Digital-Based Care Support and Treatment for People with HIV/AIDS: Challenges and Opportunities

Argyo Demartoto¹, Bhisma Murti², and Sri Hilmi Pujihartati¹

¹Department of Sociology, Faculty of Social and Political Sciences, Universitas Sebelas Maret, 57126 Surakarta, Indonesia
²Department of Public Health, Faculty of Medicine, Universitas Sebelas Maret, 57126 Surakarta, Indonesia

Abstract. HIV/AIDS preventing and overcoming attempts keep developing and adaptive to technology development. Information digitization era supports the innovation potentially optimizing healthcare service including HIV/AIDS preventing and overcoming attempts for people in Surakarta. Healthcare Service Work and Care Support and Treatment (CST) Group as one out of 6 work groups established by Surakarta City Government is also affected by information digitization. In addition to opportunities, CST healthcare digitization also generates challenges to both medical workers and patients. This research aims to explore challenges and opportunities in digital-based CST implementation for people with HIV/AIDS (PWHA) using Parsons’ modernization theory. Informant of research consisted of Surakarta City’s Health Service Office, medical workers, nurses, administrative staffs, patients, NGO Caring for AIDS, Peer Support Group, and Citizens caring for AIDS. Data were collected through observation, in-depth interview, and documentation. Data analysis was carried out by applying an interactive model through data collection, data reduction, data display, and conclusion drawing. Data validity test used in this study was data source triangulation. The result shows that digital-based CST provides opportunities and challenges in the attempt of preventing and overcoming HIV/AIDS in Surakarta City. CST digitization potentially improves the qualities of healthcare, promotive, preventive, curative, and rehabilitative services and reduces bad stigma, but the challenges include poor understanding of human resource, limited internet access, and inadequate equipment availability.

1 Introduction

* Corresponding author: argyodemartoto_fisip@staff.uns.ac.id

© The Authors, published by EDP Sciences. This is an open access article distributed under the terms of the Creative Commons Attribution License 4.0 (https://creativecommons.org/licenses/by/4.0/).
The problem of Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS) always increases annually at global, national, and local scales. There were 38.4 million HIV/AIDS cases with 650,000 deaths, and 1.5 million people newly infected by HIV in 2021 in the world. In Indonesia, there were 543,100 PWHAs, with 29,557 people newly infected and 30,137 deaths in 2020. Considering the data from the Secretary of Surakarta City’s AIDS Commission, there were 962 HIV/AIDS positive cases in Surakarta City up to the end of 2021. Therefore, an appropriate strategy is required to deal with this healthcare problem that has become endemic. To deal with HIV/AIDS cases, Surakarta City Government has established 6 work groups (Indonesian: Kelompok kerja or called POKJA). The work groups include Prevention and Outreach work group, Healthcare Service and Care Support and Treatment work group, Management Reinforcement work group, Harm Reduction work group for reducing adverse effect of injection, Empowerment work group, Sexual Transmission Prevention Program work group, and Monitoring and Evaluation (MONEV) Work group [1].

The Government of Surakarta City should keep improving the attempt taken to solve HIV/AIDS problem. In this global and technology development era, it is possible for the people to access many healthcare service easily through internet connection and their own smartphone. To optimize the healthcare, the government of Surakarta City makes innovation through digitizing healthcare service to prevent and to overcome HIV/AIDS. The attempt taken is, among others, to digitize Care Support and Treatment (CST). CST digitization potentially facilitates the access for HIV/AIDS patient to healthcare information and service provided by various units [2].

However service digitization and digital-based information technology use always provide distinctive challenges to the actors involved, and so does the CST digitization. These challenges are factors inhibiting the achievement of CST digitization’s objective to optimize HIV/AIDS prevention and overcoming service in Surakarta City. Technology development results in social change and affects the community’s life value. Therefore, this study is conducted to explore challenges and opportunities in digital-based CST implementation for PWHAs using Parsons’ modernization theory [3].

2 Method

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, Peer Support Group, and Citizens caring for AIDS. 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 [4].

3 Result and Discussion

Digital-based CST applied in the attempt of preventing and overcoming HIV/AIDS in Surakarta includes, among others, access to information and service facilitating the patient to do chat-based counseling through Surakarta the website of Surakarta Complaint Service Unit (Indonesian: Unit Layanan Aduan Surakarta or ULAS). The previous platforms like phone, email, and video call can support the implementation of CST digitization. In implementing digital CST, the government of Surakarta City targets individuals or populations with high risk of being infected with HIV/AIDS, PWHAs. The website of Surakarta City’s Health Service Office platform is used as a means of socialization related to the appeal to condom
use and strategy of reducing other health risks to optimize HIV/AIDS prevention and overcoming in Surakarta City. Digital CST innovation improves the mental health outcomes including depression, suicide idea and stress management for the people with fear of accessing HIV/AIDS healthcare service. Website page is also used to disseminate anti-adverse and negative stigma message against PWHAs and HIV/AIDS, to reduce negative stigma against PWHAs [5].

