

Case Report

Essay on Rehabilitation of Patients Living with HIV/AIDS

Animut Alebel^{*}, Fasil Wagnew

Department of Nursing, College of Medicine and Health Science, Debre Markos University, Debre Markos, Ethiopia

Email address:

animut.a23@gmail.com (A. Alebel), fasilw.n@gmail.com (F. Wagnew)

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Abstract: This essay was based on the patient that was admitted to Gondar University referral Hospital in pediatrics main ward with a medical diagnosis of stage III RVI. The main aim of this essay was to explain the rehabilitation care for patients living with HIV/AIDS. AIDS is a chronic infectious disease caused by human immunodeficiency Virus. HIV has distinct characteristics of long period of asymptomatic presentation and finally end up with AIDS manifestation and leads to death. Now a day HIV is considered as a chronic disease due to the introduction of HAART. The HAART intervention helps to long time survivors of the patient and leads to age related CVD and other chronic disease that needs a lifelong rehabilitation care. In the context of HIV, rehabilitation is a continuous process of supportive care that includes both preventive as well treatments. Rehabilitation care covers impairments of physical activity, decrease from social involvement and cognitive impairments. Nursing rehabilitation care for patients living with HIV/AIDS includes self-management education, exercise, nutrition, psychosocial and family support. Patient XY was risk of multiple factors that need rehabilitation care. Among this psychosocial problem, is the prominent one so, nursing profession has indispensable role in this aspect.

Keywords: Rehabilitation, HIV, Patient

1. Introduction

This essay was based on a patient that was admitted to Gondar University referral Hospital Pediatrics main ward with a medical diagnosis of stage III RVI. The main aim of this essay was to explain the rehabilitation Nursing care for the patient living with HIV/AIDS by using holistic Nursing care approach specifically focused on rehabilitation issue.

After analyzing the patient's case, this paper will also deal with the rehabilitation care by searching and evaluating literature, guidelines and standards that support and argued this patient care. Finally, recommendation will give based on the evaluation of the care for improving quality of nursing care practice. For the purpose of confidentiality, the patients name was assigned as XY.

2. Case Description

This is XY, a14-years -old female patient comes from Gondar town, Keble 18 admitted to Gondar university

Referral hospital; pediatric main ward on 10/09/2008 E.C. She is a known RVI patient for the past 9years. She has history of ART follow up for the past 9 years back but the drug was changed from AZT + 3TC + NV to EFV + 3TC + TDF due to the side effect of AZT. She was relatively healthy two weeks back but at which time she starts to experience: right lower leg pain, erythematous, none pustule, none position dependant unilateral swelling > 72 hours associated with low-grade intermittent fever, loss of appetite. She has h(x) of dray cough but she has no h(x) of contact with PTB or chronic coughher; she has no history of trauma; she has no h(x) surgery; she has no h(x) of taking any anti-inflammatory drugs; she has no h(x) of liver, kidney and heart disease.

3. Discussion

HIV is a chronic infectious disease caused by Human Immuno Deficiency Virus. HIV has a distinct characteristics of long period of asymptomatic presentation and finally it may end up with AIDS manifestation and leads to death [1].

Almost 3.4 million children were living with HIV by the

end of 2011 from those majorities of them (91%) where living in sub-Saharan Africa.

In Ethiopia by the year of 2013 it is estimated that 793,700 (716,300-893,200) people where living with HIV/AIDS from those 200,300 (172,400–232,400) were children. From the above number we can understand that Ethiopia is one of sub-Saharan Africa country, which is highly affected by HIV/AIDS [3].

Transmission of HIV can be of either sexual contact, parenteral exposure to blood, or vertical transmission from mother to child. Among all route, the primary route of infection in the pediatric population is vertical transmission which accounting for almost all new cases. Transmission rates in Africa and Haiti are higher (range is 25-5[4]). Similarly, Patient XY acquired the disease from her family and currently she is an orphan since her mother and father dead due to HIV/AIDS.

Perinatal treatment of HIV infected mothers with antiretroviral drugs has dramatically decreased the transmission rates of <2% in pregnant women one effective therapy. The clinical manifestations of HIV infection vary widely from infants, children, and adolescents. Clinical manifestations found more commonly in children than adults with HIV infection include recurrent bacterial infections, chronic parotid swelling, lymphocytic interstitial pneumonitis [5], and early onset of progressive neurologic deterioration.

The HIV classification system is used to categorize the stage of pediatric disease by using two parameters: clinical status and degree of immunologic impairment. HIV in child can be diagnosis by different means but viral diagnostic assays, such as HIV DNA or RNA PCR or HIV culture, are considerably more useful in young infants. The currently available therapy for HIV does not eradicate the virus and cure the patient and instead suppresses the virus for extended periods and changes the course of the disease to a chronic process [4].

