

Scarf Injuries in Bangladesh: Exploring the Impact on Females who live with Spinal Cord Injuries



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Introduction

- Road traffic injuries are predicted to be seventh leading cause of death by 2030¹
- Scarf Injuries: Mostly affecting female passengers of a newly-introduced battery run taxi, referred to as the “easy bike”, when their traditional scarves become entangled in the taxi's engine drive shaft, resulting in cervical Spinal Cord Injury (SCI) and anterior neck laceration
- Limited information on the burden of Scarf Injuries due to lack of reporting, as well as the challenges females with SCI are facing in their daily lives



X-ray of a Scarf Injury patient

Study Objective

To describe the demographics of Scarf Injuries and explore the challenges to receiving adequate care throughout the trauma pathway from the injury until community reintegration.



Example of a common Easy-Bike and the gap between the driver and passenger seat, leading directly into the drive shaft

Methods

Quantitative approach

- Hospital-based prospective observational study, using the administrative data from a rehabilitation center in Bangladesh

Qualitative approach

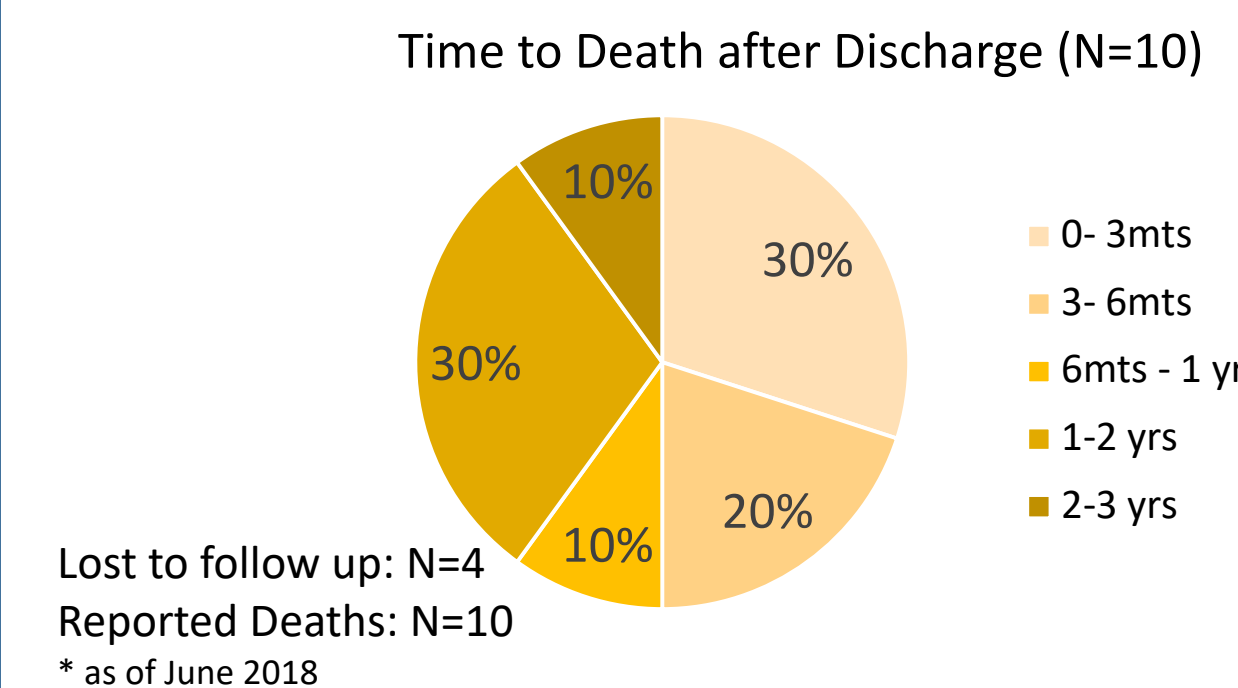
- 18 semi-structured in-depth interviews with 12 Scarf Injury survivors and their caregivers

Results

Table 1: Participant Demographics

N=40	N (%)
Age at time of injury (IQ Mean, IQR)	19 (12;30)
Married	17 (42.5%)
Student	25 (62.5%)
Place of Residence: Rural	23 (57.5%)
Tetraplegia: Paralysis of all four limbs	40 (100.0%)
Complete Spinal Cord Lesion	31 (77.5%)

Figure 1: Reported Deaths*



Qualitative Data: Emerging Themes

- Challenges to receiving appropriate emergency and acute care
- Challenges to receiving long-term care
- Impact on Patients and Caregivers

