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Access, Participation, Control, and Advantage of Digital-Based Healthcare Service for Women Living with HIV/AIDS

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Abstract

Gender inequality contributes to HIV/AIDS transmission, increased number of women living with HIV/AIDS (WLHA), and women's reduced ability of resolving this epidemic. Mobile Health (mH) is used to treat, support, and medicate more efficiently people with HIV/AIDS (PWHA) including WLHA. This research studies access, participation, control, and advantage of digital-based healthcare service to WLHA using Harvard's gender analysis model. Informants employed in this exploratory research were Surakarta City's Health Service Office, medical workers, nurses, administrative staffs, patients, NGO Caring for AIDS, WLHA, Peer Support Group, and Citizens caring for AIDS di Surakarta Indonesia. Data validity test was conducted using source triangulation and data was analyzed using an interactive model of analysis. Result shows that several digital platforms have been developed by Public Health Centers and Hospitals in Surakarta including telemedicine, telenursing, telepharmacy, website, youtube and social media for promotive, preventive, curative, and rehabilitative healthcare services to WLHA in Surakarta Indonesia. WLHA, public, and medical personnel in Surakarta Indonesia have participated in and access mH, despite gender inequality. The factor determining gender inequality in digital-based healthcare service is men's domination in mastering digital-based health technology, negative stigma, and discriminative treatment given by medical personnel and public to WLHA. The use of mH by WLHA has positive impact on knowledge, stance, access, participation, decision, and changing behavior of WLHA and the medical personnel responsible for the service.

Keywords: *mH; Women Living with HIV/AIDS; Access; Participation; Control; Advantage; Gender*

INTRODUCTION

Every human being, including Women Living with HIV/AIDS (WLHA), is entitled to enjoy high standard of health in undertaking her life; for that reason, healthcare service

should involve Availability, Accessibility, Acceptability, and Quality (Fauk et al., 2019; Watkins-Hayes, 2019). In fact, however, people with HIV/AIDS (PWHA) including WLHA often get negative stigma and unfair or discriminative treatment from medical personnel and public. Since the beginning of epidemic, 85.6 million people have been infected with HIV virus and about 40.4 million people have died due to HIV. Globally, there are 39 million PWHA in late 2022. It is estimated that 20 million adult women aged 15 years and over throughout world live with HIV/AIDS, 540.000 women acquire HIV and 230,000 women die from HIV-related causes. The epidemic burden is varying between states and areas, but Africa is the one affected most severely, with nearly 1 out of 25 adults (3.2%) live with HIV and more than two third of people live with HIV throughout world (WHO, 2023).

Regarding the HIV/AIDS case in Indonesia, the Republic of Indonesia's Ministry of Health reports that there are 515,455 PLWH per September 2023. About 35% of PLWH infected with HIV are housewives. This condition contributes about 30% of heterosexual transmisson from husband to wife, so that the new HIV case in housewives increases by 5,100 cases annually. Moreover, housewives infected with HIV has high risk to transmit the virus to their children that can occur when in the womb during delivery and lactation processes (Kementerian Kesehatan Republik Indonesia [Republic of Indonesia's Ministry of Health], 2022).

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cases with 76 WLHA. The factors causing these gains are varying, including among others Covid-19 pandemic incidence, low resistance against ARV medication, inequality of HIV service and stigma and discrimination departing from the people's poor knowledge on HIV/AIDS (Kementerian Kesehatan Republik Indonesia, 2022). The strategy taken so far in the attempts of achieving three zero HIV/AIDS 2030 are cross-program coordination, reinforcement of healthcare service, and improvement of service network with NGOs. However, the attempt of preventing and coping with HIV/AIDS has not been done optimally because it has not reached all people and communities with high risk of being infected with HIV/AIDS, access to healthcare service is bureaucratic and even negative stigma and discriminative treatment occur against certain group including WLHA (George et al., 2018).

