

# GoSecure: A Women's Safety App

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**Abstract - GoSecure is a smartphone application created to increase the safety of women by integrating emergency contact information with location-based services. The app has a number of features to assist women stay safe when travelling, such as a panic button that instantly sends alerts with the user's location information to pre-selected emergency contacts. The software also has a live location sharing feature that enables users to tell their contacts where they are in real-time. The software also comes with a safety timer function that can be used to notify emergency contacts if the user doesn't check in after a predetermined amount of time. Our review of the app revealed that it is user-friendly and gives users a sense of security. The outcomes indicate.**

**Keywords:** Women's safety, Mobile application, Location-based services, Emergency contact integration, Panic button.

## 1. Introduction

The possibility of violence and harassment against many women on a daily basis makes women's safety an urgent global concern. Mobile technology has become a potent tool for boosting women's safety, despite the fact that there are numerous programs targeted at solving this issue. In this paper, we introduce GoSecure, a smartphone software made to support women's mobility safety. GoSecure offers users a range of safety measures by utilizing the strength of location-based services and emergency contact integration.

In this area, we give background information on the subject of women's safety and talk about the reasons for doing the work that we do. We also give a summary of the publication, along with the research questions and study objectives.

## 2. Ease of Use

The usability of a women's safety app is one of the main determinants of effectiveness. We conducted a user study with a group of women between the ages of 18 and 35 to assess the usability of GoSecure. After receiving a brief introduction to the app, participants were required to use it to complete a series of activities. Setting up emergency contacts, pressing the panic button, and communicating their location with their contacts were some of these chores. The study's findings demonstrated how user-friendly and intuitive the software

was. Participants said they felt more assured about their safety while using the app and had no trouble completing the tasks. Participants said they felt more at ease knowing they could rapidly alert their emergency contacts in case of an emergency thanks to the panic button, which was particularly successful.

Overall, the survey showed that GoSecure is an intuitive tool that women of various ages and technological backgrounds can use with ease. This is crucial for ensuring that the app is widely used and that it works effectively to increase the safety of women.

## 3. Related Works

Some mobile applications have recently addressed the problem of women's safety. The most well-known applications are Circle of 6, bSafe, and Hollaback! These apps include a variety of functions, including as location monitoring, integration of emergency contacts, and crowd-sourced safety advice.

Safetipin, a mobile application that leverages crowd sourcing to give users safety-related information about their surroundings, is one software that is particularly pertinent to GoSecure. A number of features are available through Safetipin, including crowd-sourced safety suggestions, ratings for lighting, and safety scores for certain locations. While some applications offer helpful features to improve women's safety, they frequently have usability problems that make them challenging to use in tense circumstances.

## 4. Methodology

We conducted a user research with a group of women between the ages of 18 and 35 to assess how well GoSecure improved women's safety. Participants received a quick introduction to the program and were chosen from the local institutions and community organizations.

There were two phases of the investigation. To learn more about the participants' perspectives on safety and their present use of safety-related mobile applications, a pre-test survey was administered to them during the first phase. In the second phase, after using GoSecure for a week, users were invited to participate in a post-test survey to provide feedback on their experience with the app and its success in boosting their safety.

The post-test survey asked questions about the app's usability, how well it increased safety, and how satisfied the user was overall with the app. Also, we gathered information on the app's usage trends, including the frequency with which the panic button and live location sharing were utilized.

The study's data was examined utilizing both qualitative and quantitative techniques. Quantitative data was analyzed using descriptive statistics to summarize the app usage patterns, while qualitative data was studied using thematic analysis to pinpoint important themes and patterns in the data.

The study's findings demonstrated that GoSecure improved women's safety and was well-liked by participants. The participants reported feeling more assured about their safety while using the app, and they found the panic button and live location-sharing capabilities to be very helpful. The survey also identified certain areas that needed to be improved, such as the demand for more customization possibilities and better emergency response system integration.

## 5. Results and Analysis

The findings of our user study demonstrated that GoSecure improved women's safety and was well-liked by participants. We summarize the study's main conclusions in this section and offer an analysis of the data.

### Usage Patterns

Participants utilized the panic button feature a total of 23 times over the one-week trial period. This demonstrates how helpful the feature is in an emergency. Also, participants utilized live location sharing an average of four times each day, showing that they considered it a helpful feature for informing contacts of their presence.

### Usability and Satisfaction

Participants reported feeling more confident about their safety while using the app, with an average score of 4.6 out of 5. They also reported feeling more prepared for emergency situations, with an average score of 4.5 out of 5. These findings suggest that GoSecure was effective in enhancing women's safety and empowering them to take control of their personal safety.

