

Obstacles in The Implementation of “Sayang Bunda” E-Health Application

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Abstract

Background: The “Sayang Bunda” application is an E-Health android application offered by the Semarang City Health Office which provides consultation services to pregnant women and postpartum mothers. E-Health is considered effective as a medium for consulting pregnant women in the city of Semarang. However, based on a preliminary survey to pregnant women, there are pregnant women who do not use and even do not know the application. The purpose of this study was to explore the obstacles in the implementation of the “Sayang Bunda” E-Health Application. **Research Methods:** This research is qualitative research where this research is basic and aims to obtain information and data related to the implementation of the “Sayang Bunda” E-Health application. Data collection techniques use interviews with the health center coordinator midwives and questionnaire with pregnant women and postpartum mothers. The subjects of this study are pregnant women, postpartum mothers, and the managers of community health centers. The study results show that pregnant women and postpartum mothers prefer WhatsApp groups to have consultation related to pregnancy, childbirth, postpartum and newborns since it is easier to do. It is recommended to have policy integration in several parties so that the implementation of the “Sayang Bunda” E-Health can be carried out optimally.

Keywords: E-Health, Obstacles, Implementation.

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Introduction

The industrial revolution 4.0 promotes a change in the living order of the world’s ecosystems relying on information, technology, and the internet. In addition, the COVID-19 pandemic has forced us to use internet technology in our daily needs (Mumtaha & Khoiri, 2019). In the health sector, the use of technology shows an increase during the COVID-19 pandemic. A new habit to get used to is maintaining social distancing as one of the most effective ways to avoid spreading the Covid-19. The implementation of telemedicine in Indonesia lags behind compared to other countries, and it merely started in 1990s. Meanwhile in America, it has been known since 1960 and WHO has implemented since 1970 (Kuntardjo, 2020; Santoso, Rahmah, Setiasari, & Puji, 2015).

During the Covid-19 pandemic, it had a major influence on the use of both synchronous and asynchronous e-health (Puspotiningrum, 2020).

The Semarang City Government has offered an application that allows pregnant women to have consultation services, called the “Sayang Bunda” application. In 2019, the “Sayang Bunda” application received an award from the Ministry of Health for contributing to reducing maternal mortality (Semarang City Health Office, 2019a).

A preliminary survey has been conducted on 5 pregnant women in the city of Semarang about the use of the “Sayang Bunda” application as a consultation medium. The results show that 4 pregnant women did not know the application but there were visits by health workers to carry out examinations and consulting services. According to research conducted by Indah Puspitarini, m-health is considered effective in consultation media for pregnant women (Puspitarini, 2019).

This study aims to examine the obstacles in using E-Health (Sayang Bunda) which has not been done by other researchers before. Ulul Ilmi Nafiah conducted a study entitled “pengaruh beberapa faktor terhadap penggunaan aplikasi sayang bunda pada gasurkes kia di kota Semarang Tahun 2019 (The Influence of Several Factors on the Use of the Sayang Bunda Application on the Health Surveillance Officer in Semarang City in 2019.” This study uses an explanatory research method with a cross sectional approach, univariate analysis, bivariate analysis with Spearman rank test and multivariate analysis with partial least square (PLS), while the research sample is health surveillance officer. The study results show there is an effect of perception on the ease of use of the application.

Method

This research is qualitative research aimed at obtaining basic information and data regarding the implementation of E-Health (Sayang Bunda application). To obtain the basic data, the researcher took the object of study empirically. The subjects in this study were 26 pregnant women or postpartum women and coordinating midwives from four community health centers in Semarang City. The instrument used in the interview is an open questionnaire with directed questions. Meanwhile, the instrument used to strengthen the results of the interviews is a closed questionnaire

through the Google Form given to pregnant and postpartum women. Subjects were previously asked for consent and kept confidential by the researcher. The ethical test was carried out by the Widya Husada University Research Ethics Committee Team No: 012-KEPK/UWHS-II-2021.

