

Health-care (ART) interruptions and psychological effects on persons with HIV/AIDS during COVID-19

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ABSTRACT

Background: Covid-19 has led to an unparalleled disruption to the lives and health care across the world and a warning has been issued by the World Health Organization (WHO) on disruptions of health care services to people with HIV/AIDS, and the increase in HIV related mortality. Persons living with HIV/AIDS (PLHAs) are at higher risk to COVID-19 due to lower CD4 count and immunity. The Health care disruptions as seen due to lock down and priority to COVID-19 care can lead to physical and psychological consequences on the PLHAs. **Objectives:** To identify the disruptions of health care services towards persons with HIV/AIDS and to investigate the level of depression, anxiety and stress among PLHAs. **Materials and Method:** An interview schedule with open and close-ended questions were used to collect data from PLHAs (N =50) using a convenient sampling technique between May and June 2020. The Depression, Anxiety and Stress Scale 21 items (DASS-21) was used to assess depression, anxiety and stress. **Results:** A majority of the respondents were unable to access ART medication without delay after the lockdown and they experienced severe depression (51%), experienced extremely severe anxiety (44%) and severe stress (39%), there was a positive correlation between stress and number of weeks the respondents did not have access to ART dosages during the COVID-19 pandemic lockdown. It was statistically significant. **Conclusion:** The study revealed that a significant proportion of the people living with HIV/AIDS had experienced depression and anxiety during the interruption of ART, it also emphasizes the need for continued psychosocial intervention and support to the infected and undisrupted health-care, and respondents were ready to participate in various programs and activities to improve psychological well-being.

Keywords: HIV/AIDS, COVID-19, interruptions of health care services

INTRODUCTION

It has been estimated that there are approximately 37.5 million people worldwide living with HIV/AIDS as of 2019 and 7, 70,000 people have died due to HIV related illnesses. Of these, 1.8 million were children (<15 years old). An estimated 1.8 million individuals worldwide became newly infected with HIV in 2017 and there are about 5,000 new infections per day.^[1] India has the third-largest HIV epidemic in the world, with 2.1 million people living with HIV,^[2] it was reported that 36 counties had disruption of ARV services since April, The Indian scenario calls for an analysis of disruption of health

care during this Covid-19.^[3] The National Health mission management System (NHM-HMIS) tracks utilisation of services, showed their services were severely curtailed in the country compared to the previous months.^[4] There is a need to scientifically assess and psychological impact due to interruptions in health care services during the first four weeks of national lockdown from March 21, 2020. The threat of depletion of CD4 count for the infected continues to be a serious health crisis in India and with the onset of Covid-19 there has been a delay as well as disruption of health care services to the HIV infected; inability to

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access the ART created a psychological panic, therefore the objectives of this study is to assess the disruption of health care services and the availability, accessibility of ART medication as soon as the lockdown was announced and lack of access to Government-run hospitals during the pandemic lockdown for medical treatment and to check the psychological health that includes depression, anxiety and stress experienced by people who are accessing to anti-retroviral therapy (ART) from the Government-run hospitals.

Objectives

1. To assess interruptions of ART services to People living with HIV/AIDS.
2. To assess the level of depression, anxiety and stress among PLHAs.

MATERIALS AND METHOD

The present study is descriptive, assessed the interruptions of ART services, as well as the level of depression and anxiety, during the lockdown due to the COVID-19 pandemic when they were unable to access ART over a period of months. The researcher used a convenient sampling method to select 50 respondents for the study living in rural Madurai and Dindigul District of Tamil Nadu, India. The tool used was the Depression Anxiety and Stress Scale (DASS-21)^[5] which is a set of three self-report scales designed to measure the emotional states of depression, anxiety and stress. Scores for depression, anxiety and stress are calculated by summing the scores for the relevant items.

RESULTS

Social Characteristics of PLHAs

Socio-demographic characteristic of the respondents (PLHAs) indicates that 52 per cent of the respondents were males. The mean age of the respondent was 37.7 (SD=9.873), mean monthly income was Rs. 6,388, Mean number of years on ART medication is 6 years. The majority (79 %) of the total respondents belong to the Hindu religion, 70 per cent are non-farming labourers, 29.2 per cent are farmers and 46 per cent are married, 29.2 per cent are unmarried and 28 per cent are either widow, widower or separated. 64 per cent of the respondents belong to a rural area (table 1).

