OPTIMIZING THE ROLE OF NEIGHBORHOOD ADMINISTRATORS IN HANDLING COVID-19 THROUGH THE SIAGA (SIAP ANTAR JAGA) COVID-19 APPLICATION

Pipin Farida ARIYANI[1*], Titin FATIMAH[2], and Atik ARIESTA[3]
[1-3] *Universitas Budi Luhur*
[*]pipin.faridaariyani@budiluhur.ac.id

ABSTRACT

This community service initiative aims to optimize the utilization of RT (Rukun Tetangga) officials in managing COVID-19 by implementing the COVID-19 SIAGA (Siap Antar Jaga) mobile application. This mobile application, which is available for Android devices, consists of two main components: app development and awareness-raising efforts for the SIAGA COVID-19 app. The application is intended for use by the RT official and residents of RT 06 RW 08 Pedurenan Village, Ciledug Indah Housing 2. The activity involves a comprehensive approach that analyzes partner issues, designs the application, and assesses its effectiveness.

Keywords: application, COVID-19, RT official

1.   INTRODUCTION

On March 11th, 2020, the World Health Organization (WHO) announced that the Corona Virus Disease 2019 (COVID-19) had become a global pandemic. Caused by a novel coronavirus, this disease was first reported in Wuhan, China, in December of the previous year. The global pandemic status was attributed to the virus's ability to infect anyone, irrespective of age, gender, or ethnicity.

As per the Report of the WHO-China Joint Mission on COVID-19, transmission of the virus occurs via droplets from the nose or mouth of an infected individual, typically when they cough or exhale. These droplets can settle on nearby objects and surfaces, thereby making it possible for people to contract COVID-19 by inhaling droplets or touching contaminated surfaces and then touching their eyes, nose, or mouth.

Fever, fatigue, and dry cough are the most common symptoms of COVID-19. Nevertheless, some patients may experience body aches, difficulty breathing, nasal congestion, runny nose, sore throat, or diarrhea. It is important to note that some infected individuals may remain asymptomatic. Older adults and those with underlying medical conditions such as high blood pressure, heart problems, or diabetes are particularly vulnerable and have a higher risk of developing serious illnesses.

In Indonesia, the government has instituted measures to prevent the spread of COVID-19, including urging people to maintain physical distancing. The success of these efforts is heavily reliant on the cooperation and compliance of the community.

In this regard, the officials of RT 06 RW 08 Pedurenan Village can play a pivotal role in breaking the chain of COVID-19 transmission, particularly in the Ciledug Indah 2 Housing Complex. They can provide education to residents, monitor their health status, and collect data related to the disease's impact on the economy. By so doing, they would be contributing to the global fight against this pandemic.

The Ministry of Health of the Republic of Indonesia recently released guidelines for Community Empowerment in Preventing COVID-19. According to these guidelines, the RT official has several responsibilities in the fight against COVID-19. These include providing clear information to residents about the prevention, transmission, and handling of COVID-19 to prevent panic and worry. Additionally, the RT official should educate residents on the importance of personal hygiene, cleanliness, physical distancing, and staying at home. They should also monitor the health conditions of residents to quickly identify symptoms of COVID-19 and collect data on those who are economically affected to provide appropriate support during the pandemic.

According to the criteria above, certain challenges were identified:
a.   How can we enhance the efficacy of RT officials in managing COVID-19?
b.   How can we empower residents to prevent the spread of COVID-19 effectively?

To address these concerns and promote the involvement of residents and officials in curbing the spread of COVID-19, a mobile application called COVID-19 Siap Antar Jaga (SIAGA) was developed.