The development of information technology makes the users switch gradually from searching for health information through conventional sources such as newspaper, magazine, and brochure to using internet. Electronic Health (*E-Health*) is a cross-sectional concept of medical informatics, public health, and business referring to healthcare service and information through internet and technology. WHO *Global Observatory* for health states that *E-Health* resource is very useful in 70% of non-OECD (Organization for Economic Co-operation and Development) states even can maximize profit, save cost and budget, **provide better healthcare**, and improve efficiency and patients' health. Healthcare service should reduce the gap of medication, knowledge, distance, and financial aspects for the groups with high risk of being infected with HIV and PWHA, including WLHA. The attempt of reducing the gap is taken by reducing stigma against WLHA, making HIV test the common examination, removing myth that sexual and reproductive education is taboo, and disseminating accurate information on HIV/AIDS to the public. The activities are conducted more effectively and efficiently using mobile Health (mH) technology (Adeagbo, 2019). All technologies used are computer computation and the use of information technology contains intervention design to improve diagnosis, examination, drug administration and supervision, and disease management. It also includes the action plan of medication, disease management, and health promotion, and the attempt of increasing the compliance with medication. The action plan in the nursing care process, such as specific

examination and visit plan informs the result of examination and the reminder of time to take the action (Free et al., 2013).

Mobile Health (mH) provides support and healthcare intervention through such technologies as gadget, tablet, and electronic appliances to support medical treatment. Mobile Health (mH) is useful to manage chronic diseases including HIV, to help deal with the challenge of compliance with ART. Given the ubiquity of mobile devices, mH has the potential to be an effective platform for delivering the intervention of medication compliance (Flynn et al., 2020). The use of mH can also be defined as reducing the cost of direct visit by medical personnel to the clients. In the nursing management for the client with chronic disorder, many people are interested in using *telehealth* technology such as phone, email, and interne, but only very few of them prefer using social media (Edwards et al., 2014). The use of mH affects significantly the nursing care (Free et al., 2013).

The American Telemedicine Association reveals the use of medical information exchanged between one place and another through electronic communication to improve the clinical status of patient's health. Telemedicine involves many variations developing from application and service using two-way video, email, smart phone, wireless ware and various forms of other communication technology. Patient consultation through video conference, image delivery, e-health, long-distance vital sign monitoring, continuing medical education, and other applications can be categorized into the part of telemedicine system (Wong, 2020). Telemedicine system is used in the form of, among others, teleeducation (*teleedukasi*) that can be implemented with the public or the medical personnel being the target. *Teleeducation* intended to the public can be (website-based) health education or preventive telemedicine, while the one intended to medical personnel can be applied to long-distance sustainable education system (Parsons, 2021)**.**

Telehealth has been utilized in the service to PWH, either men or women infected with HIV, related to medical and non-medical problems in many hemispheres (Yelverton et al., 2021). Several states have implemented telemedicine to deal with HIV/AIDS. They are Columbia and United Kingdom (women in these states have had been able to access essential abortion services using telemedicine), Australia (Australian government provides substantial subsidy to telemedicine application), Philippines (introduces new work

mechanism of telemedicine, focusing more on digital technology), and Africa (Telemedicine has been able to provide dermatological consulting service) (Smith & Badowski, 2021). Telemedicine system also can reduce the gap of therapy for WLHA. Medical personnel can provide medical consultation service without direct contact with the patients. This enables the medical personnel to serve more people. Consultation with people with HIV needing to be conducted routinely and continuously can be provided in healthcare service facilities, despite no skilled medical workers in HIV/AIDS therapy, as long as the telemedicine system has been installed in the facility and connected to the skilled ones (Scherrer et al., 2022).

