Personal Diet Analysis Assignment – NURS 1550H

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1) Was your calorie intake more or less than the recommended calories (kcal) for your profile?

My calorie intake (1,163.404 kcal) was under the recommended calories (2,027.0 kcal) for my profile.

a. Is this discrepancy appropriate for your lifestyle?

Conclusively, this discrepancy is inappropriate for my lifestyle, I should be intaking more calories daily.

b. Why do you think there is a discrepancy if there is one?

Although it may be effective for some, 1,200 calories per day is not enough. According to my Diet & Wellness Plus+ results, I should be intaking 2027 kcal, and I am only intaking 1,163.404 kcal. The reported intake is under the Dietary Reference Intake (DRI).

2) What percentage of your calories came from protein? Show your work.

→ Kilocalories Intake: 1,163.404 kcal Protein Intake: 42.112g

Convert protein (g) into (kcal) 4 kcal/g of protein = 4 kcal/g x 42.112 = 168.448 kcal

Therefore, protein (kcal) = 168.448 kcal

(Protein kcal / Calorie Intake kcal) x 100 = (168.448 kcal/1163.404 kcal) x 100 = 14.47%

Therefore, 14.47% of my calorie intake consisted of protein.

a. Is this percentage within the recommended range?

Yes, my intake (14.47%) was within the recommended 10-30% range of total protein energy intake.

b. Answer b or c: If your percentage is in range, please discuss whether you feel the protein sources you ate during this period are sustainable long-term and whether you think you should consider any other protein sources.

No, the foods that were eaten are not sustainable long-term and other protein sources would have to be considered, such as meats, dairy products, eggs, and more.

c. If your percentage <u>is not</u> in range, please explain how you could adjust your intake to improve your percentage of calories from protein.

N/A

3) What percentage of your calories came from carbohydrates? Show your work.

→ Kilocalories Intake: 1,163.404 kcal Carbohydrate Intake: 155.004 g

Convert carbohydrate (g) into (kcal) 4 kcal/g of carbohydrate = 4 kcal/g x 155.004 g = 620.016 kcal

Therefore, carbohydrate (kcal) = 620.016 kcal

→ (Carbohydrate kcal / Calorie Intake kcal) x 100

= (620.016 kcal/1163.404 kcal) x 100

= 53.29%

Therefore, 53.29% of my calorie intake consisted of carbohydrates.

a. Is this percentage within the recommended range?

My carbohydrate intake (54.29%) met the recommendation of 45-65% total calorie energy intake.

b. Do you tend to eat carbohydrate rich foods alone or with a source of protein or fat? Provide an example.

My meals consist of carbohydrate rich foods with other sources of energy, such as proteins or fats. For example, if I were to eat pasta (a carbohydrate rich food source), I would add a source of protein such as meat.

c. Do you think you need to change how much carbohydrate you consume? Are most your carbohydrates lower- or higher-glycemic index? Provide an example.

The amount of carbohydrates I consume does not need to be changed, considering my intake falls into the recommended 45-65% range. Most of the carbohydrates eaten daily are on the lower-glycemic index, including fruits, pasta, green vegetables and more.

d. Do you get enough fibre in your diet? If not, what foods could you eat to increase your fibre intake?

No, I do not get enough fibre as my Consumption vs. Goals report indicated I consumed only 27.401% of my recommended 26.0g DRI. To increase my fibre intake, I could consume whole grained breads, apples, bananas and more.

e. What is your average sugar intake? What food source in your diet provides the most sugar? Is this surprising at all?

My average sugar intake is 39.652 g. The food source in my diet that provided the most sugar was the Nesquik Chocolate Cereal with 41 g of sugar as it contributed 34.467% of average DV according to the Source Analysis. This is not very surprising to me, considering that cereal, especially chocolate cereal, usually contains large amounts of sugar.