2. METHOD

Approach Method

The approach method is a solution offered by the problems faced by partners so that the final conditions are by the objectives of implementing the activity.
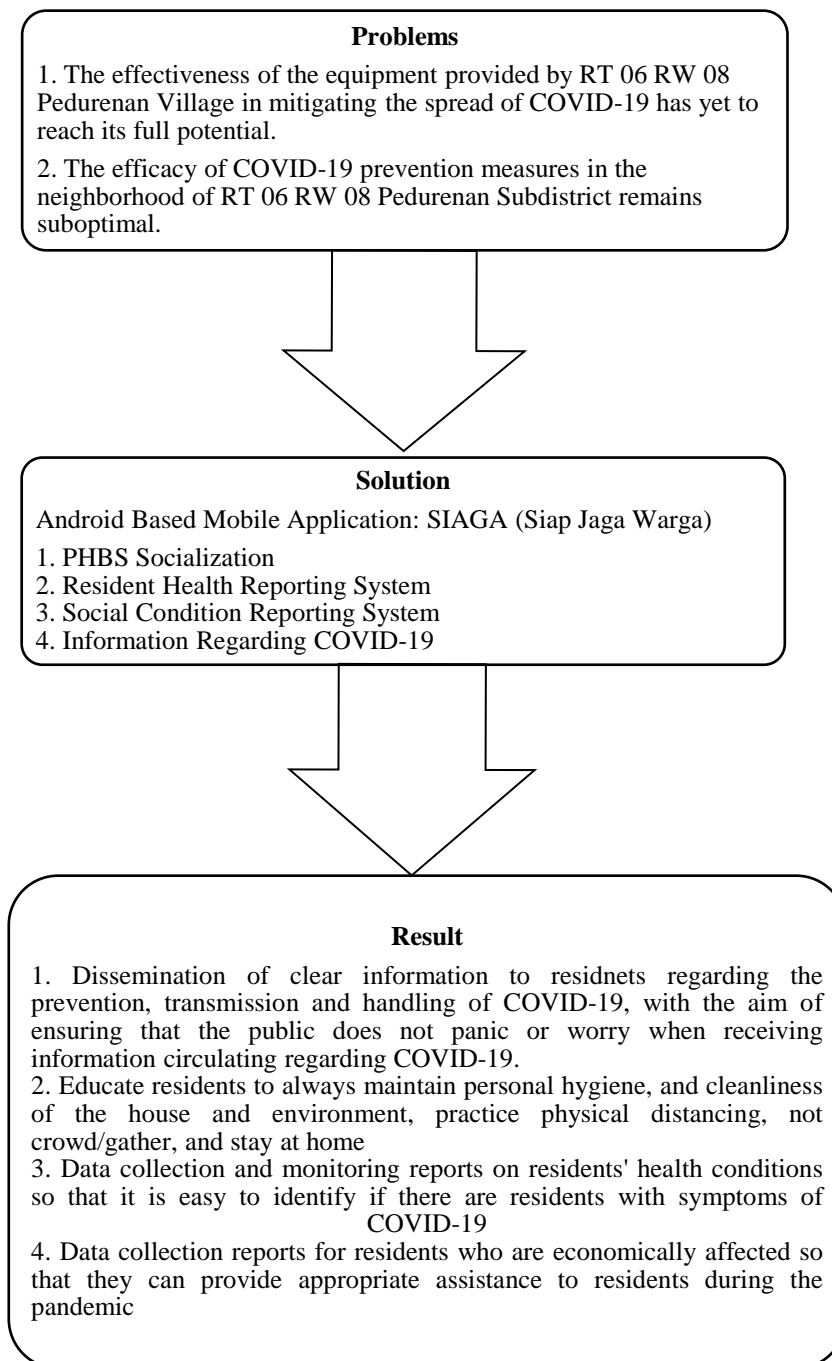
Problems

1. The effectiveness of the equipment provided by RT 06 RW 08 Pedurenan Village in mitigating the spread of COVID-19 has yet to reach its full potential.

2. The efficacy of COVID-19 prevention measures in the neighborhood of RT 06 RW 08 Pedurenan Subdistrict remains suboptimal.

Solution

Android Based Mobile Application: SIAGA (Siap Jaga Warga)

1. PHBS Socialization
2. Resident Health Reporting System
3. Social Condition Reporting System
4. Information Regarding COVID-19

Result

1. Dissemination of clear information to residnets regarding the prevention, transmission and handling of COVID-19, with the aim of ensuring that the public does not panic or worry when receiving information circulating regarding COVID-19.
2. Educate residents to always maintain personal hygiene, and cleanliness of the house and environment, practice physical distancing, not crowd/gather, and stay at home
3. Data collection and monitoring reports on residents' health conditions so that it is easy to identify if there are residents with symptoms of COVID-19
4. Data collection reports for residents who are economically affected so that they can provide appropriate assistance to residents during the pandemic

Figure 1. Approach Method

Implementation Method

The activity stage is divided into 2 implementation stages, namely application design and application use training, which are arranged in Table 1 and Table 2.