The aspects that can be affected by the use of healthcare service through *telehealth* technology includes the increased knowledge contributing to decision making, attitude, and behavior in the treatment of PWH's health. Risky sexual behavior in middle age group also changes significantly following the intervention of information delivery via phone. Most clinicians and WLHA prefer using *telehealth* to manage HIV disease, because they perceive time saving to go to the healthcare facilities as it can be done from home with privacy maintained better. Nevertheless, WLHA also still worry about the security of private information given to the officer through *telehealth* media (Ohl et al., 2013; George et al., 2018; Massaroni et al., 2021). Clinician tends to prefer using *telehealth* because qualitatively the decrease of stigma against patient by 61.7% can be found, the increase of privacy by 58.3% and the increase of patient treatment quality by 41.7% (Massaroni et al., 2021). There is a decrease of constraint related to stigma against WLHA couple when they should come to the clinic to do STI test (Sullivan et al., 2021).

Good Doctor along with United Nations Development Programme (UNDP) and *Aliansi Telemedik Indonesia* or ATENSI (Indonesian Telemedical Alliance), supported with the Republic of Indonesia's Ministry of Health are collaborating to achieve the sustainable development goals in health sector in Indonesia, provide and develop special program of digital healthcare service (telemedicine) for PWH, including WLHA. Telemedicine is a healthcare facility using digital technology in transferring all healthcare activities from one place to another. Using telecommunication, telemedicine functions to provide information in long-distance medical service. Telemedicine is a healthcare practice using audio and

visual communication and data, including treatment, diagnosis, consultation, and medication, and medical data exchange and long-distance scientific discussion (Dhingra & Dabas, 2020; Smith & Badowski, 2021).

Geographically, Indonesia has very wide archipelagic territory and varying natural texture. An individual residing in remote area can have obstruction in getting healthcare service or education due to the effect of geographical condition, such as the too-long distance between house and healthcare facility or the difficult transportation facility. Limited human resources to provide HIV/AIDS education results in a problem precluding accurate information on HIV/AIDS from being disseminated widely. As a result, various myths appear related to HIV/AIDS leading to the stigma against either WLHA or risky group. It makes telemedicine system capable of solving problem quickly and not dependent on distance become important. Education through telemedicine system is used to disseminate accurate information on HIV/AIDS to reduce the gap of knowledge between those knowledgeable of information and those having limited information (Wardoyo & Rochmawati, 2022).

Viewed from economic aspect, the quality of healthcare service in Indonesia is not equal. Not all regions do have first-rate healthcare service facilities. Skilled medical personnel and sophisticated equipment are not surely found in the region located far from provincial capital. In the presence of telemedicine system, the better access to healthcare service can be improved. Medical personnel existing in remote areas can consult with more skilled ones in the referral center using this system. The patients' medical information can be sent quickly to the referral center to facilitate diagnosis process. Telemedicine system can be an efficient option to replace manual recording and reporting system that takes much cost (Dzulvawan & Pramana, 2022).

WLHA in Surakarta Indonesia is one of groups vulnerable to the infection of various viruses and diseases, due to the reduced immunity and less optimal healthcare service. This situation inhibits the process of treating and medicating WLHA, due to their disrupted access to treatment and medication and health consultation. The presence of telemedicine technology in various healthcare facilities in Surakarta provides healthcare service to WLHA without the need for visiting them. Harvard gender analysis is a process of

analyzing data and information systematically on the condition of men and women to identify and to reveal position, function, role, and responsibility in development construction, and factors affecting access, participation, control, and advantage (March et al., 1999; Fumaz et al., 2019). In this context, gender analysis is intended to evaluate the feasibility and the impact of healthcare service on both men and women, particularly related to digital-based HIV/AIDS prevention and management (WHO, 2003).

Therefore, the problem statement and the objective of current research is to study access, participation, control, and advantage of digital-based healthcare service for women with HIV/AIDS in Surakarta Indonesia. This research was carried out in Surakarta Indonesia, it the state has applied mH including *telemedicine*, *telenursing*, *telepharmacy*, website, youtube and social media having been accessible to the people with the risk of being infected with HIV/AIDS including WLHA and public. This study used qualitative research method using exploratory approach. The informant in this research consisted of Surakarta City's Health Service Office, medical workers, nurses, administrative staffs, patients, NGO Caring for AIDS, WLHA, Peer Support Group, and Citizens caring for AIDS in Surakarta Indonesia. Data were collected through observation, in-depth interview, and documentation and then analyzed by applying an interactive model through data collection, data reduction, data display, and conclusion drawing. The data obtained were then tested for their validity using data source triangulation (Swedberg, 2020).

