

Awareness of Safety Mechanisms for Women through Public Transport – A Study of Women Commuters in Hyderabad, India

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ABSTRACT

Women safety in metro cities has been an area of research interest across the globe. While extensive studies have been carried out in this area, women safety with respect to public transport systems has also gained significant interest among researchers. On the other hand, transport authorities of various metro cities across the world have also been paying attention, and developed infrastructure and safety mechanisms to ensure the safety of women commuters. However, if and to what extent the commuters are aware of such safety mechanisms, and how often they utilize them is a question. The purpose of this study is to gain insights on the awareness of safety mechanisms existing for women commuters of public transport buses in the city of Hyderabad in India.

This is an exploratory study that employed mixed approach. Primary data is collected through both quantitative and qualitative means utilizing survey, interviews and observation techniques. The researchers administered survey on 480 women commuters, interviewed 20 respondents, interviews transport and police authorities and carried out field observations. The findings reveal that while there are enough safety mechanisms and procedures in place, both awareness and utilization of such safety mechanisms is very less among women commuters. Another significant finding is that most of the incidents are underreported. The study holds significance to the administrators in making strategies to create better awareness of safety mechanisms and reporting procedures for women commuters.

Keywords: Urban women safety, public transport, metro cities, bus transport, India

INTRODUCTION

Many women across India rely on public transport buses and Hyderabad is no exception, where lakhs of women commute by buses run by Road Transport Corporation (RTC) on a daily basis. While the free fare policy implemented through 'Mahalakshmi Scheme' significantly improved accessibility, it also unveiled persistent safety concerns that continue to limit women's full participation in public life.

Problem Statement

RTC buses are essential for women traveling to schools, workplaces, markets, and healthcare centres. However, increased female ridership has also magnified issues such as overcrowding, inadequate infrastructure, inconsistent staff support, and poor awareness of safety measures.

Therefore, it is necessary to understand how safe women feel in public transport buses, identify gaps if any and present actionable, data-driven recommendations that promote a safe, inclusive, and empowering transit experience for all women in Hyderabad.

To address this problem, the researchers have carried out the current study to achieve the following objectives:

1. To gain insights on safety perceptions of women commuting by RTC buses in Hyderabad, India.
2. To assess the awareness level of awareness of existing system and mechanisms for women safety among women RTC commuters in Hyderabad.
3. To present actionable, data-driven recommendations that promote a safe, inclusive, and empowering transit experience for all women in Hyderabad.

LITERATURE REVIEW

2.1. Global Perspectives on Women's Safety in Public Transport: Women's safety in public transportation is a pressing global concern, with studies highlighting pervasive issues across various regions. A comprehensive study by Imperial College London, analysing data from 28 cities, found that women are 10% more likely than men to feel unsafe on public transport, underscoring a significant gender disparity in perceived safety (Brogan, 2020). In Mexico City, a staggering 64% of women reported experiencing physical harassment on public transport, prompting initiatives like the #NoEsDeHombres campaign aimed at raising awareness and combating such behaviour (The Guardian, 2019). Similarly, in Nairobi, Kenya, women face daily threats of harassment in public transit, leading to calls for improved safety measures and support systems (UN Women Africa, 2021). Australia has considered implementing women-only train cars in response to reports that 64% of women in New South Wales feel unsafe on public transport after dark, reflecting a broader trend of gender-segregated solutions to enhance safety (Condé Nast Traveller, 2016). Furthermore, the World Bank emphasizes the need for holistic interventions, including community involvement, use of ICT for reporting harassment, and staff training, to prevent violence against women in transport systems (World Bank, 2016). These studies collectively highlight the global nature of the issue and the diverse strategies employed to address women's safety in public transportation.

