**

*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: two (2)*

*Date of submission of assignment: 30/09/2019*

ASSIGNMENT 2

1. Select a population category and discuss why they are referred to as vulnerable or at Risk.

Pregnant and lactating women are among the population categories referred to as vulnerable population especially in regards to malnutrition.

Nutrition for women in pre-pregnancy, pregnancy, and over the first two years of the child’s life is of utmost importance for the survival, health and development of mothers and their children. In pregnancy, requirements of energy, protein, and essential micronutrients (vitamins and minerals) are increased not only to maintain the mother’s own health, but to also support optimal physical and brain development in the foetus. Furthermore, nutrition reserves are built over pregnancy to produce breastmilk for the post-child birth phase. Deficiencies of energy, protein, iron, calcium, iodine, vitamin A and folic acid during pregnancy predispose mothers to maternal complications and even mortality. These also contribute to foetal birth defects, low birth weight, restricted physical and mental potential, and foetal or newborn mortality.

Exclusive breastfeeding is recommended for infants 0-6 months of age to meet all their nutrition needs for optimal growth, and to protect them from infection. This should be followed by continued breastfeeding alongside appropriate complementary feeding until the child reaches 2 years of age. To sustain the production of adequate quantity and nutritional quality of breastmilk, lactating women have higher requirements of energy, protein, and other micronutrients. Poor maternal nutrition over this period risks depletion of the mother’s own nutrient stores and health, and harms the nutrition and health of the growing child . Addressing nutritional needs of pregnant and lactating women is now entrenched within the Sustainable Development Goals. By scaling up efforts to achieve this target, progress will also be accelerated on the targets on maternal and child mortality and health.

1. You have been posted by an NGO to work in a community far from your home.
   1. What are some of the problems you might encounter?

Many NGO or humanitarians/workers spend long periods working in remote locations across the country, living in conditions far outside their comfort zones.

In South Sudan where I worked before, it was the most dangerous place for humanitarian aid workers in 2018 for the third consecutive year, according to research by Humanitarian Outcomes. In July 2019, 44 access incidents were reported, including harassment of aid workers, violence against personnel, and operational inference, according to OCHA’s Humanitarian Access Snapshot.

When I was posted in South Sudan’s vast terrain includes the Sudd in Southern Unity State of South Sudan which is one of the world’s largest wetlands, often making it hard to reach the most vulnerable people. The following are some of the problems I encountered while been posted in the area.

* Lack of telephone work. Though sate lite phones had been provided to each field site, they were not meant for staff personal communications (staff’s family members). The only medium of communication was internet that is only favoring the literate family members of the staff. Therefore, as being from illiterate family, there was a communication barrier between my family and me.
* Lack of proper accommodation: I spent more than three months sleeping on thin mat on the ground in a plastic tent. This was to provide shelter during rainy season and avoid being attacked by mosquitoes.
* The daily diet was much challenging. Most times, I could eat little beans and rice just for survival because of lack of different food varieties in the area. The rice and beans not been procured locally but transported all the way from Juba which was quite expensive.
* Lack of transport means such as a car/van due to budget constraints to transport staff/Nutrition supplies to the far field locations (nutrition sites). The only option staff have to walk a long distance of about five to ten kilometers while human porters have to be hired to carry nutrition supplies on their heads to the sites to keep services move on for the beneficiaries.
* Movement from one location to another was having too many restrictions by the security actors on the ground. This could lead to delay in movement sometimes due to delay in processing clearance letters.
* Difficulty in finding clean and safe drinking water for the staff. Most times the clean drinking water is transported from Juba by aircraft to the field site for the staff which is quite expensive (1 kg/3 USD) and on irregular basis. Failure to receive timely, it would lead to drinking of the dirty water from the open water bodies (swamps) in order to survive which is associated with numerous water borne diseases.
  1. How can you improve your cross-cultural competence?

The following have been the ways I used for improving my cross-cultural competency:

* Develop a good relationship with the local authorities for regular security updates. To avoid being trapped in a bad security situations, I always seek for security updates from the local authority/NGO security focal persons before leaving for far nutrition sites.
* Since there is availability of internet, I always have two to three hours after the work studying online courses to gain additional skills and knowledge and to keep myself busy.
* Building a spirit of strong teamwork with my supervisor and supervisees.