4. Rehabilitation

HIV is now a day considered as a chronic manageable disease, rather than terminal illness due to the universal availability of HAART. Like other chronic disease, HIV has also various psychological, social and behavioral maladjustments that need rehabilitation, especially in children [6, 7].

In our country, HAART was first introduced in 2003 in fee-based and 2005 in free-based. Because of HAART intervention, many people living with HIV/AIDS in developing and industrialized countries survive for a longer period [6, 8].

Despite improvements in survival, people living with HIV have arrange of physical, cognitive, mental and social health-related challenges associated with HIV, co morbidities and aging, a concept that may ‘ disability’ [8, 9].

In the context of HIV Rehabilitation is defined as continuous process of supportive care that includes both

preventive and treatments. The rehabilitation care both covers impairments of physical activity, decrease from social involvement and cognitive impairments [9].

4.1. Self-Management Education

When effective treatment of incurable diseases tends life expectancy and causes symptom remission, acute and terminal illness models must be replaced by a chronic care model (CCM) in which patient’s self-management is a key component. HIV has been recognized as a chronic illness since the advent of antiretroviral therapy but HIV is still not universally included in chronic illness lists and discussions [10].

HIV meet several chronic disease criteria: uncertain course, a prescribed treatment regimen, requirement for self-care, some degree of stigma, changes in roles and relationships, identity changes, and psychological distress [11].

The goal of chronic illnesses health care is to control symptoms and prevent disability rather than curing the disease. Thus, the objectives of chronic disease interventions include managing physical symptoms, improving independence, and increasing quality of life. The majority of illness management takes place outside of formal health care. Patients are responsible for using medication properly, changing behavior to improve symptoms or slow disease progressions, interpreting and reporting symptoms correctly, adjusting to new social and economic circumstances, coping with emotional consequences, participating in treatment decisions, and preventing transmission of contagious diseases [10].

The Positive Self-Management Program combines health education with self-management skills, assuring that patients understand the risks and benefits of treatment options to participate in medical decisions. Common goals of self-management interventions to support physical health (e.g., medication adherence, symptom management, and healthy life style routines), psychological functioning (e.g., managing stress, promoting self-esteem, and maintaining positive emotional states), and social relationships (e.g., collaborative provider patient interactions, accessing social support, and enhancing role, and relationship functioning) [10].

Similarly, In patient XY she is currently adhered to her medication and had no recorded h(x) of dropout. this indicated that she had Good knowledge about self-management of the disease.

4.2. Dietary Management

Causes of malnutrition are classified in three major groups; immediate causes, underlying causes and basic causes. Factors like inadequate dietary intake and infections including HIV/AIDS are considered as immediate causes of malnutrition [12]. Macro and micronutrient deficiency developed by PLHIV is becoming a headache for health profession. This nutritional complication is most commonly due to HARRT drugs especially nucleoside reverse transcriptase inhibitors [13].

Nutritional supply to improve food security for PLHIV has both physical and mental health improvement [14]. Human

Immune Deficiency Virus (HIV) infected individuals are at a greater risk of having malnutrition compared to General population [15]. So many factors contribute for the reduction of Nutritional intake for PLHIV. Among those factors fungal infections involving in the mouth or throat, loss of appetite and higher incidence of diarrhea that leads to malabsorption have a significant role to develop malnutrition for PLHIV as a result, Nutritional intervention or therapy is a key for PLHIV [16].

The Vicious Cycle of Malnutrition and HIV

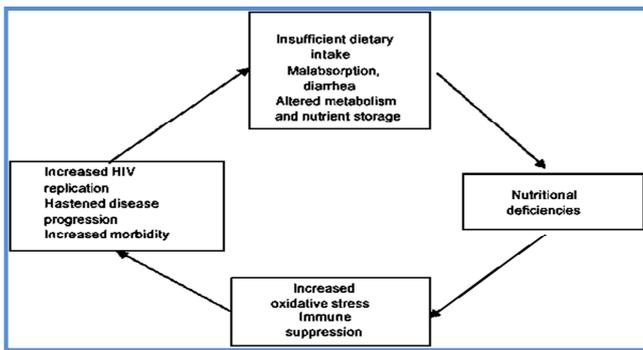


Figure 1. Adopted from *National Comprehensive HIV Care and Treatment Training for Health care Providers Ministry of Health June 2014.*

Nutritional Recommendations for PLHIV (Therapy)

Specific nutrition recommendations vary according to the underlying nutritional status and extent (stage) of HIV disease progression. The disease progression categorized in to three stages: - Early stage, middle stage and late stage [17]. Early Stage: - at this stage peoples most common asymptomatic. Energy and Protein increase requirement increase by 10-15% and 50% respectively. Vitamins and minerals used by the immune system are also increased. The main objective eat this stage is to remain as healthy. Middle Stage:- At this stage of the disease, there is significant, unintentional or undesirable weight loss the main objective are to minimize consequences by increasing nutrient intake for recovery /weight gain. Avoid unhealthy behaviors like that of alcohol intake, smoking and drug use are recommended [17]. Late Stage:- this is AIDS defining stage. Therefore, the focus at this stage should be reducing nutritional consequences of AIDS as much as possible [17].