- 4) What percentage of your calories came from fat(s)? Show your work.
- → Kilocalories Intake: 1,163.404 kcal Fat Intake: 42.487 g

Convert fat (g) into (kcal) 9 kcal/g of fat = 9 kcal/g x 42.487 g = 382.383 kcal

Therefore, fat (kcal) = 382.383kcal

→ (Fat kcal / Calorie Intake kcal) x 100

- = (382.383kcal / 1163.404 kcal) x 100
- = 32.86%

Therefore 14.60% of my calorie intake consisted of fat.

a. Is this percentage within the recommended range?

No, my intake (14.60%) of fat did not fall within the recommended range (25-35%) of total fat energy.

b. Do you feel you consume quality fats? What are the average percentages for intake of saturated, monounsaturated, polyunsaturated, and trans fatty

acids? Are they in target according to the DRI recommendations for fatty acids listed in Table 5-2 in your nutrition text?

According to Table 5-2 in my nutrition text, the DRI recommendations for both saturated and polyunsaturated fatty acids include:

→ Saturated Fat DRI: <10% of Calories.

→ Polyunsaturated Fatty Acids DRI: 5-10% of total Calories for Linoleic Acid and 0.6-1.2% of total Calories for Linolenic Acid.

According to the American Dietetic Association and Dietitians of Canada, the recommendations for monounsaturated fats are between 8-25% of energy. In addition, it is recommended that the consumption of trans fatty acids is <1% of calories (2007).

Kcal intake: 1163.404 kcal **Saturated** Fat Intake: 17.038g

Convert Fat (g) into (kcal) 9 kcal/g of fat 9 kcal/g x 17.038g = 153.342 kcal Therefore, Saturated Fat (kcal) = 153.342 (kcal)

(Saturated Fat (kcal)/Caloric Intake (kcal)) x 100

= (153.342 kcal/1163.404 kcal) x 100

= 13.18%

Therefore, 13.18% of my Caloric Intake consisted of Saturated Fats. According to Table 5-2 of my nutrition textbook, it is recommended that Saturated Fats contribute <10% of Calories (13.18% > 10%). I was over the recommended value of Saturated Fats.

Kcal Intake: 1163.404 kcal

Monounsaturated Fat Intake: 9.949g

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Convert Fat (g) into (kcal)
9 kcal/g of fat
9 kcal/g x 9.949g = 89.541 kcal
Therefore, Monosaturated Fat (kcal) = 89.541 (kcal)
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(Monounsaturated Fat (kcal)/Caloric Intake (kcal)) x 100

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= (89.541 kcal/1163.404 kcal) x 100
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= 7.69%

Therefore, 7.69% of my Caloric Intake consists of Monounsaturated Fats. It is recommended that monounsaturated fats contribute to 8-25% of energy. I am under the

recommended range of monounsaturated fats.

Kcal Intake: 1163.404 kcal **Trans** Fat Intake: 0.065g Convert Fat (g) into (kcal) 9 kcal/g of fat 9 kcal/g x 0.065 = 0.585 kcal Therefore, Trans Fat (kcal) = 0.585 (kcal)

(Trans Fat (kcal)/Caloric Intake (kcal)) x 100 = (0.585 kcal/1163.404 kcal) x 100

= 0.05%

Therefore, 0.05% of my Caloric intake consisted of Trans fats. According to the Dietetic Association and Dietitians of Canada, it is recommended that trans fats contribute to <1% of Calories. Additionally, they recommend that this range stays as low as possible. I am in the recommended Trans-fat range of 0.05% < 1%.

Kcal Intake: 1163.404 kcal **Linoleic** Fat Intake: 5.436g

Convert Fat (g) into (kcal) 9 kcal/g of fat 9 kcal/g x 5.436g = 48.924 kcal Therefore, Linoleic Fat (kcal) = 48.924 (kcal)

(Linoleic Fat (kcal)/Caloric Intake (kcal) x 100 = (48.924 kcal/1163.404 kcal) x 100

= 4.2%

Therefore, 4.2% of my Caloric intake consisted of Linolenic Fats. According to Table 5-2 of my nutrition text, it is recommended that Linoleic Fatty Acids contribute between 5-10% of total Calories (4.2% < 5%). I was under the recommended range of Linoleic Fatty Acids.