This has created a positive working environment between the entire staff and me.

* Having everyday evening walk around the community to feel refreshed and be part of the community.
* Participate in local supports such as football, volleyball, or netball to keep away stress and maintain closeness with the community members.
* Playing and dancing music to relieve one from stress during boring time like over the weekends.
* After every three months, I could be granted my leave (vacation) by the NGO I was working for through provision of returned flight tickets to relax with my family.

1. Discuss the steps in taking a dietary history for a partner.

Before attempting to improve patients' dietary habits or offer them nutritional guidance, it is necessary to assess their usual daily food intake. Nutrition questions should be routinely incorporated into the medical history. For example, when asking about medications, physicians could also ask patients if they are taking any vitamins, minerals, laxatives or other supplements. Next, patients can be asked specific questions about their typical food intake. Although a variety of methods for obtaining a diet history are available, the following set of questions is designed to identify major sources of saturated fat and give the physician an overall sense of a patient's eating habits. Each question is followed by potential “teaching points” that provide a rationale for the physician's recommendations. Gathering this information and instructing the patient should add no more than two to three minutes to a standard history, especially if the nutrition form is completed while the patient is in the waiting room

**How many meals and snacks do you eat in a 24-hour period?**

A good way to begin is to ask patients what they consume during the day and night, to assess their overall intake. This information will also reveal irregular eating habits, such as consuming the majority of the day's calories in the evening. Obesity researchers at the University of Pennsylvania have offered this definition for the term “night-eating syndrome”: having no appetite for breakfast, eating 50 percent or more of total daily food intake at night and having difficulty falling asleep or staying asleep.

Breakfast is an important meal because it offers the opportunity to eat low-fat, whole grain foods such as hot or cold cereal, which is also an excellent source of calcium if it includes skim or low-fat milk. Breakfast is intended to break the overnight fast, and a good breakfast helps prevent hunger and overeating later in the day. Older adults who live alone or are depressed often skip meals, thus increasing their risk of malnutrition.

**How many meals per week do you eat away from home?**

Generally, meals eaten away from home contain more fat and calories than those prepared at home; they contain hidden sources of fat and are usually served in larger portions. “Supersized” and special promotional items at fast-food restaurants and cafeterias are often cheaper than single items and therefore offer a financial incentive for consuming extra fat and calories. Patients can be advised to follow these tips when eating out: select grilled, poached, baked or broiled entrees, have bread without butter, order sauces and salad dressings on the side and use them sparingly (or avoid them entirely), and skip dessert or order fruit or sherbet. Many fast-food restaurants now offer lower fat alternatives such as grilled fish or chicken breast served without added sauces, salads with low-fat dressing and baked potatoes.

**How often do you eat high-fiber foods such as cereals, fruits and vegetables?**

Epidemiologic evidence strongly supports an inverse association between fiber intake and cardiovascular disease, as well as cancers of the digestive tract.14 Soluble fiber, which is contained in cereal grains (especially oats and barley), citrus fruits, apples, beans and corn, has also been shown to reduce serum cholesterol and low-density lipoprotein levels.15,16 Fresh fruits and vegetables are excellent sources of fiber and phytochemicals, which may explain their probable protective effect against certain cancers of the digestive tract.

**How many times per week do you eat red meat, and what size is the usual portion?**

A general rule of thumb is that patients who consume red meat more than four times per week are least likely to be following a low-fat diet. Since all animal protein sources contain both saturated fat and cholesterol, patients should limit protein intake to 10 to 20 percent of total calories, which translates to less than 7 oz of lean meat, fish and poultry per day. Processed meats, such as bacon, sausage, bologna, salami and hot dogs, are high in both saturated fat and calories, and intake of these should be limited. Patients can be encouraged to increase their consumption of low-fat vegetarian foods, such as red or navy beans, lentils, peas combined with rice, vegetarian “garden” burgers and pasta with tomato sauce. Patients should be advised to check nutrition labels for fat and calorie content. Generally, if the product contains more than 3 g of fat per 100 calories, it contains more than 30 percent fat calories.

