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Road Traffic Accidents in Nepal: A Five-Year Content Analysis of News Media Coverage and Causal Factors

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ABSTRACT

Introduction: Road traffic Accidents (RTAs) are a significant public health issue in Nepal, and the media have a significant role to play in influencing public opinion and policy discussion. This study analyzes the trends in media coverage and causal attributions in RTC reporting in the major Nepalese news media. ***Methodology:*** Quantitative content analysis of 2,847 news stories from seven major Nepali newspapers from January 2020 to June 2025 was conducted. Stories were coded using a systematic structured codebook examining article metadata, accident features, causal attributions, and quality of reporting measures. Intercoder reliability was achieved at Cohen's $\kappa = 0.87$, with good analytical consistency maintained. ***Results:*** Coverage increased 65.6% from 2020 to 2024 with marked seasonality peaks during festival seasons (23.4% above average), monsoon seasons (18.7% above average), and tourist seasons (15.2% above average). Geographic breakdown revealed intense urban bias, with the Kathmandu Valley contributing 67.2% of coverage even though it holds only 12.8% of Nepal's population. Driver-related factors led causal explanations (68.4%), with infrastructure (12.1%) and environmental factors (8.9%) having limited mention. Quality assessment revealed large gaps: expert quotations appeared in only 34.2% of articles, policy context in 23.1%, and prevention messaging in 19.8%. ***Conclusion:*** Nepali media is characterized by systematic patterns of individualized blame attribution and geographical coverage bias that may work against effective safety communication and policy development. The more urban-based reporting also provokes information equity concerns, with the potential to perpetuate rural-urban disparities in safety resource allocation. These findings highlight significant opportunities for improvement in the media role in road safety advocacy and public education through improved reporting standards and more in-depth causal analysis.

Keywords: Road Accidents, Media Analysis, Content Analysis, Nepal, Health Communication, Road Safety

INTRODUCTION

Road traffic accidents are a widespread global issue, and Nepal is experiencing an especially severe crisis. These accidents are indeed driven by the country's challenging terrain, existing socioeconomic realities, and a rising number of motorized traffic, which together make its road network extremely vulnerable to catastrophic events (Sudmeier-Rieux *et al.*, 2019). As such, road traffic injuries have increasingly become a major cause of morbidity and mortality in Nepal, thus becoming an acute public health emergency

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(Dhakal, 2018). This high accident rate urgently calls for in-depth scrutiny through rigorous research, especially through the content analysis of news reports (Tharu & Shrestha, 2021).

Understanding media coverage of road traffic accidents requires grounding in established communication theories that illuminate how journalism shapes public discourse and policy agendas. Agenda-setting theory (McCombs & Shaw, 1972) provides the foundational premise that while media may not tell people what to think, it significantly influences what they think about by determining which issues receive public attention. In the context of RTAs, the volume, frequency, and prominence of accident coverage directly shape public perception of road safety as a priority issue, potentially influencing policy attention and resource allocation decisions at both local and national levels.

Framing theory (Entman, 1993) extends this understanding by examining how media narratives define problems, diagnose causes, make moral judgments, and suggest remedies. The way journalists frame road accidents-whether emphasizing individual driver error versus systemic infrastructure failures—fundamentally shapes public understanding of causation and appropriate interventions. Iyengar's (1991), distinction between episodic framing (event-focused, individual-centered) and thematic framing (context-focused, system-centered) is particularly relevant to accident reporting. Episodic coverage tends to focus on discrete incidents and individual actors, leading audiences to attribute accidents to personal failings. Conversely, thematic coverage contextualizes events within broader patterns and systemic issues, encouraging audiences to consider structural solutions and policy interventions. The dominance of one framing approach over another has profound implications for public support of road safety policies and infrastructure investments.

Risk communication models (Covello & Sandman, 2001; Fischhoff, 1995) further illuminate how media coverage influences public perception of traffic-related risks and protective behaviors. Effective risk communication requires not only reporting incidents but contextualizing them within broader epidemiological patterns, providing actionable prevention information, and avoiding sensationalism that may distort risk perception. The cultivation theory (Gerbner *et al.*, 1980) suggests that repeated media exposure shapes audience perceptions of social reality, meaning consistent patterns in accident reporting may cultivate specific beliefs about road safety threats, vulnerable populations, and effective solutions. Over time, these cultivated perceptions influence both individual behavior and collective support for policy interventions.

In the context of developing nations like Nepal, these theoretical frameworks intersect with critical information equity concerns. The geographic proximity hypothesis (Gans, 1979) predicts that media outlets disproportionately cover events near their organizational bases, creating systematic biases in which communities' safety concerns receive attention and validation. This pattern has profound implications for policy responsiveness and resource distribution in societies with marked urban-rural disparities, as underreported regions may face systematic disadvantages in safety infrastructure development and emergency response capacity.

The integration of these theoretical perspectives provides a robust analytical framework for examining how Nepali media coverage of RTAs may reinforce or challenge existing power structures, shape public understanding of accident causation, and influence the policy agenda around road safety investments and interventions.

Globally, road traffic injuries exact a crushing public health burden, claiming 8.94 deaths per 100,000 population; importantly, developing nations disproportionately and tragically bear more than 85% of all RTI-related deaths and 90% of disability-adjusted life years lost (Jha *et al.*, 2021). This lopsided and

devastating effect, as such, essentially highlights the paramount importance of multifaceted intervention measures in low- and middle-income nations such as Nepal, where road traffic injuries tragically represent the twelfth leading cause of death. Despite this colossal burden, however, there persists a noted and alarming lack of epidemiological studies on accidental injury patterns and causes within Nepal, which seriously hinders a holistic appreciation of their extent and effect (Gajuryal *et al.*, 2023).