Table 1 Social Characteristics of PLHAs

Category	f(%)
Age in years mean ± SD	37.7 ± 9.87
Sex	
Male	26 (52)
Female	24 (48)
Religion	
Hindu	39(78)
Muslim	3(6)
Christian	8 (16)
Residence	
Rural	32 (64)
Urban	18 (36)
Type of Family	
Nuclear family	43 (86)
Joint family	7 (14)
Education	
1-8 standard	30 (60)
9-12 standard	10 (20)
College & ITI	10 (20)
Occupation	
Farmer	15 (30)
Labourer/self-employed	35 (70)
Marital status	
Married	23 (46)
Unmarried	13 (26)
Widow/widower/separated	14 (28)

Disruption in Health Care Services

Table 2 Disruption in Health Care Services

Characteristics	Category	f (%)
Job lose due to COVID -19	Yes	39(78)
	No	11(22)
Interruptions in accessing ART during lockdown?	Up to 2 weeks	15(30)
	3-5 weeks	5(10)
	No disruption	30(60)
Reasons for not access to ART?	No Transport	34(68)
	Lack of availability	16(32)

More than one-third (40%) of respondents were unable to access ART medication during the first two weeks to five weeks of national lockdown was announced in March 2020. The main reason for not having access to ART medication is the total lockdown that is imposed by the Government. Transportation from a rural area to a Government hospital was difficult during lock down (64 %). The respondents waited for the lockdown to be lifted to receive medication (68 %), others (46%) have received ART medication for two months from Integrated Counselling and Testing Centre (ICTC).

Depression, Anxiety and Stress
Figure 1 Depression

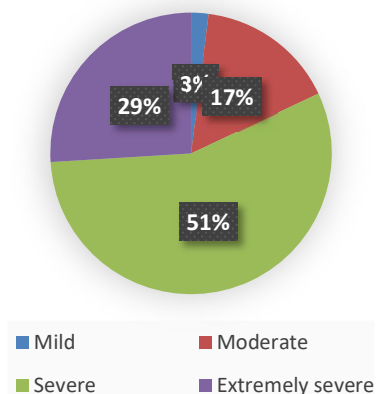


Figure 1 shows that the majority of the respondents i.e., 51 per cent have experienced severe depression. While 29 per cent, 17 per cent and 3 per cent have an extremely severe, moderate and mild form of depression respectively. Loss of livelihood and inability to access ART due to health care disruption has created a severe level of depression among people with HIV. The effect of lockdown and unprecedented health care disruption has been the cause of severe depression among the people accessing ART.

Figure 2 Anxiety

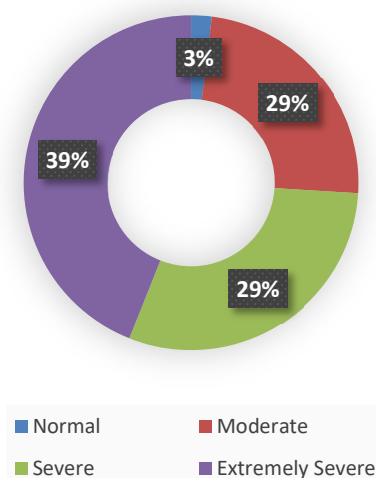


Figure 2 shows that the majority of the respondents i.e., 44 per cent has extremely severe form anxiety. While 30 per cent, 24 per cent and 2 per cent have a severe, moderate and normal form of anxiety.

