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## KKN PROPEPSA: Covid-19 Self-Isolation Patient Care and Assistance Community Service Program

### Author

Syafarinah Nur Hidayah Akil<sup>1\*</sup> (Orcid ID. 0000-0002-2558-3447)

Faishal Fahmi Fajar Imany<sup>2</sup>

### Correspondence

<sup>1,2</sup>Faculty of Medicine, Universitas Muhammadiyah Surabaya,

Surabaya, East Java, Indonesia

E-mail: syafarinahnha@um-surabaya.ac.id\*

### Abstract:

The implementation of community service programs during the COVID-19 pandemic has posed significant challenges, especially for students participating in the University Community Engagement Program or *Kuliah Kerja Nyata* (KKN). Social restrictions and health protocols limited students' ability to engage in conventional fieldwork activities. This article aimed to describe the design and impact of the KKN Propepsa (*Program Peduli dan Pendampingan Pasien Isolasi Mandiri Covid-19*) initiated by the Faculty of Medicine, Universitas Muhammadiyah Surabaya (UMS) as a responsive model during the pandemic.

The study used a descriptive-participatory method involving activity documentation, observation, and reflection. Data were collected from activity logs, reports, and direct involvement of students and mentors. The program involved multiple forms of engagement, including daily teleconsultation and monitoring of self-isolated COVID-19 patients, dissemination of educational content via social media, religious motivation and psychological support, organizing public webinars, and distribution of basic necessities through social fundraising. The program was conducted in July–August 2020, reaching dozens of patients and families across Surabaya.

The results indicated that the KKN Propepsa significantly benefited the target community, particularly by reducing anxiety among patients in isolation and enhancing public awareness regarding COVID-19 symptoms and home management. Students also developed practical competencies, empathy, and digital communication skills while supporting public health services overwhelmed by case surges.

In conclusion, KKN Propepsa demonstrates that medical student-led community service can adapt effectively under crisis conditions, providing not only educational impact but also meaningful social contributions. The model can serve as a reference for similar programs during health emergencies.

**Keyword:** Community service, Self-Isolation Assistance, COVID-19 Pandemic, Teleconsultation, Student Engagement, Good health and well-being.

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## Introduction

The COVID-19 outbreak in Indonesia, confirmed in early March 2020, quickly escalated into a national health crisis. Within three months, daily new infections surpassed 1,000 cases, overwhelming the capacity of designated hospitals and necessitating the establishment of additional referral centers (Ariawan & Jusril, 2020; Kemenkes, 2021). Even with these expansions, bed occupancy rates in major hubs such as Jakarta reached over 90% by mid 2021, forcing many mild and asymptomatic patients to undergo self-isolation at home rather than admission (Hidayat et al., 2022; Setiyawan et al., 2021). Because of this, there is a possibility that the patient at home might experience stress and good stress management is needed (Kholifah & Wardhono, 2022).

Consequently, the responsibility of monitoring self-isolating patients shifted to community health clinics or *puskesmas*, which were already burdened with routine duties such as vaccination campaigns, contact tracing, PCR testing, and non-COVID healthcare services (Aulianita & Kusumaningrum, 2022; Ramadhani et al., 2022). This added workload has been linked to increased burnout and infections among Puskesmas staff, impairing their capacity to provide timely and effective monitoring for all patients under isolation (Kartilah et al., 2023; Nugraha, 2020; Selamat, 2020).

Studies conducted at Universitas Indonesia Hospital and community clinics have underscored the importance of structured self-isolation monitoring programs, such as teleconsultation and One Stop Service (OSS), to reduce delayed hospital referrals and improve patient outcomes (Hidayat et al., 2022). Moreover, patient satisfaction in Jakarta's Puskesmas programs averaged 88%, though daily condition monitoring and swab test accessibility were highlighted as areas needing improvement (Lubna et al., 2024).

In light of these challenges and insights, Universitas Muhammadiyah Surabaya's Faculty of Medicine implemented a novel university student community service program called PROPEPSA (*Program Peduli dan Pendampingan Pasien Isolasi Mandiri COVID-19*). This initiative aimed to support overwhelmed Puskesmas by assisting in communication, education, and monitoring of self-isolated patients, thereby mitigating service gaps and fostering student community engagement (Hamidah et al., 2021).