2.2. Hyderabad Perspectives on Women's Safety in Public Transport: In Hyderabad, women's safety in public transport has garnered significant attention, leading to various initiatives and studies. The Telangana government's Mahalakshmi Scheme, offering free TSRTC bus travel for women, has improved accessibility but also led to challenges like overcrowding and continued harassment, indicating that financial incentives alone are insufficient for ensuring safety (Kumar & Sekhar, 2024). To address safety concerns, the Hyderabad Police have deployed 'SHE' teams in metro stations and trains, aiming to prevent harassment and provide heightened security for women commuters (The Hindu, 2024). Additionally, the Telangana State Women's Commission has been proactive in safeguarding women's rights, handling gender-based issues, and recommending measures to the state government. Despite these efforts, studies indicate that women in Hyderabad continue to face challenges such as inadequate infrastructure at bus stops, lack of proper lighting, and insufficient enforcement of reserved seating, all contributing to a sense of insecurity during commutes. These findings underscore the need for a multifaceted approach that combines policy interventions, infrastructure improvements, and community engagement to enhance women's safety in public transport within Hyderabad.

In order to understand better the safety perception of women commuters in Hyderabad, initiatives by the authorities like TSRTC and Telangana Police and identify any perceptual gaps, our team has carried out structured research, the findings of which along with strategic recommendations are presented in this paper.

METHODOLOGY

A mixed method approach was employed including both quantitative and qualitative techniques for primary data collection. Secondary data was collected from various research papers, official websites and newspapers. Primary data was collected in the following manner.

Surveys: Quantitative data from over 480 women commuters across major RTC routes in **Hyderabad**.

Interviews: Over 20 structured interviews with female passengers, conductors, and transport staff.

Expert Opinions: Interviews with authorities of TSRTC and Telangana Police Women Safety wing.

DATA ANALYSIS AND INTERPRETATION

4.1. Commuter Demographics:

The age distribution of RTC bus users reveals that the majority of respondents fall within the 18–25 age group, accounting for 36% of the sample. This indicates that young adults, likely college students or early-career professionals, form the primary commuter base. Additionally, 21% of respondents are under 18, suggesting that a substantial number of school-age or adolescent girls also depend on RTC services. The age groups 26–35 and 36–45 each represent 15% of the surveyed population, pointing to a notable segment of working professionals and homemakers.

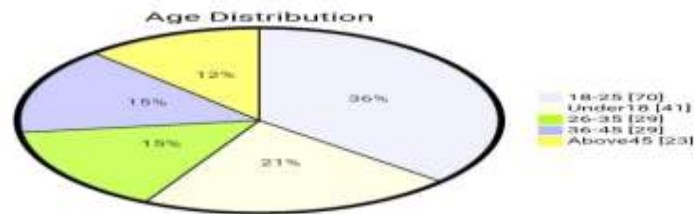


Fig 1: Commuter Age Distribution

4.2. Occupation of Respondents

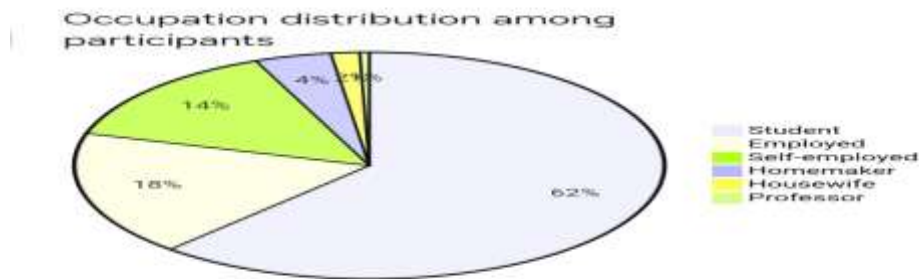


Fig 2: Occupation of Commuters

The occupational breakdown reveals that 62% of women using RTC buses are students, while 18% are employed. This suggests that the majority of RTC's female user base are young, mobile, and pursuing education or early careers. Ensuring their daily travel is safe, affordable, and reliable becomes a priority for sustaining their mobility and confidence in public systems.

4.3. RTC Bus Travel Frequency

The survey shows that 26% of women travel by RTC buses daily, while 22% use the service rarely, with others falling between occasional and weekly usage. This variation suggests that public transport plays a significant role in both routine and flexible travel needs for women. The daily commuters are likely students or professionals, while occasional users may rely on RTC only when absolutely necessary.

