



Unveiling the Patterns: Women's Awareness of Safety Apps and Their Perceptions of Risk

Ms. Zakiya Khan^{1*}, Dr. Harsha H², Mrs. Suchandana Dutta³, Mr. Sabir Butt³, Mr. Samar Mistry⁵

^{1*}Assistant Professor, Dept of Economics, Thakur College of Science and Commerce, Mumbai, (kzakiya17@gmail.com 8898108161)

²Assistant Professor, Dept of Economics, Thakur College of Science and Commerce, Mumbai, (harsha16.parmar@gmail.com 9768078905)

³Assistant Professor, Dept. of Statistics, Thakur College of Science and Commerce, Mumbai, (suchandanad4@gmail.com 9987451367)

⁴Student, TYBCOM, Thakur college of science and commerce, Mumbai. (buttsabir518@gmail.com 9892303741)

⁵student, TYBCOM, thakur college of science and commerce, Mumbai. (mistry.samar@gmail.com 9619405490)

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ABSTRACT

This study investigates the hypothesis that women are aware of safety applications and evaluates the relationship between awareness and demographic factors using the chi-square test. With increasing concerns about women's safety, safety apps have emerged as vital tools, yet their adoption depends on awareness levels. Inputs were taken from Women only. Primary data of 128 was collected through surveys targeting diverse demographic groups. The findings reveal significant patterns in awareness linked to factor of age. This research highlights how often do women feel unsafe, the areas where they feel most at risk, the need for targeted awareness campaigns to bridge gaps and empower women with accessible safety tools.

Keywords: women, safety, awareness, applications

INTRODUCTION

Women's safety remains a critical social concern, prompting the development of technological solutions such as safety apps. These apps offer features like real-time location tracking, emergency SOS alerts, and direct connectivity to law enforcement or trusted contacts. However, the effectiveness of these apps is contingent upon their adoption, which fundamentally relies on awareness.

This study aims to test the hypothesis that women are aware of safety apps and explores the relationship between awareness and demographic variable of age, using the chi-square test. Primary data was gathered through structured surveys administered to a diverse sample population. The research provides valuable insights into patterns of awareness and highlights the implications for policy design and advocacy efforts to enhance the reach and utility of safety apps.

REVIEW OF LITERATURE

• **ABHAYA: An Android App for Women Safety** was developed to prevent incidents similar to the Delhi Abhaya case. This app employs 2G/3G connectivity for real-time tracking, sending location updates to registered contacts every five minutes until the "stop" button is pressed. Additionally, it initiates calls to the first contact and ensures continuous updates, enabling efficient tracking and response during emergencies.

• The **S-ZONE: A System for Women Safety & Security System** emphasizes proactive safety measures by leveraging GPS tracking. It allows emergency services to monitor the user's location and respond swiftly to crimes such as robbery, sexual assault, and domestic violence. The app highlights the importance of identifying and escaping unsafe situations with timely interventions.

• The **SHIELD: Application for Personal Security** offers real-time location tracking, updating the user's location on a designated website every 0.5 seconds. By sending instant messages to registered contacts, the app facilitates live tracking and immediate assistance. Its dependence on reliable internet connectivity underscores the need for stable network access in emergencies.

• The **Women Safety Android App** simplifies emergency responses by enabling victims to trigger alerts by pressing the power button twice. This feature works even without GPS or internet connectivity, sending

continuous location updates and highlighting the victim's position to nearby police officers through a dedicated control panel. This system bridges the gap between victims and law enforcement during critical situations.

- The **Women Safety Mobile App** incorporates biometric security with fingerprint authentication. The user scans their fingerprint periodically; failure to do so triggers an alert system that sends SMS notifications with GPS location data to registered contacts. Simultaneously, a buzzer sounds to alert nearby individuals. This hands-free mechanism proves invaluable in scenarios where manual activation of emergency features is not feasible

