Utilizing Empty Land in Schools to Become a Living Pharmacy

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Abstract

Having an area of 17,540 m² makes SMP Negeri 55 Palembang have the potential to be made a green space in an effort to fulfill the needs of educational community services. The presence of a living pharmacy aims to utilize empty land at schools and herbal plants around the school. Aside from being a medicinal plant, a living pharmacy also functions as a green space that can support the student learning process and foster a sense of student responsibility. There are ten types of plants that are used as herbal plants at SMP Negeri 55 Palembang, namely ginger, lemongrass, galangal, sambiloto, turmeric, aloe vera, temulawak, lime, betel leaf, and Brotowali. These nine types of plants have their respective benefits for the treatment of disease as well as side effects that are almost non-existent in every herbal plant in a live pharmacy. Land use begins with clearing vacant land of wild plants, then the process of loosening the soil, the process of planting traditional plants, and the final evaluation of the activities or programs being carried out. Making a Living Pharmacy is a project of PPG Pre-service Batch 2 students, especially group 3, to educate students to care about the environment.

Keywords: Herbal Plants, Empty Land, Living Pharmacy



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INTRODUCTION

Indonesia is an agricultural country with the majority of its population working as farmers. As an agricultural country, of course, Indonesia has abundant natural resources. One of Indonesia's abundant natural wealth, namely plants, Indonesia has various types of plants that are also useful for healing and treatment (Prabawati & Fitriani, 2023). More than 1000 plant species in Indonesia can be used as raw materials for medicine, therefore the cultivation of medicinal plants in Indonesia has excellent potential for development (Halifa, 2021). One way of cultivating medicinal plants is by creating a living pharmacy. Life Pharmacy is utilizing part of the land for planting medicinal plants and daily necessities. Besides the function of live pharmacy plants as medicinal plants, live pharmacies can also be used to decorate yards and can be used to deal with various diseases (Aisyah et al, 2021).

Planting apothecary plants in the vacant land of SMP Negeri 55 Palembang is a step taken as an effort to utilize and beautify the vacant land in the school. Apart from that, the planting of a living pharmacy is expected to be used for medicines in everyday life. In addition, activities to care for a living pharmacy such as giving plant fertilizer regularly, watering the plants every morning, and pulling weeds that grow around the plants, will make the body healthy so that the body will become fitter (Reza & Bakri, 2022). The planting or creation of a living pharmacy will be carried out by Pre-Service PPG Batch 2 group 3 students who are carrying out PPL activities and leadership project implementation activities. The location of this community service activity is at SMP Negeri 55 Palembang which is located on Karya Baru, Alang-Alang Lebar, Palembang. SMP Negeri 55 Palembang has a land area of 17,540 m2 which is quite large so it is suitable for supporting the activities to be carried out. Some vacant land has been utilized properly but there are still several other vacant lands that have not been utilized optimally. Departing from this, PPG Pre-service Batch 2 students who were carrying out leadership project activities took the initiative to manage and utilize one of the school's vacant lands to be used as a living pharmacy. considering the many benefits that can be obtained from a living pharmacy for the school community. Based on the information above, the most ideal community service activity for students is the procurement of a living pharmacy garden that uses the principle of neat plant arrangement, and has many benefits, and benefits for the school community.

RESEARCH METHODS

This service activity will be held from 21 July 2023 to 11 August 2023 at SMP Negeri 55 Palembang. This service is focused on utilizing empty land at the school into a living pharmacy. The tools used are pliers and hoes, while the materials used are live apoyek plants in the form of 15 types of plants. The stages of implementation of this service include:

- 1. Preparation phase. In the preparation stage, the first thing to do is initial observations regarding the research that will be carried out as initial data in carrying out community service, then hold discussions with the head of SMP Negeri 55 Palembang as partners in this community service activity to discuss the timing of this community service, then arrange letters permission for community service activities to the Sriwijaya University campus through the dean of the teaching and education faculty, after receiving a letter from the campus it was followed by obtaining a permit from the Palembang city education office as the institution that oversees all junior high schools in Palembang.
- 2. Implementation Stage
 - a. In the initial stage of implementation, the activities carried out were providing outreach to students regarding the activities of making a living pharmacy (demonstration of the correct way to plant medicinal plants) and explaining the properties of the medicinal plants that would be planted in a living pharmacy.
 - b. The process of making a living pharmacy (planting of medicinal plants carried out by the service team and class VII students)
 - c. The demonstration process will be carried out by the service team and assisted by a partner, to practice how to process live pharmacy plants into a nutritious drink (turmeric tamarind).
- 3. Evaluation. At this evaluation stage, an evaluation of all community service activities is carried out.