This article intends to explore and explain the design, implementation, and impact of the KKN Propepsa program. It seeks to identify how student-led interventions during the pandemic contributed to reducing patient anxiety, improving health education outreach, and supplementing primary health care service delivery in Indonesia.

## Method

The KKN Propepsa program was carried out from July to August 2020 in Surabaya, Indonesia. The primary target group consisted of COVID-19 patients undergoing home self-isolation, who registered through an online form. The KKN Propepsa community service program consisted of the following core activities (the schedule of activities is detailed in Table 1):

### 1. Patient Assistance, Monitoring, and Teleconsultation

A total of 12 supervising physicians who were also lecturers in the Faculty of Medicine UMS, were divided into 6 groups, each supported by two students. Each group oversaw up to 20 self-isolating patients. Their responsibilities included daily condition monitoring, providing medical advice via teleconsultation (through WhatsApp® groups), and offering motivational support from Monday to Saturday.

## 2. Spiritual Support and Motivation

Weekly spiritual sessions were conducted, featuring Islamic sermons/ khutbah (tausiyah), motivational content, and prayers intended to uplift the emotional and spiritual well-being of the patients. These were shared in written form via WhatsApp groups.

## 3. Health Education via Webinars

Two health education webinars were conducted during the program. The first, titled “Coping with Stress During Self-Isolation,” was delivered by dr. Era Catur Prasetyo, Sp.KJ. The second, “Don’t Panic—Understanding Symptom Management During Self-Isolation,” was presented by dr. Afrita Laitupa, Sp.P. Students were actively involved as event organizers, moderators, and facilitators of the Q&A sessions.

## 4. Distribution of Social Aid

Students also participated in distributing essential goods to self-isolating patients. The aid was funded through previously organized donation campaigns and included rice, sugar, cooking oil, and other household necessities.

**Table 1.** The schedule of KKN Propepsa activities

No	Activity	Date	Person in Charge
1	Proposal preparation, implementation coordination, and issuance of assignment letters	Early July	Students and KKN Supervising Lecturers
2	Preparation of daily monitoring forms (Google Forms), daily self-isolation tips posters, spiritual messages, and attendance sheets for doctors and students	18–21 July 2021	Students
3	Briefing and orientation by a pulmonary specialist	Thursday, 22 July 2021	dr. Afrita Laitupa, Sp.P
4	Briefing and orientation by a psychiatrist	Friday, 23 July 2021	dr. Era Catur, Sp.KJ
5	Health monitoring and teleconsultation for self-isolating patients	26 July – 6 August 2021 (Monday–Saturday, 1:00–3:00 PM)	Medical team per group
6	Spiritual and health education session	Friday, 30 July 2021, 3:00 PM	drh. Syafitri
7	Propepsa Webinar: "Coping with Stress During Self-Isolation"	Friday, 30 July 2021, 4:00 PM onward	dr. Era Catur Prasetyo, Sp.KJ
8	Propepsa Webinar: "Don't Panic—Understanding Symptom Management During Self-Isolation"	Saturday, 7 August 2021, 9:00 AM onward	dr. Afrita Laitupa, Sp.P