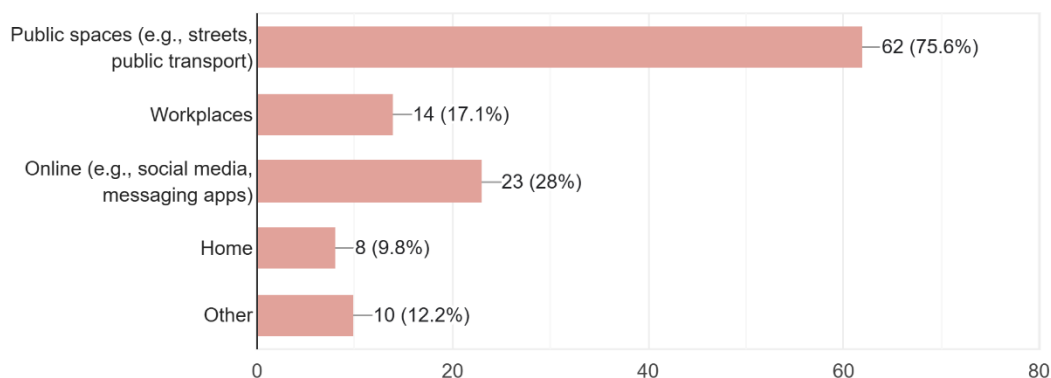
OBJECTIVES OF THE STUDY

- To identify locations and situations where women feel unsafe.
- To analyze how often women experience feelings of unsafety.
- To evaluate women's awareness of safety apps and their usage.

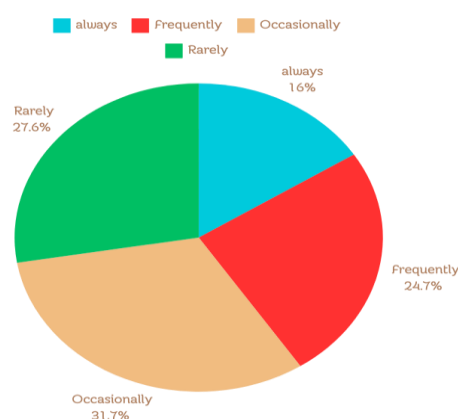
DATA ANALYSIS

In which areas do you feel most unsafe?

82 responses



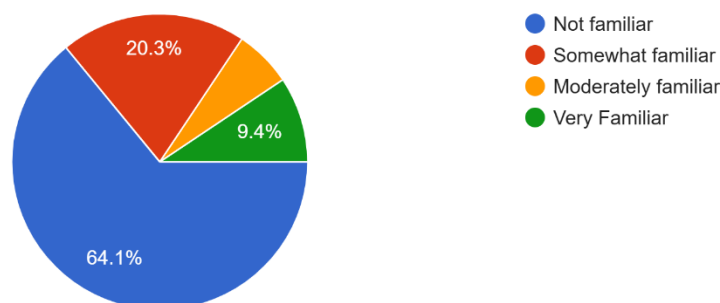
As per the above data, a maximum of 75.6% respondents felt most unsafe at public places. It was followed by 28% of respondents feeling unsafe Online. That includes social media platforms like Facebook, Instagram, Twitter, etc. At workplaces it is 14% and the lowest distribution is at home and other places.



The above pie chart shows that 15.6% of our women respondents ALWAYS feel unsafe in public spaces. 24.2% and 27.3% feel FREQUENTLY and OCCASIONALLY unsafe, respectively. These two options itself add up to 50% of the respondents feeling unsafe in public spaces.

Are you familiar with any mobile safety apps designed for women's protection?

128 responses



A maximum number of 64.1% of respondents are completely unfamiliar about the application whereas 9.4% are familiar about it.

The Chi-square test is used to analyse the association between demographic variable of Age and awareness of safety applications for women.

- **H₀:** Respondents are familiar with safety applications for women.
- **H₁:** Respondents are not familiar with safety applications for women.

Responses	O _i	e _i	(O _i - e _i)	(O _i - e _i) ²	(O _i - e _i) ² / e _i
Not Familiar	32	81	49	2401	29.64
Somewhat Familiar	32	26	6	36	1.38
Moderately Familiar	32	9	23	529	58.77
Very Familiar	32	12	20	400	33.33
Total		Σ e _i = 128		Σ(O _i - e _i) ² = 3366	Σ (O _i - e _i) ² / e _i = 123.12

Level of Significance: 5%

Degree of Freedom = 9 [(r-1) (c-1) = 3x3]

Table Value = 16.919

Calculated value $\chi^2 = \sum (O_i - e_i)^2 / e_i$

$\chi^2 = 123.12$

Calculated Value > Table Value

123.12 > 16.919

Hence, we reject Null Hypothesis and conclude that the Respondents are not familiar with safety applications for women.

CONCLUSION

Findings show that maximum number of women are unaware of safety applications. There is lack of trust in the applications. Despite of large number of respondents feeling unsafe at public places, workplaces, etc. there is still maximum number of people unfamiliar about the people.

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