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The HIV Positive Adolescent in a Pandemic Year: A Point of View

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Abstract

In the HIV/AIDS Regional Center from Iasi, Romania, over 1440 patients are closely followed-up. A small percent <1% (12 patients) of cases are represented by adolescences between 14 and 18 years old. The majority of those (10 cases) are adherent and compliant with the treatment. None of the patients is a drug abuser and one patient acquired the infection through vertical transmission. The COVID-19 pandemic, paradoxically, increased the adherence and compliance to treatment, mainly because it seems that the HIV infected adolescent acknowledge the fact that good health can shield them from an unknown enemy. In these pandemic times, they experienced anxiety and depression, but they kept a closer contact through telemedicine with their physician, and most importantly, they required a sustained session, also through telemedicine, with the psychologist. The red thread of their discussion was focused on their fear, insecurities, and lack of control and the fact that they experienced the feeling of abandonment caused by the absence of interpersonal interaction with their support group.

Keywords: HIV, adolescent, psycho-emotional support, pandemic, COVID-19

1. Introduction

The Joint United Nations Programme on HIV/AIDS (UNAIDS) recently reported that in 2020 there were 1.5 million new human immunodeficiency virus (HIV) infections globally, with approximately 700,000 AIDS-related deaths. In 2020, there were 37.7 million people living with HIV. More than 27 million people with HIV were receiving antiretroviral therapy (ART), which has substantially reduced the burden of HIV disease [1].

2. Adolescence and HIV

Adolescence is one of life's critical transitions. The biological and psychosocial changes that take place during this period affect every aspect of adolescents' lives.

In 2020, about 1.75 million adolescents between the ages of 10 and 19 were living with HIV worldwide. Adolescents account for about 5 percent of all people living with HIV and about 11% of new adult HIV infections [2].

All over the world, adolescents that represent the key population groups (including gay and bisexual boys, transgender adolescents, adolescents who sell sex, and

adolescents who inject drugs) have an increased risk of contracting HIV infection. These marginalized groups face discrimination and human rights violations, and they often are excluded from services.

The epidemic among adolescents in key populations conducted the associations that were addressing them, to really understand their different life experiences and making sure that they grow up protected from discrimination and violence. Another key part is represented by the access to HIV testing, prevention, and treatment programs, and also sexual and reproductive health care services. All of this will help them to realize their rights to life and health and to freedom from discrimination [3].

All adolescents have the right to be educated about HIV and to have access to services that will enable them to protect themselves against the infection. All HIV-positive adolescents that acquired the infection whether passed from their mother or during adolescence, have unique requirements and risks. These particular patients have the same entitlement to HIV treatment and care as everyone else. HIV testing and counseling, as well as adolescent sexual and reproductive health services, remain key entry points into the continuum of HIV prevention, treatment, and care for adolescents living with HIV. Adolescents (ages 14–18) living with HIV are a vulnerable group, that statistically have a higher loss to follow-up, an increased possibility to have a virologic failure and higher mortality than adults already diagnosed with HIV/AIDS [4].

In the treatment of HIV, UNAIDS has a clear strategy in the battle against HIV/AIDS in the United States and the United Kingdom. The 90-90-90 plan included the following objectives:

- By 2020, 90 percent of all people living with HIV will be aware of their HIV status;
- By 2020, 90 percent of all people with HIV infection will be receiving long-term antiretroviral medication;

By 2020, 90 percent of individuals on antiretroviral medication will be virally suppressed.

This strategy seeks to diagnose HIV infection as quickly as is possible once it is acquired, and also to as well as to provide immediate access to HIV treatment. The most crucial thing is that the medication is properly picked and that it protects the HIV-positive patient from complications such as opportunistic infection and the development of cancers [5, 6].

In 2020, 84% of people living with HIV knew their HIV status. Among people who knew their status, 87% were accessing treatment, and among people accessing treatment, 90% were virally suppressed. Of all people living with HIV, 84% knew their status, 73% were accessing treatment [1].

Within the WHO, a dedicated department has been developed—the Department of Maternal, Newborn, Child, and Adolescent Health—that has a solid connection with the HIV lucrative section, and they work together to create guidelines and standards for each country, based on their individual needs. Access to HIV testing services, as well as socio-psychological and professional treatment for those who have been diagnosed with the disease, is necessary for young people is mandatory.

These organizations' reports contain evidence-based recommendations, as well as principles for management, health policies, and programs, in order to accomplish the UN's (United Nations) goals for the HIV pandemic and youth.

They seek to detect and identify vulnerability in the young population, expand access to services and information, and supervise intervention initiatives in schools,

health services, and media, among other things. Those in charge of conducting and carrying out these intervention initiatives work as follows:

- Steady—no programs have yet been implemented; more time to evaluate is required;
- Ready—cautious implementation;
- Go—large-scale implementation.