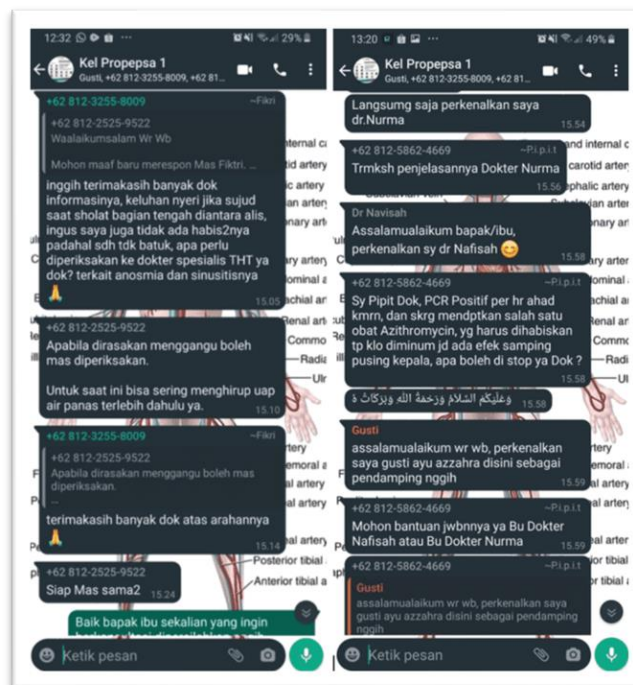
## Results and Discussions

The primary objective of the University Community Engagement Program (*Kuliah Kerja Nyata* or KKN) is to apply, internalize, and cultivate knowledge and technology to improve public welfare and contribute to the intellectual advancement of the nation. The program provides students with practical experience in applying both theoretical knowledge and skills in real-life contexts (Laia, 2022). Despite the limitations imposed by the COVID-19 pandemic, KKN remained a necessary activity, as it represents the realization of one of the *Tri Dharma* of Higher Education, namely the community service (Umar et al., 2021). Although the pandemic restricted

the type of activities that could be conducted, it did not hinder students' creativity in developing meaningful and innovative KKN programs.

KKN Propepsa was implemented as a thematic community service program, focusing on specific societal problems and aligned with local government development policies at the municipal or district level. The program addressed public health challenges during the pandemic by supporting patients undergoing self-isolation and engaging in broader health education efforts. This KKN Propepsa program spanned approximately one month. During this period, students were actively involved in several key activities, including supporting the day-to-day communication between doctors and patients undergoing self-isolation, producing educational videos related to COVID-19, organizing health webinars, and distributing social aid—especially to affected individuals in the surrounding community.

In the 2020 implementation, the Faculty of Medicine at UMS launched this program to support the local population in managing the challenges of home-based isolation during the height of the COVID-19 pandemic. Students played important roles as facilitators of medical consultations, creators of educational content, webinar organizers, and distributors of social assistance. Moreover, the families of patients were also encouraged to participate actively in the care process, thus enhancing community resilience in the face of the pandemic (Santika, 2020).

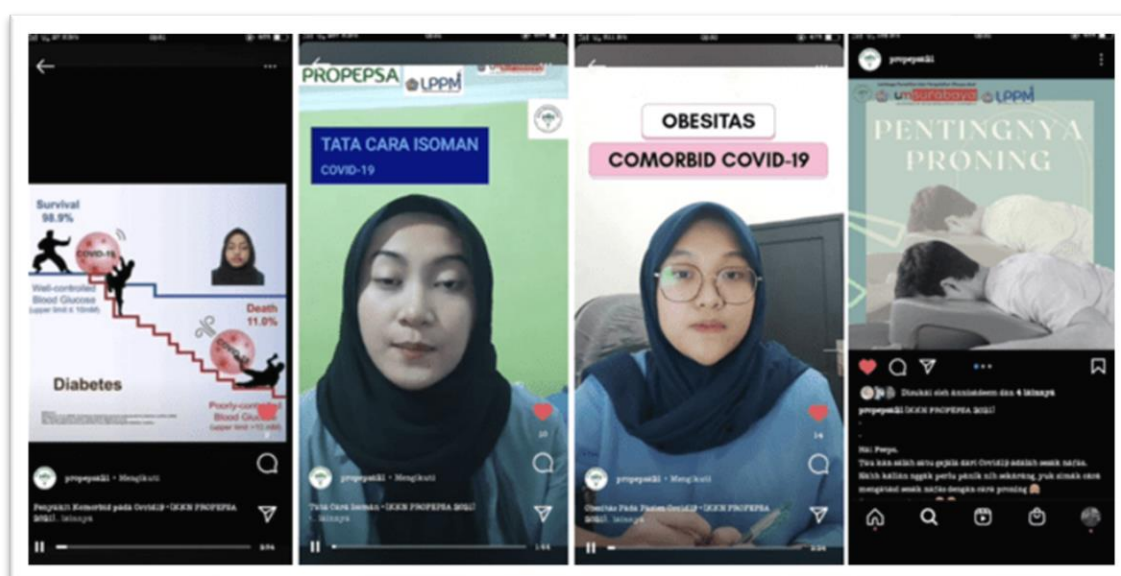


**Figure 1.** Documentation of a teleconsultation session between a physician and a self-isolating COVID-19 patient

During home isolation, COVID-19 patients should monitor their vital signs daily—particularly body temperature and oxygen saturation—using a thermometer and validated pulse oximeter, as early detection of hypoxaemia can prompt timely medical intervention and reduce mortality risk. Patients should self-isolate in a well-ventilated space separate from other household members, wear masks when interactions are unavoidable, and avoid sharing personal items to prevent virus transmission (Joseph et al., 2022). Encouraging light physical activity such as daily repositioning (e.g., prone positioning) may improve respiratory function and support immunity during mild COVID 19 illness (Perez-Nieto et al., 2022).