Figure 3 Stress

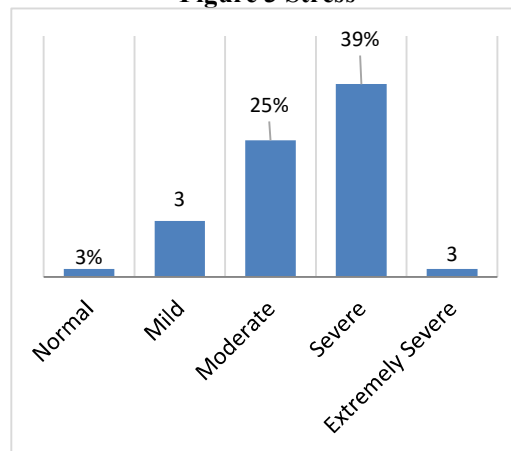


Figure 3 shows the stress among the respondents. Based on the result, it can be said that the majority of the respondents i.e., 39 per cent has a severe form of stress. While 30 per cent, 14 per cent, 2 per cent and 2 per cent have a moderate, mild, extremely severe and normal form of stress respectively.

Correlation between Depression and Anxiety with interruptions in ART services

Karl Pearson’s correlation between depression and Anxiety and the total number of weeks the respondents did not receive the ART Drugs. The results showed a positive correlation ($r=.555, p = .011$) between depression and the total number of weeks that the respondents did not have access to ART medication. It is statistically significant. A positive correlation ($p = 0.04$) between Anxiety and the total number of weeks shows that the respondents who did not receive their ART doses, delay in the resumption of health services increased higher levels of depression and anxiety among the respondents.

DISCUSSION

An interruption in ART treatment would create a greater increase in HIV-related deaths more than any other due to the unavailability of the treatment the respondents will have had their CD4 cells reduced to such an extent that they remain at a heightened risk of death as well as infection by Covid-19.^[6] World health organisation has constantly discussed the interruption of the supply of ART to the infected persons during epidemic and pandemic.^[7] In a study carried out in the Wuhan region of China, the Persons with HIV struggled to access ART medication and

experienced an increased level of discrimination.^[8] The current study is in line with the study at Wuhan, unavailability and inaccessibility was a reality during the COVID-19 lockdown. The present study shows that 40 per cent of the respondents were unable to receive ART for nearly a month due to lack of transport and unavailability. The health care disruptions have led to a deeply negative impact on the psychological health of the people living with HIV/AIDS. Increase in the level of depression and anxiety among the respondents.

Maternal health of the mothers was not attended during lockdown;^[9] it's often customary to test for HIV on a pregnant mother that too was disrupted.^[10] The WHO warns that mother to child transmission could increase by 104 per cent, National health mission health management data show that testing HIV has gone down in March 2020.^[11] It is vital to restart health care in all aspects. There has been a continuation of discrimination of health care^[12] of PLHAs during the pandemic and national lockdown in India.

The research findings are in line with some research studies that psychological wellbeing and health of people whose regular medication and health care are interrupted, experience a severe level of depression, anxiety and stress. More the lockdown and disruption more is the level of stress.

Social work implication and its lessons to Contain COVID-19

Research has not been carried out on the relationship between HIV and COVID 19, but people with low CD4 count and low immune systems are at higher risk of mortality. It brings in a lot of social work implications for the future of health care. In this type of disruption, psychiatric social workers and experts on the field could create awareness and build a stronger network as well as the preparedness of the state to deal with epidemic and pandemic as well as to create awareness among the persons living with HIV and AIDS as well the vulnerable section of our society. Preparedness among the vulnerable sections and creating a platform for policy formulation will help at the time of the pandemic. This pandemic is going to be a long fight, therefore support groups, awareness dissemination,

rebuilding of the economy of vulnerable sections of our society, continuous, undistruptive health care would be the need and implications of the near future.

Limitation:

- The Covid-19 lockdown and loss of livelihood could also have contributed towards the increase in the level of depression, anxiety and stress and those variables are not included in this study.
- The data was collected via phone interview and could not access more respondents during the lockdown period.
- Lockdown was a limitation in the collection of data

CONCLUSION

The study showed that the majority of the people living with HIV/AIDS had experienced depression and anxiety during the interruption of ART treatment, lack of transportation and unavailability and inaccessibility was a major factor, the study also emphasizes the need for continued psychosocial intervention and support to the infected and undistrupted health-care. Nation's preparedness during an emergency and the health care mechanism should be developed to address the interruptions of life-saving drugs like ART.

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Ethical Clearance: Taken

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