

Post Diploma Graduate (PDG) Course in Human Nutrition and Dietetics in NAIROBI-KENYA School of online and distance learning

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Admission number: ACPM/PGD/127/2019

Assignment number: Five (5)

Date of Submission: 31st, December 2019

ASSIGNMENT 5

1. Explain why people living with HIV do not necessarily have AIDS

The term “HIV” stands for human immunodeficiency virus while AIDS (which is short for acquired immunodeficiency syndrome) is the condition the virus may cause (Daniel M, 2018). The name HIV describes the virus: Only humans can contract it, and it attacks the immune system.

People living with HIV don’t necessarily mean they have AIDS, in fact, many people with HIV live for years without developing AIDS as long they take advice and medication seriously as prescribed by the health personnel to control viral life cycle. However, AIDS can start developing when it has caused a serious damaged to the human Immune System and leads to presence of opportunistic Infections such as TB, diarrhea, etc.

1. In your community, what are the myths associated with HIV infection?

A lot of myths are associated with HIV infection in my community, these include the following;

* One of the most common myths people living with HIV hear is that they can be cured. There’s no cure yet for HIV, but antiretroviral treatment works and will keep someone living with HIV healthy.
* Touching someone who has HIV: HIV can only be transmitted through specific bodily fluids so you can’t get HIV from touching someone, hugging them or shaking their hand.
* Kissing: There is such a small amount of HIV in the saliva of a person living with HIV that the infection can’t be passed on from kissing.
* Sweat, tears, urine or faeces of someone who has HIV: HIV can’t be transmitted through sweat, tears, urine or faeces.1
* Mutual masturbation: Mutual masturbation, fingering and hand-jobs can’t give you HIV. However, if you use sex toys make sure you use a new condom on them when switching between partners.
* Used condoms: Outside of the body, HIV in semen can only survive for a very short amount of time. So, even if a condom had sperm from an HIV-positive person in it, it would not pose any risk.
* Air: HIV can’t survive in air so you can’t get it from sharing a space with someone who is HIV-positive.
* Coughs, sneezes or spit: There is only a trace of HIV in these bodily fluids so they can’t transmit HIV.
* Food, drink and cooking utensils: HIV can’t be passed on through sharing food, drinks or cooking utensils, even if the person preparing your food is living with HIV.
* Toilet seats, tables, door handles, cutlery, sharing towels: You can’t get HIV from any of these as it can only be transmitted through specific bodily fluids.
* Water: HIV can’t survive in water, so you can’t get HIV from swimming pools, baths, shower areas, washing clothes or from drinking water.
* Insects: You can’t get HIV from insects. When an insect (such as a mosquito) bites you it sucks your blood only – it does not inject the blood of the last person it bit.
* Animals: HIV stands for Human Immunodeficiency Virus, which means that the infection can only be passed between humans.
* New or sterilized needles: New needles can’t infect someone because they haven’t been in contact with infected blood. If used needles are cleaned and sterilized they can’t transmit HIV either.
* Musical instruments: HIV can’t survive on musical instruments. Even if it is an instrument that you play using your mouth, it can’t give you HIV.
* Tattoos and piercings: There is only a risk if the needle used by the professional has been used in the body of someone living with HIV and not sterilized afterwards. However, most practitioners are required by law to use new needles for each new client.

1. Describe the relationship between HIV/AIDS and nutrition.

The relationship between HIV/AIDS and Nutrition occurs at two levels, namely; at individual and household levels.

At individual level, HIV infection increases nutrient demands while at the same time impairing nutrient intake and uptake creating room for opportunistic infections that accelerate the progression of HIV to AIDS, while at household level, HIV and AIDS pose a major threat to household food security and nutrition. For example, infected household members who often fall ill become unproductive with time leading to a reduction of household food and income. They also often require care and support from other members of the household further reducing the productivity of those members and deplete family income through medical expenses.

1. Describe the dietary advice you would give to a mother on the following;
2. Nutrition

During pregnancy and lactation is the critical periods when the demand for nutrients increase. In pregnancy, the demands for energy for example increase due to adequate gestational weight gain, growth and development of the foetus and while in lactation energy needs increase due to production of breast milk.

Pregnant and lactating mothers infected with HIV therefore require additional food to maintain their own health and nutritional status and to support optimal foetal growth for successful pregnancy outcome and lactation.

1. During pregnancy, the dietary advice would cover on the following nutrient requirements;
2. Energy requirements:

A pregnant HIV negative woman requires 13% more energy (290 Kcal) than mothers who are not pregnant and not HIV infected. If they have multiple pregnancies the requirement is increased by 15% (i.e. additional 320 kcal per day). Almost one additional meal or snacks are required daily to meet the extra nutrient demands of pregnancy and HIV infection. Pregnant mothers are encouraged to consume energy food rich sources such as maize, rice, beans, peas, potatoes, sorghum, cassava, wheat, sweet potatoes, millet and green bananas. Addition to that, sugars, and fats and Oils are excellent sources of energy that pregnant mothers should eat on daily basis.

