



TO STUDY SCOPE WITH AAROGYA SETU APP DURING THE COVID-19 PANDEMIC

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ABSTRACT The m-Health app Aarogya Setu will well contribute to the containment and management of COVID-19. This study explores the experiences and expectations of Aarogya Setu app users by conducting a survey which incorporates questionnaires. This analysis tells North American country that there's (77.1%) user acceptance across the app. The analysis resulted in four themes: user acceptance, app utility, promptness of the Indian Government in conveyance the app on time, and issues and precautions taken by the users. These facilitate in strengthening the app options facultative the period information capture and analytics and providing timely data to authorities for higher decision-making.

KEYWORDS : Contact Identification, Contact Listing, Contact Follow-up, Contact Tracing, Aarogya Setu, Covid-1

INTRODUCTION

The mHealth apps square measure crucial within the unwellness containment and management throughout pandemics .The mHealth apps square measure crucial within the unwellness containment and management throughout pandemics and may support health systems in unwellness police investigation, risk assessment, case identification, contact tracing, and scenario watching. In India, the Aarogya Setu could be a could be a. It informs the users concerning the risks assessment and supply relevant advisories. As of July twenty three, 2020, this app has over 100M+ downloads, with a median rating of four.4, with 1M reviews. several users post reviews encompassing their experiences and expectations for this app that may offer valuable first-hand data and facilitate in strengthening the app's options. the present analysis was geared toward analysing Aarogya Setu app user's experiences and expectations. Specifically, it answered 2 necessary questions:

- (1) what square measure the areas within which Aarogya Setu users announce their reviews?
- (2) what's the perceived utility, criticism, and expectation of the users toward the app? Survey methodology was used to undertake this analysis

Research Problem

To study how contact tracing technology works with Aarogya setu app and how is it helping citizens of Maharashtra stay safe and alerted all the time.

OBJECTIVE

- To find usefulness of Aarogya Setu app in finding positive cases of corona virus during the pandemic.
- To find out whether users of Aarogya setu app find the app to be helpful.

LITERATURE REVIEW

The users reiterated that the app was useful in alerting them from COVID-19. These ideas were predominantly accompanied by the functions performed by the app such as disease monitoring, assessment of individuals and updates. Reviews quoting usefulness were often accompanied by the suggestions to improve the app's features; these included: Integration with GPS systems and maps, user alerts in red zones/hot-spots, provision of regular COVID-19 updates, enabling contact tracing, and making the app workable on feature phone platforms. Aarogya Setu stores location data and requires constant access to the phone's Bluetooth which, experts say, makes it invasive from a security and privacy viewpoint. The guidelines were issued by the National Executive Committee set up under the National Disaster Management Act (NDMA), 2005 On May 11th the Aarogya Setu Data Access and Knowledge Sharing protocol.

Concerns and cautions

Users also reported unfavorable feedback reflecting their concerns in using the app. They categorized their reservation in terms of data-specific, system-specific, and users'-specific concerns. It was found that the application relies on self-reported data for tracking positive cases and proximity assessment. This feature is critically reliant on authentic information provided by the users. Concerns about the inaccuracy of data provided were found to be inhibiting potential users to use this app. Several system specific shortcomings were noted as well. Specifically, bugs within software, issues with one time password

registration, and poor user interface and unnecessary use of Bluetooth feature causing frequent power drain were the common system-specific challenges faced by the users. In some reviews, it was also observed that users uninstalled the app due to these issues.

Users also feared certain features of the app could compromise security. Bluetooth which mandatorily requires to be switched on was perceived to be making the device vulnerable to cyber threats. Other issues concerning the trustworthiness of app included privacy of the user, data security, and reliability of self-assessment questions. Most of the users were optimistic about Aarogya Setu app due to its usefulness and acceptance. Expectations were also noted among the users to include the additional features into the app such as geo-location tracking, timely COVID-19 updates, information on red-orange-green zones, and deployment in nonsmartphone platforms. Existing literature suggests that the app primarily supports the syndromic surveillance and has limited features compared to similar apps such as Alipay Health of China and Corona 100 m of South Korea. The inclusion of additional features will improve the usefulness of the app and its adoption in India.

Unfavorable feedback was also observed. These were comparatively less than the positive reviews. Users who posted negative reviews often tend to uninstall the application potentially downplaying the success of the app. The government must focus on fixing the bugs, improving the quality of data collection, and user privacy. Measures need to be in place to ensure the reliability of information provided by the users; therefore, provision for cross-verification of data entered by the users could be crucial.

