TOWARDS NUTRITIONAL CARE AND SUPPORT FOR PEOPLE LIVING WITH HIV/AIDS

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Abstract

This paper is focused on the nutritional care and support for people living with HIV/AIDS (PLWHA), the orphans and vulnerable children. It is also designed to help the public to appreciate the inter-relationship between nutrition and M1VS/A1DS as well as the important and positive role of good nutrition in the management and provision of care to PLWHA and OVC. This helps to prevent the development of nutritional deficiencies associated with HIV and AIDS. Eating well contributes to the immune system and healthiness of the HIV patient. This assists in body resistance to diseases, complements the effect of any medication taken and prolongs the life span of the patients. Some nutritional requirements were also highlighted in this paper to assist the PLWHA.

Introduction

Nutritional care and support are important from the early stages of HIV infection to prevent the development of nutritional deficiencies. Eating well contributes to strengthening the immune system and therefore, helps to stay healthy. Many of the conditions associated with HIV/AIDS affect food intake, digestion and absorption while others influence the functions of the body. Good nutrition helps to increase the resistance to infection and disease and weight loss may be reversed by nutritional/dietary management, thus making an individual stronger and more productive. Several symptoms of these conditions, such as diarrhea, weight loss, sore mouth and throat, nausea or vomiting, are manageable with appropriate nutrition. Good nutrition will also complement and reinforce the effect of any medication.

It is therefore, imperative that nutrition counseling, care and support are taken into consideration when managing and treating HIV/AIDS patients, their orphans and other vulnerable children. It is in this regard that this paper for nutritional care and support for people living with HIV/AIDS and orphans and vulnerable children was put together for this conference. The purpose of this paper is to empower participants of this conference to educate and provide quality nutritional care and support, not only to people living with HIV/AIDS (PLWHA) but also to their orphans and vulnerable children (OVC).

Objectives of Nutrition and HIV/AIDS As Stated by WHO and FAO (2002)

Transmit the fundamentals of nutrition and principles of nutrition education as adapted to the context of HIV/AIDS

Familiarize victims with the reciprocal influence of nutrition and HIV/AIDS with possible interactions between nutrition and Anti-Retroviral (ARV) medication.

Create awareness in management of nutrition-related complications of HIV/AIDS such as diarrhea, appetite loss, nausea and vomiting, sore mouth and throat, other digestive problems.

Build and enhance the capacity of participants and other related medical officers to incorporate nutrition into existing programmes and to monitor and evaluate the effectiveness of nutrition related activities.

Relationship between Nutrition and HIV/AIDS

As cited by Piwoz and Preble (2002), the relationship between malnutrition and HIV/AIDS can be seen in three major areas:

a. The relationship creates a vicious cycle that weakens the immune system.

b. Persons with HIV/AIDS are at increased risk of malnutrition through various mechanisms, some of which are not related to food.

c. Poor nutrition increases susceptibility to opportunistic infections and may accelerate the progression of the disease.

Dale (2004), highlighted the effects of HIV/AIDS on nutrition in three areas as

1. HIV/AIDS increases Nutritional Needs

a. These occur as the immune system uses more energy and nutrients to fight infections.

b. As at the time when HIV/AIDS weakens the immune system, other infections start to occur which also raise the need for nutrients and energy.

c. Restlessness and high anxiety about the disease further weakens the immune system leading to greater need for nutrients to boost the immune system.

2. HIV/AIDS Lowers Food Intakes

This affects the digestive system of the patients.

a. As infections and illness increases it lead to poor appetite.

b. Mouth and throat infections cause difficulties with eating.

c. Some drugs cause a poor sense of taste as a side effect.

d. Depression, fear and anxiety contribute to the loss of appetite.

e. Isolation may result from social prejudice against people with HIV/AIDS, because food eating is a social event, loneliness will affect the way a person eats.

f. In the late stage of the disease, people with HIV/AIDS may find it difficult to take care of themselves.

3. HIV/AIDS Causes Physical Problems

a. The disease causes the lining (mucosa) of the intestine to deteriorate due to HIV and other infections. This affects the ability of the gut to digest and absorb food.

b. It causes inability of the intestine to take up nutrients from foods; mal-absorption.

c. Water and nutrients are lost from the body through diarrhea as a result of mal-absorption.

Effects of Good Nutrition on People with HIV/AIDS

Department of Health (2001), states that nutritional care promotes well-being, self-esteem and a positive attitude to life for people with HIV/AIDS in various ways. Among others, it:

a. Prevents malnutrition and wasting by maintaining body weight and strength.

b. Improves the function of the immune system and the body's ability to fight infections.

c. Replaces lost vitamins and minerals.

d. Helps to delay the progression of the disease.

e. Improves the response to treatment, reducing time and money spent on health care.

f. Keeps HIV infected people productive, able to work, grow food and contribute to family income.

g. Improves the quality of life.