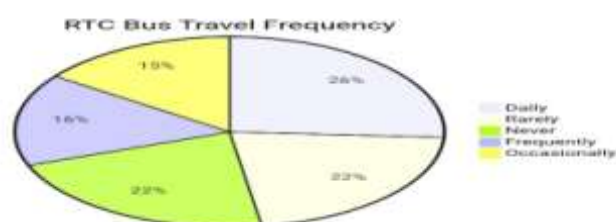


Fig 3: Travel Frequency

4.4. Experience of Inappropriate Behaviour

Alarming, 69% of the respondents reported having experienced or witnessed inappropriate behaviour while using RTC buses. This substantial majority points to a systemic issue of harassment in public transport spaces, especially for women. The result reinforces the need for enhanced surveillance, better staff accountability, and strong reporting mechanisms to ensure safer transit environments and rebuild commuter trust.



Fig 4: Rate of Harassment

4.5. Primary Concerns While Travelling:

Overcrowding was cited as the leading concern among female RTC commuters both by survey and interview respondents, followed closely by unhygienic conditions and unsafe waiting areas. This indicates that women not only fear harassment but also deal with infrastructural and environmental discomforts. The concerns suggest that improving the physical condition of buses and stations, particularly during rush hours, could directly contribute to women's sense of safety and dignity.

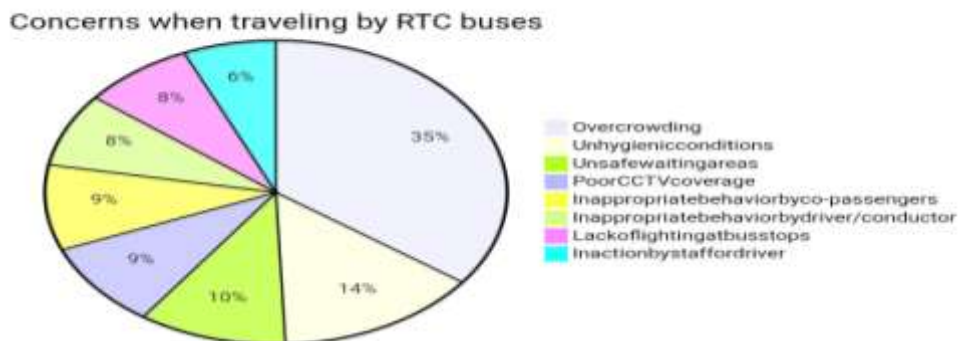


Fig 5: Commuter Concerns

2.3. Awareness of Safety Helplines

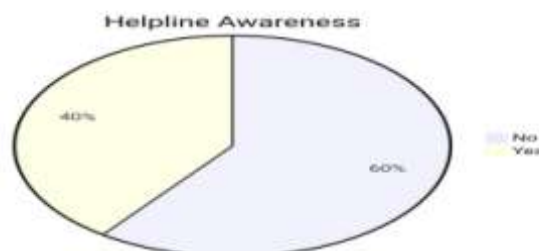


Fig 11: Awareness of Helplines

Around 60% of the women reported not being aware of the safety helpline numbers or mobile apps meant to assist them during travel. This points to a communication breakdown between RTC authorities and commuters. While these resources may exist, their visibility and promotion are clearly insufficient, calling for better outreach and education efforts.

