

Exploring Factors Influencing Equitable Access to Healthcare in Urban Makassar through the Dottoro'ta Case

Amran Razak

Public Health dan Policy Administration Department, Hasanuddin University, Makassar-90234, Indonesia.

Email : profamranrazak@gmail.com

Abstract

Background : Efforts to increase equitable access to health services require innovative interventions and institutional strengthening. Maintaining equal and fair access requires transformative changes in health care interventions. This research aims to identify potential factors for the Dottoro'ta home care program as an innovative intervention to provide equal and inclusive access to health services in Makassar City.

Method : This study uses qualitative research to identify potential factors in the Dottoro'ta home care program in primary health services in urban areas. Potential factors include identifying assets needed for homecare services, detecting the need for homecare services based on economic and social factors, formulating innovative, equal and sustainable homecare service models in urban areas. Data collection was carried out through semi-structured in-depth interviews with program managers, and health officers implementing the program, as well as people who had used Dottoro'ta services (n=29). Thematic analysis was conducted to examine important themes that emerged.

Results : The findings of this study indicate that potential components play an important role in supporting the Dottoro'ta home care program, given limited resources. This research found that the Dottoro'ta program is a cost-effective health service approach and can reduce gaps in the implementation of the Social Security Administering Agency (BPJS) in the health sector, and is easy to replicate in the provision of primary health services.

Conclusion : These findings highlight the extent to which the potential role of the Dottoro'ta home care program in urban areas with limited resources can address health care disparities. The adaptability and cost effectiveness of the Dottoro'ta program is an ideal solution in providing primary health services, especially in urban areas where health services are still difficult to reach.

Keywords : home care service, equitable access, innovation intervention.

Introduction

In the health services sector, access to medical services is a human right, but this right is still difficult to obtain in many underserved areas (Tescosv.com, 2023). The essence of health justice is to ensure that everyone has the same opportunity to achieve the highest level of health. On the other hand, inclusion can be defined as the ability to ensure that everyone, regardless of socioeconomic and demographic status is integrated into the healthcare system (CDC, 2022). Although there is a trend of increasing life expectancy in developing countries, the number of health facilities and resources is not increasing at the same rate (Chabouh, Safa, et al., 2023). Limited access and discomfort to health service facilities by communities with weak immune systems, hesitant communities, and those who are underserved have a direct impact on the underutilization of health services (W. Ekezie, et.al, 2022; Vashi, AP, et al., 2021). The inaccessibility and underutilization of community health centers have a major impact on people

living in peripheral areas. Innovative interventions are needed that sustainably manage the accessibility of community health centers widely, encourage preventive health, and thereby increase health coverage in hard-to-reach communities (Ahkar, Md, J.Ramkumar, 2023)

In this context since 2015, based on the Mayor of Makassar Regulation, a 24-hour home visit service has been offered (Makassar City Government, 2015). This home care program is known as Dottoro'ta (Our Doctor) which is an innovative health service delivery model that plays an important role in providing health services to vulnerable communities, especially in remote, crowded and slum living areas in Makassar City (makassarkota.go.id, 2022). The Dottoro'ta program received an award as an innovative activity in 2016 (Ministry of PAN-RB, 2016).

The Makassar City Government has also revitalized conventional mini ambulances with a low-carbon and environmentally friendly electric cars. A total of 47 fleets have been prepared to provide health services directly to residents' homes, especially in alleys that are not accessible to community health centers, on standby 24 hours a day (Bisnis.com, 2023)

In 2023, the Dottoro'ta application was upgraded to include maintenance of early warning and health response systems. This application invites all residents of Makassar City to help each other in health literacy to improve the community's health status (Rakyatsulsel, co. id, 2023). This research aims to identify potential factors for the Dottoro'ta home care program as an innovative intervention to provide equal and inclusive access to health services in Makassar City.

Method

This study uses qualitative research to identify potential factors in the Dottoro'ta home care program in primary health services in urban areas. Potential factors include identifying assets needed for homecare services, detecting the need for homecare services based on economic and social factors, and formulating innovative, equal and sustainable homecare service models in urban areas. The research location was determined using purposive sampling by selecting Community Health Centers (PKM) based on certain criteria, such as islands (PKM Kodingareng), slum settlements (PKM Pattingalloang), and locations close to national referral hospital facilities (PKM Tamalanrea Jaya). The research was conducted in June-July 2024. (Creswell and Poth, 2018).

