

## **Empowerment of Aisyiyah Cadre in making medicine boxes and using medication reminder applications to create a drug-aware society**

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### **ABSTRACT**

With the development of the times and the influence of technology in the industrial era 4.0, people tend to choose everything that can be accessed easily and instantly. Likewise with the use of drugs with a large number of therapies in one consumption, attention regarding drugs is still low. This can affect the level of compliance in taking the drug. Especially in chronic diseases that require lifestyle modification and long-term therapy. Therefore, the large number of therapies that will be consumed, especially in the elderly, it will be more practical to use a medicine box or drug alarm application as a reminder when it's time to take medicine, how much to take, what drugs to take with different indications. different. The hope is that the greater the awareness of the drugs consumed, the greater the success of therapy. This is also supported by the management of drugs in each household with the dagusibu concept. In managing medicine at home, there are still many people who do not understand how to store and dispose of medicine. People store syrup medicine in the refrigerator in the hope that the medicine will last longer even though this storage is not appropriate. So that the purpose of this community service will be able to increase public awareness in creativity independently able to assemble/make medicine boxes, increase knowledge related to caring for managing household drugs by knowing the kinds of drugs on the market, various forms of drug preparation, how to use them. medicines, how to store and dispose of medicines that are not used. The method of this service activity is a participatory community empowerment method with the Particatory Rural Appraisal (PRA) model, which is a method that emphasizes community involvement in the entire series of activities carried out, starting from making medicine boxes manually, how to use drug alarm application, and implementation in managing home medicines. stairs with the Dagusibu concept.

**Keywords:** Application, Care for Drugs, Dagusibu, Medicine Box

### **INTRODUCTION**

Riskesdas in 2018 showed that there was an increase in the key PTM indicators listed in the 2015-2019 RPJMN (Directorate General of Disease Prevention and Control, 2019). Based on data from the Lamongan Health Service, it is known that currently the ten largest diseases are non-communicable diseases that require long-term therapy. One of the challenges in the treatment of chronic diseases is proper treatment so that complications do not occur in patients.

The type and frequency of health problems tend to increase with age (Makkulawu, 2019). One of the health problems that are often faced by the elderly, including the elderly in Indonesia, is the emergence of diabetes mellitus (DM) which can lead to complications including microvascular and macrovascular complications. The occurrence of complications can contribute to an increase in adverse outcomes both clinically and financially. Research evidence shows a decrease in quality of life, an increased risk of death, and an increase in medical costs as complications arise (Roy et al., 2017).

Compliance with hypertension patients in the use of antihypertensive drugs is influenced by the level of patient knowledge about hypertension and the role of health workers (Pratiwi, 2017). Patient compliance in the treatment period is something that must be considered. It is often found that patients stop treatment prematurely (Agatha & Bratadiredja, 2019). Factor in the accuracy of the selection of antihypertensive drugs that must be adjusted to the condition patients who have comorbidities, as in the study (Utami et al., 2020) Of the 11 patients who showed various negative in response, the most common comorbid in hypertensive patients is diabetes mellitus (DM).

