

Road Safety Education as a Tool for Social Empowerment and Responsible Citizenship among University Students: A Sociological Perspective toward Achieving SDG 3.6

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Abstract- Road traffic injuries remain a major social and public health concern globally, with young adults accounting for a disproportionate share of deaths and injuries. In India, this situation poses a serious challenge to achieving Sustainable Development Goal (SDG) 3.6, which aims to substantially reduce road traffic fatalities and injuries by 2030. This paper examines road safety education from a sociological and social work perspective, focusing on its role in promoting social empowerment and responsible citizenship among university students. Adopting a conceptual and review-based methodology, the study synthesizes national and international literature on road safety awareness, driver behaviour, and risk perception, along with secondary data reported by the Ministry of Road Transport and Highways and relevant education policy frameworks. The review identifies a persistent gap between awareness of traffic rules and actual road behaviour among educated youth, highlighting the limitations of information-centric interventions. The paper argues that higher education institutions function as key spaces of socialization where inclusive and value-oriented road safety education can internalize civic responsibility, ethical conduct, and collective accountability. Situated within the broader national vision of SDG 3.6 and Viksit Bharat 2047, the study concludes that education-led behavioural change is essential for protecting human capital and building safer, socially responsible communities.

Keywords: Road safety education; Responsible citizenship; Sociological & Social work perspective; Social empowerment; University students; SDG 3.6; NEP 2020

I.INTRODUCTION: ROAD SAFETY EDUCATION AS A FOUNDATION OF RESPONSIBLE CITIZENSHIP

Road traffic injuries constitute one of the most serious yet preventable social problems of the twenty-first century. Globally, more than 1.3 million people die each year due to road traffic crashes, and millions suffer non-fatal injuries leading to long-term disability and economic hardship (World Health Organization [WHO], 2023). Beyond physical harm, road crashes impose heavy social costs on Families, Communities, and National economies.

Young people are disproportionately affected by road traffic injuries. According to the WHO (2023), road crashes are the leading cause of death among individuals aged 15–29 years. This age group represents a critical phase of life marked by increasing independence, identity formation, and social participation. Loss of life and disability at this stage directly undermine a nation's human capital and development potential.

Recognizing the broader implications of road safety, the United Nations incorporated it into the 2030 Agenda for Sustainable Development. Sustainable Development Goal (SDG) 3.6 calls for halving global road traffic deaths and injuries by 2030 (United Nations, 2015). This inclusion reflects the understanding that road safety is not only a transport or health issue but also a matter of Social responsibility, Governance, and Education.

India reflects and intensifies many of these global challenges. Rapid motorization, urban expansion, mixed traffic conditions, and inconsistent enforcement have resulted in persistently high accident rates. Government reports indicate that individuals aged 18–35 years account for a substantial proportion of road traffic fatalities, with behavioural factors such as overspeeding, distracted driving, and non-use of helmets and seatbelts identified as major causes (Ministry of Road Transport and Highways [MoRTH], 2023).

University students occupy a unique position in this context. As educated youth, they are expected to demonstrate Awareness, Rational judgement, and Civic responsibility. However, several studies show that risky behaviours persist among university students despite adequate awareness of traffic rules (Ratna et al., 2017; Ranjan et al., 2018). This contradiction highlights the limitations of information-centric road safety education.

From a sociological perspective, road behaviour is a social practice shaped by norms, peer influence, and institutional environments. Roads are shared public spaces where citizenship is enacted daily. This paper argues that road safety education should be reconceptualized as a process of responsible citizenship formation. Higher education institutions, as spaces of socialization, play a crucial role in fostering civic values, ethical responsibility, and collective accountability among youth. In alignment with SDG 3.6 and India's vision of Viksit Bharat 2047, education-led behavioural change emerges as a strategic pathway toward safer and more socially responsible communities.

II. ROAD SAFETY AS A SOCIOLOGICAL AND SOCIAL WORK CONCERN

Traditional road safety approaches have largely emphasized engineering, vehicle standards, and law enforcement. While these measures are essential, they often overlook the social foundations of road use. Sociological research emphasizes that driving behaviour is socially constructed and influenced by shared meanings, norms, and institutional contexts (Reason et al., 1990).

From a social work perspective, road traffic injuries represent a form of preventable social harm. They

disproportionately affect young people and economically productive populations, leading to family disruption, psychological trauma, and long-term socio-economic consequences (WHO, 2023). Social work's focus on prevention, empowerment, and social justice positions it as a critical discipline in road safety interventions.

Understanding road safety as a social issue shifts attention away from individual blame toward broader social determinants of behaviour. Peer norms, tolerance of rule violations, weak civic engagement, and inconsistent enforcement cultures significantly shape unsafe practices (Gupta et al., 2021). Addressing these factors requires education-led and community-based interventions rather than punitive approaches alone.