Table 1. Implementation Stages of Application Design

Activity	Goals
Analysis of application requirement	Application design
Design menus and application databases	SIAGA COVID-19 Application
Added information about PHBS to the application	Display of the Clean and Healthy Lifestyle Socialization menu (Personal, Home, and Environmental Hygiene)
Added information about COVID-19 to the application	Display of the Information Room menu regarding COVID-19 (OTG, ODP, PDP, Self-Isolation, Physical Distancing)

Table 2. Stages of Implementation of Application Use Training

Activity	Goals
Download SIAGA COVID-19 Application	Installing the application on smartphones for RT official and Resident devices
Complete Resident Profile	Resident profile data consisting of information on family card number, NIK, full name, gender, date of birth, address (street name, RT/RW, sub-district, sub-district), cellphone number, whether pregnant or not, comorbidities (lung/asthma, heart disease), Auto-immune, Diabetes Mellitus, Kidney Failure, Liver, Hypertension, Active Smoker)
Residents fill in their health conditions by selecting the COVID-19 symptom selection box, such as fever, dry cough, stuffy nose, runny nose, sore throat, diarrhea, and difficulty breathing, which residents can mark if they feel these symptoms.	Updated Data on Residents' Health Conditions
Residents fill in their health conditions by selecting the selection box for the criteria for the social needs of residents affected by the COVID-19 pandemic, such as monthly income, layoffs, business closures, and reduced income.	Updated Data on Residents' Social Conditions
The RT official accesses the Resident Health Report System menu	Resident Health Report Data
The RT Official accesses the Social Condition Report System menu	Resident Social Condition Report Data

3. RESULTS AND DISCUSSION

The project began by developing an Android-based mobile application called SIAGA for COVID-19. This app includes features for residents to input their personal information, health status, and welfare updates so that relevant RT officials can access and utilize the data to generate Resident's Health Reports and Resident Social Condition Reports. In addition, the application provides information about COVID-19 and promotes a Perilaku Hidup Bersih dan Sehat (PHBS)/Clean and Healthy Lifestyle.

When the app is launched, users are first presented with the SIAGA COVID-19 splash screen (Figure 2), followed by the Login screen (Figure 3), which is used to access the application. Both residents and RT are authorized to use the application, and new users can register for both RT officials and residents. The RT registration process is illustrated in Figure 4 and requires inputting email, password, RT name, RT NIK, sub-district, and RW.

372

OPTIMIZING THE ROLE OF NEIGHBORHOOD ADMINISTRATORS IN HANDLING COVID-19 THROUGH THE SIAGA (SIAP ANTAR JAGA) COVID-19 APPLICATION

Figure 2. Splash Screen

Figure 3. Login Screen

Figure 4. RT Officials Registration

Figure 5 displays the information required from residents, which includes their email, password, family card number, NIK, name, gender, date of birth, district, village, address, RT, RW, mobile number, pregnancy status, and any concomitant diseases.

Figure 5. Resident Registration

Upon logging into the application, users are presented with a menu of options. RT users can choose from Edit Profile, Health Report, Welfare Report, PHBS, and Logout. The Edit Profile menu allows RT managers to modify user information provided during registration, including RT Name, RT NIK, and passwords. The PHBS menu offers information about PHBS, while the Logout menu enables users to exit the application. (See Figure 6)

