Nutrition

Learning Objectives

Review the following Learning Objectives as an organized beginning to your study of this module. As you read the Learning Objectives, note key words which will aid you in finding the information in the texts. When you complete the module, revisit this list and check for areas that require further investigation.

• Understand how foods nourish the body.

• Define kilocalorie.

• Identify the six nutrients necessary in the diet.

• Identify the eight essential amino acids.

• Identify nutritional sources of proteins, fats and carbohydrates.

• Identify the critical differences between unsaturated fat, saturated fat, and trans-fats.

• Identify daily dietary requirements of proteins, fats and carbohydrates.

• Identify the guidelines for combining foods for complete protein.

• Identify fat soluble vitamins and the daily intake limits of each.

• Establish a basic understanding of a variety of nutritional systems or eating habits:

• Identify the importance of B-12 in the vegan diet.

• Understand how stress blocks the absorption of nutrients from the diet.

• Identify how some nutrients compete for binding sites and physiologic utilization.

• Demonstrate your understanding of a nutritional diet.

• Identify when vitamin supplements are appropriate.

• Identify the social services available in your area to provide food to pregnant and breastfeeding women/gestational parents.

• Draft practice guidelines for nutritional counseling with your own clients.

• Create nutritional reference sheets for client use.

• Demonstrate appropriate dietary counseling for clients within the context of your preceptor’s practice.

Study Sources

The following texts are recommended for completion of this module. Use them to cross reference and build a more comprehensive understanding.

Using keywords from the Learning Objectives, search the index. Read those pages listed, and read the chapter in which they are found. Establish a context for the information so that you understand how other topics are related. In addition, read the chapter headings in the Table of Contents, and flip through each text to familiarize yourself with the content of chapters. As you work through Study Group modules, you will eventually read each text in its entirety (the exception is Nutrition Almanac, which is useful primarily for digestive physiology and nutrition content).

-Nutritional Almanac, Kirschmann

-Holistic Midwifery, Vol. I, II, Frye

-Varney’s Midwifery

-Human Anatomy and Physiology, Marieb

-The Natural Pregnancy Book, Romm

-Our Bodies, Ourselves, Boston Women’s Health Book Collective

-Breastfeeding: A Guide for the Medical Professional, Lawrence & Lawrence

-Nourishing Traditions, Fallon

-Real Food for Pregnancy, Nichols

Related Modules

Breastfeeding/Chestfeeding

Diversity Awareness

Fertility and Conception

General Pregnancy and Postpartum Ailments

Gestational Diabetes

Hypertension

Prenatal Labwork and Assessment

Digestion

Liver

Basic Life Science

Postpartum Care

Renal System

Short Answer Questions

1. What is a kilocalorie?

2. List the six nutrients required in every diet.

3. What three functions do these six nutrients achieve?

4. What are enzymes and what do they do?

5. What is a positive nitrogen balance?

6. Discuss fat-soluble vitamins.

1. What does ‘fat-soluble’ mean?
2. Name the fat-soluble vitamins.
3. How are fat-soluble vitamins measured?
4. What must you be aware of with fat soluble vitamins?

7. What non-food source provides the body with vitamin D?

8. What do B vitamins accomplish in the body?

9. Describe the necessary content of a B-Complex vitamin supplement.

10. What food sources contain vitamin B-12?

11. Whose diet would likely contribute to a B-12 deficiency?

12. What does vitamin C accomplish in the body?

13. How long is vitamin C stored in the body?

14. What does vitamin K accomplish in the body?

15. What do minerals accomplish in the body?

16. What are the macrominerals?

17. How are macrominerals measured?

18. What other group of minerals is utilized by the body and needed from the diet? How are they measured?

19. Discuss the role of folate in pregnancy.

20. Discuss the difference between folate and folic acid. Which do pregnant women/gestational parents need to consume?

21. Briefly discuss MTFHR and the role of nutrition in pregnancy with MTHFR.

22. How much calcium does a pregnant client need in their diet?

23. How much magnesium does a pregnant client need in their diet?

24. How much phosphorous does a pregnant client need in their diet?

25. How much iron does a pregnant client need in their diet?

26. How much protein does a pregnant client need in their diet?

27. Where does iron exist in the body?

28. What must accompany iron for it to achieve its tasks?

29. What does iron accomplish in the body?

30. Which pregnancy complications may a diet:

1. deficient in calories contribute to?
2. deficient in protein contribute to?
3. deficient in iron contribute to?
4. deficient in folate contribute to?
5. excessive in sugar contribute to?