Points to be considered in the attempt of CST digitization are, among others, the balance of knowledge and new technology, the alignment of use value and value held by the people, thereby generating shared perspective, legal and ethical aspects of technology use, and standard economic ability affordable to the patients broadly. The principle of CST digital implementation in Surakarta City is services involved resource network supported holistically, comprehensively, and broadly for PWHAs and their family. The digital CST implemented in Surakarta City includes, among others, case management (referral of Voluntary Counseling and Testing (VCT), CST, Regional Community Health Insurance [Indonesian: Jaminan Kesehatan Masyarakat Daerah or Jamkesda]); The cluster of differentiation Test 4 (CD 4 Test), Liver and Renal Function test, PMTCT; Provision of Supplementary food for PWHA facilitating PMTCT for the members; facilitation of CWHA; facilitation of PWHAs in Penitentiary and PWHAs’ visit to hospital and home visit to support life spirit, to encourage them to open status and to change their behavior [6].

The implementation of Digital-based CST needs to involve everyone to take intensive attempt to optimize HIV/AIDS prevention and overcoming measures. Smartphone users have spread to all classes of society and therefore facilitate the process of digitizing CST service. It is supported by the expansion of internet access for the society; this program potentially saves much money and can be implemented at large scale in Surakarta City. Another opportunity provided by digital-based CST is its ability of reaching key populations that is difficult to reach because of sensitive health problems including HIV/AIDS key populations [7].

The challenges appearing in the attempt of digitizing CST are inadequate human resource understanding and worker quantity. It is because the medical workers rarely attend education and training activities to improve digital-based services. Collaboration between medical workers in doing their task is important in implementing digital-based CST. Therefore, poor discipline highly affects the quality of digital CST services. The implementation of digital-based CST should be organized in clear Standard Operating Procedure (SOP) of service to maximize communication and approach done by medical workers to the patient. In addition, no adequate equipment available due to limited budget becomes a big challenge in the implementation of digital-based CST. However, on the other hand the challenge related to the quality of human resources in the competency of using technology to access digital-based CST leads the access to reach young age group. It can be an opportunity for the implementation of digital CST because young-age PWHAs are the vulnerable group [8].

In modernization perspective, CST modernization is the manifestation of social change due to technology and science development affecting the way of life and the social values of society, particularly medical workers, patients, and PWHAs. Technology advance changes healthcare practices and affects the people’s perspective on health and HIV/AIDS disease. However, the appearance of CST digitization challenge is an effect of modernization that makes the people feel alienation and incapability of adapting to the change occurring. Therefore, the challenges of CST digitization should be dealt with wisely to provide an opportunity to the attempt of preventing and overcoming HIV/AIDS in Surakarta City [3].

To deal with the challenges, the Health Service Office of Surakarta City should improve the quality of human resources, in this case medical workers including doctors, nurses, and administrative staffs through education, training, seminar, and workshop related to digitization of healthcare service, particularly CST. Hospital, puskesmas (public health
center) and clinic should provide instruction, direction, and guidance to staffs and patients. Communication, information, and education should be socialized to the patients to result in shared perspective in digital CST service and to generate intense communication between medical workers and society and to improve services. The hospital management should increase healthcare facilities through the scheme of proposing budget to the Government of Surakarta City through Health Service Office [9].

Having dealt with the challenges, the implementation of digital CST provides opportunity for HIV/AIDS prevention and overcoming. Digital CST service facilitates the access to HIV/AIDS healthcare service, so that the patients can access healthcare information and information easily without having to come to directly to public health center or hospital. The patients can use cellular phone to access varying information on healthcare in website. In short term, HIV/AIDS digital CST can save the patients’ time and thereby potentially improve patients’ care for their own health. Digital CST can shorten the patient’s waiting time in almost all healthcare service centers through utilizing technology sophistication. It is intended to give the patients the best healthcare service through utilizing online healthcare website such as Integrated Reporting System (Indonesian: Sistem Pelaporan Terpadu or SIPEDU) and Community Complaint Service Unit (Indonesian: Unit Layanan Aduan Masyarakat or ULAS). Through those applications, the patients unnecessarily wait for hours for getting information on HIV/AIDS CST service in Surakarta. Although the digital-based CST has been applied in the attempt of preventing and overcoming HIV/AIDS, the HIV/AIDS cases still occur in Surakarta City. It requires the consistency and the expansion of socialization so that more people can have knowledge on digital CST innovation [10].

4 Conclusion

Technology development provides challenges and opportunities for the attempt of preventing and overcoming HIV/AIDS in the form of digital-based CST digitization accessible to the public. CST digitization can improve the quality of healthcare service to patients, PWHAs, and general society and reduce adverse stigma against HIV/AIDS. The challenges faced in implementing digital CST are, among others, inadequate human resource understanding and inadequate equipment availability. To deal with the challenges, government, NGO, private, and society should improve the quality of human resource through education, training, seminar, and workshop related to the digitization of healthcare service, particularly CST. Communication, information, and education should be socialized to the patients to create shared perspective in digital CST service and to establish intense communication between medical workers, patients, PWHAs, and members of society in order to improve HIV/AIDS prevention and overcoming attempts.

References