The production of educational videos by KKN students aimed to support COVID-19 patients undergoing self-isolation at home. These videos were not only targeted at adult patients but also designed for pediatric patients. The educational content covered various topics, including diabetes mellitus in COVID-19, obesity in COVID-19, the importance of proning, comorbid conditions associated with COVID-19, self-isolation procedures, and other relevant subjects. The videos were then disseminated through social media platforms, particularly Instagram, to ensure broader outreach and accessibility.

Social media could be used to stay happy and mentally healthy during the Covid-19 pandemic (Yuniasanti et al., 2024). Instagram has proven to be an effective platform for delivering health education to a broad audience through interactive features like live sessions, infographics, and videos. Studies show that using Instagram significantly improves public knowledge and health behaviors, especially among adolescents and self-isolating COVID-19 patients (Aprilia et al., 2024; Simatupang et al., 2024). Health institutions, including community health centers (Puskesmas), have also adopted Instagram as a strategic tool for consistent and accessible health communication (Santi et al., 2024).



**Figure 2.** Documentation of Educational Materials and Videos

Individuals with obesity and diabetes face significantly higher risk, morbidity, and mortality from COVID-19 compared to those without these conditions (Bailly et al., 2022; Kurniawati et al., 2021). A comprehensive meta-analysis reported that patients with diabetes and obesity have a higher risk of death from COVID-19 to non-affected individuals up to 50% and 45%, respectively (Mahamat-Saleh et al., 2021). Obesity, particularly BMI  $\geq 30$  kg/m<sup>2</sup>, is strongly linked to more frequent need for invasive mechanical ventilation and ICU admission. Chronic inflammation, immune dysfunction, endothelial damage, and reduced pulmonary reserve contribute to the poorer outcomes seen in these groups (Bailly et al., 2022). These findings highlighted the critical need to prioritize vaccination and targeted clinical monitoring for individuals with obesity and diabetes, especially in low-resource settings where comorbid conditions significantly exacerbate severity and fatality risks.

Another activity of the KKN Propepsa is the webinar. It is one of the programs which is presented directly by expert speakers from pulmonology and psychiatry department. This webinar

activity is open to the public, so it can be attended by various groups, not limited to patients undergoing self-isolation. This webinar is held to help the community and reduce panic levels when facing the COVID-19 pandemic. Students act as the committee and prepare this webinar activity to run smoothly.



Figure 3. Webinar e-flyer

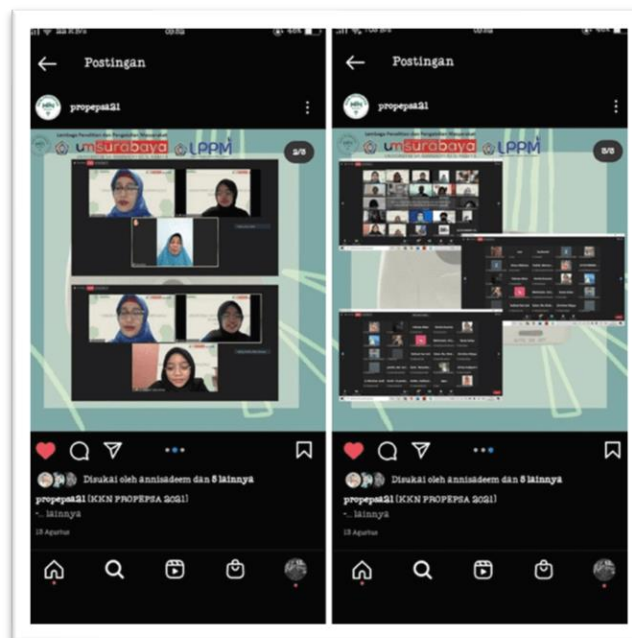


Figure 4. Webinar documentation

The COVID-19 pandemic has impacted not only health but also social and economic conditions, both for individuals and households. In the short term, its impact on health is demonstrated by the increasing number of infections and the increasing death rate in Indonesia. Therefore, the students participating in this KKN Propepsa, came up with the idea of providing social assistance. This was implemented on August 22<sup>nd</sup> 2021, using funds collected through the distribution of donation posters. The assistance provided consisted of basic necessities (rice, sugar, cooking oil, and several other household necessities).