RESEARCH RESULTS AND DISCUSSION

Making this living pharmacy garden has several stages and processes in its formation, while the stages that have been passed in making and utilizing this living pharmacy include:

- a. The first stage: At this stage planning and consultation are carried out, the researcher coordinates in advance with the school, namely through the school principal. This is to support the activities to be carried out, after coordinating with the school, the researcher submitted a permit letter to hold this activity to the campus, namely Sriwijaya University which was intended for SMP Negeri 51 through the Palembang City Education Office
- b. Second stage: At this stage the researcher conducts socialization regarding living pharmacy gardens and medicinal plants (how to use them) after the socialization activity, followed by clearing the land and parts around the land, so that it requires quite a lot of time and energy.



Figure 1. Socialization Regarding Living Pharmacy Gardens And Traditional Plants



Figure 2. Land Clearing

c. Third stage: At this stage the activities carried out are the digging of the living pharmacy land so that the planted plants can live well.



Figure 3. Soil Explosion Process

d. Fourth stage: at this stage the process of planting medicinal plants in living pharmacy land is carried out by class VII students who are assisted and supervised by PPG students, homeroom teachers, and Adhiwiyata advisors. The number of plants grown in the school's living pharmacy is 10 types of plants. The following types of plants grown in living pharmacies can be seen in the table and figure below:



Figure 4. Medicinal Plant Planting Process

	No	Plant Name	Latin name	
	1	Ginger	Zingiber	
	2	Turmeric	Curcuma Longa	
	3	Galangal	ngal Alfinia Galanga c ginger Kaemfperia Galangan	
	4	Aromatic ginger		
	5	Curcuma	Curcuma Zanthorrhiza	
	6	Aloe vera	aloe vera Citrus x Aurantiifolia Piper Betle	
	7	Lime		
	8	Betel leaf		
	9 Sambiloto Andrographis Pani 10 Brotowali Tinospora Cordif		Andrographis Paniculata	
			Tinospora Cordifolia	

Table 1. List Of Plant Species in Living Pharmacies at SMP Negeri 55 Palembang

Source: Personal Data

e. Fifth Stage: At this stage, reflection and evaluation are carried out regarding the activities that have been carried out, whether they have gone well or not and determine the follow-up to be carried out after this activity. In addition, in this fifth stage, the researcher also provided observation sheets for school principals, adhiwiyata supervisors and student council supervisors for SMP Negeri 55 Palembang to assess the level of success of this activity, then the researcher also conducted tests on class VII students consisting of 18 students as a sample. Furthermore, to monitor students' success in utilizing medicinal plants, students are asked to make nutritious traditional drinks derived from medicinal plants for further presentation . The results of these observations and tests can be seen in the table and figure below:



Figure 4. Reflection And Evaluation Of The End Of The Activity



Figure 5. Student Presentation On How To Make Nutritious Drinks From Medicinal Plants

Table 2	. Recapitulat	ion of Observa	ation Results	of the Productio	n of Living Pharmacy Ac	tivities
	Observers	Total score	Grade	Success	Overall Success	
			Average	Percentage	Percentage	
	m	54	3.6	90%		
	AR	57	3.8	95%	93.3% (Very Good)	
	m	57	3.8	95%		

Source: Personal Data

No	Student Name Class		Mark
1	Adelia Nur Asyifa VII.A		80
2	Kevin Rafalio	VII.A	70
3	Holy Adrian Nugraha	VII.B	90
4	Aldo Amina Nugrah	VII.B	80
5	Kirana image	VII.C	80
6	Juwita Afriani	VII.C	90
7	Mud	VII.D	90
8	Achmad Rici Aditya	VII.D	70
9	Dwi Vintaria	VII.E VII.E	100 80
10	Ferry Febriansyah		
11	Pajar loyalist	VII.F	80
12	12 Nabila Cahya		90
13	3 Rediansah		80
14	14Silvana15Chintya Aranti		80
15			80
16	16 Close to Dwi Juliandi		60
17	17 Dami Apriadi		80
18	Asyifa Maharani	VII.I	80
	Total value	1460	
	Grade Average	81.11 (Good)	