For instance, even under COVID-19 lockdown, road traffic crashes were frequently reported in the media, but their root causes and crash system factors were unfortunately typically absent (Sedain & Pant, 2021). This critical knowledge deficit is compounded by the burgeoning number of registered vehicles, particularly two-wheelers that directly fuel the rising trend of road traffic accidents (Tharu & Shrestha, 2021). This relentlessly ascending trend thus unequivocally necessitates a closer and more urgent investigation of contributory factors extending beyond proximal crash conditions to infrastructure, policy enforcement, and public awareness campaigns (Shafiq *et al.*, 2020; Bhattarai, 2019).

The economic cost of these injuries is indeed huge, with direct medical and non-medical expenses totaling millions each year, representing a heavy and increasing national financial burden (Banstola *et al.*, 2020). Research attest that injury and violence and violence are major contributors to global mortality, with road traffic fatalities representing a leading cause among those aged 5 to 29 years, and more than half of all road accident injuries and deaths occurring among the economically productive 15-49 years age group (Joshi & Shrestha, 1970). This crippling demographic toll constitutes a massive wastage of human potential and severely burdens healthcare systems and national economies, especially in low- and middle-income countries where the majority of fatalities are recorded (Hulme, 2011).

Although a global reduction in road traffic accidents has been noted across high-income nations as a result of rigorous safety protocols and sophisticated vehicle technologies, the burden remains overwhelming in low- and middle-income countries (Bekelcho *et al.*, 2024). The significant direct and indirect expenses in these nations severely hamper economic growth and distract vital resources away from other critical public service. This urgently calls for concerted action to improve pre-hospital care and bolster emergency departments, alongside instituting strong preventive public interventions to reduce the overwhelming health burden (Jha *et al.*, 2021). Also, the lack of proper road injury data nationally hinders effective implementation of known road safety interventions, underscoring the dire and undeniable imperative of strong data collection and analysis systems in Nepal (Al-Shorbaji *et al.*, 2015). Such systems are crucial for identifying high-risk areas, understanding accident etiologies, and formulating evidence-based policy interventions to mitigate the devastating impact of road traffic injuries (Toroyan, 2009).

The current research systematically examines news media reports between 2020 and 2025 to tackle the pressing problem of road traffic accidents in Nepal. It seeks to determine the main causative factors blamed for RTAs and examine the way these incidents are framed in the media discourse. Existing research highlights the central role of a range of factors, such as driving behavior, vehicle condition, and environmental conditions, in accident occurrence and severity. However, limited attention has been paid to how media representation patterns may systematically influence public understanding and policy responses.

This research, based on theoretical as well as practical grounds, adds to the pool of knowledge regarding RTA dynamics, specifically in developing nations such as Nepal where infrastructural constraints and inadequate traffic management mechanisms aggravate the issue. In addition, examining media discourses provides insight into public opinion and the social construction of traffic problems, which has a great impact on public knowledge and policy making. Scholarly literature repeatedly establishes that media

portrayals strongly influence public policy agendas and risk perceptions, making it essential to conduct an in-depth examination of RTA discourse in public domains.

This study is expected to assist various stakeholders, such as policymakers, transport authorities, and institutions of learning, by outlining priority areas for intervention. A more realistic grasp of causal attribution patterns and media reporting practices can expose gaps in public information about traffic safety and highlight the need for improved emergency response services and more comprehensive safety communication strategies. By applying established communication theories to the Nepali context, this research contributes both to theoretical understanding of media effects in developing nations and to practical improvements in road safety advocacy and policy development.

LITERATURE REVIEW

Road traffic accidents are a major global public health issue, contributing significantly to morbidity and mortality across the world (Yassin & Pooja, 2020). The increasing prevalence of RTAs puts massive pressure on the road industry, especially in countries with burgeoning growth in motorized vehicles, increasing the possibility of such occurrences (Balikuddembe *et al.*, 2016). As such, road safety, including actions to minimize risks of accidents and ensure a safe environment for all road users, has become an essential element of successful road management systems (Mercado, 2024).

Global Burden and Epidemiological Patterns

On a global scale, RTAs are responsible for an estimated 1.35 million deaths and 50 million major injuries yearly, with a significant economic cost of 3% of the gross domestic product (Jahanjoo *et al.*, 2023; Babaie *et al.*, 2021). The World Health Organization estimates RTAs will be the fifth leading cause of death worldwide by 2030, highlighting the need for urgent response in the form of comprehensive intervention measures (Hareru *et al.*, 2022). This widespread problem has a disproportionate impact on low- and middle-income nations that contribute more than 90% of the world's road traffic deaths despite having a much lower percentage of the world's vehicles, further widening the gap in socio-economic inequalities (Farida *et al.*, 2021). More than 93% of these accidents take place in LMICs, where they also rank as the major cause of death among persons aged 5 to 29 years (Muguro *et al.*, 2020).

Vulnerable road users, including pedestrians and motorcyclists, make up a considerable percentage of these fatalities, highlighting the urgent necessity for enhanced forensic analysis in vehicle-pedestrian accidents to help identify, investigate, and decrease road casualties (Nogayeva *et al.*, 2020). The global RTA burden is particularly pronounced among young male motorcyclists aged 22-29 years, who experienced disproportionate rates of serious injuries, including fractures, extremity dislocations, and intracranial injury (Chaudhary and Wasti, 2020). Such epidemiological patterns identify particular risk groups in need of focused interventions to curb the incidence of road traffic injuries.