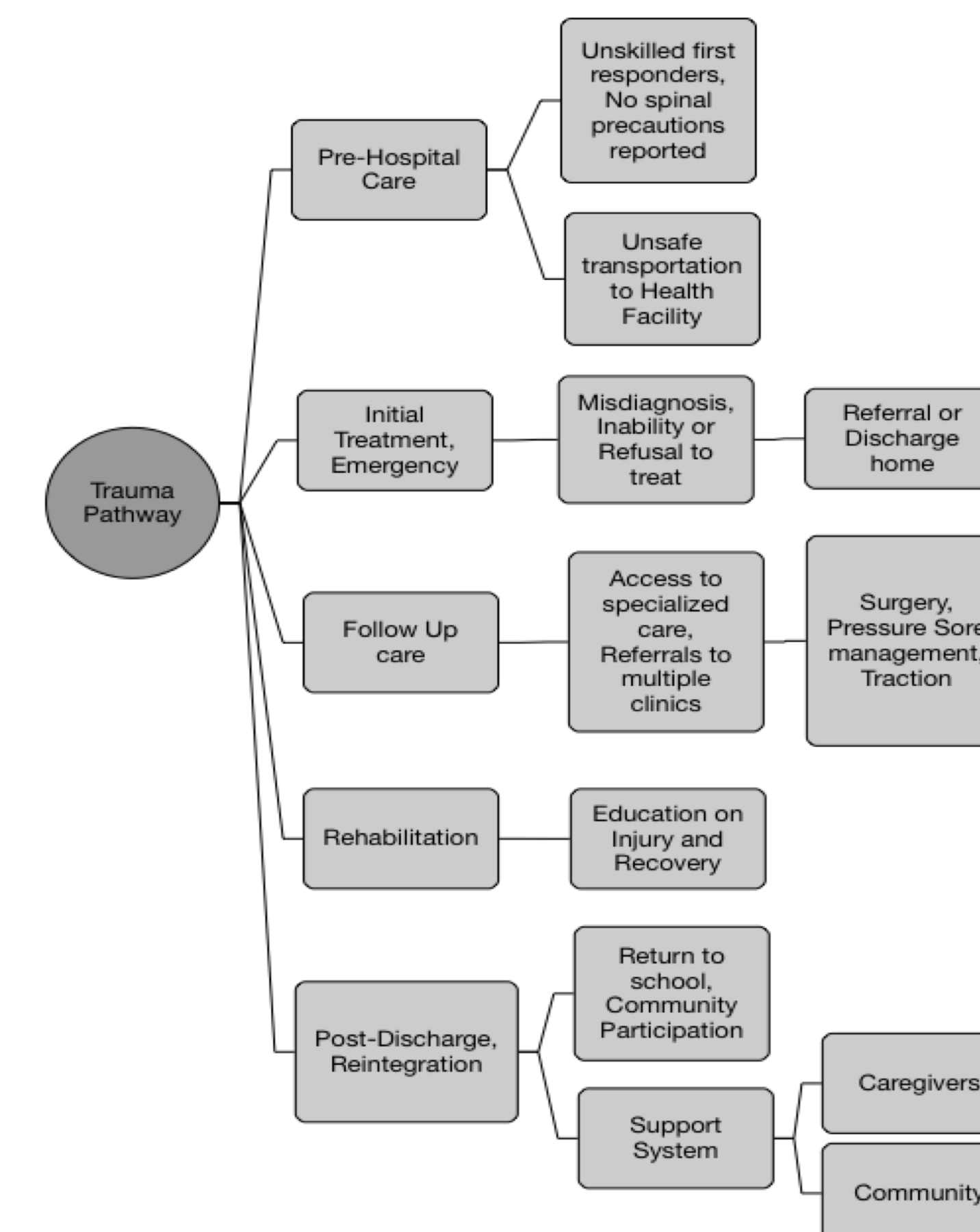
Challenges: Emergency care

- Gap in knowledge and skills of providers
- Financial Resources of patients (costs up to 6000 USD until admission to Rehabilitation Facility)
- Access to medical equipment

“I want to tell one thing. Hospital authorities weren't admitting her because they thought she was hang case”
(Scarf Injury Survivor, 29 years old)

“When she had the accident, her neck rotated on this side. When people from fire service were taking her, they made the neck straight. The bones are all broken. After that she regained consciousness.”
(Mother of Scarf Injury Survivor)

Figure 2: Scarf Injury Trauma Pathway – Influencing factors to receiving appropriate care



Challenges: Long-term care, Community Reintegration

- Access to ongoing care after discharge
- Lack of education on Injury and Recovery
- Coordination of interdisciplinary care approach
- Cultural and Gender Norms

“...today the condition I am in.... the sufferer who is suffering It would be better to die on that day rather than suffering like this”
(Scarf Injury survivor, 22yrs old)

Impact on Patients and Caregivers

- Poor Mental Health, Suicidality
- Social isolation
- Decreased perception of achievable level of function and independence
- Decreased return to prior activities and education

Conclusions

- Increasing awareness and knowledge about SCI emergency care would likely improve long-term clinical outcomes
- Greater competencies among providers would increase the patient's and caregivers' level of understanding of their condition and facilitate the coping process.
- Further studies are needed to identify effective and culturally sensitive transition of care programs

Limitations

- Quantitative dataset, Secondary data
- One home visit per family
- Study population, possible Selection Bias (overestimate of support and resources available to survivors)

References

- WHO (2012). Road Traffic Injuries
- Funding Source: Duke Global Health Institute