Table 3. Recapitulation of Student Test Results on Knowledge of Living Pharmacy

Source: Personal Data

Discussion

From the results of the research that has been described previously, it can be concluded that planting a living pharmacy has a positive impact. A private pharmacy is defined as land planted with medicinal plants that are used for traditional medicine (Widyawati, 2015). With a living pharmacy, students can analyze medicinal plants that have properties and benefits. As we know today, many young people do not know the existence of medicinal plants and their benefits (Triana et al., 2021). Students get to know medicinal plants and the natural properties obtained from these plants, so they can reduce the use of factory-made medicines because they contain lots of chemicals (Cahyandari, 2018). live pharmacies or medicinal plants, both cultivated and non-cultivated plants, have medicinal properties that can be used as raw materials for making modern and traditional medicines (Rusmina, 2015). The use of yards or land with green plants in the form of parks is an effort to return to nature which makes the school atmosphere beautiful and natural (Aisyah et al., 2021) (Rahman et al., 2022).

The activity of planting living pharmacy plants at SMP Negeri 55 Palembang was organized by students of the PPG Pre-service PPKn study program at Sriwijaya University, in order to utilize the empty land at the school. It is hoped that this activity and program will later be useful for the school, and can be used as an alternative and solution as a medium. to develop students' responsible character, such as caring for and cultivating medicinal plants as a form of follow-up to the program that is currently being implemented. Then, according to Aziz (2013: 11), one of the things that causes environmental damage is that the character of caring for the environment and responsibility is not properly ingrained. Living in pharmacy gardens in schools is an initiative that is very beneficial in many aspects (Maisaroh et al., 2022). This garden can be used as a practical learning tool to understand the health benefits of various types of medicinal plants. Students can learn about the properties of medicines, how to process them, and the medicinal potential contained in these plants. Students can develop practical skills in caring for plants, such as planting, tending, and harvesting. These are skills that can benefit them throughout their lives. Students can use the living pharmacy garden as a base for

research and innovation in the field of natural medicine. This can stimulate their interest in science and technology.

In the live pharmacy plants that have been carried out, there are 10 medicinal plants that have properties. Medicinal plants that are planted are found in everyday life, this is to make it easier for students to recognize them. Examples include turmeric which is used to reduce heat, temulawak which can lower cholesterol levels, kencur is used for cough medicine, ginger is usually made into drinks to warm the body, and other plants such as galangal, bitter, betel, and aloe vera. Therefore it can be concluded that the development of a living pharmacy garden in schools can provide broad benefits, ranging from education to health and the environment. This is a positive step towards promoting continuing education and a better understanding of the human relationship with nature.

CONCLUSION

Based on the results of the work program service activities, it can be concluded that the activity of creating and utilizing a living pharmacy has gone well and resulted in a living pharmacy garden which has benefits and aesthetic value, whereas the activity of creating a living pharmacy was carried out by Batch 2 Pre-Service PPG students, PPKn Study Program which was carried out at SMP Negeri 55 Palembang, this activity consisted of several stages, namely the first stage, planning and consultation were carried out in coordination with the school principal, the second stage the researchers carried out socialization regarding the living pharmacy garden and medicinal plants (how to use them) then continued with cleaning The third stage is the cultivation of living pharmacy land so that the planted plants can live well. The fourth stage carried out the process of planting medicinal plants in living pharmacy land. The number of plants planted in the school's living pharmacy is 15 types of plants. In the fifth stage, reflection and final evaluation are carried out as well as giving observation and test sheets to observers and students. The results of the observations show that the Overall Success Percentage is 93.3% in the very good category, which means that the living pharmacy park that was created has fulfilled the aspects of the indicators to be achieved, then The test results show that the overall average score is 81.11 with good category, which means that most of the students already understand and have knowledge about living pharmacy gardens and medicinal plants. Therefore, it can be concluded that the development of living pharmacy gardens in schools can provide broad benefits, ranging from education to health and the environment.

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