### Effectiveness in Enhancing Safety

Participants reported feeling more confident about their safety while using the app, with an average score of 4.6 out of 5. They also reported feeling more prepared for emergency situations, with an average score of 4.5 out of 5. These findings suggest that GoSecure was effective in enhancing

women's safety and empowering them to take control of their personal safety.

### Limitations and Future Work

Although the study offers insightful information about GoSecure's efficacy, there were several drawbacks that should be taken into account. The study was conducted over a brief period of time, and a lengthier study period might offer additional information about the app's long-term efficacy. A larger study might yield more generalizable results because the study's sample size was rather small.

We intend to overcome these constraints in subsequent work by carrying out a longer-term investigation with a larger sample size. We also intend to look into other customization options and features that might improve the app's ability to increase the safety of women even further.

### Thematic Analysis

The qualitative data gathered from the post-test survey underwent thematic analysis. The study uncovered numerous significant patterns that were connected to the users' GoSecure usage experiences.

The usefulness of the panic button and live location-sharing functionalities was the first theme. Participants claimed that having easy access to these elements made them feel more comfortable and confident in emergency situations. The app's simplicity of use and logical design was the second focus. Participants thought the app was simple to use, had clear instructions on how to utilize the main functions, and was quick to browse.

The third issue concerned the significance of customization options, with some participants arguing that further features like customized safety plans are required.

Overall, the theme analysis corroborated the quantitative results and offered further details about the participants' app-using experiences.

## 6. Discussion

According to the findings of our study, GoSecure is a promising tool for boosting women's protection and giving them the power to take charge of their own personal safety. Participants liked the app and said it was simple to use and useful in emergency scenarios.

The emphasis GoSecure places on offering immediate access to emergency services is one of its main advantages. While the live location sharing feature aids emergency responders in finding the user in case of an emergency, the

panic button feature enables users to swiftly contact for assistance in a crisis. When time is of important, like in cases of physical attack or domestic abuse, these qualities can be especially helpful.

The app's simplicity of use and logical layout are further strengths. Participants in our study gave the app a high usability rating and said they could rapidly access the main features and navigate the app. Women who might be intense or dangerous situations and need quick and easy access to the app should pay particular attention to this. There are some limitations that should be taken into account, despite the fact that the study offers insightful information about GoSecure's efficacy. The study was conducted over a brief period, and a lengthier study period might offer additional information about the app's long-term efficacy. A larger study might yield more generalizable results because the study's sample size was rather small.

The app's dependency on mobile data and GPS technologies is another drawback. Mobile data and GPS signals may be unstable or weak in some places, especially in rural or remote areas, which may limit the app's usefulness there.

Despite these drawbacks, GoSecure can significantly improve women's safety and give them the tools they need to take responsibility for their own safety. When women feel vulnerable or insecure, such as when traveling in strange places or strolling alone at night, the app may be very helpful.

By performing a longer-term study with a larger sample size and investigating further features and customization choices that might further improve the usefulness of the app, we intend to address the app's limitations in future work. To further integrate the app with current emergency response systems, we also intend to collaborate with local authorities and first responders.

Overall, the development of tools and technology targeted at boosting women's safety and giving them the power to take charge of their own safety has advanced thanks to GoSecure. This report is intended to stimulate additional study and advancement in this crucial field.

## 7. Conclusion

In conclusion, GoSecure is an innovative smartphone application designed to address the safety concerns of women when travelling alone. The app's various features, such as the panic button, live location sharing, and safety timer, work together to provide users with a heightened sense of security. Our review of the app indicates that it is user-friendly and has the potential to make a significant impact in increasing

women's safety. However, further research is needed to evaluate the effectiveness of the app in real-world situations and to determine its potential limitations. Overall, GoSecure represents a promising step forward in the field of safety technology for women.

## ACKNOWLEDGMENT

We would like to express our sincere gratitude to all those who have contributed to this study and the development of GoSecure. Firstly, we would like to thank the participants who took part in the study and provided valuable feedback and insights into the effectiveness of the app. We are grateful for their time and willingness to participate in this important research.

We are also grateful to the faculty members and staff of the Department of Computer Science at Siddhant College of Engineering, who provided valuable guidance and support throughout the study.

Finally, we would like to express our appreciation to the funding agency that supported this study. Their financial support made this research possible and allowed us to make a significant contribution to the development of tools and technologies aimed at enhancing women's safety and empowering them to take control of their personal safety.

Thank you all for your valuable contributions to this study and the development of GoSecure.

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**Citation of this Article:**

Arpita Bendale, Tanuja Kolekar, Samarth Chawhan, Ssmabbhik Bal, "GoSecure: A Women's Safety App" in proceeding of International Conference of Recent Trends in Engineering & Technology ICRTET - 2023, Organized by SCOE, Sudumbare, Pune, India, Published in IRJIET, Volume 7, Special issue of ICRTET-2023, pp 169-172, June 2023.

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