III. CONCEPTUAL FRAMEWORK: CITIZENSHIP, SOCIAL EMPOWERMENT, AND EDUCATION

3.1 Road Safety and Responsible Citizenship

Citizenship extends beyond legal status to include ethical obligations and social responsibility. Everyday actions, including road use, reflect levels of civic discipline and concern for collective well-being. Compliance with traffic rules signifies respect for others' safety rather than mere obedience to law.

Research suggests that voluntary compliance increases when individuals perceive rules as legitimate and morally justified (Tyler, 2006). Framing road safety as a citizenship issue emphasizes shared responsibility and moral accountability, encouraging individuals to internalize safety norms as part of their civic identity.

3.2 Education as a Tool for Social Empowerment

Social empowerment involves enhancing individuals' capacity to make informed and responsible decisions. Education plays a central role in shaping attitudes, values, and critical awareness. Empowerment-oriented road safety education helps individuals understand risks and social consequences, leading to responsible behaviour (Sayed et al., 2022).

Higher education institutions are uniquely positioned to foster empowerment among youth. Beyond academic knowledge, universities shape civic consciousness and ethical reasoning. Integrating road safety education into higher education can therefore cultivate socially responsible citizens.

IV. REVIEW OF LITERATURE

4.1 Global Evidence on Youth and Road Safety

Global research consistently identifies young people as the most vulnerable road users. Contemporary studies emphasize sensation-seeking, peer influence, and normalization of risk as key contributors to youth road crashes (WHO, 2023). Countries achieving sustained reductions in road fatalities combine enforcement with behavioural and educational interventions.

4.2 Indian Context: Awareness without Compliance

Indian studies reveal a persistent awareness-behaviour gap. Ratna et al. (2017) found that undergraduate students were aware of road safety measures, yet compliance with helmet and seatbelt use was low. Ranjan et al. (2018) similarly reported that knowledge did not necessarily translate into safe practices among adolescents.

4.3 Driver Behaviour, Risk Perception, and DBQ Framework

The Driver Behavior Questionnaire (DBQ) categorizes unsafe driving into errors, lapses, and violations (Reason et al., 1990). Indian studies applying DBQ highlight demographic influences on risky behaviour (Gupta et al., 2021; Pawan et al., 2023). International studies emphasize the role of supportive policy environments and social norms (Jomnonkwao et al., 2022; Sayed et al., 2022).

4.4 Sociological Interpretations: Risk, Norms, and Citizenship

Risk perception is socially constructed and shaped by cultural contexts (Beck, 1992; Douglas & Wildavsky, 1982). Youth risk-taking behaviour is often reinforced by peer approval and identity formation (Arnett, 1992). Studies show that when traffic violations are socially tolerated, unsafe practices increase (Forward, 2009).

Citizenship theory emphasizes everyday practices as expressions of civic responsibility (Marshall, 1950; Isin & Nielsen, 2008). Education linking road safety to ethical responsibility promotes voluntary compliance and sustainable behavioural change (Tyler, 2006).

V. ROLE OF HIGHER EDUCATION INSTITUTIONS

Universities function as institutions of socialization shaping students' values and civic identity. Research on civic education highlights the role of higher education in developing responsible citizenship (Colby et al., 2007). Integrating road safety education into curricula and co-curricular activities can normalize safe behaviour and civic responsibility.

VI. OBJECTIVES AND SIGNIFICANCE

Objectives

1. To examine road safety as a sociological issue linked to citizenship
2. To synthesize global and Indian road safety literature
3. To analyze the awareness-behaviour gap
4. To explore the role of higher education in social empowerment
5. To align road safety education with SDG 3.6

Significance

The study contributes to road safety discourse by emphasizing behavioural, educational, and sociological dimensions and provides a conceptual foundation for future empirical research.

VII. METHODOLOGY

The Present study adopts a qualitative, conceptual, and narrative review methodology, drawing exclusively on secondary sources. This approach is appropriate for social science research aimed at developing theoretical understanding and sociological insights into Road safety education, Responsible citizenship, and Social empowerment among University students. The study focuses on interpreting patterns, themes, and conceptual linkages within existing literature.

The selection of literature was carried out through a purposeful and systematic review process, resulting in a final sample of 17 Scholarly and policy documents. An initial search was conducted using key terms such as road safety education, youth road behaviour, driver behaviour, risk perception, citizenship, higher education, and SDG 3.6. The literature search covered major academic sources, including Google Scholar,

SpringerLink, Taylor & Francis Online, and SAGE Publications, ensuring adequate coverage across sociology, education, public health, and behavioural sciences. In addition, authoritative policy documents were retrieved from the official websites of the World Health Organization, the United Nations, and the Ministry of Road Transport and Highways, Government of India.