Data collection was carried out through semi-structured in-depth interviews with 29 informants, consisting of the person in charge of the program, the Technical Implementation

Officer for Activities, the Head of the selected Community Health Center = 5 informants, and the program implementing officers = 9 informants, as well as 15 informants who had used Dottoro home care services. (Melissa and Lisa, 2019)

The data was treated with qualitative narratives using thematic analysis derived from data coding (Renjith V, et al, 2021)

Ethical approval was obtained from the Ethics Committee of the Faculty of Public Health, Hasanuddin University (Ethical Number:).

The informants also received an explanation about the research and provided informed consent before the interview. Codes are used in data reporting to ensure that no informants can be identified and maintain their confidentiality.

Results

Face-to-face interviews were conducted with 29 informants (16 women and 13 men) consisting of people in charge program managers, Technical Implementation Officers for Activities, program managers (n=5 informants), home care officers at community health centers (n=9 informants) as well as users of home care services (n =15 informants). Table 1 shows the characteristics of the informants.

Table 1. Informant characteristics

| Participant Code | Age (year) | Gender | Status | Work location/ Residence |
|------------------|------------|--------|--|--------------------------|
| P1 | 51 | M | Person in charge Technical Implementation | Makassar City |
| P2 | 46 | M | Officer for Activities | Makassar City |
| P3 | 45 | F | Program manager | Kodingareng |
| P4 | 46 | M | Program manager | Pattingalloang |
| P5 | 43 | M | Program manager | Tamalanrea Jaya |
| P6 | 32 | F | Home care worker | Kodingareng |
| P7 | 40 | M | Home care worker | Kodingareng |
| P8 | 41 | F | Home care worker | Kodingareng |
| P9 | 38 | M | Home care worker | Pattingalloang |
| P10 | 41 | F | Home care worker | Pattingalloang |
| P11 | 40 | M | Home care worker | Pattingalloang |
| P12 | 39 | M | Home care worker | Tamalanrea Jaya |
| P13 | 33 | F | Home care worker | Tamalanrea Jaya |
| P14 | 31 | F | Home care worker | Tamalanrea Jaya |
| P15 | 33 | F | Home care user | Kodingareng |
| P16 | 41 | M | Home care user | Kodingareng |
| P17 | 30 | F | Home care user | Kodingareng |

| | | | | |
|-----|----|---|----------------|-----------------|
| P18 | 29 | F | Home care user | Kodingareng |
| P19 | 49 | F | Home care user | Kodingareng |
| P20 | 31 | F | Home care user | Pattingalloang |
| P21 | 30 | M | Home care user | Pattingalloang |
| P22 | 39 | F | Home care user | Pattingalloang |
| P23 | 26 | M | Home care user | Pattingalloang |
| P24 | 16 | F | Home care user | Pattingalloang |
| P25 | 45 | M | Home care user | Tamalanrea Jaya |
| P26 | 40 | F | Home care user | Tamalanrea Jaya |
| P27 | 25 | M | Home care user | Tamalanrea Jaya |
| P28 | 51 | F | Home care user | Tamalanrea Jaya |
| P29 | 60 | F | Home care user | Tamalanrea Jaya |

After analysis, the data was grouped into three themes, each consisting of several subthemes (Table 2).

Table 2. Main Themes and Sub-Themes

| MAIN THEMES | SUB-THEMES |
|---|---|
| Identify assets needed for home care services Dottoro'ta program | Availability of adequate assets in the form of medical equipment and medical technology, other medical facilities Utilization of available assets (medical equipment, medical technology and other medical facilities) The assets most needed are medical equipment, medical technology and other medical facilities, to support home care innovation in the future |
| Detecting the need for Dottoro'ta home care services on a social-economic basis | Status economic of users BPJS/KIS or not-BPJS/KIS membership Status social of users |
| Dottoro'ta's home care formulation: Innovation, Revitalization, and Application System creates inclusive and equal services | Implications of home care innovation-Dottoro'ta realizing inclusive and equal health services The implications of revitalizing home care-Dottoro'ta are realizing inclusive and equal health services The implications of the home care-Dottoro'ta application system are realizing inclusive and equal health services |

Identify the assets needed for Dottoro'ta home care services

In this research, we aim to identify the assets owned by the Dottoro'ta home care program so that they can be used as a means of supporting and improving the quality of services that are equal and inclusive.

