, permeated by specific meanings, with physical and emotional wear, as pointed out in the statements. It was verified that the motivation for the use of psychoactive substances, especially amphetamines, is due to the pressure exerted by the companies that demanded agility at any cost, added by the fear of losing the job due to not being able

to perform at the appropriate time, besides the daily life economic demands experienced by the autonomous drivers.

Meaning is an important element in understanding human behavior, processes, and interactions. Symbolic interaction occurs through the interpretation of the other's actions and gestures, based on the meaning that is attributed⁽¹²⁾. The interpretation of the symbols present in the daily work as the pressure exerted by the companies, the risk of unemployment and other present conditions, evoked meanings for the truck driver. These meanings influenced their actions, motivating them to seek strategies to change the situation. Among these tactics is the use of psychoactive substances. The testimonies corroborate studies that point out that, in order to combat the harmful effects of fatigue, some truckers use licit and illicit stimulants^(3,9).

Other research suggests that stimulants may improve cognitive and motor performance when used to combat fatigue^(10,16). Stimulants may improve cognitive functions such as attention, alertness, psychomotor functioning, memory and skills, but they create serious driving problems^(1,3-5,16). Stimulants are often detected in tests of truck drivers killed in occupational accidents^(2,16) and in deceased drivers found guilty in such accidents^(4,6).

In this sense, in Brazil, since the end of September 2017, from Resolution No. 691 of the National Traffic Council (*Conselho Nacional de Trânsito*, Contran), which provides for the wide-ranging toxicological examination of detection in a keratin sample to enable, renew or change to categories C, D and E, resulting from Law No. 13,103, of March 2nd,

2015, intended to verify the consumption, active or not, of psychoactive substances, with a minimum retrospective analysis of 90 days, performed by laboratories accredited by the National Traffic Department (*Departamento Nacional de Trânsito*, Denatran), duly accredited to the National Institute of Metrology, Quality and Technology (*Instituto Nacional de Metrologia, Qualidade e Tecnologia*, Inmetro)⁽¹⁷⁾.

An international study states that these tests can effectively help to reduce accidents with drivers under the influence of psychoactive substances, benefit the family life of these professionals and the safety of all road users⁽¹⁶⁾.

The intense pace resulting from the truck drivers' working conditions, the distance from their assigned places, since they live in a continental country, multiple working hours, punctuality in delivery, insecurity of both vehicle and cargo, and the risks of accidents on roads evoke meanings that may result in inappropriate behavior such as psychoactive substance use^(1,3), verified in this study.

Another reason given by the interviewees that lead them to resort to the use of psychoactive substances was the socioeconomic factor; they make several deliveries quickly, in order to help increase income and pay debts acquired even with the maintenance of the truck. This worker represents in many cases the sole source of income for the family. Studies conducted with truck drivers from Brazil^(1,3-4), Colombia⁽⁶⁾ and New Zealand⁽¹⁶⁾ suggest that amphetamine consumption makes it possible to work for long hours continuously increasing income, i.e., this increase in remuneration implies a higher workload.

This information is shared not only in the academic realm, but also among truck drivers in their interactions. Words have socially shared meanings enabling communication, understanding and transfer of information⁽¹¹⁾ and experiences. Thus, the truck driver signifies the psychoactive substance as a possibility to modify the situation in which he finds himself in order to obtain benefits and to reduce the factors perceived as negative. However, overwork can produce physical and emotional exhaustion, making the truckers look for a temporary solution to this stimulant consumption problem^(2,4).

It was noticed that, in order to legitimize the use of psychoactive substances, the participants reported that it provides safety for him and other drivers, as by staying awake under the effect of stimulants, it reduces the vulnerability of falling asleep when driving and causing an accident is minimized. Thus, the use of the psychoactive substance was signified by the truck driver in its positive aspects. However, studies indicate that when the driver's physical capacity increases due to the use of the psychoactive substance, they feel euphoric and willing to take more risks, increase speed and thus increase the likelihood of accidents^(2,6).

The fatigue after the effect of psychoactive substances is higher, as reported by the respondents, and if the user wants to continue feeling less tired, a new dosage is needed, fatigue reduces and he can develop his activities; however, due to pharmacological tolerance, increasing doses are required for well-being and maintenance of wakefulness^(1,5).

When the interviewed truck drivers were approached regarding the use of substances and

its health consequences, all the participants knew that continuous use altered the organic functions, especially regarding the circulatory and neurological system. In addition, there have been reports of past and present harm caused by the use of psychoactive substances. The most commonly reported symptoms were tachycardia, increased blood pressure, depression, weight loss, gastrointestinal disorders, and diabetes. Research studies evaluating the use of related psychoactive substances in contemporary society, referring to drivers who use amphetamines, observed that, in addition to inhibiting sleep and increasing alertness, excessive consumption can cause hallucinations, tremors and tachycardia^(3,6,16). The effects of amphetamines on the circulatory system are known to depend on the ingested dose⁽²⁾. Despite being aware of the occurrence of these symptoms, truck drivers see them as a transitory and temporary condition, but do not rule out that the worst consequences may occur in the future.

The basis of the meaning was present in the social conduct, in which significant symbols emerged. When the individual identified the symbols, once aware of the meaning, his action acquired meaning⁽¹¹⁾. Despite of being aware of the negative consequences of the psychoactive substance, the meaning attributed to the occupational reality of meeting deadlines and satisfying the desire of business is stronger than the significance attributed to negative consequences on one's own health. Faced with continued use, physical and mental health suffered from other conditions such as depression.