Figure 6. Main Menu RT Official

The Health Report menu provides valuable insight into residents' health conditions, including a comprehensive list of names of residents who have fallen ill during the selected period (as shown in Figure 7). Meanwhile, the Resident Social Condition Report menu allows RT officials to access crucial information regarding the welfare of residents. This includes a breakdown of the number of residents based on monthly income, employment status, and a list of potential residents who may require assistance (as depicted in Figure 8).
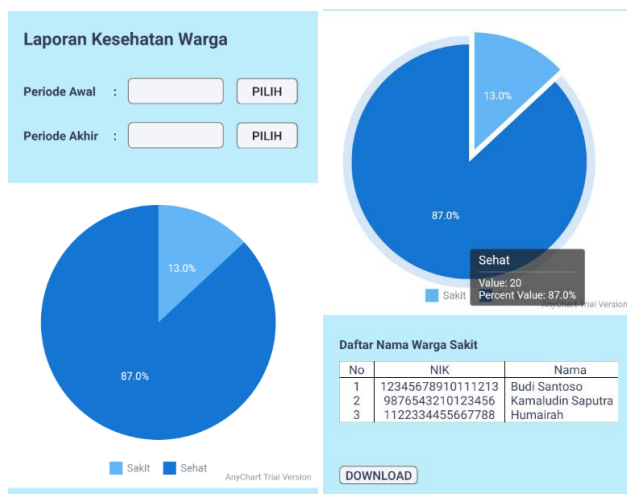
Figure 7. Resident Health Report

Figure 8. Resident Social Condition Report

Once the resident user has successfully logged in, they will have access to several menus, including Profile, Health Condition, Social Condition, PHBS, and Logout (as shown in Figure 9). The Edit Profile menu allows residents to make changes to their registration data, such as KK No, RT, RW, and password updates. The Health Conditions menu enables residents to input their health status, such as fever, dry cough, stuffy nose, runny nose, sore throat, diarrhea, and difficulty breathing, according to the input date (as shown in Figure 10). The Social Conditions menu allows residents to input their welfare status, such as monthly income, employment status, and business ownership (as shown in Figure 11). The PHBS menu provides information about PHBS, while the Logout menu allows users to exit the application.
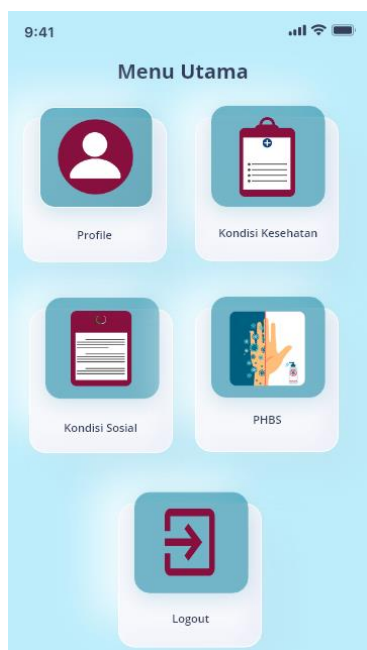
Figure 9. Residents Main Menu

Figure 10. Health Condition Screen

Figure 11. Social Condition Menu

After the development of the application, a socialization event was organized for RT officials and residents. The event took place on Saturday, August 15th, 2020, at the residence of the Head of RT 06 RW 08, Pedurenan Subdistrict, Ciledug Indah Housing 2. During the socialization, the attendees were given a comprehensive explanation of how to use the application, covering topics such as registration, login, profile management, health and social condition data input, COVID-19 information, PHBS, and how to exit the application.

4. CONCLUSION

During the community outreach program on the Android-based SIAGA COVID-19 mobile application, residents were able to successfully download and register on the app, allowing them to input their health and social conditions as well as access information on PHBS. Additionally, RT official was also installed and registered, enabling officials to view reports on the health and social conditions of their residents. This valuable data can be used by RT officials to take necessary actions if a resident falls ill or to provide support to those affected by COVID-19.

5. REFERENCES

Gugus Tugas Percepatan Penanganan COVID-19. (2020). Peta Sebaran COVID-19. https://covid19.go.id/peta-sebaran [diakses 12 Mei 2020].

Kementerian Kesehatan Republik Indonesia. (2020). Pedoman Pemberdayaan Masyarakat dalam Pencegahan COVID-19. Jakarta, Indonesia.

The Center for Systems Science and Engineering (CSSE), John Hopkins University. (2020). COVID-19 Global Cases. https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6 [diakses 12 Mei 2020].

World Health Organization. (2020). Report of the WHO-China Joint Mission on Coronavirus Disease 2019 (COVID-19). Geneva, Switzerland.