DISCUSSION

Digital Health Service in Surakarta Indonesia

Many HIV/AIDS incidences throughout world result in more developing intervention for WLHA. The government of Surakarta Indonesia has applied mH including *telemedicine*, *telenursing*, *telepharmacy,* online health education, health application, podcast and health youtube channel, website and social media in various digital platforms. In the presence of medical telemedicine service, according to the head of Disease Prevention and Management (P2P) of Surakarta City's Health Service Office, the public including WLHA can receive better healthcare service at low cost, and even the service can arrived at home easily. Generally, *telenursing* in the formats of text or reminder phone is used for 8-12 weeks

on average to 24 weeks at longest. The application-based *telenursing* developed has been adjusted with the development of cellular phone existing. Majority *telemonitoring* or *telenursing* message contains the message for reminding drug consumption, online counseling, message for reminding routine visit control, and some other educational materials concerning side effect and advantage of routine drug consumption to WLHA (Lathifah et al., 2022).

Several public health centers (*Puskesmas*) and Referral Hospitals for WLHA in Surakarta have developed *telehealth* such as *telenursing*. This application-based mH is developed and adjusted with the development of cellular phone existing. The use of interactive short message reminder to improve the compliance with antiretroviral therapy in WLHA in the range of young adult age has good potential. This *telenursing* intervention is considered as attractive and practical, very acceptable to WLHA, and helpful in leading to the increased suppression of viral load. The compliance with antiretroviral therapy seems to be related to increasing virus suppression and therefore can improve the WLHA's compliance with medication. The application of easy and practical *telenursing* is developed according to the WLHA targeted. The use of *telenursing* at low cost is acceptable to WLHA and thereby there is an increase in the ARV drug taking among most WLHA receiving *telenursing* treatment compared with that in other groups not receiving the treatment. Supporting medical personnel and family are useful as the reminder in *telenursing* use to improve the compliance with ARV medication in WLHA in Surakarta. Puskesmas in Surakarta are committed to supporting government programs by developing telemedicine technology by providing 1 (one) clinician to every family. The scope of HIV/AIDS program provided by telemedicine is fairly broad including providing healthcare service including, clinical, educational, and long-distance administrative services using audio transfer, videography using telecommunication devices, conducted through a two-way communication between clinicians and patients.

Patient's wellbeing and disease status of PWHA, including WLHA, become an important consideration in choosing *telehealth* program, viewed from **clinician's perspective.** The nurses in Puskesmas Gading Surakarta dealing with WLHA state that there is a difference of *telenursing* effect on the compliance with medication. Viewed from WLHA's perspective,

the interest in *telehealth* service is not related to health status. The willingness to use *telehealth* involves those considered as having very good and bad health condition, those with controlled HIV and suppressed HIV viral load, and those with uncontrolled HIV. However, WLHA developing HIV in long term for more than 10 years or consuming ART for more than 10 years, and having more complex ART regime are all factors related to lower possibility of choosing *telehealth* as an alternative to clinical visit for their HIV treatment. In addition, another reason is related to the intervention coverage largely affecting at individual level only, with minimum effect at health treatment and community level. Several WLHA being the patients of dr. Moewardi Surakarta hospital state that the presence of mH has some advantages: convenience, comfort, reduced transportation need, and better health outcome.