Dynamics of Malnutrition and HIV/AIDS

WHO, BASICS, UNICEF (2004), established that HIV infection results in poor nutrition due to insufficient dietary intake, mal-absorption and altered metabolism. These three overlap to cause weight loss and wasting through:

1. Reduction in Food Intake

As the disease progresses painful sores in the mouth, pharynx and or oesophagus continue to manifest- There is fatigue, depression, changes in mental state and other psychosocial factors of the patients. These bring side effects of medications, including nausea, vomiting, metallic taste, diarrhea, abdominal cramps and anorexia (fear to eat).

2. Nutrition Mal-absorption

This is accompanied by frequent diarrhea due to pathogens affecting persons with compromised immune system, increased intestinal permeability and other intestinal defects. There is epithelial damage to the intestinal walls and mal-absorption; this is common to all

singes of HIV infection in adults and children. Fat ma I-absorption affects the absorption of fat-soluble vitamins (vitamin A, D, B and K).

3. Metabolic Alterations

In this stage, there are increased energy and protein requirements as a result of infections. An infection like HIV brings about inefficient utilization and loss of nutrients. During HIV infection, there are metabolic changes due to the immune system response to infection. Metabolic changes occur as a result of severe reduction in food intake. The body

then responds by altering certain hormones (glucagon, insulin etc) which regulate the flow of sugar and other nutrients to the intestine, blood, liver and other body tissues. The body now uses up carbohydrate stored in the muscle and liver tissue, and it begins to break down body protein to produce glucose. This causes weight loss and muscle wasting.

Weight loss normally follows two patterns in people living with HIV/AIDS:

Slow and progressive weight loss from anorexia and gastrointestinal disturbances.

Rapid, episodic weight loss from secondary infections.

Wasting Syndrome typically found in adult AIDS patients is a severe nutritional manifestation of the disease. Wasting is usually preceded by:

decrease in appetite

repeated infections

weight fluctuation

subtler changes in body composition, e.g. changes in lean body mass and body cell mass.

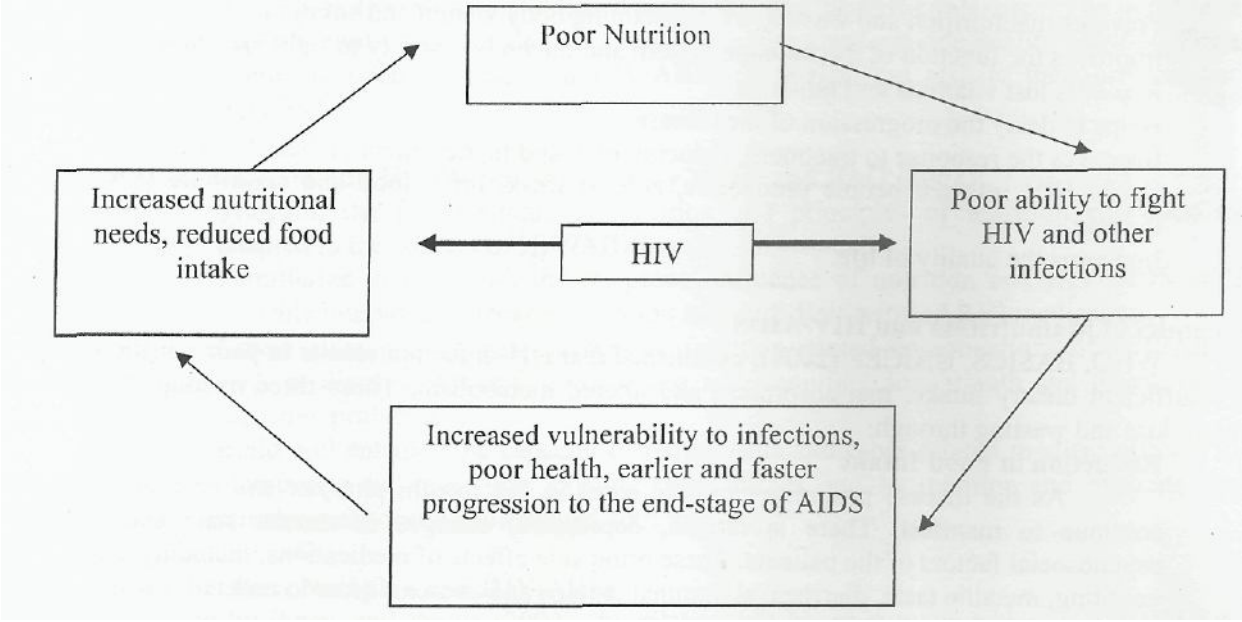
Symptoms of Malnutrition in People Living With HIV/AIDS (PLWHA)

WHO (2004), enumerated the following symptoms of PLWHA as: weight loss

loss of muscle tissue and subcutaneous fat

reduced immune competence increased susceptibility to infections

The Cycle of HIV/AIDS & (Mai) nutrition



Nutritional Goals and Priorities for Adults with HIV/AIDS as Proposed by WHO, FAO, ROME (2002)

Good nutrition and a healthy diet may prolong the period of time between HIV infection and onset of opportunistic infections commonly attributed to progression of the disease.