2.4. Preferred Methods of Spreading Awareness

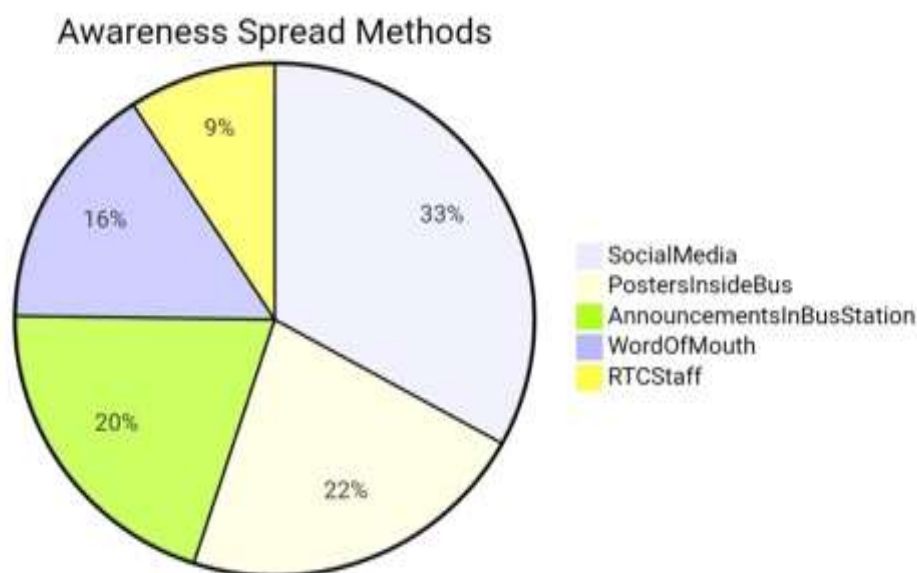


Fig 12: Suggestions for spreading awareness

When asked how they learned about women’s safety services like SHE Teams or helplines, most respondents pointed to social media, followed by word-of-mouth. This shows the growing influence of digital platforms in public awareness campaigns. For greater effectiveness, RTC and allied bodies should invest in targeted digital outreach and onboard awareness materials to ensure that critical information reaches all women commuters.

2.5. Awareness of SHE Teams in Telangana

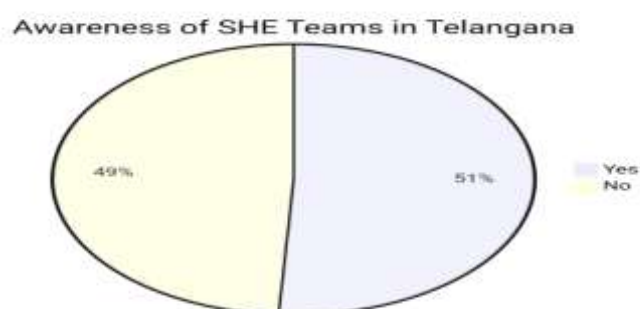


Fig 13: Awareness of SHE Teams

A nearly even split was observed regarding awareness of SHE Teams — with 51% answering “Yes” and 49% “No.” This shows that while government-led safety programs have gained traction, further outreach is needed to ensure every female commuter knows where and how to access these resources.

2.6. Awareness Channels

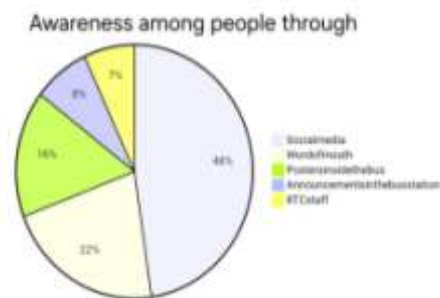


Fig 14: Source of Awareness

Social media emerged as the strongest medium for spreading awareness, with 48% of respondents citing it as their primary source. Word of mouth (22%) and posters inside buses (16%) were also noted, but lower awareness through staff or station announcements signals a need for more active communication at the grassroots level.

2.7. Awareness of Women's Safety Needs Among Drivers and Conductors

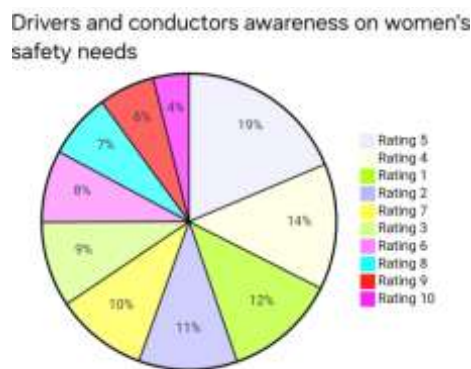


Fig 15: Awareness of Staff with Respect to Women's Safety

The responses regarding drivers' and conductors' awareness of women's safety needs are widely distributed, with the highest rating (19%) at a mid-level score of 5. This dispersion suggests a lack of consistent training or sensitivity among RTC staff. While some commuters rated their awareness relatively well, a notable portion gave low scores, indicating there's still significant room for improvement. These results call for standardized gender-sensitization training to enhance frontline staff's responsiveness and behaviour toward women passengers.

