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## LIFE AFTER A MOTORCYCLE ACCIDENT

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### ABSTRACT

The purpose of this study is to understand the significance of the motorcycle accident and its consequences on the victim's perception. This is a qualitative study developed at the University Hospital of the Federal University of the São Francisco Valley, which is located in the municipality of Petrolina, Pernambuco. The study sample consisted of seven participants who were victims of a motorcycle accident, from January 2016 to January 2017. Data was collected through a semi-structured interview, where the instrument contained questions regarding participants' socio-demographic data and guiding questions pertinent to the meanings of motorcycle accidents. After analyzing the interviews, the following categories were extracted: context of the occurrence of the accident; feelings related to the accident; changes in personal / professional life after the accident and perception of the health system. Conducting the interviews and analyzing their results allowed us to understand the main circumstances that caused the accidents and feelings involved after their occurrence, noting the changes caused in the personal and / or professional lives of the victims.

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## INTRODUCTION

Traffic accidents are considered one of the leading causes of death in the world, victimizing 1.25 million people a year, mainly in underdeveloped countries. These low- and middle-income countries accounted for 90% of road deaths, accounting for 54% of the world's vehicles. According to the World Health Organization (WHO), only in 2013, more than 41,000 people lost their lives on Brazilian roads and streets (WHO, 2015). The Brazilian traffic is considered one of the worst and most violent in the world, as it has been observed that in the last decades there has been an increasing increase in the number of victims involved in motorcycle accidents. It is estimated that the number of dead and wounded in Brazil exceeds 150 thousand people generating a high cost to society (Bacchieri; Barros, 2011). The growing fleet of motorcycles contributes significantly to the increase of traffic accidents, being a vehicle that is increasingly gaining acceptance and

approval of the population, being agile economic and low cost. In addition, there is the deficiency of the inspection, the often precarious conditions of the vehicles, the imprudence of the users and the great impunity of the violators (Oliveira; Sousa, 2011). There is evidence of greater vulnerability of occupants of motorcycles involved in accidents, suffering, for the most part, more serious injuries compared to those who are injured with other types of vehicles. In the impact, the occurrence of fractures is often able to leave marks in the life of the individual and his relatives for the rest of their lives (Souto *et al.*, 2016). The sequelae of the trauma differ substantially for each person, since the victims of traffic accidents can present lesions in various bodily regions, and requires of the patient some type of surgery, compromising its functionality or even the loss of some member. These sequelae are often not visible, measurable and / or palpable, and can be seen in cases of some mental disorders, including posttraumatic stress disorder (PTSD).

This disorder is a severe and disabling mental illness that affects a significant portion of the population at some point in their lives (Paiva *et al.*, 2015). Information on the reality of motorcycle accident occurrences and mortality can contribute not only to the development of measures and programs for the prevention of injuries and deaths, but also to implement, establish and expand programs of assistance to individuals involved in such incidents, in addition to provide the real diagnosis of the situation. It allows to carry out new studies that serve as a reference to the multidisciplinary team, and to constitute conduits that aim to decrease this event in the population (Oliveira; Sousa, 2011). Considering the exposed scenario and, being this a serious public health problem, the present study aims to understand the meaning of the motorcycle accident and its consequences in the perception of the victim.

## MATERIALS AND METHOD

This is a qualitative study. The qualitative study allows us to study the universe of meanings, motives, aspirations, beliefs, values and attitudes, responding in this way to particular questions and being understood as part of human social reality (Minayo, 2012). The study was developed at the University Hospital of the Federal University of the São Francisco Valley (HU - UNIVASF), which is located in the municipality of Petrolina, in the state of Pernambuco. This hospital has a physical structure composed of 132 beds, being a reference in the attention to emergencies and emergencies that include polytrauma, neurology and neurosurgery, traumatology, orthopedics, general surgery, vascular surgery, oral and maxillofacial surgery, medical clinic, nephrology, dermatology and plastic surgery with multidisciplinary care of the health teams (HU-UNIVASF, 2017). The study sample consisted of seven participants who were victims of a motorcycle accident in the January 2016 fiscal year of 2017 due to memory bias. Biases are systematic errors, any bias, distortion, analysis, publication or use of data that lead to different conclusions from the truth. The investigator must understand its effects to limit misinterpretation and misuse of results. In memory bias, the information depends on the subject's memory, questioning the participant about past exposures (Botelho; Silva; Cruz, 2010). The number of participants was defined according to the inclusion criteria, which were: people who suffered accidents by motorcycles from January 2016 to January 2017, aged over 18 years, who had or had no temporary or permanent physical injuries and who have withdrawn from the professional environment and / or interrupted daily activities for at least seven days, who agreed to participate in the research, signing the Free and Informed Consent Term (FICT).

