# Implementation of SI-KEPPO Innovation to Increase Return Visits of Hypertension Patients at Public Health Center of Sobo, Banyuwangi

Implementasi Inovasi SI-KEPPO dalam Upaya Peningkatan Kunjungan Ulang Pasien Hipertensi di Puskesmas Sobo Banyuwangi

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## **Abstract:**

The key to managing hypertension is regular control visits to the community health center or other health facilities. These visits are critical in monitoring response to treatment, adjusting therapy if necessary, and providing education and support to the patient. Low compliance of hypertension patients with re-visits or regular control can hinder the success of hypertension management and increase the risk of complications. The SI-KEPPO (Automatic Reminder Message Group System) innovation aims to provide an effective solution in managing and arranging re-visits or reminding individuals or groups of contact time automatically via text messages or other messages. This activity is a community service aimed at doctors, nurses, administration staff and counter staff. A direct training is carried out on computers owned by the Community Health Center so that deficiencies and advantages are detected in the existing facilities at the Community Health Center. The material presented is an introduction to the program or innovation by explaining the use of the innovation, the preparations made and the procedures for implementing it. There were 1 doctor, 4 nurses, 1 medical center administration staff, 1 operator staff, and 1 counter staff who participate in community service activities. All participants were very enthusiastic about this training and it could increase the number of repeat visits for hypertensive patients.

**Keywords:** automatic reminder message; repeat visits; hypertension

#### Abstrak:

Kunci dalam manajemen hipertensi adalah kunjungan kontrol rutin ke puskesmas atau fasilitas kesehatan lainnya. Kunjungan tersebut sangat penting dalam memantau respons terhadap pengobatan, menyesuaikan terapi jika diperlukan, serta memberikan edukasi dan dukungan kepada pasien. Rendahnya kepatuhan pasien hipertensi terhadap kunjungan ulang atau kontrol teratur dapat menghambat keberhasilan pengelolaan hipertensi serta meningkatkan risiko komplikasi. Inovasi SI-KEPPO (Sistem Kelompok Pesan Pengingat Otomatis) merupakan sebuah inovasi yang bertujuan untuk memberikan solusi efektif dalam mengelola dan mengatur kunjungan ulang atau mengingatkan waktu kontol bagi individu atau kelompok secara otomatis melalui pesan teks atau pesan lainnya. Kegiatan ini merupakan pengabdian masyarakat yang ditujkan kepada dokter, perawat, tenaga administrasi dan bagian loket. Pelatihan secara langsung di lakukan pada komputer yang dimiliki Puskesmas sehingga terdeteksi kekurangan dan kelebihan pada sarana yang ada pada puskesmas tersebut. Materi yang disampaikan adalah pengenalan program atau inovasi dengan menjelaskan kegunaan inovasi tersebut, persiapan yang dilakukan dan tata cara pengaplikasiannya. Terdapat 1 orang dokter, 4 orang perawat, 1 bagian administrasi balai pengobatan, 1 orang bagian operator dan 1 orang bagian loket yang berpartisipasi dalam kegiatan pengabdian kepada masyarakat. Semua peserta sangat antusias dalam pelatihan ini dan dapat meningkatkan capaian kunjungan ulang pada pasien hipertensi.

Kata Kunci: pesan pengingat otomatis; kunjungan ulang; hipertensi

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## INTRODUCTION

Sobo Health Center is in the middle of the city area in Banyuwangi sub-district, Banyuwangi district. The Sobo Health Center is situated in the lowlands with a working area of 19.21 Km2. The farthest distance for the villagers to the health center is about 5 km, with good road access conditions. The total population in the Sobo Health Center working area is 47,690 people, made up of 18,530 families and consisting of 23,720 men and 23,970 women. The majority of people occupations in this area are self-employed. The education of the people in this area is at least with senior high school (SMA).

Community Health Centers are responsible for implementing health policies to achieve health development goals in their working areas to support the realization of a healthy sub-district. The implementation of the first level of SMEs in the working area, the implementation of the first level of UKP in the working area, the identification of the top 10 diseases in the working area, of which the 3 highest are DM, Common Cold, and Hypertension, and Overcoming problems in the non-communicable disease program of Hypertension and Diabetes mellitus cases about low control achievements and re-visit rates are some of the tasks of the Public Health Center.