2.8. Willingness to Help Women in Distress

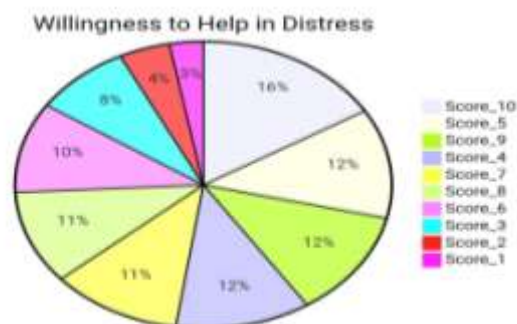


Fig 16: Willingness to Help

Willingness to assist a woman in distress showed a fairly distributed sentiment. The highest share (16%) rated themselves at full willingness (score 10), but scores were evenly spread across the mid-range, indicating that while many are ready to help, confidence or fear may limit real-time intervention. Awareness training and community encouragement could enhance responsiveness.

2.9.

2.10. Awareness of "Flag a Bus" Feature

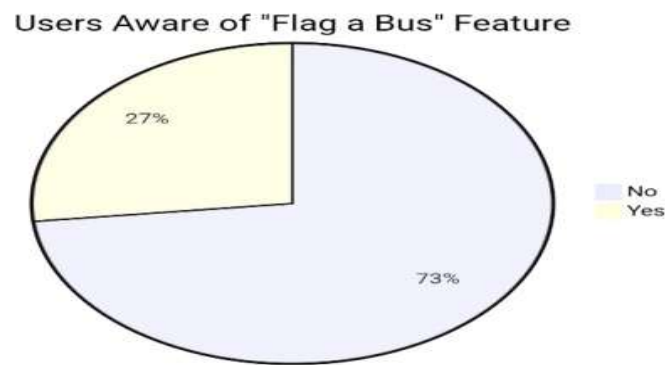


Fig 17: Awareness of 'Flag a Bus'

A significant 73% of respondents were unaware of the "Flag a Bus" feature. This lack of awareness undermines a potentially useful tool meant to improve accessibility. Stronger education and signage are necessary to make this feature impactful.

2.11. Perception of Respectful Behaviour Toward Women

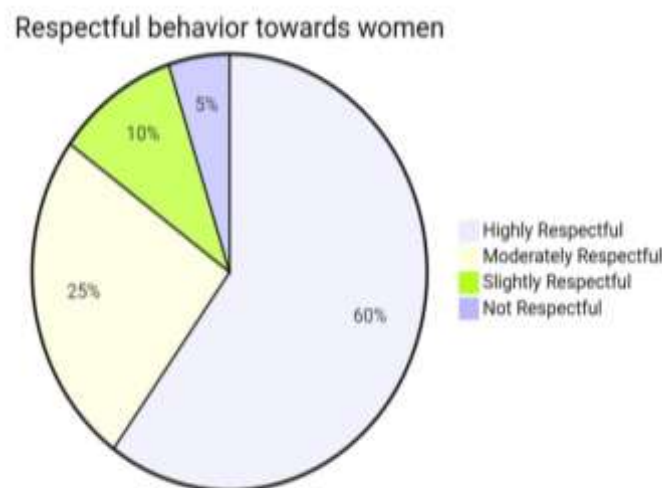


Fig 18: Perception of Respectful Behaviour

Most participants (60%) considered the behavior toward women in RTC buses as "Highly Respectful," with an additional 25% rating it "Moderately Respectful." This positive perception indicates that public transport spaces are generally civil, but a small segment still finds the environment slightly or completely disrespectful, hinting at isolated but important incidents that should not be overlooked.