Depression, due to the use of psychoactive substances was a disorder experienced by

some participants in this study. As the plasma concentration of Central Nervous System (CNS) stimulants increases, the lower the trucker's performance is when driving and, when the stimulating effect is over, the user will be subjected to a "rebound" effect on the CNS, which involves induction of depression, fatigue and sleep^(1,3,16). The association of amphetamine and alcohol was reported by some participants in the present study, which is of greater concern, as alcohol also has a rebound effect and, when the effect on the body is over, the individual goes into a state of exhaustion, leading to sudden sleep^(4,6). Weight loss reported by the participants in this research is due to an effect of the use of stimulants, which has an anorectic action. A systematic review study showed that the nutritional pattern of psychoactive substance users is inadequate, since during their use the appetite is suppressed. When this effect ceases and appetite returns, they most commonly feed on carbohydrates to the detriment of other nutrients⁽²⁾. The use of psychoactive substances not only causes organic disorders, important behavioral changes were reported by the respondents as directly influencing their quality of life and social relationships, as they felt stressed and irritated. These changes are justified by most truck drivers as a result of the working conditions and not as a result of the use of psychoactive substances, as found in a New Zealand study conducted with truck drivers⁽¹⁶⁾. Cargo transporters suffer from the separation of their family and friends, have difficulties to have a stable relationship in order to start a family and end up living with the loneliness

and the presence of only their co-workers^(1,4). Associated with this, the long working hours and the use of psychoactive substances can contribute to social isolation, leading truck drivers to choose rest over family and social interaction⁽⁶⁾.

From an interactionist perspective, people are social actors who take into account others when they act. We communicate symbolically in our actions and interpret each other's actions⁽¹¹⁾. Interaction occurs in a continuous flow of actions between the actors, making it the basis for what we have decided to do in the situations we face⁽¹²⁾.

In symbolic interactionism, the meaning of things has a central position in the rationality of human action and, more precisely, in the source of meanings, that is, it emerges in the process of interaction; thus, these truck drivers, after experiencing the use of psychoactive substances, are impacted by the feeling of social isolation, depression and stress. Stress and irritability come as a consequence of the lack of sleep caused by both psychoactive medication use and long working hours^(3,8). These factors were perceived as a source of family disorders and arguments for no apparent reason, favoring isolation and lack of leisure activities since, due to tiredness, the need for rest was intense^(2,9), corroborating with what was reported by the interviewees. When he suspends the use of amphetamines, the user can sleep for two to three days continuously; however, when in abstinence, he may present unstable behavior, ranging from irritability to anxiety, and even obsessions^(8,10).

In view of the above problems, the Law was improved about the exercise of the driver

profession, in Brazil, in 2015, covering the requirement for the control of the truck drivers' workday, forcing carriers to implement control through a logbook annotation, an external worksheet or electronic system installed on vehicles, plus a basic wage guarantee, regardless of the time spent on delivery and prohibition of uninterrupted driving hours for more than five hours and thirty minutes⁽¹⁸⁾. In addition to the labor laws, with the intention of seeking actions to improve the living conditions and act to reduce the use of psychoactive substances, such as the company's participation in the scale and rotation of truck drivers, thus avoiding work overload and disputes between them^(1,10).

Regrettably, it is verified that the Brazilian society and authorities are still unaware of the vulnerability for traffic accidents related to lack of sleep and excessive wakefulness that professional drivers are induced to practice⁽⁴⁾. In this sense, employers' complacency and neglect of the Brazilian law are observed, as well as the driver's own lack of commitment to driving prudently and to road users.

The interactionist approach argues that, by confronting the world of objects that surrounds it, the social actor interprets it in order to act⁽¹²⁾. The phenomenon in question dealt with the experience of truck drivers facing the use of psychoactive substances, deciphering a series of symbols that involved the lived situation.

The results raised the need to intervene, through health education, for autonomous choices regarding the practice of health promotion and disease prevention. The urgency is emphasized of interventions in relation to traffic accidents and deaths caused mainly

by overwork and insufficient sleep, such as: the effective reduction of the driving time of the vehicle, the largest number of rest breaks during the workday; more breaks on weekends, leisure activities and physical activity, night sleep (quality and time), in order to respect the biological circadian cycle; as well as educational and awareness actions for drivers and employers.

Since, from the perspective of symbolic interactionism, the existing world for individuals is composed of physical, social and abstract objects, and the objects can assume diverse meanings for different individuals⁽¹²⁾. That is because social interaction is a process that guides human's conduct and is valid for those involved in the use of psychoactive substances: health professionals and truck drivers must interact and experience actions that prevent diseases and promote health.

CONCLUSION

The apprehension of the experience of truck drivers about the use of psychoactive substances, based on symbolic interactionism made it possible to know the reasons for their use and the influence on their daily work, family relationships and their physical and emotional health.

It was verified that the truck driver's professional trajectory interferes with his health, since it makes him vulnerable to the use of psychoactive substances. Most of the participants studied had been using psychoactive drugs for over a decade. The work of a truck driver can lead to health harms, as it ends up favoring the adoption of unhealthy lifestyles such as sedentary lifestyle, inappropriate eating habits and the use of alcohol and

tobacco, associated with the use of illicit substances.

The profession also interferes with the family and social lives of the professional driver; therefore, distancing him from his family, friends and important dates. On the other hand, family isolation brings the need to seek greater socialization in the workplace.

Given that the results analyzed showed life and work conditions not favorable to the truck driver's health, it is essential to discuss disease prevention and health promotion policies specific to this professional category. It is worth highlighting the limitations of the study because, although covering the experiences of truck drivers on the use of psychoactive substances, this is not an absolute reality for all who are experiencing this phenomenon, only a small sample is addressed here.

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