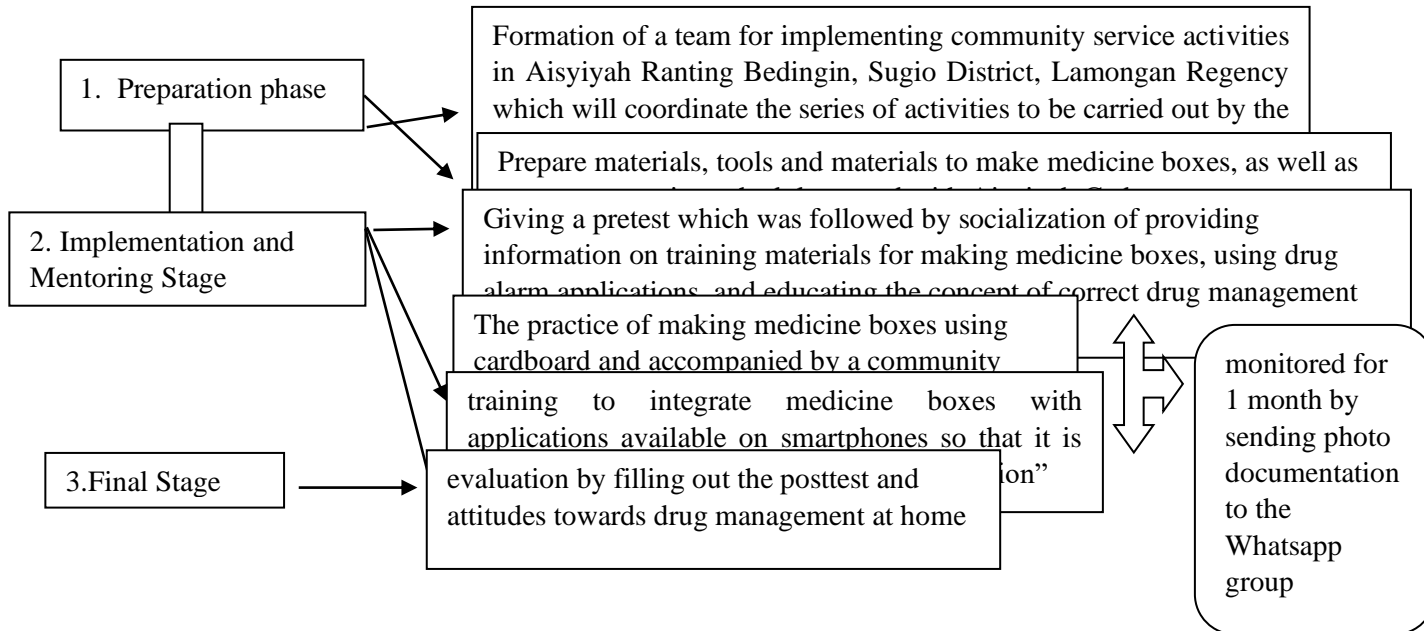
'Aisyiyah through the Branch Manager 'Aisyiyah Sugio has launched the Posyandu for the Elderly in Ranting Bedingin, Sugio District, where the Posyandu serves many elderly patients with chronic diseases. Based on the initial survey that was conducted, it was found that the majority of 'Aisyiyah cadres in the Sugio Branch became the Drug Swallowing Supervisor (PMO) of their family members. To improve patient compliance in taking medication regularly, the role of the Drug Swallowing Supervisor (PMO) is very important, because the PMO provides support for patients to take regular treatment until completion. The duty of a PMO is to support patients to always comply with treatment relatively long, namely at least 6 months, so that those who act as PMOs should be family members who are truly trustworthy in accompanying patients during treatment therapy so that therapeutic outcomes are obtained as expected (Octavia & Utami, 2020).

The results of interviews conducted with partners obtained information that during their time as PMO, the majority of cadres often forgot to remind their family members to take medicine, this was disclosed especially if the amount of medicine that the patient had to take was quite diverse and in the long term. Patient compliance during long-term treatment will result in patients becoming bored and causing treatment to be not optimal. Non-adherence to taking medication can potentially lead to complications and further disease severity (Fadhilla, 2019). Based on the results of community service from (Daryanti et al., 2020) providing education on the use of hypertension and diabetes mellitus drugs it is proven to improve therapeutic outcomes in elderly patients.

Another problem faced by partners is that they are often wrong in getting, using, storing and disposing of drugs correctly. This was disclosed because the Sugio area is not passed by public transportation, so partners often buy medicines at the nearest grocery store or shop. However, the authenticity of the drugs purchased at the shop is unknown. This can lead to undesirable things in treatment such as drugs that cannot function optimally, drugs that are used the wrong way, drugs that are not stored properly and drug disposal indiscriminately. One of the efforts made by members of Naswiatul 'Aisyiyah (NA) to improve preparedness in anticipating exposure to disaster risk is the procurement of first aid kits (Diana et al., 2020). These unwanted things can of course be detrimental to the community when using drugs (Octavia et al., 2020). Including the storage of types of drugs that are widely consumed during the covid-19 pandemic, namely multivitamins, which really need the role of pharmacists (Utami et al., 2021). The implementation of the "reminder" method of taking medication in the form of an automatic pill dispenser has been proven to improve drug compliance in elderly patients (Kamimura et al., 2012).