Accessibility, Participation, Decision Making, Control, and Advantage of mH to WLHA

There is a Peer Group called Solo Plus in Surakarta, consisting of PWH coming from various age groups, sex, sexual orientation, education and job. Its member currently consists of 170 PWH, because not all PWH are affiliated with Solo Plus Peer Group. The chairperson of Solo Plus Peer group state that the objective of Solo Plus Peer Group is to support PWH and their family. It is worrying to know that there is an increase in the number of HIV/AIDS cases in women with no high risk sexual behavior such as housewives, because they are infected by their permanent partner (husband) with high risk sexual behavior. The more terrible impact is the increase in the number of infection in women giving birth to HIV-infected babies. Housewives are vulnerable to HIV/AIDS infection because their low bargaining and negotiation power in sexual relation (García-Micó & Laukyte, 2023).

WLHA affiliated in Solo Plus Peer Group in Surakarta can access various programs and activities to prevent and to overcome HIV/AIDS under the coordination of Surakarta Regional AIDS Commission. Through WAG and social media such as twitter, facebook, instagram, youtube, WLHA can exchange information with each other related to promotive, preventive, curative, and rehabilitative HIV/AIDS service. They can access healthcare service facilitated by public health center (*puskesmas*) and hospital existing in

Surakarta through either conventional or online system using the health insurance they have including public, Healthy Indonesia Card (Indonesian: *Kartu Indonesia Sehat*), National Health Insurance provided by Social Insurance Administration Body (Indonesian: *BPJS*) or private health insurance. Both men with HIV/AIDS and women living with HIV/AIDS (WLHA) can access information easily from social media, including HIV/AIDS care, support, and treatment (CST) service without discrimination. WLHA state that they can access ARV through Mobile VCT to check their HIV status. However, facing technical constraint in accessing mH, WLHA tend to be so submitted and passive that prefer using conventional service to digital service.

WLHA in Surakarta can access digital healthcare service when their health condition goes down, despite some limitation. Basic attitude, **access,** and participation of WLHA are most closely related to the use of mH concentrated on the need perceived to use application and perception that the medical personnel existing in the healthcare facility or clinic will help. In the family, as WLHA, the housewives' decision in accessing mH is affected by their husbands, as it is related to the service cost spent. It indicates the women's dependence on the men (Campbell et al., 2019; Ma et al., 2019; Salamah et al., 2022). **Self-motivation of** WLHA and effect of clinical staffs can encourage and keep WLHA use *telenursing*. Age does not result in difference as expected, because of the active use of phone at that age despite simple type of cellular phone. This has an important implication to the development of mH in the future recalling the importance of including technical advance to older adults. **The advantage** of combining SMS/text message and more attractive media is important to give the participants an opportunity of catching the additional message, although it can result in clinical impact for further analysis. Another advantage is the effectiveness of promising and applicable *telenursing* strategy to WLHA and comorbid disorder. The future endeavor can involve the perfection of intervention.

Telenursing **has some limitations.** A nurse, dealing with WLHA in Dr. Moewardi Surakarta Hospital, states that the nurse cannot trace whether or not the participants have opened and read the information delivered. Thus, we cannot measure the **participation of patient** or intervention exposure. From post-intervention feedback, it can be seen that several participants did not read the articles we sent. It indicates the need for better design

of content and innovative strategy to trace and to involve participants, and to recommend the program that can help fight against depression and anxiety from the medication undertaken. In addition to internal factors playing a very important part in implementing *telenursing* intervention, supporting medical personnel and family are also useful in reminding the use of *telenursing* to improve the WLHA's compliance with ARV medication.

Advantage of mH to WLHA

Healthcare service digitization is a technological transformation in health sector aiming to help the healthcare service facilities such as hospital, clinic, public health center (puskesmas), independent medical practice, and etc in providing service maximally (Kamulegeya et al., 2020). There is a significant change of health behavior post-intervention, including the compliance with medication and symptom of depression in WLHA. It affects immunology and virology level or status of WLHA. They state that there is an effect on the reduction of treatment cost following the delivery of information via phone. Intervention reduces constraints in economic and physical aspects and stigma when they should be present in the clinic to undertake STI test. Intervention using *telehealth* is also implemented through video conference held in two stages. Intervention can be the demonstration of STI test sample examination kit and the delivery of STI test result. WLHA tends not to engage in HIV and STI tests (Sinha & Schryer-Roy, 2018).

