

# Improving the quality of aster Posyandu in stunting prevention strategy and health independence at Bantul

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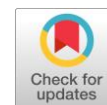
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## ABSTRACT

Posyandu is the front line in public health services, especially for mothers, children, and the elderly at the village level. However, along with the development of the era and the needs of the community, there are significant challenges related to the limitations of the tools and the effectiveness of the services provided. This study aims to identify and implement innovations in improving tools and improving services at the Aster Posyandu located in Srihardono, Pundong, Bantul, Special Region of Yogyakarta (DIY). Through a participatory approach, this community service activity involves Posyandu cadres and the local community in the process of evaluating service management, improving, and training in the use of digital health tools. The results of this intervention showed a significant increase in the quality of service, especially in terms of measurement accuracy, service time efficiency, and community satisfaction. In addition, innovations in the management system and service flow have also succeeded in reducing queues and accelerating the process of recording health data. Improvements in tools and service innovations at Posyandu have a positive impact on increasing health independence, as well as strengthening the role of Posyandu as the spearhead of health services at the village level.



## KEYWORDS

Posyandu  
Health  
Stunting  
Services  
Health equipment



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## 1. Introduction

Demographic changes have led to significant growth in the elderly and toddler populations across the region. The increase in the number of elderly and toddlers has an impact on health challenges. The elderly population will face various health problems related to the aging process, while toddlers have problems related to the growth process [1]–[3]. The growth in the number of elderly presents significant challenges and opportunities in efforts to meet their health needs [4]. With increasing life expectancy, the increase in the number of elderly provides an impetus to increase attention to aspects of their health, including disease prevention, management of chronic conditions, and improving overall quality of life [5]. Meanwhile, stunting is a condition of chronic malnutrition in children that occurs in the first thousand days of life, starting from pregnancy until the child is two years old [6]–[8]. This condition is characterized by a child's height being shorter than the standard for their age and can significantly affect their physical and cognitive development [9]. Stunting is not only related to lack of nutritional intake, but is also influenced by inappropriate parenting patterns, limited access to health services [10]–[13], and an unhygienic environment. The long-term effects of stunting can hinder learning ability, reduce productivity in adulthood, and increase the risk of non-communicable diseases [1], [14]–[16]. With the high prevalence of stunting in several regions, greater efforts are needed to prevent and reduce this problem through appropriate nutritional interventions and the provision of health care to children.

The Indonesian government has also paid attention to the health problems of the elderly and toddlers through Law of the Republic of Indonesia Number 36 of 2009 concerning health for the elderly and Presidential Regulation Number 72 of 2021 which regulates the reduction of stunting. Bantul Regency with an area of 506.85 km<sup>2</sup> is divided into 17 sub-districts, 75 villages, and 933 hamlets. In the second

semester of 2023, the population of Bantul Regency was 1,078,404 people. The largest population is in Banguntapan Sub-district and the smallest population is in Kretek Sub-district. In addition, the number of elderly people will reach 157,911 people in 2023 and the number of toddlers will reach 12,791 people in 2023. Meanwhile, the number of health centers in Bantul is only 27 health centers, consisting of 16 inpatient health centers and 11 outpatient health centers. This is what causes some communities in the village to receive less attention regarding health for the elderly and toddlers [17].

One of the villages that needs attention is Boto Village, Srihardono Village, Pundong District. Boto Village has an Aster Posyandu which is managed by Posyandu cadres and PKK mothers. Aster Posyandu is one of the Integrated Service Posts (Posyandu) operating in Srihardono Village, Pundong, Bantul, DIY. As part of the Posyandu network in Indonesia, Posyandu Aster functions as a preventive and promotive public health service center, with a primary focus on pregnant women, toddlers, and the elderly. Posyandu Aster provides various health services, such as monitoring child growth and development, health checks for pregnant women and the elderly. In addition, Posyandu Aster is also a place for the importance of maintaining health, with the aim of increasing community awareness and independence in maintaining health. With the support of trained cadres and active community participation, Posyandu Aster plays an important role in preventing stunting and improving the quality of family health in Boto Village, Srihardono Sub-district.

Although Posyandu Aster plays an important role in efforts to prevent stunting, and maintain the health of pregnant women and the elderly, there are still several challenges related to the quality of the tools and services available. One of the main problems is the limited health equipment used, which is often outdated or inadequate to provide accurate measurements. This can hinder proper monitoring of child growth and development, the health of pregnant women and the health of the elderly [18]. Adequate understanding is also needed in serving the elderly and toddlers who experience stunting [19], [20]. Lack of access to sophisticated health equipment and adequate training for Posyandu cadres are the main challenges that need to be overcome to increase the effectiveness of Posyandu Aster in carrying out its functions. In addition, the use of herbal plants by the local community and Posyandu Aster is still relatively low. Lack of understanding of the benefits and how to process TOGA plants is one of the main factors that hinders the optimization of their use. The lack of socialization and ongoing guidance makes people tend to ignore the great potential of this herbal plant as an alternative natural medicine. This problem requires more attention to encourage increased awareness and utilization of TOGA plants as part of efforts to improve public health. Fig. 1 shows the condition of Aster Posyandu services.



Fig. 1. Aster Posyandu Services during Observation

This condition is the background for community empowerment activities through improving the quality of health service equipment and training for Aster Posyandu cadres in Boto Village. The purpose of this empowerment is to ensure more accurate monitoring of child growth and development and to provide more effective and efficient health services. The target output of the community service activities carried out is the achievement of good service after training in service management related to handling the health of the elderly and toddlers. In addition, it is hoped that Posyandu cadres can be better at measuring child growth and development after improving the quality of health equipment and anthropometry.