Hypertension, or high blood pressure, is one of the most serious public health problems (Nugroho & Masrika, 2023) worldwide (Suprayitno & Huzaimah, 2020). Hypertension is known as the "silent killer," often showing no obvious symptoms, making it difficult to detect without a medical examination. Patients often do not realize that they have hypertension until complications occur that can endanger their health (Harahap et al., 2019). According to the World Health Organization (WHO), hypertension is a major risk factor for heart disease, stroke, kidney failure, and various other health complications (Agus et al., 2021; Anggorodiputro et al., 2023; Nugroho & Masrika, 2023). Although treatable, the management of hypertension requires long-term care that involves regular blood pressure monitoring and lifestyle regulation (Harahap et al., 2019).

According to data submitted by the World Health Organization (WHO), approximately 50% to 70% of patients who receive antihypertensive drug prescriptions are not compliant with the recommended treatment (Harahap et al., 2019). The 2018 Basic Health Research data noted that the national prevalence of hypertension was 34.1%. Furthermore, of all patients, 32.3% did not regularly take medication, and 13.33% did not (Nugroho & Masrika, 2023). Hypertension data at the Sobo health center was recorded at 4686 with a total coverage of 49%, the ratio of Controlled Prolanis Participants was zero. The increase in the incidence of hypertension at the Sobo health center is in line with the decrease in treatment effectiveness, which is thought to be caused by low levels of compliance in re-control and drug intake, and lack of knowledge in both sufferers and their families. This condition results in failure in the implementation of treatment and complicated efforts to control hypertension.

The optimal strategy for managing hypertension is to reduce the risk of complications and the risk of cardiovascular disease (Suprayitno & Huzaimah, 2020). One of the key aspects of hypertension management is regular visits to Community Health Center or other health facilities. These visits are important to monitor response to treatment, adjust therapy if needed, and provide education and support to patients (Harahap et al., 2019). However, the level of patient compliance with regular control visits is relatively low, which can hinder treatment success and increase the risk of complications. This is in line with research on preventing complications in elderly with hypertension (Kurdi et al., 2022; Silalahi, 2022; Suprayitno & Huzaimah, 2020).

Innovations in addressing this issue aim to improve patient compliance with control visits to health centers. One promising approach is using communication technologies, such as text messaging or instant messaging applications, to automatically send reminders of control times to patients (Ahmed Osman Mohamed et al., 2022). From the results of previous studies, the use of SMS reminders offers a promising approach in facilitating medication adherence, especially for patients with chronic conditions that require long-term medication. SMS has been shown to be effective in the context of behavior modification, which can reduce risk factors related to Type 2 Diabetes Mellitus (T2DM) and tuberculosis and can increase repeat visits in mothers of infants and toddlers at posyandu (Benedicta et al., 2019; Kalsum et al., 2023; Silalahi, 2022). Through utilizing this technology, an effective and efficient reminder system can be created to help patients better manage hypertension. In this community service, we will discuss developing and implementing an automatic reminder message innovation (SI-KEPPO), a reminder of control time to the health center for hypertension patients. This innovation aims to improve compliance, increase awareness and education, improve quality of care, reduce complications and health risks, and improve health system efficiency.

#### **IMPLEMENTATION METHOD**

The implementation of SI-KEPPO innovation training activities was carried out at the Community Health Center Sobo—Banyuwangi. It was conducted in the Examination Room or Treatment Center and in the Technician Room of the Health Center. Training activities were carried out on Saturday, Monday and Tuesday. On Saturday, it started with socialization with doctors and nurses of the Community Health Center Sobo and then continued to the BP administration and counter. On Monday, the socialization of the SI-KEPPO application was presented to counter and BP administration officers. On Tuesday, the SI-KEPPO innovation was tested on hypertension patients who visited the health center. 3 hypertension patients were examined and then arranged for re-control after 3 days. The background of the participants who control the data entry program and technical management officers at the *Puskemas* is in the field of informatics. The method used in developing and implementing the Si-KEPPO innovation (automatic reminder message system) is

direct training on the PC owned by the Health Center, so that the weaknesses and advantages of the existing facilities at the Health Center are detected. The material presented was an introduction to the innovation program by explaining the usefulness of the innovation, the preparations made and the procedures for its application. It was then continued with discussion and questions-answer sessions with participants. Finally, we ensure the trainees apprehend the training activities and provide assistance to monitor the success of applying the methods and tools used.