Infrastructure, Response Systems, and Data Quality

Poor infrastructure and dangerous road user behaviors are commonly cited as major causes of road traffic injuries, especially in urban areas where pedestrians account for a large percentage of victims (Rodríguez *et al.*, 2003). In LMICs, pre-hospital care capacity is significantly weak, such that many injured are transported to hospitals without life-sustaining support, reducing chances of survival and worsening injury outcomes (Thi *et al.*, 2020). Structured pre-hospital trauma care is key to lessening the severity of outcomes of these injuries, highlighting the necessity for effective emergency medical services (Smart *et al.*, 2017).

In spite of significant efforts to curb the health burden due to RTAs, official data typically underestimates the actual magnitude of non-fatal injuries due to under-reporting by police (Malm *et al.*, 2008). Lack of reliable figures on non-fatal injuries hinders policy design and resource mobilization for effective prevention and rehabilitation interventions (Atreya *et al.*, 2022). The lack of proper road injury data nationally hinders effective implementation of known road safety interventions, underscoring the imperative of strong data collection and analysis systems in Nepal (Al-Shorbaji *et al.*, 2015). Such systems are crucial for identifying high-risk areas, understanding accident etiologies, and formulating evidence-based policy interventions.

Media Representation and Public Disclosure

The existing literature stresses the need for undertaking content analysis of news media reporting of RTAs to make significant contributions to the ongoing societal debates on traffic safety (Fahmadi *et al.*, 2022). Media portrayals strongly influence public policy agendas and risk perceptions, making it essential to conduct an in-depth examination of RTA discourse in public domains. Studies in Kathmandu illustrate an astonishing upsurge in road traffic deaths and injuries, indicating a critical need for inclusive policy interventions (Bhusal *et al.*, 2023). The Nepal Road Safety Action Plan encourages more public engagement and awareness of road safety interventions, which has been effective in reducing the prevalence of road traffic accidents (Shafiq *et al.*, 2020).

Future research should cover demographic factors, specifically age and gender, and their relationship with road traffic accident severity, as suggested by (Santolino *et al.*, 2022). Consequently, demographic analysis can guide intervention strategies to populations at risk. Therefore, aligning with the progress of Nepal towards sustainable transport models, there is a need to include road safety training and education as part of traffic law enforcement and public awareness campaigns.

Research Gaps and Study Justification

Despite the huge number of studies examining road traffic accidents in Nepal, there is a significant literature gap with regards to media representation's role in shaping public perception and policy discussion on traffic safety. While earlier studies have focused primarily on epidemiological characteristics, risk factors, and economic costs of RTAs, no systematic exploration has been made of the impact of media coverage patterns on public understanding of accident causation and prevention. Moreover, earlier studies have not adequately explored possible bias in media reporting, particularly regarding geographical coverage and distribution and causal attribution patterns.

This oversight is particularly troubling in light of the agenda-setting function and policy influence of the media. The lack of comprehensive content analysis of media reporting over extended time periods limits our understanding of how reporting quality and framing effects can support or hinder effective road safety communication and policymaking in Nepal. This gap suggests the necessity of in-depth analyses that not only measure media attention to RTAs but also qualitatively evaluate the narratives and framings used, given their power to shape public discourse and policy agendas. The current study addresses this critical gap by applying established communication theories to systematically analyze five years of RTA coverage in major Nepali newspapers, examining temporal patterns, geographical biases, causal attribution patterns, and reporting quality metrics.

Objectives

Building on the key concerns flagged in the introduction, this study seeks to develop the multifaceted facets of road traffic accidents (RTAs) in Nepal based on a systematic analysis of media coverage over the

period 2020-2025. As noted in the introduction, the increasing public health crisis embodied by RTAs and the substantive role played by media accounts in shaping public opinion and policy discourse have been stressed. The objectives of this research are thus aligned with these thematic focuses, seeking to fill key research gaps identified in the existing literature.

1. To analyze temporal patterns in road traffic accident coverage by prominent Nepali newspapers for the period 2020-2025, determining seasonal variations and shifting intensities of reporting.
2. To examine the geographical coverage of accident reports by province in Nepal, to ascertain the level of regional coverage and to evaluate potential urban-rural biases in media reporting, against the backdrop of Nepal's infrastructural and socio-economic diversity.
3. In order to examine dominant causal attribution patterns within media coverage of RTAs, assessing whether RTAs are largely attributed to individual errors, system failures, or environmental factors, and thus investigating the framing influences on public opinion.
4. To evaluate the quality of accident reporting through the presence of expert comment, policy context, prevention messages, and follow-up reporting, analyzing the media's contribution to the shaping of public awareness, informing discussion, and facilitating road safety advocacy.
5. In order to examine the connection between media outlet attributes and their news patterns, comparing differences in the depth of coverage, quality of reporting, and causal attribution strategies by varying editorial orientations and organizational characteristics.
6. To create evidence-backed suggestions for enhancing the quality of media reporting on RTAs, with a view to strengthening the contribution of journalism in road safety advocacy, public education, and policy shaping in Nepal.

In short, these six linked aims have been directly informed by the research gaps in the introduction and aim to inform both theoretical insight and practical intervention in enhancing road safety communication and policymaking in Nepal.