Based on the explanation of one informant:

"Homecare serves 1.4 million residents of Makassar City. Homecare is connected to the services of 48 Community Health Centers in 15 Districts. Now there are 47 mini ambulance units, 46 Tele-USG, 46 Tele-EKG, and with Call Center 112 which is on standby 24 hours 7 days, so that people can easily get care assistance at home." (P1)

One of the informants explained the advantages of the new fleet of low-carbon mini ambulances in replacing old conventional vehicles.

"The facilities in the new home care car are smaller in size, but wider inside and accommodate various kinds of equipment inside. There are several facilities available, such as a patient monitor in the form of a screen to monitor the patient's condition. When the patient needs to know saturation or how much air, heart rate and blood pressure you want to see. Then the patient monitor will be used." (P12).

Furthermore, another informant added:

"In the car, there is oxygen or O2 and has an oxygen hose or cannula. "Whether it's an adult or children's cannula when a patient needs oxygen during a visit from officers, it can be given immediately. There are also stretchers available to carry the patient. Then medical equipment and medicines. So at all times, medicines and medical equipment stand by," (P9)

Detecting the need for social-economic based home care services

One of the determining factors in utilizing Dottoro'ta home care services is the ease of access and the cost of treatment that must be borne by the community.

Based on what one informant said about Dottoro'ta's home care approach, it was stated :

"Access to home care services has now reached 100% in all sub-districts of Makassar City. Access to home care services, 100% can access city alleys in 15 sub-districts, including the Islands sub-district. The home care approach (dottoro'ta) is to bring health services closer, expanding and touching all levels of society, easier and even free, and integrating various health services such as hospitals, data integration, telematics and expert doctors (P1).

In general, home care workers at Community Health Centers said that the socio-economic conditions of the patients they visit varied.

One of the informants said:

"The patients who use the Dottoro'ta home care service, which is served by staff, have quite a variety of socio-economic conditions, although many also come from suburban families with low-income levels." (P9)

All users of home care services - Dottoro'ta feel happy because the services provided are free. As expressed by one user of the home care service - Dottoro'ta :

"Dottoro'ta services are free of charge (free), so we are not burdened with thinking about inspection costs. Even given free medicines." (P15)

Several users of the home care service -Dottoro'ta are happy because they are still served even though they don't have a health insurance card.

As one user of the home care service – Dottoro'ta, said:

"We are still well served, even though our family members don't have a Healthy Indonesia Card (KIS) from the Social Security Administering Agency (BPJS) in the health sector" (P20)

Home care formulations are innovative, equitable and sustainable

Efforts to increase innovation, revitalize the Dottoro'ta car fleet, and health literacy applications to provide fair and sustainable Dottoro'ta home care services were revealed from the following informants.

One informant explained the innovation and its positive impact:

"Dottoro'ta's home care innovation has met people's expectations with very high home care services with the number of calls to Call Center 112 tending to increase every year. The number of patients treated by the home care program has also increased. The positive impacts of Dottoro'ta's innovation include; "patient treatment is faster and more comprehensive, reducing the number of patient referrals because patients are served directly at home, services will be more optimal and precise because they look at the socio-economic and cultural conditions of the patients being served." (P2)

The provision of comprehensive services was revealed by several informants at the management level, both at the city health service and at the community health center.

One informant said as follows.

"Now the concept of home care in Makassar City is home visits, emergency care and follow-up, almost all cases are treated in the Dottoro'ta program, and it has become government policy innovation to treat all diseases." (P3)

Efforts to improve Dottoro'ta homecare services are carried out by revitalizing the Dottoro'ta car fleet from conventional cars to environmentally friendly cars with low carbon emissions.

As explained by one informant.

"After 7 years or 8 years, we have revitalized this program to be much better. We change all cars into EV cars, low carbon cars and cars that are more environmentally friendly. "Each fleet is alerted at 47 health centers and operates 24 hours." (P2)

In 2023 the Dottoro'ta application has been upgraded to support the maintenance of an early alert and health response system in Makassar City. It is hoped that this application can invite all city residents to help each other in health literacy to improve the level of public health in Makassar City.