## **RESULT AND DISCUSSION**

This activity is an effort to improve hypertension patient services and increase the achievement of re-visit by utilizing existing information technology and digitalization. This 'SI-Keppo' innovation is practiced by sending automatic messages from the Community Health Center via WhatsApp to remind the schedule of re-visits for hypertension patients at the Community Health Center Sobo – Banyuwangi. The purpose of the 'SI Keppo' innovation is through reminder messages sent via WhatsApp, patients will comply with re-visits or controls. In addition to reminding the visit schedule, it is as a form of Community Health Center service to patients so that they feel cared for by the Health Center. Hypertension is a disease that requires long-term therapy, so it requires patient compliance in undergoing treatment to control blood pressure and reduce the risk of complications. Complications of hypertension in the body's organs cause a high mortality rate. One type of compliance in the treatment of hypertension is obedience to retrieving drugs from healthcare facilities to ensure that the patients have the drugs available to take. Hypertension is a non-communicable disease and part of the national flagship Community health center program with various innovations implemented to improve the patient's quality of life.

'SI-Keppo' innovation is implemented for hypertension patients in the health center because it is the highest case, and the number of repeat visits of the patients is relatively low. This activity begins with the socialization of the application to various parties involved in services at the Community Health Center Sobo. The initial socialization is carried out by the treatment center service, which will provide information about a notification to hypertension patients for a repeat control schedule via WhatsApp with informed consent approval. The next stage is socialization at the registration counter, where the identity of hypertension patients and complete data such as cellphone numbers are gained. At this stage, socialization is done at once for the operator staff to recapitulate, input, and integrate the data with 'SI-Keppo' innovation.

The Community Health Center operator will detect the control schedule and send an automatic message via WhatsApp one day before the scheduled control in the Health Center to hypertension patients. Through this automatic reminder message, it is hoped that the patient will comply with the predetermined control schedule so that the achievement of hypertension patient re-visits will increase. SI-Keppo is also useful for providing health information in the form of health education and

other information related to services at the health center. This will automatically become a marketing facility.

With the availability of facilities to conduct treatment and re-visits at no cost from the Community Health Center, it is hoped that hypertension patients will regularly carry out blood pressure control and consume drugs according to the prescription given. In addition, patients start implementing a healthy lifestyle by reducing smoking, reducing alcohol consumption, managing stress, having a healthy diet, and doing exercises.





Gambar 1. Socialization to Doctors and Nurses



Gambar 2. Socialization to Treatment Service Center



Figure 3. Socialization to Registration Staff

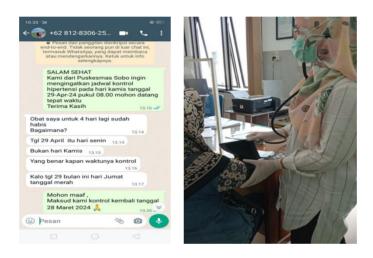


Figure 4. Evaluation of SI-KEPPO Innovation





Figure 5. Socialization of SI-KEPPO to All Program Holders at Community Health Center Sobo



Figure 6. Handing SI- KEPPO Modul to Community Health Center of Sobo

## **CONCLUSION AND SUGGESTION**

SI-KEPPO implementation training activities are very helpful for the Community Health Center to overcome the problem of low coverage of patient re-visits, especially for hypertension patients. SI-KEPPO innovation is an alternative to increase the achievement of revisits for hypertension patients. Participants' activeness in the training session and the presence of hypertension patients who come for control after getting messages from WhatsApp is one of the benchmarks for success in this activity.

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