1. Protein requirements:

Daily recommended protein intake is 1 g/kg body weight in healthy normal women. Irrespective of the HIV/AIDS status, pregnant mothers require an additional 6 g/day and 16 g/day of protein. The protein should contain the entire range of essential amino acids which should be consumed from a variety of plant source foods, and preferably a mixture of plant and animal source foods.

1. Micronutrient requirements:

Irrespective of HIV status of pregnant mothers, daily supplementation with 60 mg of elemental iron and 400 μg of folic acid for 6 months during pregnancy is recommended. In treatment of severe anaemia (Hb <7.0 g/dl), this dose is taken twice daily (120 mg of iron). Pregnant mothers are also encouraged to eat a balanced diet that includes a variety of vegetables and fruits every day in adequate amounts to provide micronutrients in order to boost their immune systems. Malaria should be prevented and treated especially in the second and third trimester. Pregnant women should also get dewormed for hookworm in the second and third trimester.

1. During breastfeeding, the dietary advice would cover on the following nutrient requirements
2. Energy requirements:

Lactation demands an additional 20% (or 500 kcal) energy (Nutrition and HIV/AIDS module 5). Almost two additional meal or two additional snacks are required daily to meet the extra nutrient demands of lactation and HIV infection. Energy rich sources include; staples (carbohydrates) such as maize, rice, beans, peas, potatoes, sorghum, cassava, wheat, sweet potatoes (orange or white fleshed sweet potatoes), millet and green bananas. In addition to that sugars and sugary foods are rich sources of energy and include table sugar, honey, jam, cakes and biscuits. Fats and Oils provide also energy but more than twice the energy of an equivalent amount of carbohydrates. They add flavour and taste to food, which helps to stimulate appetite. They also maintain the function and integrity of cell membrane structure. Fats and oils enhance absorption of fat-soluble vitamins (A, D, E and K)

1. Proteins requirements:

Irrespective of HIV status of a breastfeeding mother, daily recommended protein intake is 1 g/kg body weight in healthy normal mothers. Non HIV-infected and infected lactating mothers require an additional 6 g/day and 16 g/day of protein respectively. Additional protein is reduced to 12 g/day for lactating mothers after the sixth month and to 11 g/day after the 12th month. The protein should contain the entire range of essential amino acids through consumption of a variety of plant source foods, and preferably a mixture of plant and animal source foods.

1. Micronutrient requirements:

Irrespective of HIV status of a breastfeeding mother, in treatment of severe anaemia (Hb <7.0 g/dl), this dose is taken twice daily (120 mg of iron). A single dose of vitamin A (200,000 IU) within eight weeks postpartum, irrespective of their HIV status is recommended. Breastfeeding mothers should eat a balanced diet that includes a variety of vegetables and fruits including iodized salt every day in adequate amounts to provide micronutrients that would help in strengthening their body immune systems. Malaria should be prevented and treated especially in the second and third trimester

1. Explain the challenges a HIV positive mother may encounter in feeding her infant.

Infant feeding in settings where Human Immunodeficiency Virus (HIV) is a public health problem and especially where breastfeeding is routinely practiced is a

worrying challenge. There are many challenges that a HIV positive mother(s) may encounter when it comes infant feeding, these include the following (BMA journal 2017);

Mothers suffer from breast conditions such as engorged breasts, inadequate milk, cracked nipples or breast sores. Some challenges also include stigma from the family or community members, fear of transmitting the virus to their babies, oral thrush in baby’s mouth causing inability of babies from breastfeeding, lack of support from the family, lack or shortage of ARVs (antiretroviral drugs) for mothers making them feel afraid they would transmit the HIV virus to their infants.

1. Explain the importance of periodic nutrition assessment in the nutritional management of HIV and AIDS.

Nutrition assessment is the first step in the nutrition care process. It refers to establishment of an individual’s nutritional status using different methods, that is to say, anthropometry, Biochemical, Clinical, Dietary methods, and Psychosocial including the living environment of the PLHIV. The People living with HIV (PLHIV) their nutrition assessment in the nutritional management of HIV and AIDS should be done periodically because of the following importance;

* To confirm an adequate nutrient intake, improve eating habits, and help build and maintain stores of essential nutrients.
* To confirm correct weight status, and maintain a healthy weight by preventing overall weight loss particularly of muscle mass (lean body mass, LBM) or development of obesity.
* To confirm absence of illnesses that aggravate nutritional wasting, and assist the patient in assessing treatment for illnesses that reduce food intake.
* To adjust meals and meal plans for other chronic illnesses associated with HIV.
* To facilitate provision of therapeutic nutritional care and support during advanced stages of HIV/AIDS.

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