This Community Service aims to increase public knowledge through 'Aisyiyah cadres in managing drugs in the household appropriately and increasing the compliance of elderly patients in taking medicine by training in medicine box manufacture and the use of drug alarm application.

## METHOD



The results obtained from this activity were 18 cadres of 'Aisyiyah Bedingin who participated in the activity until it was finished. All participants in this activity are female, with the highest age range being 36-45 years. Based on the level of knowledge related to drug management with the concept of 'Dagusibu', it gives results with a level of knowledge of Good (90.28%). This means that the cadre of 'Aisyiyah Bedingin knows and understands the material presented by the community service team have a good attitude in carrying out the practice of making medicine boxes. This good attitude was shown by most of the cadres of 'Aisyiyah Bedingin knowing that several things related to drug management at home had to be considered. In the acquisition of the drug which must be obtained from the pharmacy, the use of drugs that pay attention to labels and instructions for use, storage of drugs that are easily accessible, avoid sunlight and humid conditions, to the disposal of drugs that adjust to the dosage form and conditions of shape, smell, color, and taste.

## DISCUSSION

This community service activity aims to increase community compliance with long-term medication through the manufacture of medicine boxes independently, train public awareness to always be orderly in consuming drugs and increase community knowledge and attitudes in managing household drugs appropriately with the Dagusibu Concept. After the socialization of providing information and tutorial practice on making medicine boxes, 'Aisyiyah cadres have high interest and skills in participating in a series of training on making medicine boxes. The use of drugs is important, taking into account the accuracy of drug selection with indications and symptoms, the right dose, the right way to use, the right patient (Barry & Hughes, 2019). The results of each box of medicine that have been made by each cadre of 'Aisyiyah, will be used to train the independence of drug management at home. This is important to be a special concern, because so far there are still many people who previously did not have a medicine box, and their storage was still mixed with other household items, so it was feared that it would disrupt the stability and effectiveness of the medicinal properties (Herman & Susyanty, 2013). Another method to increase compliance and alertness in the use of drugs, can use a medication reminder application available on Android-based smartphones. The community service team provides simulation tutorials on the use of existing applications, and is also practiced by 'Aisyiyah cadres. The existence of rapid technological developments, of course, makes it easier for people to be more obedient to taking medication, especially in patients with chronic diseases. Based on (Blondon et al., 2014) Android-based smartphone applications can be an option as an educational medium. The use of smartphone applications will also increase

community compliance in taking medication, especially if people have chronic diseases. Cadre 'Aisyiyah showed high enthusiasm, so the measurement at the level of knowledge also resulted in a good level of knowledge (90.28%) related to knowledge of drug management with the Dagusibu concept. In the last series of activities, the community needs to convey attitudes regarding drug management. This good attitude was shown by most of the cadres of 'Aisyiyah Bedingin knowing that several things related to drug management at home had to be considered. In the acquisition of the drug which must be obtained from the pharmacy, the use of drugs that pay attention to labels and instructions for use, storage of drugs that are easily accessible, avoid sunlight and humid conditions, to the disposal of drugs that adjust to the dosage form and conditions of shape, smell, color, and taste.

### CONCLUSIONS AND RECOMMENDATIONS

The conclusion of Community Service activities in the form of empowering Aisyiyah Cadres in Making Medicine Boxes and Using Drug Applications accompanied by Household Medicine Management with the Dagusibu Concept is the level of knowledge produced is Good (90.28%), 'Aisyiyah Cadre is able to make medicine boxes independently, and A good attitude is shown by most of the cadres of 'Aisyiyah Bedingin knowing that several things are related to drug management at home

### ACKNOWLEDGMENTS

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APPENDIX



**Figure 1.** Dissemination of information on drug management to the 'Aisiyah Cadre at Bedingin, Sugio



**Figure 2.** Medicine box making training practice by a team of community service lecturers



**Figure 3.** Student participation in helping to manufacture medicine boxes



**Figure 4.** Assistance in managing medicine at home using a medicine box for 1 month



**Figure 5.** Monitoring evaluation using posttest.



**Figure 6.** The result of making medicine boxes by Cadre Aisiyah Bedingin, Sugio



**Figure 7.** Handing over of souvenirs to the Head of Cadre 'Aisyiyah as a thank you for participating in a series of community service activities