WLHA, mH and Gender Equality

WLHA is a vulnerable group who needs to be advocated for to get a good life and have their rights protected. Mobile Health (mH) is a significant new technological breakthrough in the current era of modernity to guarantee the right to health and survival for WLHA. Therefore, access, participation, control and benefits must really be paid attention to so that they are right on target and fair for all. Community health centers and hospitals as places of health services must be gender responsive, including in this case accommodating and advocating for the needs of patients, including WLHA patients. Looking at WLHA is very important with a gender approach, where women with HIV/AIDS conditions are sometimes cornered and blamed by this environment without exploring the background of the causes. Made a scourge and trash of society. Women tend to remain silent, afraid to reveal any actions or power relations of their partners. They are afraid of being blamed by

family, friends, and the criminal justice system does not provide adequate compensation or legal protection (Felson, Messner, Hoskin, & Deane, 2002; Kingsnorth & MacIntosh, 2004, Fadhilah, N, 2020; Nugraha et al., 2021).

Mobile Health (mH) including *telemedicine, telepharmacy, tele-edukasi, youtube*, and other social media developed corresponding to the people's need, including WLHA in Surakarta Indonesia. The use of digital media by individual and health institution, including *puskesmas* or hospital, providing service to WLHA, is bond by the rule specified in social relation in cyber society. In addition, health institution can utilize a variety of digital data and supporting treatment and medication of patient (Kalichman et al., 2002; Lupton, 2015). In its development, the main key is beneficence. In the presence of mH, the people, including WLHA, can benefit from the healthcare service and it should not harm the patient. The principle of mH is to prioritize autonomy, concentration, and privacy. Information on patient is acquired comprehensively and in full concentration, and the patient's personal data is protected. The users are expected to **participate** in using and giving input to mH technology as well as possible. **There is no difference and discrimination,** meaning that in the presence of telemedicine, all patients, including WLHA, are considered as of the same level and equal, equally needing adequate healthcare service. Accountability means that any violation related to public or patient health should be dealt with and solved immediately (March et al., 1999; George et al., 2018; Kaium et al., 2020; García-Micó & Laukyte, 2023). It is as mandated in the Republic of Indonesia's Presidential Instruction Number 9 of 2000 about Gender Mainstreaming. All governmental institutions, including healthcare institutions like Puskesmas and Hospital at national and regional levels are instructed to make gender mainstream in planning, implementing, monitoring, and evaluating all policies, programs, and activities. The government's attempt of fulfilling the right to health for Indonesian citizens, including WLHA, has been mentioned in Article 13 of the Republic of Indonesia's Law Number 36 of 2009 about Health. Everyone, including PLWH has equal right in accessing health resources such as digital healthcare service. It is an attempt to achieve the degree of health as highly as possible. It is mentioned in the Republic of Indonesia's Health Minister Regulation Number 21 of 2013 about HIV/AIDS Management (Schofield, T., & Goodwin, 2005; Risberg et al., 2006)

A retrospective research conducted in correctional facilities compared the potency of HIV sub-specialization management through telemedicine with the primary treatment clinician of correctional facility on site. The average number of CD4 and the proportion of subject achieving virology suppression are significantly higher when the disease is managed by multidisciplinary sub-specialist team through telemedicine clinic. The forms of alternative meeting for face-to-face visit should also be explored. A study compared patients with one direct visit equipped with electronic meeting (email and phone) and those with more than two direct visit, and found no significant difference in HIV viral load suppression (Jadgal et al., 2022).