Kcal Intake: 1163.404 kcal **Linolenic** Fat Intake: 0.524g Convert Fat (g) into (kcal) 9 kcal/g of fat 9 kcal/g x 0.524g = 4.716 kcal Therefore, Linolenic Fat (kcal) = 4.716 (kcal)

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(Linolenic Fat (kcal)/Caloric Intake (kcal) x 100
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= (4.716 kcal/1163.404 kcal)

= 0.4%

Therefore, 0.40% of my Caloric intake consisted of Linolenic fats. According to Table 5-2 of my nutrition text, it is recommended that Linolenic Fatty Acids contribute between 0.6-1.2% of total Calories (0.4% < 0.6%). I was under the recommended range of Linolenic Fatty Acids.

5) List the vitamins here that your report tells you that you do not consume in adequate amounts.

Vitamins over	% of DRI	Intake	Tolerable Upper	Intake > UL
DRI			Intake Level	
Cobalamin	126.612%	03.039mcg	ND	No
(Vitamin B12)				
Folate (DFE)	101.571%	406.284mcg	1000 µg/d	No

ND – Not Determinable. The vitamins above exceeded the DRI but did not exceed the Tolerable Upper Intake Level.

a. Choose one of the vitamins that you list above and discuss the importance of that vitamin and how you can increase the intake of that vitamin (not including vitamin supplements).

Folate (DFE) is important as it is involved in red blood cell formation, as well as healthy cell growth and function. In females, it is crucial for early pregnancy to reduce risk of birth defects in brain and spine. Good sources of folate include intaking vegetables such as broccoli, cabbage, peas, and more. In addition, liver is another good source of increasing folate, however, if pregnant it should be avoided.

6) Do you drink enough water each day? If not, please explain what barriers you think you encounter that are limiting you from drinking enough water.

No, I do not drink enough water each day, as my intake is under the recommended range. A restriction from drinking more daily may include the fact that I am busy doing other activities or spending time with my friends or family, driving me away from the focus of dehydration. Some days, I may not crave water, so I end up drinking sugary drinks, instead.

7) What surprised you most about your report? Why?

I am not nearly getting the amount of magnesium that I should. The intake amount between the three days was 72.971mg, however, the DRI was 360.00mg.

8) Search online or through the Trent Library & Archives for a recent (within the past five years) research article on nutrition and provide a brief summary of the literature in one paragraph or less. Provide appropriate in-text citations where necessary, and a formal source reference below your summary paragraph (using APA format).

Colorectal cancer is in the top three most common cancers diagnosed in the United States (Thanikachalam & Khan, 2019). Through extensive research, it has been suggested that nutrition may play a role, both protective and casually, in the development of colon cancer (Thanikachalam & Khan, 2019). There are numerous (nutritional) protective factors that have been associated with decreasing the risk of colorectal cancer such as intaking dietrich fruits and vegetables, vitamins D and B6, Calcium, dairy products, having a high fiber or folate-rich diet, and many others (Thanikachalam & Khan, 2019). Nonetheless, consuming healthy foods that serve protective roles in the body will decrease the risk of receiving colorectal cancer. Furthermore, a "casual" role of nutrition through colorectal cancer (Thanikachalam & Khan, 2019). Studies show that there is an association between both heavy alcohol consumption, as well as dietary factors when compared to the rates associated with colorectal cancer (Thanikachalam & Khan, 2019). Ultimately, being aware of your nutritional intake plays a major key in the risk of cancers and therefore consuming healthy and diet-rich foods will decrease the risk of colorectal cancer.

References

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