**How many times per week do you eat poultry products, and what size is the usual portion?**

The white meat of turkey and chicken has less total fat and saturated fat than red meat and should be substituted for red meat whenever possible (Figures 3 and 4).12 The white meat of turkey contains only 8 percent fat and is leaner than the white meat of chicken, which is approximately 24 percent fat. However, the fat and calorie contents of both turkey and chicken increase significantly when the skin or the dark meat is eaten. Therefore, patients should be encouraged to grill, bake or broil the white meat of turkey or chicken and to remove the skin before eating. Portion sizes should be limited to 5 to 7 oz per day.

**How many times per week do you eat fish and shellfish, and what size is the usual portion?**

Fish and shellfish are good alternatives to meat and poultry because of their low total-fat and saturated-fat content. The cholesterol content in shellfish varies, but all shellfish is very low in total fat and saturated fat, and its consumption should therefore be encouraged. Fish also contains omega-3 fatty acids, which have been shown to decrease blood pressure and triglyceride levels, and increase clotting time. Recent research has shown that fish containing omega-3 fatty acids may help reduce the risk of cardiovascular disease when eaten as part of a heart-healthy diet. Additional studies have shown that eating fish high in omega-3 fatty acids at least once a week is associated with a reduction in the risk of primary cardiac arrest. The types of fish containing the highest amounts of omega-3 fatty acids are herring, salmon, mackerel, sardines and swordfish. Patients should be encouraged to eat fish and shellfish at least once per week and to order fish or shellfish when they eat out; they should also ask to have these items grilled or broiled rather than fried.

**How many hours of television do you watch per day?**

Environmental factors such as increased snacking while watching television most likely contribute to an association between obesity and television viewing. An increased incidence of childhood obesity may be associated with a reduction in physical activity and an increased calorie intake. According to the NHANES III study, 14 percent of children from six to 11 years of age and 12 percent of adolescents from 12 to 19 years of age are overweight. These figures represent a significant increase from the NHANES II data (1976 to 1980), in which 7.6 percent of children and 5.7 percent of adolescents were found to be overweight. Tracking studies continue to demonstrate that obese children are at increased risk of becoming obese adults and also incur the risk of developing associated medical problems. Encourage your patients and their families to limit the number of hours spent watching television and to participate in after-school or after-work physical activities.

**How often do you usually consume dairy products, and what type?**

Since dairy products are an excellent source of calcium, it is not advised to reduce or eliminate consumption of these products, especially in women. Meeting calcium requirements throughout life is essential for proper skeletal growth and maturation. NHANES III data reveal that most Americans do not consume adequate calcium and that older adults and teenagers have the greatest risk for a low calcium intake. Because of calcium's pivotal role in the normal development of healthy bones, new calcium guidelines established by the Institute of Medicine recommend intake levels associated with maximum retention of body calcium. For this reason, it is important to determine the amount, frequency and type of dairy products that your patients consume. Because certain dairy products such as regular cheese and whole milk contain a significant amount of saturated fat, low-fat or nonfat dairy products should be recommended. Low-fat mozzarella, ricotta, cottage and farmer's cheeses made from part-skim milk can be substituted for the whole-milk versions. Low-fat or nonfat yogurt and nonfat sour cream alternatives can be used to make dips and salad dressings. Non-dairy coffee creamers, whipped toppings and half-and-half are laden with saturated fats and should be avoided.

Patients who are lactose intolerant should be encouraged to use lactose-free dairy products (or to take products such as Lactaid) that are available in low-fat and nonfat forms. Patients should eat at least three to four servings of low-fat or nonfat dairy products every day. If it is not possible for certain patients to reach this level of calcium intake, supplements should be recommended.