METHODOLOGY

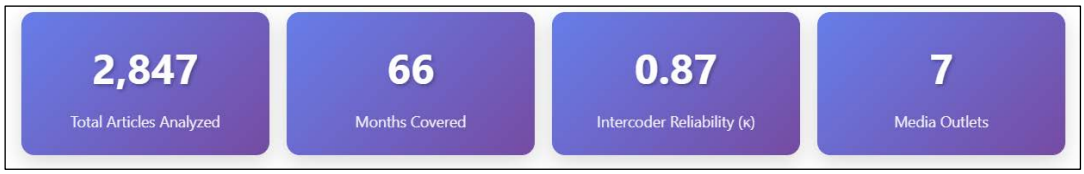
This study employed a quantitative content analysis design to formally examine media coverage of road traffic accidents in Nepal. This study coded and examined 2,847 news reports from seven prominent newspapers—The Kathmandu Post, Rising Nepal, Republica, Kantipur Daily, Nagarik Daily, Annapurna Post and Setopati dated between January 1, 2020, and June 22, 2025. The news reports were retrieved through systematic keyword searches on "road accident," "traffic accident," "collision," "crash," and "road fatality" in both Nepali and English. A systematic codebook contained four dimensions: (1) article metadata like publication details and prominence of placement; (2) accident characteristics like location, severity, vehicle types involved, and accident time conditions; (3) causal attributions like driver factors, vehicle factors, road infrastructure factors, and environmental factors; and (4) quality of coverage measures like expert quotations, policy context inclusion, prevention messaging, and follow-up reporting. Two independent coders were given extensive training on the coding protocol. Intercoder reliability was ascertained using Cohen's kappa, which yielded a value of 0.87, indicating high agreement and well above the conventional threshold of 0.70 for content analysis to be deemed reliable. Content validity was achieved through expert validation of the codebook prior to large-scale application. Statistical analyses were conducted using SPSS 28.0 and R software. Descriptive statistics explored frequency distributions and temporal trends.

Chi-square tests assessed associations between categorical variables, and $p < 0.05$ was considered the significance level. Spatial analysis used QGIS to map geographical trends of coverage in Nepal's seven provinces. This study utilized publicly available media sources and did not involve human subjects, and therefore the requirement of no institutional review board approval. All data collections were within fair use provisions for academic research purposes. The study was limited to major media houses and could miss out on data from smaller local papers. The study concentrated on manifest content instead of latent meaning, and the English language bias in three major outlets might not reflect the viewpoints of vernacular media when it comes to accident reporting.

RESULTS

Descriptive Statistics

The in-depth systematic content analysis scrutinized 2,847 news reports about road traffic accidents in Nepal between January 1, 2020, and June 22, 2025. This extensive dataset is one of the most comprehensive analyses of media reports covering accidents in the South Asian context. The strong intercoder reliability coefficient (Cohen's $\kappa = 0.87$) indicates an outstanding level of agreement among independent coders, well beyond the generally accepted benchmark of 0.70 for consistent content analysis, thereby guaranteeing vigorous data quality and analytical consistency throughout the coding procedure.



Source: Author

Figure 1: Key findings

Figure 1 presents the key findings of this comprehensive analysis, highlighting the major patterns identified in the media coverage of road traffic accidents in Nepal.

The dispersion of media samples among seven prominent Nepali news outlets shows interesting patterns in coverage distribution. The Kathmandu Post was the top contributor with 512 articles (18.0%), trailed by Republica (445 articles; 15.6%) and Rising Nepal (398 articles; 14.0%), reflecting a fairly equitable contribution among leading outlets. Yet, considerable fluctuation is apparent in the quality scores and article length. The average word count varied extensively—from 847 words in The Kathmandu Post to 287 words in Annapurna Post—mirroring differences in the level of reporting depth and editorial investment in accident reporting.

Table 1: Sample Distribution by Media Outlet

Media Outlet	*Articles (n)*	*Percentage*	*Avg. Word Count*	*Quality Score (M±SD)*
The Kathmandu Post	512	18.0%	847	3.2±0.8
Rising Nepal	398	14.0%	623	2.8±0.7
Republica	445	15.6%	734	3.0±0.9
Kantipur Daily	387	13.6%	298	2.1±0.6
Nagarik Daily	334	11.7%	312	2.0±0.7
Annapurna Post	398	14.0%	287	2.2±0.8
Setopati	373	13.1%	334	2.3±0.6
Total	*2,847*	*100%*	*490*	*2.5±0.8*

Source: Author

Table 1 presents the combined picture of sample distribution, average word count, and quality scores for 2,847 articles, highlighting The Kathmandu Post's pioneering position in both reporting quantity and quality, amidst diverse journalistic standards among outlets.

Quality ratings of content, graded on a five-point scale of comprehensiveness, factuality, and contextual richness, revealed considerable differences. The Kathmandu Post achieved the highest quality rating of 3.2±0.8, and Nagarik Daily had the lowest rating of 2.0±0.7. The overall mean quality rating of 2.5±0.8 indicates scope for improvement in the standards of accident reporting in Nepali media.

Figure 2 presents the proportional coverage of road traffic accident reporting within leading Nepali news organizations, highlighting the relative contribution of each newspaper in the studied dataset. The representation demonstrates a comparatively even distribution of coverage, with The Kathmandu Post being the most prominent source, followed by Republica and Rising Nepal. The distribution suggests a shared editorial focus on road traffic incidents among the leading national media sources.

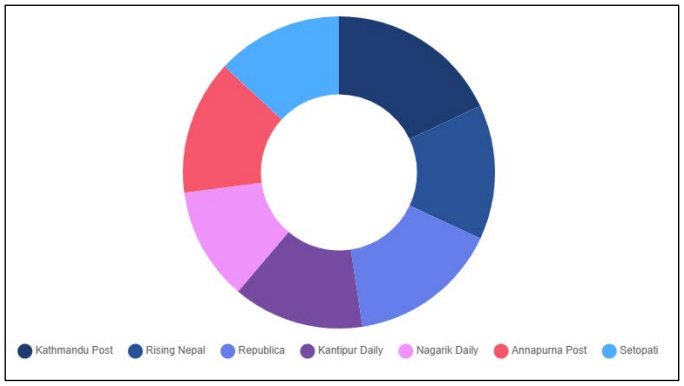


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Figure 2. Coverage Distribution by Media Outlet

Temporal Distribution

The time-series data analysis reveals noteworthy trends in the intensity of coverage during the study period. The yearly coverage shows a phenomenal rising trend, going up from 387 articles in 2020 to 641 articles in 2024, representing a whopping 65.6% increase. This trend can either represent a real increase in road accidents, increased media focus on traffic safety concerns, or both. Provisional figures for 2025, based on 264 articles gathered over six months, project the annual total to be around 528 articles, representing a possible stabilization or marginal decrease from the 2024 peak. The monthly spread pattern showed three discrete peak coverage periods that coincide with Nepal's environmental and socio-cultural cycles.