## 2. Method

The implementation method of improving the quality of tools and services at the Aster Posyandu involves several strategic steps and modernization of health tools such as digital baby scales and infrared height measuring devices to improve the accuracy of monitoring child growth and development. Training for Posyandu cadres is carried out to ensure effective use of tools and the provision of comprehensive health education. Periodic monitoring and evaluation are carried out to assess the impact of these changes, while active community involvement and cooperation with various parties, including the government and health institutions, support the successful implementation of this strategy. Activities are carried out from July to December 2024. This empowerment activity involves a team of lecturers from the Management, Electrical Engineering, and Pharmacy Study Programs of Ahmad Dahlan University and students.

## 3. Results and Discussion

Improving the quality of tools and services at the Aster Posyandu in Boto Village, Srihardono Sub-district is a strategic step that has a significant impact on efforts to prevent stunting and increase community health independence. Through various initiatives that have been implemented, several important results can be identified, which are then discussed in the context of effectiveness and challenges faced [21].

One of the results that can be seen physically from this improvement is the modernization of the SOP for posyandu services and health equipment used at the Aster Posyandu. Making posters of SOP services, information websites related to posyandu services, services for the elderly with wheelchairs, blood sugar, cholesterol and uric acid health check tools, digital scales for babies, modern height measuring tools that have allowed monitoring of child growth and development to be carried out more accurately. Before this modernization, the tools used tended to be outdated and inaccurate, which caused potential errors in assessing child growth and development. In addition, Aster Posyandu cadres also had difficulty in handling the elderly who had difficulty moving. With the new tools, the data obtained is more valid and can be relied on to carry out earlier interventions, especially in preventing stunting. Wheelchairs and other measuring tools for the elderly such as blood sugar, cholesterol, etc. are also very helpful in mobilizing cadres in checking the health of the elderly. Improving the quality of aster posyandu equipment in boto village show in Fig. 2.



Fig. 2. Improving the Quality of Aster Posyandu Equipment in Boto Village

This improvement also has an impact on community satisfaction and trust in the services provided by Posyandu Aster. The community is beginning to realize the importance of routine measurement and validity of health data for children, pregnant women, and the elderly. This has also encouraged increased community participation in Posyandu activities, which are an important component in the stunting prevention strategy. In addition to improving equipment, improving services is also a major focus in this strategy. Routine training for Posyandu cadres has improved their ability to use modern health equipment and provide more effective health education. Previously, limited knowledge and skills of cadres were obstacles to providing optimal services. With this training, Posyandu cadres are now more confident and able to carry out their duties better. Service Training for Aster Posyandu Cadres show in Fig. 3. Standard operating procedure for aster posyandu show in Fig. 4.



Fig. 3. Service Training for Aster Posyandu Cadres, Boto Village



Fig. 4. Standard Operating Procedure for Aster Posyandu, Boto Village

Although various improvements have been made, the implementation of this strategy is not without challenges. One of the main challenges is the sustainability of funding for the procurement of health equipment and training of cadres. Limited resources often hinder the procurement of more sophisticated equipment or the implementation of more frequent and in-depth training. In addition, although community participation has increased, there are still some people who do not fully understand the importance of active participation in posyandu activities. This requires further efforts in socialization and community education so that all levels of society are actively involved. Another challenge faced is maintaining the motivation and enthusiasm of posyandu cadres, who often experience fatigue due to heavy and continuous tasks. Overall, the improvement in the quality of equipment and services at Posyandu Aster has shown positive results in efforts to prevent stunting and increase health independence according to Fig. 5 below.

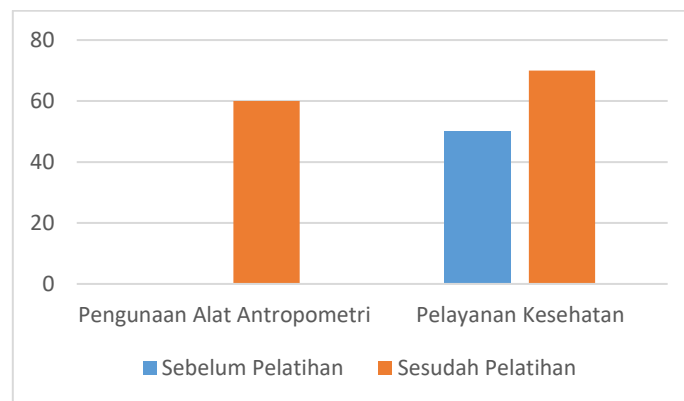


Fig. 5. Changes in Knowledge of Aster Posyandu Cadres in Boto Village

This success is mainly seen from the increasing accuracy of monitoring child growth and development and increasing community participation in posyandu activities. However, this success must also be balanced with ongoing efforts to overcome existing challenges. There needs to be a strong commitment from the local government to ensure sufficient funding, as well as ongoing programs to maintain the motivation of posyandu cadres. Public education must also continue to be improved so that they understand the importance of the role of posyandu in maintaining family health. That way, Posyandu Aster can continue to function as the spearhead in preventing stunting, maintaining the health of pregnant women and the elderly and increasing the independence of community health in Boto Village, Srihardono Sub-district.

#### 4. Conclusion

Improving the quality of equipment and services at the Aster Posyandu is an important step in the strategy to prevent stunting, maintain the health of pregnant women and the elderly, and strengthen health independence in Boto Village. Through the procurement of more modern health equipment, cadre training, and improving services, the Aster Posyandu can provide more accurate monitoring of child growth and development, the health of pregnant women and the elderly, and more effective health education. With community support and collaboration from various parties, this effort is expected to improve health welfare and create a more independent community in maintaining health, thereby improving the quality of life in Boto Village, Srihardono Sub-district.

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#### Declarations

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