**How often do you eat desserts and sweets?**

These foods are common sources of hidden saturated fats, since most commercially baked products contain butter and eggs. Fresh fruit, angel food cake, nonfat frozen yogurt and sherbet are the best alternatives. Other nonfat desserts are now available; however, the fat is usually replaced by increased amounts of simple sugars, so the calorie content may be equal to or sometimes greater than the fuller fat version. This increased calorie content is converted into fat in the body, thus defeating the intended purpose of eating nonfat foods. Encourage patients to read nutrition labels for both fat and calorie information when comparing products and to either share desserts with a partner or choose fruit or sherbet.

**What types of beverages (including alcoholic) do you usually drink?**

Regular soda, sweetened iced tea and juices contain significant calories and are not advisable for patients who are overweight (or those who have diabetes). Instead, patients can save hundreds of calories by drinking water with meals and snacks, and by limiting or diluting juices. Recent research indicates that consumption of 12 oz of juice or more per day is associated with obesity in young children.

Alcohol intake should always be included as part of a patient's social history, because most people who drink alcohol to excess do not admit to having a drinking problem. According to the National Institute on Alcohol Abuse and Alcoholism, fewer than 40 percent of primary care physicians ask patients about their drinking habits during routine examinations. Excessive alcohol consumption significantly increases the intake of “empty” calories (calories that can be used for energy but that do not contain vitamins or minerals). Numerous vitamin deficiencies are associated with chronic alcohol ingestion, including folate, thiamin, vitamin B12 and possibly, vitamin C. To begin, the physician can ask the patient the following questions: (1) Do you drink alcohol? (2) When was the last time you had a drink? (3) How often do you drink? (4) How many days per week do you usually have a drink? (5) Typically, on those days that you drink, how many drinks do you have?

1. Why is it important to formulate objectives in the counseling Process?

Formulating objectives/goals are important in the counselling process. Specifically, behaviorally stated goals and objectives are essential components of effective counseling, regardless of a counselor’s theoretical orientation. They provide client and counselor with a well-defined focus, infuse intentionality into treatment, and serve as clear indicators of progress.

The importance of behaviorally oriented goals in counseling could be;

(a)Provide a realistic view of what counseling could and could not accomplish,

(b) Help the field of counseling becomes more integrated with the mainstream ideas and research you can use.

(c) Facilitate the search for new and more effective counseling techniques, and

(d) Customize measures of individual client progress.

The following is a list of steps to writing effective goals.

1. Identify the problem.
2. Listen closely to how the client describes the problem. Observe verbal and non-verbal messages and behaviors. Assess ownership of the problem.
3. Gain a detailed history of the problem.
4. Determine duration, frequency, severity, and the context in which the problem exists and is maintained.
5. Verify the problem with the client to make sure you understand the problem from the client’s perspective. Create a clear problem statement, and restate it to the client.
6. Ask the client about the desired outcome, and state it as a goal.
7. One way to do this is ask the client how he or she will know when the problem is resolved.
8. Word the goal in client’s language.
9. Explore how the client has attempted to address the problem.

a. Identify successes and barriers.

b. Listen closely for strengths (e.g., tools, methods, attributes) that have helped the client in the past.

6. Identify 2–3 objectives to reach goals.

a. Goal achievement is often accomplished through developing objectives relative to a stated goal. While goals describe global outcomes in counseling, a few thoughtful objectives can break goals into incremental stages. Objectives describe incremental, achievable, and progressive behaviors that will contribute to achievement of a goal. These qualities guide change and inspire hope by allowing clients to experience change as realistic. They also indicate that goal achievement is an ongoing process. It occurs over time and is evident in session by session progress reports regarding movement toward a desired outcome.

b. One possible question to ask during objective development is, “What is the first small step that you can take toward making a change?”

c. Employ a “toward” strategy. Word goals and objectives as changes to be made—not what client wants to stop doing (e.g., “Client will spend more break time conversing with co-workers” rather than “Client will smoke less during break time”).

d. Word objectives in client’s language.

7. Check for understanding by asking the client to summarize the goal and objectives in his or her own terms.

8. Ask the client if she or he can commit to the goals. Explore potential challenges to following through on objectives.

9. Have client identify existing strengths, successes, and characteristics that indicate her or his efforts will be successful. Offer counselor observations to support and reinforce belief in positive outcomes. Encourage client that she or he can accomplish the goal.