2.12. App Usage by Volunteers

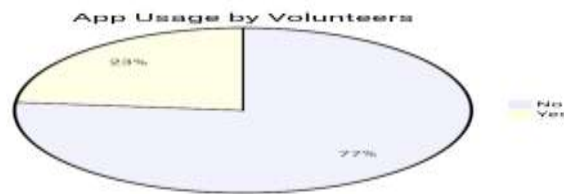


Fig 19: App Usage Level

A striking 77% of respondents said they have not used the safety app as volunteers, highlighting low engagement with tech-driven safety solutions. This signals a need for training sessions, app demonstrations, and motivation initiatives to improve community participation in such programs.

2.13. Areas Most Travelled by RTC Users

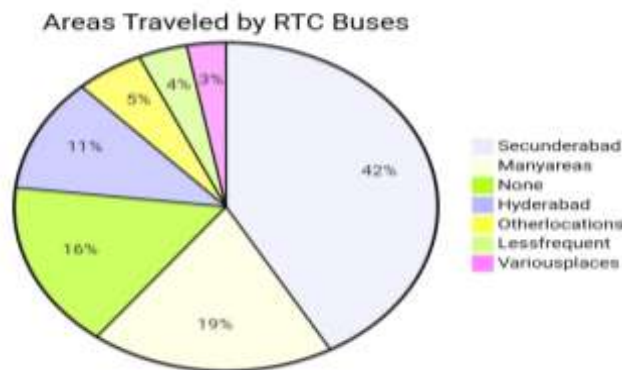


Fig 20: Most Frequented Routes

The majority of respondents (42%) reported traveling through Secunderabad, followed by Hyderabad (11%) and various locations. This suggests that RTC services are most utilized in urban cores and nearby regions, pointing to where safety interventions and service improvements could be prioritized first. Most interviewees responded Chintal-Punjagutta, Padmarao Nagar-Secunderabad, Alwal – JBS-Patny-Prakashnagar-Punjagutta as the regularly travelled routes. The peak travel times are between 7:30 am and 8:30 pm.

2.14. Safety on Specific RTC Bus Routes

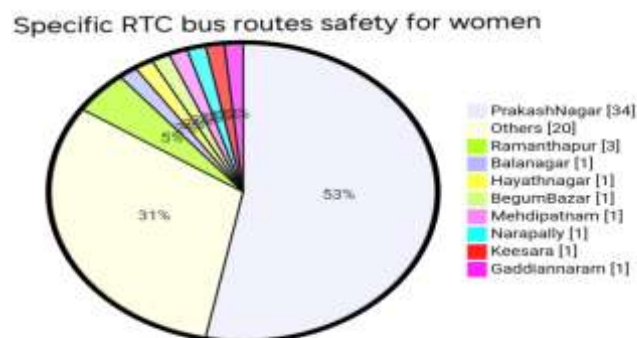


Fig 21: Route-Wise Safety Perception

When asked about safety on specific RTC routes, 53% of respondents identified Prakash Nagar as the safest, followed by a general mention of “others” (31%), while the remaining 16% was scattered across 9 different localities. This data highlights Prakash Nagar as a standout example where existing safety measures may be more effective. The widespread responses also indicate that safety concerns vary across locations, necessitating localized safety assessments and targeted interventions on less-secure routes.

FINDINGS AND DISCUSSION

Few Women commuters on RTC buses in Hyderabad report incidents of harassment, including inappropriate touching and verbal abuse. These incidents are particularly prevalent during peak hours and on isolated routes. Unfortunately, reporting remains minimal due to fear, public apathy, or a lack of accessible channels. Many women choose silence over confrontation or formal complaints, often because they do not trust the process or do not know how to report such experiences effectively.

RTC Buses cover approximately 4 lakh kilometres per day in Hyderabad with around 14 lakh passengers being transported every day. The large number of commuters leads to a significant overcrowding concern. The authorities are aware of this issue and agree increased number of buses are needed. However, limited resources are a constraint. Moreover, there is no accurate data on specific accurate data such as specific peak hours and stations with this concern. During peak hours, many women are forced to stand for long durations, increasing discomfort and the risk of harassment. On inner-city or low-frequency routes, limited bus availability leads to longer wait times and further crowds. These conditions degrade the overall commuting experience, especially for women traveling alone.