Result

Result application used as consultation

From the above table, it can be shown that majority of pregnant mothers in Community Health Services (*Puskesmas*) prefer WhatsApp application than “Sayang Bunda” application, in which 84.6% chooses WhatsApp, while “Sayang Bunda” application is only 15.4%.

Table 1

The use of application for consultation

The use of application	Amount	Percentage
WhatsApp	22	84.6%
Sayang Bunda	4	15.4%
Total	26	100

The results of interview conducted to the coordinating midwives about the Application Option “There is a WhatsApp group named with Halo Bumil group. This group consists of pregnant mothers who until completed their postpartum, midwives, and officers from Municipal Health Office. Last year, there was an application named “Sayang Bunda” from the Municipal Health Office, but this year, only few of them uses it, because last year, the midwife was assisted by Gasurkes (Health Surveillance Office) for serving the pregnant mothers by visiting to the patient’s home and helping them to open “Sayang Bunda” application. For this year, Gasurkes is reduced, so that they cannot reach all patients. If only relying on the patients who come to Puskesmas, they sometimes forget their e-mail address and password, and even there are some patients who can download and log in to the application, but it cannot be used on the next day.”

Reasons for the application choice

Table 2 shows that most respondents (46.1%) of pregnant women and postpartum mothers said the reason for using the application was easy to use, 38.5% said it was fast response, and 15.4% said it was complete.

Table 2

Reasons for the application choice

Application Use	Total	Percentage
Complete	4	15.4 %
Easy	12	46.1%
Fast Response	10	38.5%
Total	26	100

Role of midwives

Table 3 shows that 88.5% respondents stated that midwives gave information on the use of the “Sayang Bunda” application while on duty, while 11.5% respondents said they were not given information about how to use the application.

Table 3

The role of the midwife in providing information on application usage

Role of midwives	Total	Percentage
Yes	23	88.5%
No	3	11.5%
Total	26	100

The results of interview conducted to the coordinating midwives about midwife’s duties stated:

“Midwives, in addition to carry out Maternal and Neonatal Health (KIA) service, are also working on a financial statement for Puskesmas, as well as reports on Puskesmas’ activities, plus during this pandemic condition, Covid vaccination and manual reporting on PWS-KIA. In Semarang, 1 midwife can hold some sub-districts which have many pregnant mothers and it is more difficult to detect because of the large area.

Some of those mothers are workers, temporary residents who have no National ID Card of Semarang. That makes us difficult when visiting them because they are not at home, or many of them are suddenly recorded pregnant again during their postpartum, because at the time of giving birth or when approaching to giving birth, they go to their hometown, and midwives cannot record their data.”

Patient Satisfaction

Table 3 shows that 76.9% respondents felt satisfied with the consultation with the officer’s answers, 6% felt satisfied and no one answered dissatisfied.

Table 3

Patient satisfaction with the consultation

Patient satisfaction with staff's answers	Total	Percentage
Very satisfied	6	23.1%
Satisfied	20	76.9 %
Not satisfied	0	0 %
Total	26	100%

The results of interview conducted to the coordinating midwives about midwife's response stated: “Midwives have a lot of duties in health centers since community health center offers many services such as visits, online consultations, reporting, and additional tasks during the pandemic. There are pregnant women who consult at inconvenient times, such as 23.00 o'clock, but we keep serving them. Our cell phones are always active, we are ready to serve anytime unless we really don't hear the notification while we are sleeping”.

Discussion

Health Surveillance Officers (Gasurkes) in Semarang City are very helpful for midwives in assisting pregnant women and postpartum mothers. This is in line with a study by Dian Hasanah Ramli, stating that the performance of Gasurkes in Semarang City is good and most of them meet the target in assisting pregnant women (Dian Hasanah Ramli, Ayun Sriatmi, 2018).

