

Treatment Literacy of People Living with HIV (PLHIV) in Government Healthcare Facilities in Malaysia

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ABSTRACT

Background: Treatment literacy is a significant factor in the management of health and care of people living with HIV (PLHIV). Therefore, the aim of this study was to determine the level of treatment literacy among PLHIV in selected government facilities.

Methods: A cross-sectional study was undertaken from July to August 2020 in five government hospitals and six government health clinics in Malaysia. A validated self-administered questionnaire encompassing six items about treatment literacy was used to assess the knowledge of PLHIV. This survey was conducted via web-based platform.

Results: Overall, 1173 PLHIV participated in this study. The major finding in this study was that 90.0% of PLHIV were currently on treatment and aware of their antiretroviral therapy (ART) regime. Majority of PLHIV (74.0%) also stated that they know the frequency of receiving their viral load test.

Conclusion: The study found a high level of treatment literacy among PLHIV in selected government facilities in Malaysia.

Key words: Human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS), people living with HIV (PLHIV), antiretroviral therapy (ART)

INTRODUCTION

The human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) epidemic has slowed worldwide due at least in part to the development of potent ART. The number of HIV/AIDS-related death has decreased from 2.3 million in 2005 to 690,000 in 2019. ⁽¹⁾ Although treatment regimens for HIV/AIDS are becoming less complex with the advent of combined drugs in single medications and through twice-a-day and once-a-day dosing, treatment literacy will most likely remain an important barrier to life-long treatment adherence even for the simplest regimens. ⁽²⁾ Studies in PLHIV have shown that low treatment literacy is associated with lower medication adherence which led to

drug resistance, ultimately causing specific medication regimens to become ineffective, ⁽³⁾ poorer clinical outcomes including higher viral load ⁽⁴⁾ and more hospitalisations. ⁽⁵⁾ In recent years, the Joint United Nations Programme on HIV/AIDS (UNAIDS) has firmly endorsed the HIV Undetectable=Untransmittable or U=U concept. ⁽⁶⁾ U=U means that PLHIV who achieve and maintain undetectable viral load by taking ART daily as prescribed cannot sexually transmit the virus to their partner. Thus, treatment for HIV is a powerful arrow in the quiver of HIV prevention tools. So far, little is known about treatment literacy among PLHIV in Malaysia. Therefore, the objective of this study was to determine the level of treatment literacy among PLHIV in

selected government facilities.

Table 1. Treatment literacy of PLHIV

Item		Yes		No									
		n	(%)	n	(%)								
1	Are you currently on antiretroviral therapy (ART)?	(N = 1173)	1055 (90.0)	118 (10.0)									
Item		First-line regimen		Second-line regimen		Not sure							
		n	(%)	n	(%)	n	(%)						
2	Are you currently on a first-line or second-line ART regimen?	(N = 1055)*	738 (69.9)	86 (8.2)	231 (21.9)								
Item		Yes		No									
		n	(%)	n	(%)								
3	In the last 6 months, have you received a viral load test?	(N = 1173)	986 (84.1)	187 (15.9)									
Item		Yes		No		Not sure							
		n	(%)	n	(%)	n	(%)						
4	Was your viral load suppressed at your last viral load test?	(N = 986)*	713 (72.3)	148 (15.0)	125 (12.7)								
Item		Yes		No		Not sure							
		n	(%)	n	(%)	n	(%)						
5	Do you know how often you should receive a viral load test?	(N = 1173)	868 (74.0)	138 (11.8)	167 (14.2)								
Item		Every month		Every 3 months		Every 6 months		Every year		Every 2 years		Not required	
		n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
6	How often should you receive a viral load test?	(N = 868)‡	19 (2.2)	53 (6.1)	620 (71.4)	175 (20.2)	0	0	1	(0.1)			

*Total number of PLHIV who answered Yes in Item 1

‡Total number of PLHIV who answered Yes in Item 3

‡Total number of PLHIV who answered Yes in Item 5

This study was a cross-sectional study using a validated self-administered questionnaire survey which was conducted from July to August 2020 via online. Five government hospitals and six government health clinics were selected from six states; Penang, Selangor, Kuala Lumpur, Johor, Melaka and Pahang. The six states were selected as 70.0% of the 2019 reported new HIV cases were contributed from these states. (7) All the eleven selected study sites provided HIV/AIDS care and services to the public. The study subject was a PLHIV who receiving care and services in the selected study sites and met the inclusion criteria. The inclusion criteria included; age 18 years and above, registered as patient in the selected study sites, living with HIV, able to understand Malay or English language and

willing to provide informed consent. No personal information was asked to maintain anonymity. For the recruitment, PLHIV were approached by clinic staff or case worker during their scheduled appointments. Those interested in participating were given a recruitment message with a hyperlink or QR code to the online survey website. The questionnaire encompassing six items about treatment literacy was used to assess the knowledge of PLHIV. Sample size was calculated to be 1771 assuming 95.0% confidence level with 5.0% margin error and 50.0% response rate. The study received ethical approval from the Medical Research and Ethics Committee, Ministry of Health Malaysia and this study was registered under Malaysia National Medical Research

Registry (NMRR) with the identification number NMRR-20-1932-55728. Statistical analysis was done using the Statistical Package for Social Sciences (SPSS 26.0) software.

The response rate for the study sample was 66.2%. In total, 1173 PLHIV participated in this study. Of the 1173 PLHIV, 767 (65.0%) receiving care and services in hospitals and 406 (35.0%) in health clinics. The major finding in this study was that 90.0% of PLHIV were currently on treatment and aware of their ART regime (Table 1). Almost seventy percent (69.9%) of them stated that they were currently on the first-line ART regime. Only 8.2% of them were on the second-line ART regime which may be associated with poor adherence which led to drug resistance or due to severe side effects causing the first-line ART regime to become ineffective. Majority of PLHIV (74.0%) also reported that they know the frequency of receiving their viral load test. Seventy one percent (71.4%) of them stated that they should receive a viral load test every 6 months. This is consistent with the current practice in Malaysia where HIV viral load is monitored every 6 months. ⁽⁸⁾ This finding highlights that majority of PLHIV have a high level of treatment literacy which associated with higher medication adherence and good clinical outcomes which lower viral loads. Nevertheless, viral load test results are needed in order to confirm this finding. In conclusion, the study found a high level of treatment literacy among PLHIV in selected government facilities in Malaysia.

ACKNOWLEDGEMENTS

The authors thank the Director General of Health Malaysia for his permission to publish this paper. The authors also thank all the respondents who participated in the study.

Conflict of Interest: None

Source of Funding: None

Ethical Approval: The study received ethical approval from the Medical Research and Ethics Committee, Ministry of Health Malaysia and this study was registered under Malaysia National Medical Research Registry (NMRR) with the identification number NMRR-20-1932-55728.

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How to cite this article: Yadzir ZHM, Ramly M, Suleiman A. Treatment literacy of people living with HIV (PLHIV) in government healthcare facilities in Malaysia. *Int J Health Sci Res.* 2021; 11(9): 79-82. DOI: <https://doi.org/10.52403/ijhsr.20210912>