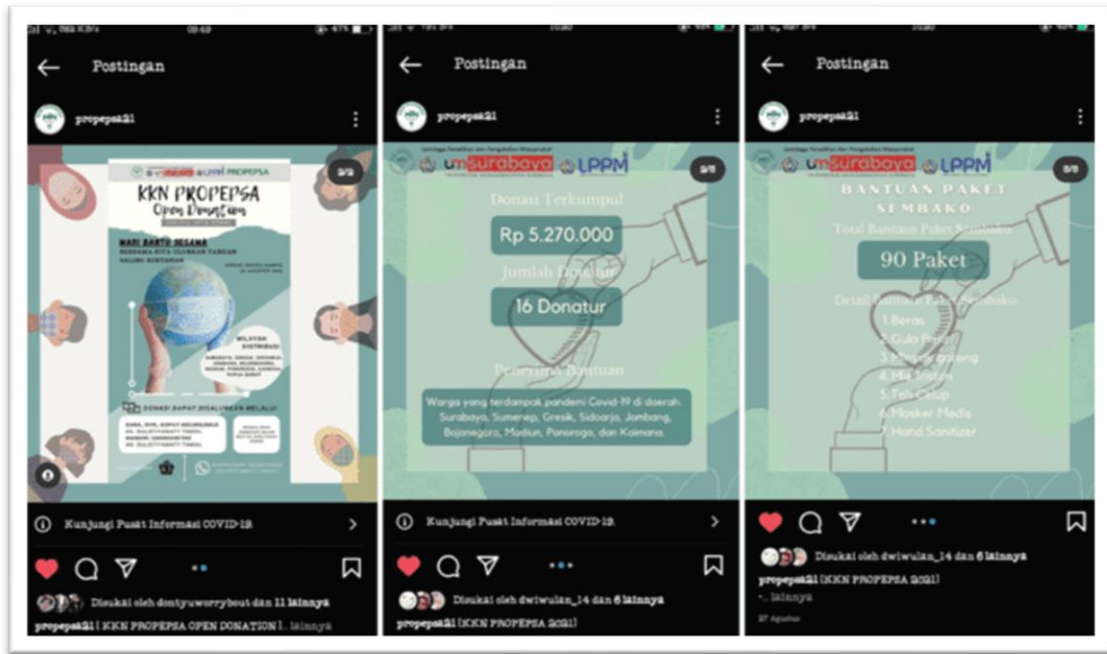


Figure 5. Documentation of Open Donation Poster and Total Funds Collected



Figure 6. Documentation of Social Assistance Distribution

The drastic declines in household income across Indonesia, with high-frequency survey data showing significant reductions in both wages and spending power, forcing many families to prioritize daily subsistence over savings and debt repayment (Ridhwan et al., 2024). As a result, numerous urban and semi-urban households experienced food insecurity, with those suffering

income loss having up to 4 times higher odds of facing insufficient access to basic nutrition. The widespread drop in purchasing power exacerbated existing inequalities, pushing vulnerable populations into poverty and making even basic needs like food and utilities increasingly unaffordable. Consequently, many individuals lost jobs or saw their informal income sharply decline, resulting in severe economic hardship and daily struggle for livelihood (Syafiq et al., 2022).

### Conclusion

The implementation of the KKN Propepsa was carried out successfully and demonstrated significant benefits for the community during the COVID-19 pandemic. By providing psychological support, health education, and direct communication through teleconsultation, educational videos, and webinars, the program helped alleviate public anxiety and empowered individuals undergoing self-isolation to manage their condition more effectively. As a broader recommendation, communities are encouraged to remain calm, stay informed, and avoid panic when facing mild symptoms, especially during large-scale health crises such as the COVID-19 pandemic.

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