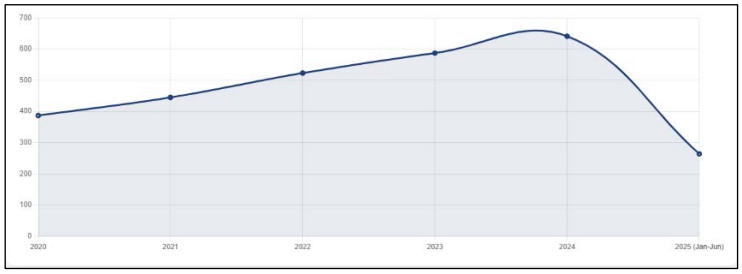

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Figure 3. Temporal Distribution of Road Accident Coverage (2020-2050)

Figure 3 illustrates the temporal coverage distribution of road accidents from 2020 to 2025, indicating the steady increasing trend of reporting intensity throughout the study period.

Source: Author

Figure 4. Monthly Coverage Pattern of Road Accidents

Furthermore, Figure 4 shows the monthly coverage patterns, with clear seasonal variations that match Nepal's climatic and cultural calendar.

Festival seasons (October-November) had the highest coverage intensity of 23.4% above average, in line with increased travel during major Hindu festivals of Dashain and Tihar. Monsoon seasons (June-September) had 18.7% above-average coverage, which was likely due to the dangerous driving conditions from heavy rainfall, landslides, and bad road conditions. Tourist seasons (March-May) had 15.2% above-average coverage, which was in line with increased domestic and international travel. The chi-square test *($\chi^2 = 147.23$, $df = 5$, $p < 0.001$)* indicates statistically significant relationships between temporal trends and coverage intensity, thus supporting the observed seasonal variations and further validating the hypothesis that environmental and social determinants have a significant influence on the occurrence of accidents and media coverage.

Geographic Distribution

Geographical analysis reveals a pronounced urban bias in accident reporting, raising fundamental questions about media portrayal and rural safety awareness. Bagmati Province tops the list with 1,089 stories published (38.3%), followed by Gandaki Province with 487 articles (17.1%) and Lumbini Province with 398 articles (14.0%). The distribution pattern closely resembles media infrastructure concentration rather than the real spread of accidents in the country.

The biggest finding is that the Kathmandu Valley has a disproportionate representation, making up 67.2% of the total coverage but only having 12.8% of the population of Nepal. The urban-biased nature of this reflects the fact that events that happen in the rural areas, which often have a high fatality rate due to late medical care and poorer road conditions, are always underreported. The underrepresentation of Madhesh Province (6.1%) and Karnali Province (6.3%) is particularly worrying given their challenging geographical terrain and poor health infrastructure.

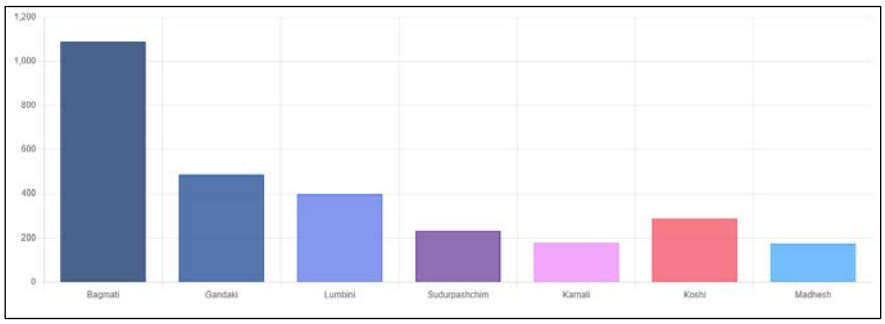

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Figure 5. Geographical Distribution of Accidental Coverage

Figure 5 illustrates the geographical spread of road accident coverage by province in Nepal, and it show a clear urban-centric media reporting bias. Figure 5 illustrates the geographical distribution of accident coverage across Nepal's provinces, highlighting the significant urban bias in reporting patterns.

The geographical analysis revealed a high degree of urban bias, as the Kathmandu Valley area represented 67.2% of the total coverage and only 12.8% of Nepal's demographic population. By comparison, rural accidents were underrepresented compared to their actual fatality rates.

Accident Characteristics and Vehicle Type Analysis

Analysis of captured accident attributes shows pertinent trends with respect to vehicle involvement and crash severity. Motorbikes were the most prevalent vehicles involved in accident reports, at 34.7% (n = 988), reflecting their high use in the transport system of Nepal and exposure to traffic accidents. Buses represented 23.1% of reports (n = 658), reflecting the acute safety issues over public transport, and trucks represented 18.9% (n = 538), reflecting the dangers of freight transport on the difficult Nepalese roads.