Johns Hopkins University as well as other world-renowned universities have been active in the support program for low-income states (such as Uganda), where there are significant communities of HIV-positive young people [7].

“The UNAIDS 2011–2015 Strategy: Getting to Zero, the UNAIDS Joint Action for Results: Outcome Framework 2009–2011, and the UNAIDS Business Case 2009–2011 for the priority area on young people present an opportunity to focus on and scale up effective programs for young people, and to create links between partners involved in the response” [7].

Over time, health policies and the implementation of programs, for a long period of time, appeared to have paid off, with UNAIDS reporting a decline in the prevalence of HIV infection among young people and adolescents in low-income countries.

“A trend analysis in HIV prevalence among young people in 2008 revealed that HIV prevalence declined in 15 of the 21 countries most affected by the HIV epidemic. Ten countries showed a statistically significant decline of 25% or more in HIV prevalence that occurred among young pregnant women or men in either urban or rural areas or both” [8].

3. The two pandemics–HIV and COVID-19

Although there is a significant accomplishment, programs from global to local levels are now confronting a new and unexpected challenge: the coronavirus disease 2019 (COVID-19) pandemic, which is caused by the severe acute respiratory syndrome coronavirus 2. (SARS-CoV-2). The coexistence of the HIV and COVID-19 pandemics has had an indirect impact on people living with HIV by interfering with key services and a direct impact by introducing another possibly lethal risk to the individual's health. Public health measures required to control the spread of SARS-CoV-2 have led to social restrictions and social distancing that have negatively impacted different sectors and also have limited access to routine healthcare. In particular, the COVID-19 pandemic has had a negative impact on HIV testing, linkage to care, and treatment access for those living with or at risk of HIV [9]. Discontinuation of these in association with impeded access to other HIV-related medical services, such as accessibility to pre-exposure prophylaxis (PrEP), HIV testing and treatment of opportunistic infections, and other HIV control methods, has most certainly already resulted in higher HIV incidence, morbidity, and mortality [10]. Disruptions in ART access, resulting in poor virologic control of HIV during the COVID-19 pandemic, suggest that strategies such as giving a multiple month supply of ART could be helpful [11].

The likelihood of HIV-positive patients contracting CoV-2 infection and vaccination against the novel coronavirus

When the SARS COV-2 pandemic hit, no one knew how HIV-positive patients were exposed to and vulnerable to infection with this new virus, or whether

they will react differently from the general population. With the world's medical research attention focused on SARS CoV-2 infection, there are data that suggests the fact that this second viral infection in HIV-positive individuals with detectable viral load and low CD4 count may have a poor prognosis.

Blanco conducted one of the first research in the UK on the mortality of HIV-positive subjects that were also infected with SARS CoV-2. The compiled data revealed that the mortality rate of immunosuppressed seropositive patients was higher compared to that of the general population [12]. Another study, that has taken gender, age, and comorbidities into account and also the presence of certain addictions, like smoking, concluded that most HIV-positive patients who died had significant associated pathologies and vices (obesity and smoked). The patient cohort was modest, with only 33 participants. According to the study's findings, more information on these concerns is required [13].

Bhaskaran and Tesariero showed that people with HIV and comorbidities have a higher risk of mortality than the general population [14, 15]. "People living with HIV had a higher risk of COVID-19 death than those without HIV after adjusting for age and sex" [14] "PLWDH experienced poorer COVID-related outcomes relative to non-PLWDH (people living with diagnosed HIV), with 1-in-522 PLWDH dying with COVID-19, seemingly driven by higher rates of severe disease requiring hospitalization" [15].

4. The impact of COVID-19 pandemic on adolescences

The COVID-19 pandemic created disruptions in social contact and health service delivery that negatively affect psychosocial and clinical outcomes [16]. Understanding the effects of the COVID-19 pandemic on adolescents that live with HIV, is crucial for their adherence and compliance to treatment.

Mental health and psychosocial issues usually start throughout adolescence and remain into adulthood if not treated adequately [17], with 10–20% of children and adolescents developing diagnosable mental health conditions [18]. Suicide rates are rising, with young people currently being the demographic category that has increased the risk of suicide in one-third of nations, both developed and developing [17–20]. Depression is one of the top three causes of illness and disability in teenagers, and suicide is the third major cause of death in adolescents between 15 and 19 years. Mental health and psychosocial impairment, apart from morbidity and mortality, has multiple other detrimental implications such as substance abuse, poor reproductive and sexual health, violence, and lower educational achievements.

If untreated, mental health issues that begin before maturity are predicted to cost the health system 10 times more than those that appear later in adult life [21].