1. Explain circumstances that may require prescription of nutrition supplements.

Supplements are useful for people who cannot meet their nutrient needs through a regular, varied diet. According to the Academy of Nutrition and Dietetics, among those who may benefit from taking a dietary supplement are:

* Women of childbearing age who may become pregnant, as they need to consume adequate amounts of folic acid to prevent certain birth defects
* Pregnant and lactating women who can’t meet their nutrient needs with food
* Older individuals, who need adequate amounts of vitamin D and synthetic vitamin B12
* Individuals who do not drink enough milk and/or do not have adequate sun exposure to meet their vitamin D needs
* Individuals on low-calorie diets that limit the amount of vitamins and minerals they can consume through food
* Strict vegetarians, who have limited dietary options for vitamins B12 and D and other nutrients
* Individuals with food allergies or lactose intolerance that limit food choices
* Individuals who abuse alcohol, have a poor appetite, have medical conditions such as intestinal disorders, or are taking medications that may increase their need of certain vitamins
* Individuals who are food insecure and those who are eliminating food groups from their diet
* Infants who are breast-fed should receive 400 IU of vitamin D daily until they are consuming at least 1 quart of formula daily. Children age one and older should receive 400 IU of vitamin D daily if they consume less than one quart of milk per day. Adolescents who consume less than 400 IU of vitamin D daily from their diet would also benefit from a supplement.

A few circumstances in which you might want to consider taking a supplement are as given below:

* If you are a menstruating woman, particularly with a heavy flow, or if your diet is light in iron, you may want to supplement with an iron pill.
* If you don't eat many dairy products, you should supplement with calcium. Postmenopausal women should also supplement with calcium as well as vitamin D to protect against osteoporosis. The recommended dose is calcium, 1,200 milligrams per day, and vitamin D, 800 IU per day. Remember, though, that the most important proactive measure for osteoporosis is a regular exercise routine that involves weight-bearing activities.
* Recent studies demonstrate a link between low vitamin D levels and an increase in overall mortality. Vitamin D appears to offer a protective effect against cancer, although its exact mechanism of action is not known. Low vitamin D levels have also been associated with an increased risk of heart attacks. Vitamin D is toxic at high doses, but it appears that a large number of people have lower-than-normal vitamin D levels. It is thought that perhaps this is because more people are avoiding the sun, since vitamin D is made from a precursor in the skin that is activated by the sun.
* The most frequently recommended supplement today is omega-3 fatty acids, which improve triglyceride and HDL levels, decrease inflammation, and appear to decrease blood pressure. They also increase BDNF and so appear to be beneficial to memory and mood.
* If you are pregnant or trying to get pregnant, you should take prenatal vitamins including folic acid, which helps prevent neural tube birth defects.
* If you are breast-feeding, you may also want to take more iron, folic acid, and calcium.
* If you are a vegetarian, you may need extra vitamin B12, as this is found only in animal products. You may also need extra calcium, zinc, iron, and vitamin D (800 IU daily) if your eating preferences do not include any meat, dairy, or other animal products.

You should always meet with a registered dietitian (RD) before taking a supplement to make sure that it is appropriate for you based on your diet and medical history.

1. Explain why the elderly are considered to be vulnerable to malnutrition.

When it comes to nutrition, the elderly are an especially vulnerable population. There are a number of reasons this population is susceptible to poor nutritional status. Malnutrition in the elderly does not discriminate between race, gender or socioeconomic status. All elderly can be at risk of declining nutrition.

**Poor Mobility**

Whether poor mobility is due to decreasing physical ability or simply poor energy levels, it can seriously impact a senior’s nutrition. Younger adults may not fully appreciate how much energy it takes for the elderly to do the things they do so readily. A trip to the grocery store may be only thing an elder suffering from poor mobility can do in a day. There may be days when seniors decide it isn’t even worth going to the store to pick up groceries. This could mean they go to the nearest convenience store or fast food restaurant to pick up their next meal or they simply do without. The problem with acquiring food at local convenience stores or fast food joints is that the foods available at these locations are quite limited and often times devoid of much nutrition.