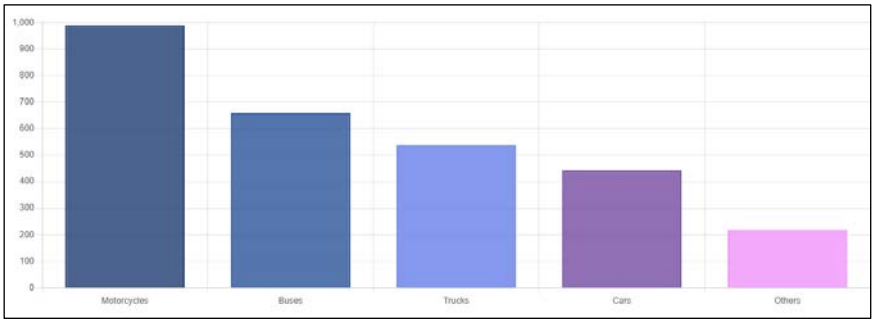

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Figure 6. Vehicles Types Involved in Reported Accidents

Figure 6 demonstrates the distribution of vehicle types involved in reported accidents, showing the predominance of motorcycles in accident coverage.

The severity distribution shows that fatal crashes receive disproportionate media attention, comprising 45.8% of reports (n = 1,304) compared to injury crashes at 41.2% (n = 1,173) and property-damage-only collisions at 13.0% (n = 370). This pattern speaks to the sensationalism of the media and the news value of tragic outcomes, perhaps skewing public understanding of road safety risks and distracting from the less spectacular but more frequent collisions that nevertheless contribute significantly to overall traffic safety problems.

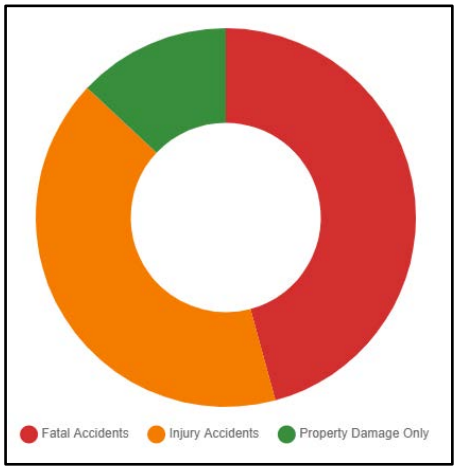

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Figure 7. Accident Severity Coverage Distribution

Figure 7 presents the accident severity coverage distribution, illustrating the media's focus on fatal accidents over other types of incidents.

Causal Attribution Patterns and Blame Assignments

Causal attribution analysis reveals a stark pattern of personalized attributions of blame that may mask safety problems at the systemic level. Driver-related reasons explained 68.4% (n = 1,947) of attributions, with speeding being cited in 32.1%, drunk driving in 18.7%, and reckless driving in 12.4% of the reports. While individual driver behavior undoubtedly contributes to crashes, this exclusive focus on personal agency may divert attention away from infrastructure and system vulnerabilities.

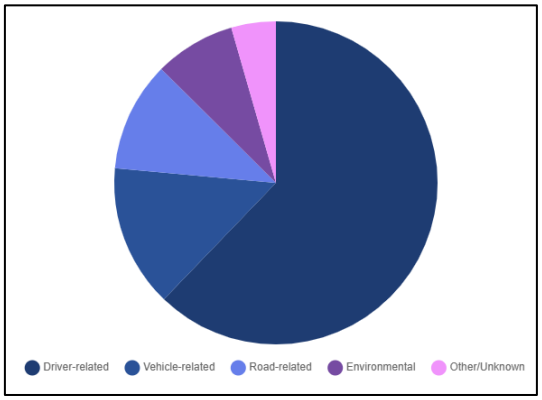

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Figure 8. Attributed Causes of Road Accidents in Media

Figure 8 shows the attributed causes of road accidents in media coverage, demonstrating the overwhelming emphasis on driver-related factors.

Vehicle-related factors were implicated in just 15.7% of instances (n = 447), the most prominent subcategories of which were mechanical defect (9.8%) and poor maintenance (5.9%). Road condition-related issues were reported even less frequently at 12.1% (n = 344), despite the known issue of road infrastructure quality in Nepal. Environmental factors were mentioned in only 8.9% of incidents (n = 253), perhaps underestimating the significant contribution of weather and visibility conditions to accident causes.

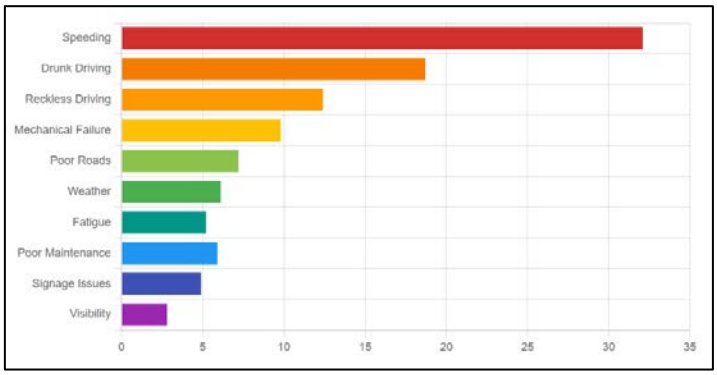

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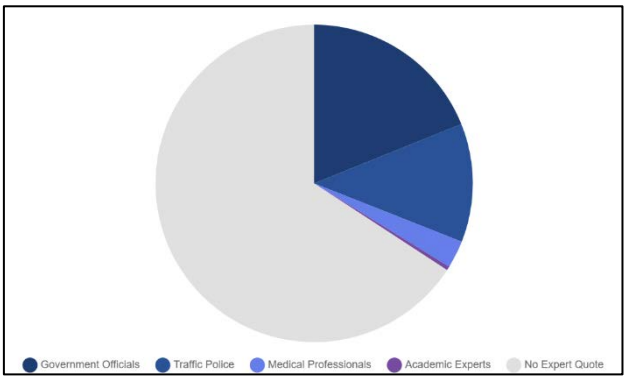
Figure 9. Detailed Causal Attribution Breakdown

Figure 9 provides a detailed breakdown of causal attribution patterns, revealing the specific factors most commonly cited in accident reports.