Adolescent mental health during the COVID-19 pandemic should not be neglected as adolescents often face disproportionate risks and impacts in this area. Providing responsive psychosocial support and coping strategies for ALHIV (adolescents living with HIV) during this pandemic is critical since the emotional pressures they frequently face may be exacerbated by movement restrictions and isolation, as well as difficulties acquiring food, clothing, housing, and psychosocial support. Peers' contributions to face-to-face and psychosocial and group mental health support have been thoroughly established. Group gatherings are limited or canceled under the existing COVID-19 rules. To maintain communication and support for ALHIV, online and other communications means should be used whenever available.

A multitude of instruments can be used to maintain a balance in the psychological and mental health of ALHIV. It all starts from the household and family

members, continues with virtual and interactive online platforms on which ALHIV can have social interaction with peers their age. ALHIV's privacy and confidentiality are crucial, and they should be advised about how and who to contact for extra care if they are feeling ill or mentally upset.

ALHIV are a priority group, and their health and well-being should not be an afterthought within the COVID-19 pandemic response. It is important to ensure that critical services are planned for and delivered during this time.

ALHIV are a key population, and their well-being should not be overlooked as part of the COVID-19 pandemic response. It is crucial that key services are prepared for and supplied throughout this period. While considerable progress has been achieved, ALHIV has had poorer outcomes and is currently falling behind in terms of universal ART coverage. Those accomplishments are at risk of being lost unless we take immediate, aggressive actions to protect their interests and secure their health and survival. We must take action to guarantee that friendly messaging that is targeted to their age group and relevant information on COVID-19 are sent to ALHIV on time. We must ensure that ART is administered with age-appropriate adherence messages given using proven and tested virtual platforms and telecommunications channels. Contraception is part of a comprehensive set of services provided to teenagers who require it during this period. A lot of these services can also be effectively provided by youth-led and directed community-based and non-governmental groups. These civil society resources may be used while complying with all safety precautions and other infection control methods, particularly at this time, when health care systems are overwhelmed by COVID-19 requirements [22].

5. HIV adolescences in a pandemic year in our clinic

In the HIV/AIDS Regional Center from Iasi, Romania, over 1440 patients from 5 counties that are in the Moldavian region are closely monitored. Twelve patients are represented by adolescences between 14 and 18 years old. The majority of those (10 cases) are adherent and compliant to treatment. None of the patients is a drug abuser and one patient acquired the infection through vertical transmission.

On March 4th, 2020, "Sf. Parascheva" Clinical Hospital of Infectious Diseases from Iasi, Romania, admitted the first COVID-19 positive patient. From there, step by step the whole hospital became the first line SARS CoV-2 hospital from Iasi, and admitted only SARS CoV-2, infected patients. Alongside this, the main downside for the HIV-positive patients was that they did not have the same condition to be evaluated as before. Of course, the monitoring of these patients was continued with the strict following of the public health measures that were imposed at that time.

Regarding the adolescences that were followed up in our clinic, we observed an increased adherence and compliance to treatment, mainly because it seems that the HIV-infected adolescent acknowledges the fact that good health can shield them from an unknown enemy.

Considering that HIV-positive patients are already a vulnerable group, we observed that in these pandemic times, they experienced higher levels of anxiety, depression, and an increased level of fear regarding their health. On a daily basis, the HIV-positive adolescents had support groups and required interpersonal interaction with their friends (seropositive or seronegative). The public health care measures limited the possibility of all of these support systems. All of the restrictions made the HIV-positive patient to keep closer contact through telemedicine with their physician and most importantly, they required a sustained session, also through telemedicine, with the psychologist.

The red thread of their discussion was focused on their fear, insecurities, and lack of control and the fact that they experienced the feeling of abandonment caused by the absence of interpersonal interaction with their support group.

Fortunately, all of these teenagers come from supportive homes, have had a solid social insertion, and have a fair economic standard. All of them were defining characteristics that contributed to the young patients' commitment and compliance to therapy, as well as the adolescent's immediate psychological support.

6. Conclusions

Adolescents, and in particular the HIV-positive adolescents, are fragile individuals that require sustained psycho-emotional support and that feel the burden of the disease in a special way. At that age, critical transitions are happening which are doubled by the fact that they have to understand the medical problems that come from the seropositive status for the rest of their life and the importance of a perfect adherence and compliance to a medication that should never be interrupted.

The social aspects from the developing or low-income countries add doubles and complicate the existence of ALWH. Therefore, WHO, the governments, and the decision-makers of every county should create mechanisms and special organizations for this particular category of HIV-infected patients. Even though WHO created these dedicated departments for ALHIV, in the future, this side of medical assistance should also be developed all over the world and provide complete material and human resources.

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