- Similar Technologies in other countries To combat the pandemic

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Hypothesis

This research study focuses on the Scope With Aarogya Setu App During The Covid-19 Pandemic in India. It reflects through the following set of alternative hypotheses:

HO(1): Aarogya Setu app has weaker significance in finding positive cases of corona virus in Maharashtra

H(1): Aarogya Setu app has higher significance in finding positive cases of corona virus in Maharashtra

HO(2): Usage of Aarogya Setu app has increased post lockdown in Maharashtra.

H(2): Usage of Aarogya Setu app has decreased post lockdown in Maharashtra.

Research Gap

This Research includes gaps of people not knowing the exact location of positive patients in their vicinity, not receiving any notification if a positive patient comes in another user's contact.

- At certain instances the app's ability to update the reports of patients even after they have uploaded it on the app.
- Overall health expenses can be reduced under National Digital Health Mission(NDHM) by devising adequate systems in place.
- This app also needs to be pushed to feature phones and adequate education of app's users needs to be addressed

Research Methodology

This research is been conducted and the questionnaire will be shared among 109 customers who are using Aarogya Setu app in India, specifically for the period of May- June 2020. For collecting data, simple random sampling method is used. Statistical Package for the Social Sciences (SPSS) version 16.0 was use to analyse the collected data.

Data Analysis

Number of Respondent: 109

Tested against 0.05 significance level

Crosstab for age group of respondents with gender

Gender * Age group of Respondant Crosstabulation

			Age group of Respondant				Total
			15-20	20-25	25-30	above 30	
Gender	Female	Count	6	36	4	2	48
		% within Gender	12.5%	75.0%	8.3%	4.2%	100.0%
		% within Age group of Respondant	85.7%	48.6%	21.1%	22.2%	44.0%
	Male	Count	1	38	15	7	61
		% within Gender	1.6%	62.3%	24.6%	11.5%	100.0%
		% within Age group of Respondant	14.3%	51.4%	78.9%	77.8%	56.0%
Total		Count	7	74	19	9	109
		% within Gender	6.4%	67.9%	17.4%	8.3%	100.0%
		% within Age group of Respondant	100.0%	100.0%	100.0%	100.0%	100.0%

come in contact with an infected person.

Limitation

There are two major limitations in this study that could be addressed in future research

1. There have been not many studies related to m-Health app Aarogya Setu. Literature that were used as reference for this study suggested how the app provides security and safety of user's health.
2. Limited Responses are used in the study due to Pandemic situation. Suggested samples were 109 due to time limit for this research.

CONCLUSION

The Findings in the paper show that there are many significant factors that together bring us to the decision of usefulness of the Aarogya setu app. Amongst the age group of 25-30 years and above 30 years of age (78.9%) and (77.8%) of the total respondents of 109 have high level of acceptance. User perception towards the app is built mainly on the satisfaction level after they used the app over the period of time. In the above study, a large number of users are satisfied with the app. It may be due to the colour coding that the app provides which helped citizens to stay safe and take precautions from Covid-19. Today the Aarogya setu app not only show user's health indicator but also gives a spiral map in 1.4.1 update which shows the direction to which the patient whether healthy or infected with Covid-19 are shown.

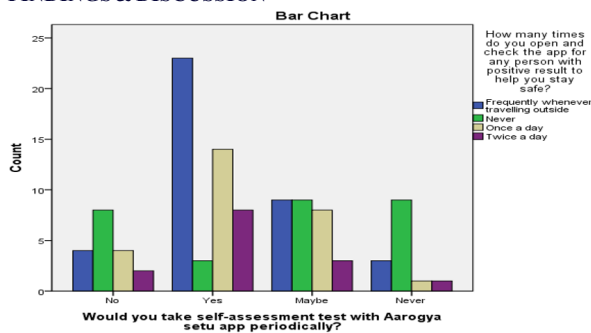
Future Scope & Recommendation

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FINDINGS & DISCUSSION



This research has helped us find new insights in the field of m-health app. We observed for most of the questions that alternate hypothesis got accepted which tells us that Aarogya setu app has acceptance rate. The GOI's promptness in bringing the app on time given the user acceptance of (77.1%) among 100M+ downloads we have found that the app has been very useful in detecting covid-19 positive cases. Some of the findings that are found during the research are as follows:

1. There should be more than one helpline no available for the app
2. Hospitals/clinics should scan QR code within the app to track and monitor the patients
3. Future integration of the app with every health facility would be beneficial
4. Every user would wish to receive notification on his app if they