

A Qualitative Study on Health and Lives of Spinal Cord Injury Patients Due to Road Traffic Accidents in Madurai District, Tamil Nadu, India

Sir,

Road traffic injuries (RTIs) tend to pose a significant threat to people's health and well-being worldwide. Road traffic deaths make up 16.6% of all deaths, making it India's sixth major cause of death, and a significant contributor to socioeconomic losses, disability burden, and hospitalization.^[1] The effect of nonfatal injuries goes far beyond the physical side of the injury and encompasses both the physical and psychosocial aspects of the injury.^[2] In the Indian scenario, there is very limited literature available to describe the consequences of RTI among survivors of severe injury. In 2017, Tamil Nadu experienced the largest number of traffic accidents in India.^[3] The district of Madurai is one of the road accident-prone zones in the state. To gain a deeper understanding of the consequences of the RTI, five RTI survivors from different parts of Madurai district were interviewed.

In this study, the answers to the following question were thematically analyzed: "Can you explain how road traffic accident has affected your life, family and health?" The question was asked to all the respondents and their answers were transcribed. The analysis was done in the following steps: (1) the researcher read the responses multiple times with the objective of the study in mind to gain an understanding of the data (2) the responses were encoded with codes (3) the codes were clubbed to form themes (4) the themes were formed into categories that explained the responses from road accident victims focusing on life challenges.

A total of five respondents (three males, two females) with spinal cord injury as a result of road traffic accident were included in the qualitative study. Among the five respondents, three were motorbike riders, one was a motorbike occupant, and one was a bicyclist during RTI. The analysis resulted in four different categories of descriptions of how the participants narrated the consequences of the accident on their health and lives: physical, psychological, social, and financial consequences.

The respondents reported various physical problems related to the RTI. They lost senses below their pelvic region as they had a spinal injury; burning sensations on their feet; infections on their urinary tract; pains in their neck and legs; pressure ulcers/bed sores on their back and bad odor to their ulcers; and problems with controlling urine. In addition to these physical problems, the respondents reported difficulties in mobility and they need someone's support to move.

The respondents described psychological consequences including fear, depression, worries, feelings of negative

thoughts, hopelessness, and low self-esteem. The respondents also expressed that they feel guilty as they are being a burden to their families. After road injury, few respondents lost meaning in their life as they became severely disabled and they have attempted to commit suicide. The respondents also described that they suffer sleeplessness at night as they have either pain in their body or disturbing thoughts.

The respondents reported that they avoided social gatherings such as marriage and village festivals as they fear how others would perceive them. Few described that their relatives and friends stopped visiting their houses after they are injured. A man mentioned that the public bus conductors hesitate to take them in the bus as he is on a wheelchair because of spinal injury and the public toilets are not designed to match the needs of disabled persons and they have extreme difficulties in using them.

The financial consequences described included expenditure on injury treatment and multiple surgeries, unemployment, having to rely on family members for financial needs. The physical disability forced the respondents to quit their jobs as the jobs needed physical stability and labors so they suffered direct income loss. Many reported that buying catheter frequently for urine management is very expensive. If they develop any physical sickness, they rely either on home remedies or local pharmacy or treatment. Because they have to find a vehicle to go to the hospital which is expensive.

The findings of the study revealed that RTI victims incurred physical and life limitations and are in need of support from their caregivers to perform their daily activities. A study by Russel^[4] also found that 30% of patients had severe disabilities in different forms in hospitalized trauma care after 1 year of the accident. The disorders in the occupational function were another key concept identified in this study. The productivity loss is high as the respondents lost their employment due to road injury and their caregivers also cannot work regularly to support the respondents. Additionally, three male respondents in the current study were the primary earners of their family and their families' economic condition became poorer after RTI. The respondents also report that they are always dependant on their caregivers for their financial needs and caregivers also could not work regularly because of caregiving responsibility. This result is in line with a study done in Bangalore where a large percentage of poor families that have a member of the family injured in a road accident state that minimum one person would stop working to help for the family member,

experiencing immediate economic consequences as a result of lost income.^[5]

The results also show that road accident victims are psychologically depressed and experience low self-esteem. They also report that they had suicidal thoughts after the injury as they lost meaning in life and felt being a burden to their families. They also express that their social life is greatly affected as they could not move out like before to mix with their relatives and friends and they also fear of the stigma that is attached with disabled people in our society. Aitkin *et al.*^[6] also observed that the functional constraints in the injured can be seen in various areas such as social and physical operating, mental well-being, emotional role, and overall health. So the people with spinal cord injury need counseling services from home visiting social workers or other health workers to talk about their life problems and identify resources to improve the quality of their life. The results also suggest that the respondents suffer from loneliness as they are mostly locked inside the home and they do not have any social integration. To address the loneliness and reduced self-esteem of the road accident victims, support groups have to be created by NGOs for road accident victims and caregivers to share their thoughts and emotions regularly. When they meet regularly, it would motivate them to improve their living standards and human connections with similar health difficulties would improve their self-esteem. Caregivers also would benefit from support groups as they are stressed because of the burden of care they provide daily.

The respondents also state that to get access to rehabilitation facilities is very limited and the health professionals that they met in hospitals where they took treatment initially for their injury did not promptly share information regarding rehabilitation services. To address these rehabilitation issues, government rehabilitation centers have to be created in each district to rehabilitate the road accident victims as soon as they get their initial treatment for injuries and these rehabilitation centers have to be made visible through awareness campaigns. Because in Tamil Nadu, only a few quality rehabilitation centers are available for road accident victims which many people are not aware of and have limited access to the rehabilitation services.

From the current study, it is quite evident that RTIs have long-term negative health and life implications. The survivors of RTI mostly excluded from mainstream society. There needs to be an inclusion of RTI survivors in the social development process with specific emphasis on accessibility to rehabilitation. To address the issue, there must be strong collaboration across many disciplines, using an integrated approach.

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Conflicts of interest

There are no conflicts of interest.

Vigneshwaran Subbiah Akkayasamy, Sigamani Panneer

Department of Social Work, School of Social Sciences and Humanities, Central University of Tamil Nadu, Thiruvaur, Tamil Nadu, India

Address for correspondence: Mr. Vigneshwaran Subbiah Akkayasamy, Department of Social Work, School of Social Sciences and Humanities, Central University of Tamil Nadu, Neelakudi, Thiruvaur - 610 005, Tamil Nadu, India.
E-mail: vickyfrommadurai@gmail.com

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