The identified studies were reviewed using clearly defined Inclusion and Exclusion criteria. Inclusion criteria comprised peer-reviewed journal articles, academic books, and authoritative policy reports published in English that addressed road safety awareness, driver behaviour, youth risk perception, citizenship, or education-led behavioural change. Preference was given to studies employing sociological, behavioural, or psychological frameworks, including the Driver Behaviour Questionnaire (DBQ), as well as literature aligned with national and international road safety goals such as SDG 3.6.

Exclusion criteria included editorials, opinion pieces, media reports, non-peer-reviewed documents, duplicate publications, and studies focusing exclusively on technical, engineering, or enforcement aspects of road safety without reference to social or behavioural dimensions.

Following screening and evaluation, 17 documents were selected based on their relevance, conceptual contribution, and alignment with the study objectives. The selected literature was analysed using thematic analysis, involving repeated reading and interpretive coding to identify dominant themes such as risk perception, normalization of unsafe behaviour, peer influence, citizenship values, and the role of higher education institutions in shaping responsible road behaviour. These themes were synthesized to develop an integrated sociological and social work-oriented understanding of road safety education.

VIII.DISCUSSION

The present study highlights that Road safety education cannot achieve Sustained behavioural change among University students if it remains limited to information dissemination and rule awareness. The Reviewed literature consistently reveals a clear Awareness–Behaviour Gap, where students

demonstrate adequate knowledge of traffic regulations but continue to engage in unsafe practices such as speeding, mobile phone use while driving, and non-compliance with helmet and seatbelt norms. This gap suggests that cognitive awareness alone is insufficient to influence everyday road behaviour.

From a Sociological perspective, road use is not merely an individual act but a social practice shaped by norms, peer influence, and institutional environments. Among youth, risk-taking behavior is often normalized through peer approval and identity formation, which reduces the perceived seriousness of traffic violations. When unsafe practices are socially tolerated, compliance even among educated populations declines. This supports sociological theories of risk and citizenship, which argue that behaviour is embedded in cultural meanings rather than driven solely by rational decision-making.

The findings further indicate that universities function as critical sites of Socialization, where Civic values, Ethical reasoning, and collective responsibility are actively shaped. Higher education institutions, therefore, possess a strategic capacity to influence student behaviour beyond academic learning. When road safety education is framed as a matter of responsible citizenship, it encourages students to view compliance not as a legal obligation but as a moral responsibility toward others in shared public spaces.

From a social work perspective, road traffic injuries represent preventable social harm with long-term consequences for Families, Communities, and National productivity. Education-led interventions aligned with Social work principles—such as Prevention, Empowerment, and Social responsibility—offer a more sustainable approach than enforcement alone. Integrating road safety education into Curricula, Orientation programs, and Community engagement activities can help internalize safety norms and promote voluntary compliance.

In the context of SDG 3.6 and India's vision of Viksit Bharat 2047, the discussion underscores that behavioural change through education is essential for protecting youth as a key segment of human capital. Achieving meaningful reductions in road traffic injuries requires a shift from rule-based awareness campaigns to value-oriented, institutionally embedded educational strategies that strengthen civic consciousness and social accountability.

IX.CONCLUSION AND POLICY IMPLICATIONS

This study concludes that Road safety education should be reconceptualized as a tool for social empowerment and responsible citizenship, rather than treated solely as an awareness-building exercise. The persistence of risky road behaviour among educated youth indicates that knowledge of traffic rules does not automatically translate into safe practices. Instead, behaviour is shaped by social norms, peer culture, and institutional value systems.

By adopting a Sociological and Social work perspective, the study emphasizes that road use represents a daily enactment of citizenship in shared public spaces. Compliance with traffic rules reflects ethical responsibility, respect for collective well-being, and civic discipline. When road safety education is framed within this broader understanding, it has greater potential to foster internalized behavioural change rather than externally enforced compliance.

From a policy standpoint, the findings suggest that Higher Education Institutions should be formally integrated into national road safety strategies. Universities can serve as effective platforms for promoting value-based road safety education aligned with NEP 2020, through Curriculum integration, Experiential learning, Student-led campaigns, and Community outreach. Such initiatives can strengthen students' sense of civic responsibility and social accountability.

The study also highlights the need for intersectoral collaboration among Education authorities, Transport departments, Universities, and Social work professionals to design holistic road safety interventions. While enforcement and infrastructure remain essential, education-led behavioural change is critical for achieving long-term and sustainable outcomes under SDG 3.6.

Although this study is conceptual and based on secondary data, it provides a strong foundation for future empirical research. Longitudinal and mixed-method studies examining the impact of university-based road safety education on student behaviour are recommended. Overall, embedding road safety within

the ethical and civic mission of higher education can contribute significantly to Safer roads, Empowered youth, and Socially responsible communities.

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