The problem of compliance with medication is on which the therapy for WLHA focuses to reduce the complication of disease they suffere from and to improve the patients' wellbeing. Incompliance with antiretroviral (ART) increases the risk of HIV Rna load viral non-suppression, secondary HIV transmission, and drug resistance development. It also has negative impact on the outcome of medication, results in reduced sustainability, and worsens quality of life. Therefore, intervention is always developed to improve the compliance with medication, one of which is through telenursing intervention.

The use of interactive short message reminder to improve the compliance with antiretroviral therapy in WLHA in the range of young adult age has good potential. This *telenursing* intervention is considered as attractive and practical, very acceptable to WLHA, and helpful in leading to the increased suppression of viral load. The intensity of cellular phone use in adult increases on average compared with that in other age; therefore the use of telenursing intervention through cellular phone is the one easily applied to WLHA as an attempt of complying with the medication (Sharpe et al., 2018).

The longer the duratio of mH, the higher will be the compliance with medication among WLHA receivng monitoring intervention through their cellular phone. Generally, WLHA tend to use telehealth if any and be available to replace face-to-face clinical visit with telehealth (Dandachi et al., 2020). The compliance with ART and the client satisfaction are evaluated in each of follow-up visit. They also receive counseling about compliance from the trained counselor in each visit. Each of WLHA was told attend all follow-up visit. Specific follow-up action is provided to the participants by evaluating the HIV/AIDS

patients' feeling post intervention using telenursing and telemonitoring. In this case, HIV/AIDS patients also can give critique, input, and suggestion for the improvement of healthcare service in the health institution (Haldane et al., 2019).

Telemonitoring or *teleedukasi* affect the improvement of compliance with medication among HIV/AIDS patients. Telenursing in the formats of text or reminder call for WLHA is used for 8-24 weeks on average. This telursing intervention is considered as very attractive and practical, acceptable to WLHA, and helpful in leading to the increase in the suppression of viral load (Sharpe et al., 2018). The compliance with antiretroviral therapy seems to be related to increasing virus suppression and therefore can improve the WLHA's compliance with medication. The application of easy and practical *telenursing* is developed according to the WLHA targeted, the use of *telenursing* at low cost is acceptable to WLHA, and the increase in the ARV drug taking occurs among most WLHA receiving *telenursing* treatment (Whiteley et al., 2021). Its application and ability of being connected to external devices for medication and tracing fitnes can be used and generally acceptable to a group of WLHA (Beauchemin, 2019).

Nursing intervention to WLHA in the attempt of improving access, participation, and compliance with medication in the patients, including health education, empowerment, and support can be taken through making innovation and improving telenursing or telehealth quality, design and method to get more attractive one and to exert broader impact corresponding to the WLHA's need (March et al., 1999; Fumaz et al., 2019). Medical personnel building in utilizing telehealth information technology should be improved as an attempt of improving the effectiveness of service providing using telehealth including audio and video call, and internet media use (March et al., 1999). A strategy that can be taken to improve the utilization of telehealth includes client empowerment, training for service provider and improvement of organizational preparedness. The use of telehealth can adapt to schedule better, reduce travel time to go to service center, and improve privacy.

This section consists of the main discussion and sub-discussion. The writer needs to pay attention that the main discussion adjusted with problem formulations, meanwhile the sub-discussion section uses *headings* no more than 3 (three) levels. For clarity, the results section and discussions are presented as follows.

CONCLUSION

mH exerts positive effect on knowledge, stance, access, participation, decision and changing behavior of WLHA and medical personnel responsible for the service. WLHA, public, and medical personnel in Surakarta Indonesia have participated in and access mH, despite gender inequality. The factor determining gender inequality in digital-based healthcare service is men's domination in mastering digital-based health technology, negative stigma, and discriminative treatment given by medical personnel and public to WLHA. The limitation in the mH using practice in the treatment service for WLHA is related, among others to no available technology resource, minimum digital literac, limited client/provider experience, and low social-economic status of client population and gender inequality. For that reason, a strategy is necessary to be staken to improve the use of mH includes user empowerment, training for provider, and improvement of organizational preparedness.

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