Good nutritional needs should vary according to the development of the disease.

Nutritional Priorities of Each Stage

Nutritional priorities vary according to individual symptoms and energy and nutrient needs, which are also dependent on the stage of the disease.

A. Early Stage: HIV infected and still healthy.

This time no symptoms of the disease

Feeling of tiredness occurs

The nutritional goal during this stage is to keep the body weight stable in order to strengthen the body's ability to fight infections with the immune system and to prevent progression of the HIV illness. During the early stage the emphasis is on a normal and healthy eating pattern. The priority is to:

improve nutritional status by concentrating on eating a wide variety of foods containing essential nutrients.

maintain weight, prevent weight loss, and prevent loss of muscle mass

understand and follow food safety guidelines through proper nutrition education and counseling

B. Middle Stage: Some problems occur but generally

Health problems begin to manifest Infection puts extra demand on the immune system Increases body need for energy and other nutrition The nutritional goal at this stage is to ensure adequate nutrient intake by improving eating habits and essential nutrients needed for the functioning of the immune system. The priority is to:

maintain and increase energy intake and meet the requirements for proteins, iron and vitamins A, B, C and assure weight gain

promote as much as physical activities as to preserve lean body mass.

C. Late Phase: More serious problems occur

Full blown AIDS appears

More serious problems appear

Ability to fight off infection completely weakened.

The nutritional goal this time is to prevent food borne illnesses by promoting hygiene, food and water safety so as to enhance quality of life; and promptly treating infections and managing the symptoms that affect food intake to minimize the nutritional impact of secondary infections when they occur.

The priority is to:

Provide comfort or palliative care. This care includes treating opportunistic infections, modifying the diet according to symptoms and encouraging eating

Provide emotional and psychological support

Start antiretroviral therapy where possible and necessary.

Nutrient Requirements for People Living with HIV/AIDS

Food And Nutrition Technical Assistant (FANTA, 2001), specified two areas of nutrient requirement, for PLWHA as: 1. Macronutrients. This is classified into three (a) Energy requirement (b) protein requirement

and (c) fat requirement

a. Energy Requirement - This is likely to increase by 10% to maintain body weight and physical activity in asymptomatic HIV-infected adults, and growth in asymptomatic children.

Energy requirements increase by approximately 20% to 30% by symptomatic HIV and subsequently during AIDS, to maintain adult body weight. Energy food intakes need to be increased by 50% to 100% over normal requirements in children experiencing weight loss (FANTA 2001).

b. **Protein Requirements**

Normal body protein requirement should be maintained ie 12%-15% of proteinous food.

c. **Fat Requirements**

Normal body fat requirement should be maintained. However, special advice regarding fat intake might be required for individuals, HIV infected persons undergoing antiretroviral therapy or experiencing persistent diarrhea.

2.

Micronutrients

This includes minerals and vitamins required by people living with HIV/AID.

* **Children**

HIV - infected 6-59 month old children living in resource - limited settings should receive periodic (every 4-6 months) vitamin A supplements (100,000 IU for infants 6-12 months and 200,000 IU for children > 12 months). This level is consistent with current WHO recommendations for the prevention of vitamin A deficiency in children.

* **Pregnant and Lactating Women**

To prevent anaemia, WHO recommends daily iron-folate supplementation (400 mg of folate and 60 mg of iron) during six months of pregnancy, and to treat severe anemia twice-daily supplements. Available data do not support a change in this recommendation for women living with HIV.

Daily vitamin A intake by HIV-infected women during pregnancy and lactation should not exceed the Recommend Dietary Allowance (RDA).

All adults and children with HIV-infected should have micronutrient intakes at Recommended Dietary Allowance (RDA).

However, caution should be exercised as excessive amount of some micronutrients (vitamin A and E; zinc and iron) have been shown to impair or speed up disease progression rather than improve the immune system (National Food and Nutrition Commission (NFNC) Lusaka, Zambia (2004).

Conclusion

This paper is designed to help participants and the entire public and the people living with HIV/AID (PLWHA) to appreciate the interrelationship between important and positive role of good food in the management and provision of care to PLWHA, orphans and vulnerable children OVC). On this note, it is the wish of the writers for the public, government and well meaning Nigerian to always render assistance to PLWHA and OVC; either through finance or supply of good nutritional materials rather than leaving them in isolation and hunger.

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