

Cultural Interventions: The Missing Factor in Pedestrian Traumatic Injuries

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Received: 01 May 2022; Revised: 12 June 2022; Accepted: 07 July 2022

Keywords: Syndrome; Culture; Necrosis; Epidemiology; Pediatrics

Citation: Tavallaei AH, Angelliaume A, Nabian MH. Cultural Interventions: The Missing Factor in Pedestrian Traumatic Injuries. / *Orthop Spine Trauma* 2023; 9(1): 44-5.

Pediatric injuries are an important source of disability, morbidity, and mortality. In high-income countries, pediatric traumas are an important cause of childhood mortality and hospitalization. Moreover, the number of such damages may be underestimated and undetected because of insufficient data. There is not enough data about children's injuries in low-income countries, but pediatric mortality rates in some of these countries are reported so many times. Lots of social, economic, and cultural indexes have been known as risk factors for pediatric damages. Poverty has been connected with a higher rate of pediatric damages. Living in crowded families and areas has also been connected with such damages. Variables, including households, under education, unsupportive parents, young mothers, and single parents, are also risk factors. Children with more brothers and sisters have more damages than children in families with fewer children. Social problems, including criminal problems and poor health, also increase pedestrian injury rates. Most of these factors are connected with each other, and in multivariate analysis, the effects of low income and household have been shown to not to be depended to other social variables. Both living and being in stressful life have been connected to increased risk for such damages (1, 2).

Hair-thread tourniquet syndrome (HTTS) can be a good example of cultural aspects of orthopedic diseases. There are some reports about cultural differences in the occurrence of HTTS in the pediatric population (3). To the best of our knowledge, there is no case report of this syndrome in fingers or toes until this time in Iran, whereas it has been reported more frequently in other countries like European countries (4-7). Penile strangulation in Iranian children was reported in a few cases (8, 9), but there are no reported cases of HTTS around extremities. Some cultural and social points seem to decrease the prevalence of HTTS among Iranian children. One explanation could be that most Iranian children put on socks or gloves during their activities; thus, they are less susceptible to strangulation of fingers and toes by hair or threads. Besides, in Iranian culture, it is accepted that parents' and infants' clothes should wash separately, and most Iranian families adopt it.

Moreover, other cultural aspects were brought out from literature that may lead to this syndrome:

1- Gypsies wrap hair around the fingers and toes of children and adults to ward off evil spirits (3, 10).

2- Families' cultures were related with increased or decreased risk of damage in many ways (not just HTTS); for example, household crowding, family moving within the past year, poverty, and being under education (of parents) increase risks of injury; but children in single-parent households and children whose parents did not drive a car, or lived in rural origin, did not have an increased rate of injury (1).

3- In some African cultures, one way to wean the babies from breastfeeding is by wrapping hair around the nipple (3). Moreover, to prevent nocturnal enuresis in some other cultures, they strangle children's penis by tightening a ribbon, band, or hair around it (11).

4- Wrong beliefs, like strangulating a piece of hair around the penis can improve sexual function in adulthood, were reported in the literature (12).

Thus, there is probably cultural concern regarding the explanation of HTTS that needs to be explored to prevent dramatic consequences like necrosis of fingers, toes, or external genitalia that leads to limb amputation. This article shows the importance of cultural interventions besides surgical and pharmacological interventions to decrease the prevalence and complications of HTTS.

This study recommended important sociocultural risk factors to prevent pedestrian injuries. The first and most important thing, educational materials, should be by the language of society. For example, if the main language of a community is Persian, then materials should be in Persian. Culturally and socially suitable messages should be created and tried with the particular audiences for whom they are expected with appropriate linguistic strategies. In communities where many parents have minimal proper education, messages should be introduced simply. In the event that parents are under educated, this is the most environmental risk factor for injury (1). Offspring of such parents had a more serious risk of passerby injury. Thusly, protective messages utilizing strategies other than the written word ought to be thought of. Community health workers, as well as the visual media, have been viewed as favored strategies to send avoidance messages for people (1). For example, environmental rules should be ratified by legislators that decrease street side parking as well as decreasing drivers' speed have been suggested by various researchers to make streets less dangerous for children (1). Moreover, preparing new technologies such as virtual realities for low-income families can play very important roles in teaching cultural modalities to them. Sanctions



are one of the factors that decrease countries income, and cause damages to medical and health system (13); so, developing voluntary system in these countries will help to decrease the effects of sanctions.

Conflict of Interest

The authors declare no conflict of interest in this study.

Acknowledgements

None.

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