Awareness of available safety tools is notably low. Fewer than 20% of surveyed women knew how to access or use RTC’s helpline services. Helpline posters were often missing or faded on buses, and only a small percentage of women had ever attempted to report an incident digitally or in person. This points to a serious gap in both communication and system design.

TSRTC employs approximately 48,000 people, with 30,000 to 35,000 being running staff. Hyderabad alone has about 8,000 RTC employees. Running staff receives training once a year or every six months. They receive behavioural training to ensure professional conduct. A training college, located at a specific site, runs the POWER program to improve staff behaviour and service quality. The complaints received regarding staff misconduct are minimal by authorities. However, the commuter survey gives a mixed feedback on staff behaviour.

While some conductors were praised for being supportive and intervening during incidents, others remained indifferent or passive. This inconsistency largely stems from a lack of gender-sensitization training and unclear accountability structures. Furthermore, the enforcement of women’s reserved seating policies varies greatly from one route to another.

Several systemic challenges remain unresolved. Underreporting of incidents continues due to unclear or inconvenient reporting channels. Infrastructural upgrades, particularly at high-risk stops, face delays or lack of prioritization. The absence of real-time monitoring or integrated emergency response systems weakens rapid intervention efforts. Compounding this is the limited presence of women in operational roles such as conductors or marshals, reducing visible support for female commuters.

While there are many initiatives taken by TSRTC and Telangana Police, awareness programs are not actively conducted, leading to reduced public engagement and safety education. Most of the commuters are not aware of that SHE Teams are available and respond promptly to incidents. Most incidents occur at bus stations, highlighting the need for enhanced safety measures in these areas. But there is a clear gap between the safety initiatives and helplines and awareness of them among the commuters.

RECOMMENDATIONS

Technology integration can offer transformative solutions. A dedicated mobile application should be developed for logging women’s safety complaints, sharing location data, and accessing immediate support. QR codes can be placed inside buses to connect passengers with emergency helplines in a single scan. In the long term, an AI-based alert system using surveillance footage could help identify and respond to real-time incidents.

Training and inclusion of RTC staff must be prioritized. Gender-sensitization workshops should be held regularly for drivers and conductors to foster empathy and proactive behaviour. The recruitment of more female staff into visible operational and safety roles would not only improve gender representation but also increase comfort levels among women passengers. Conductors who actively intervene in harassment cases could be incentivized through recognition programs or financial rewards.

Policy enforcement and governance need strengthening. Grievance redressal cells should be empowered and made easily accessible to all commuters. Incidents must be handled with transparency and swiftness to build trust in the system. Collaborative initiatives with local police could enhance patrolling near known high-risk terminals. Moreover, adjusting bus frequencies based on real-time demand patterns could help reduce overcrowding and waiting times.

Finally, community engagement is essential to fostering a culture of safety. City-wide awareness campaigns should promote respectful commuting, encourage bystander support, and simplify the process of reporting incidents. Partnerships with NGOs and educational institutions can facilitate periodic safety audits and bring diverse perspectives to the table. Citizen feedback forums should also be institutionalized to ensure that the voices of women commuters continue to guide RTC's policy and operational reforms.

CONCLUSION

RTC Hyderabad is in a transformative phase where accessibility must be matched by safety. A safe commute not only empowers women economically and socially but also builds trust in public institutions. This paper recommends all stakeholders—transport officials, city planners, police, and civil society—to adopt a holistic approach in making RTC buses truly secure and inclusive for every woman. To address these challenges, the report recommends integrating safety tech (mobile apps, QR-based helplines, AI alert systems), expanding gender-sensitive staff training, and launching community-driven awareness campaigns. Strengthening policy enforcement, enhancing women's representation in RTC roles, and involving stakeholders—NGOs, police, and local bodies—are essential to creating a safer, more inclusive transit system. Ultimately, ensuring a secure public transportation environment is not only a matter of mobility but also of dignity, empowerment, and equity for the women of Hyderabad.

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