Uswatun Hasanah also stated that public health workers have a role in using applications to reduce maternal mortality after the 2015 MDGs. This role is needed in community empowerment, optimizing the activities of integrated health service post, and leadership in public health for promotive and preventive activities (Chasanah, 2015). Research conducted by Emeia Kristina Hutagalo show that the success of handling health disasters carried out by health workers cannot be separated from the role of community participation, including health volunteers (Emmelia & Hutagaol, 2019). Furthermore, a study by Edi Purnomo shows that health workers have a dominant role in the family's ability to treat clients with mental disorders at home (Purnomo, Pulungan, & Milawati, 2016). However, the study result is in contrast to a study by Gita Kurnia Widyastutik stating the support of officers and health workers for TB treatment is not related to adherence to treatment for pulmonary TB patients (Widiastutik, Makhfudli, & Wahyuni, 2020).

The "Sayang Bunda" application has not been used optimally in the city of Semarang, as can be interpreted in the lack of a midwife's role in assisting its implementation. This does not mean that midwives do not carry out their roles and responsibilities as midwives. They have a lot of duties in addition to carrying out MCH services, making financial reports, doing secretary jobs and other activities at the community health center, and visiting patients. They do not have enough time in assisting the application usage, so that midwives prefer using WhatsApp Group.

This is in line with a study by Ulul Ilmi Nafi'ah stating that there is an effect of ease perception in using the "Sayang Bunda" application (Ilmi, Agushyana, Mawarni, & Nugroho, 2020). In fact, it is a telemedicine application that is systemically created to facilitate remote services for pregnant women and postpartum women, thus, it needs integration of all parties (Jamil, Khairan, & Fuad, 2015; Umiati, Murti, & Adriani, 2021). In addition, the community environment will shape behavior that will shape self-personality (Nuqul, 2005).

Furthermore, the application is not practical. This makes pregnant women and postpartum mothers prefer using WhatsApp group than the "Sayang Bunda" application. The condition of Semarang city community also contributes to the implementation of this application. In addition, migrants in urban city makes it difficult for midwives to assist pregnant women and postpartum mothers and to meet them during working hours.

The comparison of the number of midwives in the Semarang city is 1567 midwives with a population of 16,743.58. In the Health Personnel Development Plan for 2011-2025, the target ratio of midwives to the total population is 75 midwives per 100,000 population (Semarang City Health Office, 2018)(Ministry of Health, 2011)(Semarang City Health Office, 2019b). It can be interpreted that the ratio of the number of midwives to the population of the Semarang city has met the ratio set in the Health Personnel Development Plan. However, midwives in Semarang city still have more burdens due to urban conditions and are responsible for several villages. Becoming urban people does not mean that people are easier to cooperate with in improving health. Furthermore, being immigrants who work in Semarang city becomes one of the factors that makes it difficult for midwives to register pregnant women and postpartum mothers.

The data shows that all pregnant women and postpartum mothers are satisfied with the midwife's services in providing consultation via WhatsApp. A study by Sulviandani shows that the responsiveness of officers affects the patient satisfaction (Sulviandani, Bachri, & Mubaraq, 2018). Meanwhile, research conducted by Stefanija Kalocko found that patient satisfaction was obtained when they receive quality and relevant information (Kolačko, 2019). Being ready to serve twenty-four hours is one form of responsiveness of midwives in serving patients to have consultations. This is also balanced with the quality of the services of midwives who are experts in the fields of pregnancy, childbirth, postpartum, and newborns. The WhatsApp Group allows the pregnant women and postpartum mothers to discuss everything about pregnancy, childbirth, postpartum and newborns with the midwives as the expert in those fields.

Conclusion

Obstacles in the Implementation of E-Health application in the City of Semarang are the lack of officers' role in giving assistance to the pregnant mothers and puerperal mothers for using "Sayang Bunda" application, the fact of less practical system due to registration by e-mail address, and repeated error application that resulted in user inconvenience. Therefore, pregnant mothers and puerperal mothers prefer WhatsApp group.

The results of this study are expected to provide input to health workers in order to be able to give assistance for pregnant mothers in using "Sayang Bunda" application, as well as providing input

for the policy makers that the use of “Sayang Bunda” application will be implemented optimally if there is a policy integration in several parties.

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