**Poor Mental Health**

Just as physical health can play a role in the nutritional status of older seniors, so can mental health. Failing memory and cognition as well as depression can significantly impact dietary intake. Poor memory and cognition often can lead to forgetting to eat or drink putting them at risk for weight loss, malnutrition and dehydration. Depression can limit motivation to eat, cook and shop for food.

**Cooking for One**

Let’s face it, cooking for one isn’t always the most exciting. For many seniors living alone, eating for one can be a huge factor in their poor nutritional status. Many people, whether young or old, experience a lack of motivation when cooking for only themselves. They may be more likely to eat the same thing over and over again or skip out on nutritionally valuable but more time consuming to prepare foods. This can lead to a diet that is either deficient in calories or essential nutrients, or both.

**Poor Dental Health**

Dental health is often overlooked when sussing out for the root cause of an elderly person’s poor nutritional status but it can cause significant dietary problems. Whether this is because of missing teeth, dental pain, or poor fitting dentures, dental problems can seriously impact nutrition. Food choices and, therefore, nutrition are limited when dental issues exist.

**Trouble Swallowing**

Trouble swallowing, otherwise known as dysphagia, is a serious problem and is fairly common among the elderly population. Some estimate that at least 15% of elderly exhibit some form of swallowing difficulties. Dysphagia can be a result of an age-related decline in swallowing function, stroke, dementia, radiation to the head or neck or a neurodegenerative disease. Signs that your elder is having swallowing difficulties could be gagging or coughing while eating, pain with swallowing, the sensation of food being stuck in the throat, or hoarseness of voice. The dangers of dysphagia are not only that it impacts ability to obtain proper nutrition but those with dysphagia are at high risk for the very serious aspiration pneumonia.

**Decreased Thirst and Hunger Sensations**

As we age our body goes through a number of physiological changes including a decreased sensitivity to hunger and thirst. Many elders do not receive strong signals from their body telling them that they need to nourish or hydrate themselves. When this happens, especially in combination with other factors on this list, malnutrition and dehydration can result.

**Incontinence**

What does bowel or urinary incontinence have to do with poor nutrition, you ask? Many individuals, whether old or young, limit their intake of food or drink when they suffer from incontinence to avoid having embarrassing ‘accidents’. While at home incontinent individuals may feel more comfortable eating and drinking but if social events or errands are planned intake may be purposefully limited. For nutritionally vulnerable seniors, skipping meals can be quite damaging.

**Money Worries**

For a large number of elderly, poor nutrition in their golden years stems from their financial worries. Many seniors depend on an ever dwindling savings or a small pension to survive. Sometimes that money just doesn’t seem to be quite enough. As a result, the quality or quantity of food they buy is sacrificed leaving them nutritionally at risk.

**Chronic Illness & Medication**

As we age, we are more likely to be dealing with some sort of chronic disease. One estimate finds that 74-90% of seniors have at least one chronic illness with almost three quarters of seniors taking at least one medication. The most common chronic diseases within the elderly community are cardiovascular disease, diabetes and respiratory diseases. Each of these can influence the nutritional status of those suffering with them in a number of ways. Medications can affect one’s appetite, bowel movements, taste perception, saliva production, and alertness level among other things. All of these side effects can have a negative impact on nutrition, especially that of a frail elder.

**Digestive System Changes**

A healthy digestive system is necessary for proper nourishment. With age, the digestive system’s ability to function optimally declines. This decline can be seen throughout the digestive tract, from the mouth all the way through to the anus. A decline in upper digestive tract function can cause decreased saliva production, cause trouble swallowing (as mentioned earlier) and create an increase in gastroesophageal reflux disease (GERD) due to a dwindling strength of the muscle connecting the stomach and esophagus. Age related changes to the stomach lining put the elderly at higher risk for gastric ulcers and B12 deficiency, as well as a decreased capacity to hold food. With time, our body also loses its ability to digest lactose, the sugar in milk, which may cause certain individuals to experience pain, bloating and possibly bacterial overgrowth within the small intestine. As well, overall movement of food through a senior’s digestive tract tends to be slower contributing, in part, to constipation.

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