With similar to the above literature patient XY is currently diagnosed as having Underweight. The possible risk factor of her underweight may be she has also loss of appetite, one episode of bloody diarrhea these factors may contribute to malnutrition.

4.3. Exercise Management

Due to the introduction of ART therapy PLHIV now a day becomes long term survived consequently they become a risk of age related CVD and other related chronic disease that needs exercises therapy. A systematic review conducted on the effects of different types Of therapeutic, exercise on physiologic and functional Measurements in patients living with HIV/AIDS shows that resistance training, aerobic exercise, and concurrent training are associated with

improvements in body composition, muscle strength, and cardiopulmonary fitness In adults living with [18].

Another systematic review conducted on the effects of concurrent strength and endurance training on the Health-Related Quality of Life and Cardiopulmonary Status in Patients with HIV/AIDS demonstrated that there is sufficient evident to support the effectiveness of concurrent training improves aerobic capacity in PLHIV. Despite major differences in exercise prescription and duration of different programs, the aerobic capacity was significantly improved [19].

Over the past decades, there have been multiple epidemiological studies showing the relationship between physical activity and overall health in non-HIV populations Physically active adults are less susceptible to viral and bacterial infections when compared with sedentary adults, suggesting that physical activity improves overall immune function. Research evidence supports the findings that exercise decreases age associated immunosenescence [20].

Regular physical activity can positively affect the HIV infected individual psychologically, and emotional wellness has been linked directly related to immune health [21].

A limited research base has examined the efficacy of exercise to treat the most common symptoms of HIV/AIDS and the adverse effects of HAART. Some research suggested that exercise training for 8–12 weeks would result in reduced fatigue, anxiety and depressed mood, along with an improved quality of life. In addition, there is no evidence that HIV infected persons respond negatively to exercise [22].

However, to the opposite of the above literatures patient XY explained that she becomes fatigue and feels emotional instability while she done physical exercise and due to this she stay at home throughout the day this may be one risk factor for her leg swelling.

4.4. Psychosocial Intervention

The positive effect of social support on reducing psychological distress among PLHIV has been widely confirmed by both cross-sectional and longitudinal studies

There is strong evidence that supports mental health and HIV are bidirectional. Means there is high prevalence of HIV among peoples who have mental illness and there is high prevalence of HIV among mentally ill people [23].

Psychosocial support from different group of people had a significant impact on their life from depression and other mental related illness for people living with HIV. This study also shows most people living with AIDS share their Idea much in common with people living with HIV/AIDS in other cultural settings [24].

The psychological concern was common among children than adult according to his study form all participants 23% of children showed feeling of anger and 33 children shows frequent sicknesses, from this 19 felt isolated, 15 were fearful [25].

Functional social support has a profound prejudice on psychological as well as social activity of PLHIV. This therapy had an effect to reduce anxiety and depression [13].

4.5. Family and Social Support

Social support has different form and comes from different direction (family, friends) but in this essay, I am focused on family support that is the most important one.

Social support can be define as a social system as others who help people to mobilize their psychological resources in order to deal with emotional problems (linking, loving, and empathy) [26].

Health profession and community health worker have an indispensable role to explain the importance of psychosocial support for the PLHIV from their family, friends, and community at large especially for females [27].

Majority of PLWHIV lives with heir family when they are compared to peoples without HIV/AIDS this may be implies that PLHIV seeks more social support than peoples without HIV/AIDS [28]

5. Nursing Implication

The role of nursing practice for this particular patient is indispensable in HIV case needs a lifelong therapy .in addition to this nursing care should be multidimensional (holistic) but to the contrary, patient XY has not been got this rehabilitation service still I meet her. Having that my key role was to fill this gap as a result; I tried to address her psychosocial as well as nutritional need as much as I can. The care was starting from her assessment and care that was given to her includes; I have tried to incorporate some of the rehabilitative activities such as education and counseling on the importance of self-care management behaviors, exercise under supervision, dietary habits, psychosocial support, family and social support to PLHIV.

6. Conclusion and Recommendation

HIV is now a day considered as a chronic disease due to the introduction of HAART. This intervention helps to long time survivors of the patient and leads to age related CVD and other chronic disease that needs a lifelong rehabilitation care. Patient XY was risk of multiple factors that need rehabilitation care. Among this psychosocial problem, is the prominent one so, nursing profession has indispensable role in this aspect. As a result, Nurse who works in this hospital should apply holistic care for patients with HIV/AIDS. The hospital should also incorporate rehabilitation care as one component of care in ART clinic.

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