Data collection was done through a semi-structured interview where the instrument, elaborated by the authors, contained questions related to the sociodemographic data of the participants and guiding questions pertinent to information and meanings related to the motorcycle accident. Before the data collection began, the pilot test with motorcycle accident victims was applied and included in the sample. The interviews were conducted individually, face-to-face with the use of a voice recorder, at the orthopedic/physiotherapy clinic of HU-UNIVASF, according to the subject's availability, allowing for secrecy, anonymity and privacy. The variables investigated were: age, sex, race, marital status, schooling, occupation, family income and number of people living in the household. Clinical conditions related to the accident: type of

injury suffered, the part of the body affected, surgery, type of injury (temporary or permanent), presence of locomotion difficulties today. In order to guarantee anonymity and confidentiality, the research subjects were identified by the letter "E", representing the respondent, and by the numbering according to the order in which they were interviewed. The description and data analysis plan was performed according to the content analysis method described by Bardin (2007), which is organized around three stages: pre-analysis, material exploration and treatment of results with interpretations of data. According to Assis and Jorge (2010), the first stage consists of the organization and initial reading of the interviews, in order to reach the first orientations and impressions regarding the presented messages. The second stage concerns the association, enumeration of content aspects and coding interventions that guide the choice of units, the counting rules and the definition of the categories. The third step refers to how the material investigated will be treated, through codification, classification and interpretation. The data collection began shortly after the approval of the research by the Research and Ethics Committee (REC) of the University of Pernambuco - UPE under the opinion n°: 2,040,540 and signature of the FICT.

## RESULTS AND DISCUSSION

The analysis of the data evidenced the predominance in the age group from 31 to 40 years. Regarding sex, it was observed that the majority were male, being married or in stable union, and that they had some occupation labor. In terms of schooling, participants with a high school education predominated. Of all the participants in the research, 85.71% had to undergo surgical intervention, where 71.42% had temporary injury and the minority, 28.57%, definitive injury, and 71.42% of those interviewed had difficulty locomotion after the accident.

After analyzing the interviews, the following categories were extracted: *context of the occurrence of the accident; feelings related to the accident; changes in personal / professional life after the accident and perception of the health system.*

**Context of the occurrence of the accident:** The high number of traffic accidents is most often associated with inadequate preparation and improper customs of drivers, such as: negligent behavior, lack of attention, structural factors of roads and highways and mechanical failures; a large part of these factors considered to be intervention (Bôas; Silva, 2015). When analyzing the interviewees' speeches, it was observed that some of them highlighted these contexts:

*[...]It was because of someone ... Of someone, of an irresponsible person (E4).*

*I was on the road and the car came in once and when I saw it was already up. I hit, fell and broke my arm (E6).*

*[...]a truck moved at once leaving behind the post crossing the road, it would not get access to the road, it would cross the road, taking the preference where the accident caused the collision (E7).*

Among other factors, Golias and Caetano (2013) also report that the high accident rate for motorcycles is determined by the difficulty of motorcycles being seen by other drivers, by inappropriate behavior and by failure to comply with traffic laws, in addition to the lack of roads exclusive to motorcyclists. Based on the analysis of the interviewees'

statements, the main causes of the accidents reported by them involved the lack of attention of the drivers themselves, the recklessness and the irresponsibility of third parties, as evidenced by the following statements:

*Lack of attention, I came on the avenue, very busy, then the front car stopped and I collided behind [...] I was very distracted, when I looked to the side, I looked "ahead", I hit the car (E3).*

*I was in the BR there a guy was with the car on the shoulder he made the curve in front of me closing and I hit the side of the car (E5).*

Faced with this observed reality, it is necessary to develop preventive actions as a way to avoid and minimize traffic accidents as: educational and legislative practices as a means of awareness; increased traffic inspection; improvements in traffic lanes and signs, which are essential in reducing traffic accident rates (Ribeiro; Silva; Azevedo, 2014).

### Feelings related to the accident

The sequelae caused by motorcycle accidents cause a variety of impact and feelings in the lives of many people, leading to experiences that end up changing their way of thinking and behaving in situations equivalent to those experienced. These situations often alter their functional, emotional and social quality, reflecting quality of life, making them angry, anxious and fearful (Queiroz, et al, 2016). These situations were evidenced in the speeches of some participants:

*[...]What I went through, I do not want to pass no more. I spent almost 3 days screaming in pain (E1).*

*I lived, worked during the day, studied at night, did, college. Then after the accident I did not return to work yet, I had surgery and had a complication in the arm (E6).*

The number of visits to motorcyclists with skin lesions and bone fractures, especially in the lower and upper limbs is increasing, which ends up intervening in the quality of these services and in the waiting time for these victims. Thus, this long waiting period, the types of treatments in which they are submitted and the conditions of exit from the hospital, directly influence the perception and behavior of motorcycle accident victims (Paiva, et al., 2016). In this sense, the following statements:

*[...]I thought, I said, oh my God, I think I'll stay there, this time I'm going to be hospitalized [...] It was, from going through surgery, I still thought about it (E4).*

*[...]The difficulty of getting the surgery, because at the time I realized that I had broken, because I already imagined the difficulty that would be, because if I arrived at the hospital and already operated (E3).*

The long stay of these patients in the hospital waiting for some surgical procedure or some more specialized care interferes in the good prognosis and can become a stressor for them. Some situations resulting from the attention given to patients, such as, in some cases, the cancellation of surgeries, generate feelings such as: anger, fear, conformism and impotence (Antônio; Munari; Costa, 2002), making recovery and rehabilitation and consequently reducing their quality of life.