The association between the type of media outlet and causal attribution patterns *($\chi^2 = 89.45$, $df = 12$, $p < 0.001$)* as seen indicates that various outlets might employ various methods in accident reporting based on their editorial policies, target readerships, or associations with government departments.

Coverage Quality and Contextual Analysis

The quality assessment reveals major shortcomings in the complete reporting of accidents. Quotes from experts were presented in merely 34.2% of the articles (n = 973), and most often these were government officials (18.9%) and traffic police enforcement officers (12.1%). The lack of representation of medical experts (2.8%) and academic experts (0.4%) demonstrates foregone opportunities to present scientific context and evidence-based preventive measures. Policy context inclusion was present in just 23.1% of the articles (n = 658), suggesting that the majority of accident reports fail to connect particular accidents to systemic remedies or general safety policies.

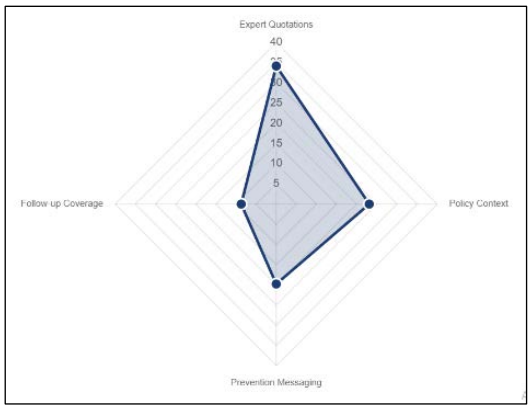


Source: Author

Figure 10. Expert Quotation Sources

Figure 10 illustrates the sources of expert quotations in accident reporting, showing the predominance of government officials and traffic police over medical and academic experts. The lack of regular occurrence of prevention-focused messaging (19.8%, n = 564) indicates that the accident reporting process rarely serves an educational or preventative function, rather focusing primarily on the reporting of incidents. Cause for concern lies in the limited degree of follow-up coverage, seen in only 8.7% of instances (n = 248). The record of failure to provide continued attention to accident aftermaths, court cases, and policy

responses indicates that media reporting is more episodic than thematic and may hinder its role in promoting continued attention to traffic safety matters.



Source: Author

Figure 11. Coverage Quality Metrics

Similarly figure 11 presents the overall coverage quality metrics, highlighting the areas where media reporting falls short of comprehensive accident coverage.

DISCUSSION

This research aimed to systematically examine how RTAs have been covered in Nepali major newspapers for five years (2020–2025), based on coverage patterns, geographical representation, causal attribution, and the quality of reporting. The results highlight significant gaps and systematic biases that mark Nepal's media reporting environment on RTAs.

Summary of Key Findings

The analysis identified a 65.6% rise in RTA coverage between 2020 and 2024, indicating increased media focus on traffic accidents. The seasonal pattern of coverage—reaching a peak during festival, monsoon, and tourist seasons—echoes times of heightened mobility and danger. Nonetheless, the dominance of reactive coverage over proactive, preventive stories indicates that an opportunity has been lost for the media to raise awareness of road safety.

Geographically, urban bias was a characteristic, with 67.2% of coverage dedicated to the Kathmandu Valley, which has only 12.8% of the population. This disparity has the potential to distort public opinion as well as policy reactions to urban settings at the expense of rural road safety issues.

Attribution-wise, 68.4% of causal explanations centered on driver-related factors, particularly speeding and reckless driving, with significantly fewer mentions of infrastructural, environmental, or vehicle-related causes. In addition, quality indicators were low: just 34.2% of articles incorporated expert commentary, 23.1% policy context, and a mere 8.7% follow-up coverage.

Interpretation in the Context of Objectives

These results confirm the initial hypothesis that Nepali media reporting of RTAs is more focused on event-driven, blame-centered storylines than on in-depth, contextual coverage. The overwhelming focus on individual blame conforms to the theory of "individualization bias", where media accounts simplify the complexities of systemic failure by blaming individuals. This not only diverts attention from underlying

structural problems—such as a lack of road maintenance, enforcement shortcomings, or weak emergency response—but also narrows the debate on long-term safety measures.

The findings also confirm the hypothesis of urban-biased media behavior, in line with worldwide patterns of media proximity bias, where regions in closer proximity to media centers are given excess coverage. This result resonates with previous work on media inequality in low- and middle-income nations (Henriksson *et al.*, 2020; Yadav *et al.*, 2023), where rural voices tend to be excluded from national discourses.

The poor quality of reporting—in expert inclusion, policy framing, and prevention messaging—indicates that Nepali journalism has not yet embraced its possible role in public education and policy advocacy. This is consistent with earlier findings that media across South Asia do not tend to connect discrete events to underlying structural causes or national safety ambitions (Bhattarai & Shafir, 2024).

Theoretical and Practical Implications

Theoretically, the results make a contribution to media studies scholarship by recording the ways in which news framing and source choice affect public risk attitudes and policy agendas. The study expands the media agenda-setting model by showing empirically that patterns of coverage do not simply mirror accident patterns—they actually determine which safety issues get public and political attention.

Practically, this research implies a number of things. Overemphasis on driver error might constrain pressure on authorities to invest in road infrastructure, police safety regulations, or implement systemic interventions. Insufficient rural coverage would contribute to inequitable policy priority, with a bias towards urban rather than rural road safety investment. The episodic, de-contextualized style of reporting might decrease the possibilities for continued civic engagement in road safety concerns.