According to one informant, this application can be useful:

"People will easily call a doctor at home if they are sick and it is not possible to go to the hospital. Provided for healthy people, it is easy to consult directly with a doctor, so that they can detect diseases that may arise early, and provide drug delivery services via courier. (P1) Furthermore, another informant added.

"This application can be used to report health emergencies of people around them. For example, if there are neighbors who suffer from diseases such as dengue fever, but don't know about this application, residents can help spread the word." (P4)

One informant admitted that he had been trying to contact the Dottoro'ta home care service for two days, but had not been able to access it. Thanks to their neighbors' help in accessing the new Dottoro'ta application, their family was able to enjoy Dottoro'ta home care services.

"Dottoro'ta's car came to serve us after a neighbor helped us access the new Dottoro'ta home service application." (P25)

In contrast to home care users in urban areas who can access the application, island residents mostly use Call Center 112 (toll-free) because it is considered easier to access it, as stated by one informant.

"We prefer to use Call Center 112 (toll-free) because it is easy to access, and there is no need to register an application" (P16).

Discussion

This research shows that the innovation of the Dottoro'ta home care program has experienced significant progress since its launch in 2015 with increasing public expectations regarding the use of call centers and use of Dottoro'ta services. Dottoro'ta home care provides home care services for patients who cannot go to a health center or hospital (home visit service), patients with emergency conditions (emergency home care), and patients who require post-

hospitalization follow-up care such as wound care and physiotherapy for stroke patients (home care follow up). The Dottoro'ta home care program, although the guidelines are slightly different from home care services in other regions in Indonesia and other countries, was developed based on Indonesian government regulations (Kadar, K.S., et al., 2022). This uniqueness has caused the Dottoro'ta home care program to win an award as an innovative activity at the national level (Ministry of PAN-RB, 2016)

Several previous studies found that the Dottoro'ta home care program could have a more significant impact when the program provided emergency care, home visits, follow-up care and carried out preventive health checks, as well as early detection of chronic diseases (Rochana, R, 2020; Maulana, R.A, 2021; Kadar, K.S, et.al, 2022; Maulidyana, A, et al., 2023; Mentramas, M.B dan Baharuddin, 2024)

The Dottoro'ta (home care) program can provide personalized, effective and flexible health services adapting to changing community needs because it goes directly into the community and utilizes existing community resources. Apart from that, the provision of free health services is an attraction in itself for using Dottoro'ta home care. However, there are still several obstacles in the implementation of Dottoro'ta home care services, such as limited human resources, miscommunication between staff and service users regarding the procedures and scope of Dottoro'ta home care services, and the use of relatively complicated applications. This can lead to unequal digital access and inclusion. There is a risk that technology could create access disparities, where some groups of society do not have equal access to technology-enhanced care. In some cases, this can result in inequalities in health services (Harpiawan, G, 2023)

The innovative strategy, revitalization of the mini low carbon ambulance fleet and the application of the Dottoro'ta home care service system have implications for primary health services and enable it to be applied on a wider scale to build sustainable home care programs, provide benefits to vulnerable communities and help improve service delivery overall health (Patel, J., et al., 2024).

The Dottoro'ta home care program using mini ambulances that make it easier to access the patient's residence is an underutilized resource in the health care system (Gao, M.Z., et al., 2022). In many regions of the world, programs such as Dottoro'ta (home care) using mini ambulances play an important, although underappreciated, role in the healthcare system (Ho, J.C, et al., 2020). It can fill gaps in the management of the Social Security Administering

Agency (BPJS) in the health sector, reach socio-economically underserved communities in urban Makassar, and provide flexibility in building a capable health service infrastructure.

The Dottoro'ta home care program using a mini ambulance is a form of community-based service delivery that bridges the gap in the implementation of the Social Security Administering Agency (BPJS) in the health sector and reaches socially and economically marginalized communities in densely populated settlements in the city of Makassar (Gizaw, Z, et al., 2022).

The Dottoro'ta program is an important tool for providing high-quality medical services to the urban poor. With its cutting-edge approach to health service delivery, the Dottoro'ta (home care) program has the potential to reduce health disparities between disadvantaged communities and those suffering from chronic diseases.

Conclusion

These findings highlight the extent to which the Dottoro'ta program's potential role in-home care in urban areas with limited resources can address healthcare disparities. The adaptability and cost-effectiveness of the Dottoro'ta program is an ideal solution for providing primary health services, especially in urban areas where health services are still difficult to reach.

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