**Changes in personal and / or professional life after the accident:** Body injuries caused by traffic accidents may result in sequelae, visible or invisible (Lima, Cavalcante, 2015). In this sense, it is observed that in the interviewees' discourse the physical limitation associated with the accident has a direct impact on their work routine, arousing a feeling of physical and financial dependence due to the interruption of their routine.

*I worked as a sales clerk, I worked for general services and everything. My life was like this. I would go to the gym, work out and everything and now I will not do any of that anymore. It was very active.*

*Now I do not do anything, I cannot even clean the house because this one ... (showing the arm), this arm bothers me, I cannot do anything else, not go to the gym, I cannot work, I cannot do anything.(E4)''.*

Unfavorable physical conditions arising from the current situation are reported as responsible for interference in the routine change process. There is evidence of a discomfort on the part of the interviewee where there is physical and financial dependency, even if temporary, since health care requires expenditures capable of destabilizing the preexisting budget for basic human needs, focusing on the prioritization of these for health treatment (Hejazi, et al., 2016). These aspects can be evidenced in the following speeches:

*[...]It changes a lot! I worked, I never missed anything at home, now thank God it's not missing, but my mother helps me too (E1).*

*[...]I always worked, now I cannot work anymore, that I cannot even balance myself on foot imagine on scaffolding, ladder, I cannot do anything no more. In my profession, no (E5).*

After motorcycle accidents, personal life is also affected, as victims usually have some kind of sequel, either temporary or permanent, that hamper the performance of activities, whether day to day or leisure. This is quite visible in the interviewees' statements:

*Changed a lot, God dammit! I do not even know how to tell you [...] (E2).*

*Changed completely, I'm not going anywhere. In fact, only at home [...] I went out, we went out, I went to the party, including Sao Joao I lost all because I could not go. Everyone blames my arm (E4).*

*To be limited to almost everything. I liked to walk from one corner to another, and now practically not even ... I even liked running, I cannot even walk Imagine running (E5).*

According to the study, the main barriers faced are the incapacity and reintegration of workers who are partially disabled due to illness or accident. This reflects on changes in the personal and / or professional life of these victims as feelings reported in this and other studies (Regina et al., 2018).

**Perception of the health system:** The hospitalization period causes discomfort to the patient, adding to the loss of health, an unknown environment with other patients, diminished privacy, locomotion for exams, presence of some noises, loss of autonomy, among other discomforts, cause negative

reactions to the experience of the period of hospitalization (Santos *et al.*, 2017).

*[...]Motorcycle accident is horrible, especially regarding the health that exists in Brazil, because if you had an accident, operated and left, that's fine. But the person gets more trauma with hospitalization than with the accident (E3).*

With regard to emergency care, it is important to understand that the problems presented regarding the care of accident victims are related and aggravated by the historical duration of structural problems, which are the result of low investment. This is allied with a popular culture that seeks an immediate solution to their illnesses (Deslandes; Minayo; Lima, 2008).

*[...]Because my surgery was marked three times, right? Scored the first and cleared, scored the second, cleared (E6).*

*[...]Right there! When you're waiting, create that expectation, then when you mark you spend the whole day waiting, and think: it's coming, it's coming [...] (E6).*

The problem of overcrowding has been worsening in urgency/emergency services. The consequences are the high occupancy rates of emergency observation beds, as well as a significant demand for medical consultations, often unnecessary, implying individual costs and waste of public resources (Poll; Lunardi; Lunardi Filho, 2008).

*[...]there are a lot of people who are filling the hospital because they want to, because they are hunting because if they get ten motorcycle accidents, I think six is the person's fault, for many times they are drinking, without a helmet (E7).*

In the above statement, the deponent assigns the accident to the driver's own behavior, contrary to some authors who assert that the human being has a tendency to hold the other party involved in the event responsible, being totally or partially absent from the infraction (Coelho *et al.*, 2017).

## Conclusion

Conducting the interviews and analyzing their results allowed us to understand the main circumstances that caused the accidents and feelings involved after their occurrence, perceiving the changes caused in the personal and / or professional life of the victims. In the same sense, it could be observed that the victims themselves understand the meaning of the various consequences of accidents in their lives and arouse the sense of revolt, since they understand that most of the accidents were caused by third party imprudence. This work allowed us to have more information about the reality of motorcycle accident occurrences, providing a real diagnosis of the situation, feelings and changes in the lives of these interviewees. In this way, it will be possible to carry out new studies that serve as reference to the interdisciplinary team, as well as to construct strategies that aim to decrease this event in the population.

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