Assessing Road Safety Challenges Among Motorcycle Taxi Riders (Bodaboda) in Dar es Salaam (DSM)

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KNOWLEDGE IN ACTION

Background

- 1.19M global road crash deaths annually
- LMICs = over 90% of crash deaths.
- Motorcyclists = 30% of deaths.

Background...

- Key urban transport in LMICs
- Main youth employer
- High crash rates
- 23% of road deaths (TZ, 2023)
- DSM leads in crashes
- Rider behavior a major cause

Objective and Methods

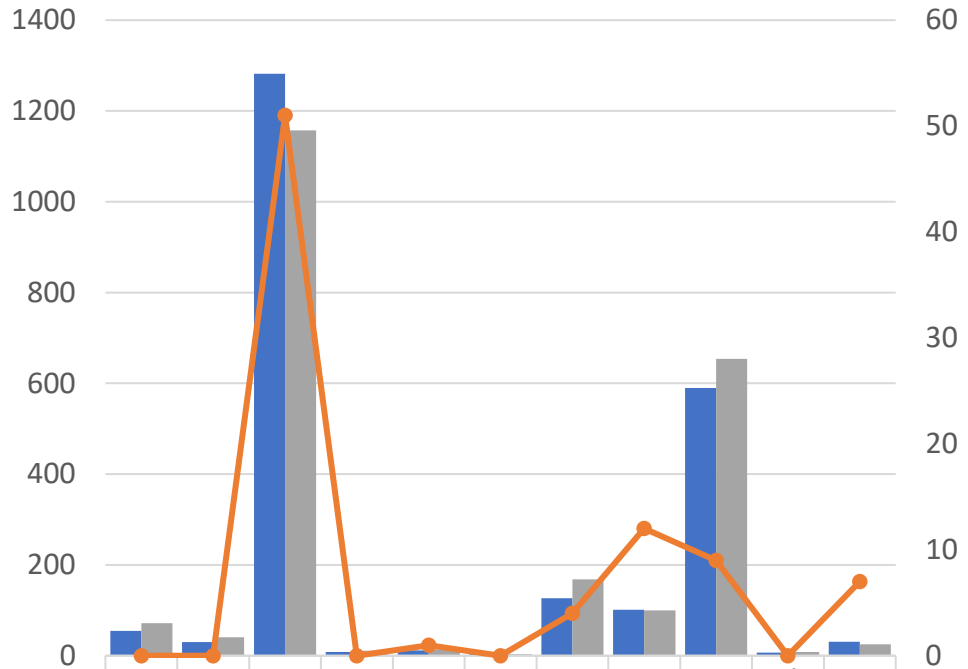
Objective

"To explore the determinants of risky riding behaviors and road traffic crashes among motorcycle taxi riders in Dar es Salaam, and propose safety strategies."

Methods

- Design: Mixed-methods study combining qualitative and quantitative approaches.
- Data Sources:
  - Traffic crash data from police
  - 5 FGDs with riders and 7 KIIs with stakeholders
- Analysis:
  - Descriptive statistics of crash data
  - Thematic analysis using NVivo 14

Crash Outcomes by Involved Road Users



	Baja	Bicy	Car	Cart	Dala	FixObj	Moto	Solo	Ped	Police	Truck
Crashes	55	30	1282	8	12	6	127	101	590	7	31
Injuries	72	41	1157	11	14	3	168	100	654	8	25
Deaths	0	0	51	0	1	0	4	12	9	0	7

- 2,249 crashes recorded (2004–2023), with 84 deaths and 2,253 injuries
- Cars involved in 1,282 crashes and 1,157 injuries – highest in both
- Pedestrians involved in 590 crashes, motorcycles in 127
- Car-related crashes led to 51 deaths – the highest among all

Crash Insights by Time Period

Time Period	Hours Included	Crashes	Deaths	Injuries
Late Night	12 AM – 4 AM	8%	19%	9%
Early Morning	5 AM – 6 AM	7%	14%	7%
Morning	7 AM – 12 PM	31%	18%	30%
Afternoon	1 PM – 4 PM	18%	19%	17%
Evening	5 PM – 8 PM	25%	10%	25%
Night	9 PM – 11 PM	12%	20%	12%

- **Morning (7 AM–12 PM):**
  - Peak for crashes (31%) and injuries (30%)
- **Evening (5 PM–8 PM):**
  - Second-highest for both (25%)
- **Late Night & Night :**
  - Fewer crashes, but highest deaths (19–20%)

Key Risky Riding Behaviors

Traffic violations:

e.g., speeding, overloading, improper overtaking

Poor maintenance:

E.g., faulty brakes, missing indicators

Stunts:

e.g., dragging stands, modified exhausts

Non-use of protective gear:

E.g., helmets, vests, footwear

Legal non-compliance:

E.g., unlicensed, no insurance

Why Riders Take Risks

Psychological

Overconfidence, risk perception deficit, habitual risk-taking, sense of invincibility

Socioeconomic

Income pressure, competition, contract-based financial stress

Sociocultural

Peer/passenger influence, normalized risks, informal learning culture

Environmental & Institutional

Poor roads, weak enforcement, limited safety education

Demographic/Physiological

Some riders overestimate their skills and take unnecessary risks.

Challenges in Road Safety Regulation

Weak Enforcement

Riders often evade law enforcement, operate without licenses, and exploit gaps in penalty systems.

Fragmented Governance

Lack of coordination among rider groups, low education levels, and political interference hinder effective regulation.

Limited Resources

Enforcement agencies face staffing and funding challenges, while insurers struggle with high-risk costs.

Recommendations

Implement mandatory rider training and certification.

Ensure consistent and transparent traffic law enforcement.

Strengthen rider associations to lead peer-based safety programs.

Support fair earnings through regulated fares and rider cooperatives

Prioritize road repairs, lighting, and safe parking spaces.

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Conclusion

- Risky riding stems from structural constraints, not just disregard for rules.
- Solutions must reflect riders' lived realities and economic pressures.
- A fair, supportive, and collaborative approach is key to lasting safety.

Thank you!

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