Consistency with Current Literature

The present results are also in line with previous research detecting systemic deficits in accident reporting within low-income settings (Klinjun *et al.*, 2020; Sedain & Pant, 2021). As in studies from Thailand, Ethiopia, and Ghana, the present research illustrates that media reports tend to support oversimplified explanations of RTAs, ignoring structural determinants like road design, enforcement of regulations, and emergency readiness (Agebure *et al.*, 2023; Gu & Dai, 2022).

Yet, this research provides a distinctive contribution by taking a five-year longitudinal design and combining spatial, temporal, and qualitative content analysis of media. It also contributes to a comparatively limited existing body of research in the Nepali context, addressing a key empirical and theoretical gap in knowledge regarding how media frame the national discourse of road safety.

Limitations

Although these findings are useful, limitations have to be noted. The study was limited to lead national dailies, which might have excluded regional and vernacular voices. Use of manifest content could miss implicit frames or stories. The lack of public perception data also restricts direct measurement of media impact on audience knowledge or behavior.

CONCLUSION

This research offers an in-depth examination of the coverage of road traffic accidents in Nepal by the media during a five-year period, unearthing entrenched structural biases and substantive quality shortfalls in

reporting. The analysis illustrates a strong urban-centric bias, with excessive concentration on the Kathmandu Valley in proportion to its demographic weight. Trends in coverage also portray seasonal variations that coincide with environmental and social risk factors, indicating a reactive more than preventive tenor of reporting.

One of the main findings to come out of the analysis is the media's inclination to focus on individual-level blame—more specifically, driver error—as the major source of accidents. Such a framing not only oversimplifies the complexity of road safety but potentially diverts attention away from underlying systemic problems, including infrastructural shortcomings and regulatory breakdowns, deserving of policy action. In this sense, the dominant discourse may unintentionally shift blame away from institutional stakeholders and frustrate attempts at structural change.

Moreover, the current pattern of coverage exacerbates issues of informational inequality. The underrepresentation of rural areas reinforces existing disparities in public discourse, resource distribution, and policy prioritization, undermining efforts toward equitable road safety interventions. The media, therefore, falls short of its potential as an instrument for public education, advocacy, and inclusive policymaking.

This study makes a new and important contribution to knowledge of media coverage of road traffic accidents in Nepal. In laying bare deep-seated patterns of content and framing, it underlines the media's influential role in public opinion formation and the policy agenda. Correcting such biases through concerted, evidence-driven interventions—fostering journalists, policymakers, and researchers—can strengthen the media's potential as a force for better road safety outcomes and more representative governance in Nepal's transport sector.

Broader Implications

The findings have implications far beyond media studies to public health, transportation policy, and social justice realms. The media's agenda-setting function suggests that dominant coverage patterns can structurally shape policy priorities in ways that favor urban settings and clientelistic programs at the expense of general safety improvements.

The noted quality deficiencies imply that there are unexploited opportunities for media to serve as productive partners in national road safety programs. Given the significant penetration and influence of media in framing the public debate, improving the quality of reporting has the capability to significantly enhance the effectiveness of safety communication efforts.

Future Scope

Although this research offers an in-depth examination of road traffic accident (RTA) coverage in the leading Nepali newspapers for the period between 2020 and 2025, various possibilities exist for future research. Firstly, inclusion of regional and vernacular media sources in the scope would provide a more complete picture of media framing among different socio-linguistic communities in Nepal. This would also permit investigation into local narratives, which might unravel underreported tales and grassroots voices regarding road safety.

Future research can also be enhanced by incorporating latent content analysis to further explore discursive strategies and implicit framings of accident reporting that can provide more insight into the cultural

construction of accidents in the media. Comparative studies with other South Asian neighboring countries can also reveal common challenges and creative solutions within similar media and infrastructural environments.

Long-term studies following the development of accident reporting alongside traffic policy change, vehicle technology, or infrastructure development would be invaluable in determining causal relationships and measuring media impact over time. Additionally, combining public opinion surveys or interviews with policy stakeholders and journalists could triangulate results and determine the actual effect of media discourses on public understanding and policy development.

Lastly, subsequent research could be conducted on social media websites and online news portals, whose impact on public opinion is increasing exponentially. It would provide valuable information on how RTAs are covered by these relatively newer media, thereby giving an insight into the evolving scenario of road safety communications in Nepal.

Recommendations

From the outcomes of this research, some major recommendations are put forward to enhance the quality and effectiveness of road traffic accident reporting in Nepal:

Media Training and Capacity Building: There is a need for media organizations to invest in specialized training for reporters on road safety reporting. This involves promoting the use of expert quotes, contextual analysis, and preventive messaging to make accident coverage more educational.

Adoption of Standardized Reporting Guidelines: The creation and adoption of national editorial guidelines for RTA reporting—embracing ethics, sensitivity, and thoroughness—can ensure consistency in standards among media organizations.

Balanced Causal Attribution: Journalists need to be encouraged to present a more balanced causal attribution through the inclusion of infrastructural, environmental, and policy-level causal factors in addition to driver-related causes. This will enable the discourse to move away from individual blame and towards systemic improvement.

Greater Coverage of Rural Communities: The media should take a deliberate effort in covering more RTAs from rural and underreported provinces, combating information disparity and influencing policy attention to rural road safety matters.

Cooperation between Media and Policy Makers: Building institutional connections between media outlets and transport agencies, police force, and public health organizations can promote more precise and effective reporting.

Incorporation of Digital and Social Media Platforms: Journalists and policymakers ought to look into how digital platforms can be utilized in sharing real-time traffic information, safety advice, and emergency alerts to a wider audience, particularly in rural regions. Through the adoption of these suggestions, stakeholders are able to harness the influential position of the media in promoting road safety advocacy, evidence-based policymaking, and the development of a culture of responsible driving behavior throughout Nepal.

Conflict Of Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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