31. What is the difference between saturated and unsaturated fats?

32. Give healthy guidelines for the consumption of cooking oils and fats.

33. List the essential amino acids.

34. What is a ‘complete protein’?

35. What could be added to the following to create a complete protein?

1. corn:
2. rice:
3. pinto beans:
4. soybeans:
5. wheat:
6. lentils:
7. green beans:

36. What effect does stress have on the absorption of nutrition from the foods eaten? Explain the physiologic process.

37. How does this affect the advice we give to stressed pregnant people?

38. What concerns do you have about a pregnant vegetarian diet?

39. What concerns do you have about a pregnant vegan diet?

40. Which pregnancy complications may a diet deficient in calories contribute to?

41. What does a craving for sugary foods often indicate?

42. What is “pica”?

43. What does pica indicate?

44. What did you learn about pica after reading “Pica as a Culture Bound Syndrome”?

45. During pregnancy, how much of nutritional intake in a pregnant person is “taken up” by the baby?

46. How can optimal nutrition assist health conception?

47. How can optimal prenatal nutrition help grow a healthy baby?

48. How can optimal prenatal nutrition help ease pregnancy discomforts?

49. How can optimal prenatal nutrition help maintain health and vitality in a pregnant body?

50. How can optimal prenatal nutrition help prepare for labor and birth?

51. How can optimal prenatal nutrition help prevent perineal tearing during birth?

52. How can optimal prenatal and postpartum nutrition help ease a smooth postpartum for the birthing person?

53. How can optimal postpartum nutrition help promote healthy breastfeeding?

Essay

1. How do you help a client understand if they are getting enough protein? Calories?

2. How do you assess whether your client is a candidate for prenatal vitamins?

3. What do you look for in a prenatal vitamin? What are the most important components?

4. Your client has been very moody, cranky and tearful. When she brings her diet journal, she also tells you that she stopped eating meat. As you review her diet together, you notice that she has fruit juice several times a day, cereal in the morning, cookies in the afternoon and ice cream before bed. She eats a light lunch, usually a salad with saltine crackers. Her dinner includes some green vegetables but mostly potatoes or pasta which are both covered with cheese. What is your advice to her?

5. Identify and discuss 3 current diet trends that your clients might be adhering to. How could these affect pregnancy?

6. Discuss how you counsel clients about their diet in pregnancy. What do you emphasize?

7. Discuss your understanding of multicultural diets. If a client eats a traditional diet from a culture you are unfamiliar with, how do you learn about what they are regularly consuming?

8. Discuss the benefits of eating whole foods.

9. Discuss the nutritional benefits of organic foods.

10. If a client cannot afford to buy all foods organic, what are the more important ones?

Projects (send completed projects with the rest of your course work for this module)

1. Nutrition Chart for Clients: Create a practical list or chart for reference showing the nutritional needs during pregnancy and breastfeeding, and foods in which they are most abundant. Include a few details of the benefits of each nutrient.

2. Self Awareness project: Keep a diet journal for yourself for one week.

a. What changes can you make to improve your own nutrition?

b. Did you notice an increased awareness of what you were eating (and

possibly why you were eating it) as you kept your diet journal?

c. Did this bring up any issues for you? What did you learn about yourself and

your diet?

d. Did recording what you were eating have an effect on the foods you chose to

eat?

e. How do you think this experience will help you in your counseling with other

women regarding their diets?

3. Commercial Vitamin Supplement Assessment: Select one or two commercial vitamin brands (a good comparison would be a one a day type and a four or six a day type) and using the tables in the Nutrition Almanac decide what you think of their particular formulas. Choose a vitamin supplement to recommend to clients who would benefit.

4. Research the local, state, and federal programs available in your area to aid in providing food to pregnant and breastfeeding women/gestational parents. Identify the qualifications for receiving support and the local contact information. Create a referral list to provide for your clients.

Skills

Following are excerpts from the NMI forms for assessment of midwifery skills, which include all skills identified and required by NARM. Review the following skills and consider how they each relate to the content of this module. If you are currently working with a preceptor, take this opportunity to focus on these areas. During Supervised Primary Care you will formally evaluate these skills together using the NMI forms *Form 52 - Assessment of Student’s Midwifery Skills* and *Form 53 - Student Self-Assessment of Midwifery Skills.*

2. General Health care Skills:

J. Recommends the use of vitamin and mineral supplements

1. Prenatal Multi-Vitamin,

2. Vit. C,

3. Vit. E,

4. Folic Acid,

5. B-Complex,

6. B-6,

7. B-12,

8. Iron,

9. Calcium,

10. Magnesium

3. Maternal Health Assessment:

K. Recognizes and responds to potential prenatal complications by:

1.Identifying pregnancy-induced hypertension

2. Assessing, educational and counseling for pregnancy-induced

hypertension with:

a) Nutrition/hydration assessment,

b) Administration of calcium/magnesium supplement

c) Stress assessment and management,

d) Non-allopathic remedies,

e) monitor for signs and symptoms of increased severity,

f) Assessment for drug abuse, g)increased frequency of maternal assessments

3. Identifying preeclampsia

4. Collaborating and managing preeclamptic mothers

8. Identifying and dealing with pre-term labor with:

B) Consultation and/or treatment including:

1) Increase of fluids,

2) Non-allopathic remedies,

3) Discussion of the mother’s fears,

4) Food to be eaten at least every two hours,

5) consumption of alcoholic beverage,

6) Evaluation of urinary tract infection,

7) Evaluation of maternal infection

4. Labor, Birth and Immediate Postpartum

F. Assesses general condition of mother and newborn by:

8. Facilitating breastfeeding by assisting and teaching about:

a) positioning for mother and baby,

b) skin-to-skin contact,

c) latching on,

d) adequate maternal hydration,

e) adequate maternal nutrition, adequate maternal rest,

g) feeding patterns,

h) maternal comfort measures for engorgement,

i) letdown reflex,

j) milk expression

5. Postpartum

G. Performs maternal four- to six-week postpartum checlk-up assessing for:

1. Postpartum subjective history

2. Lochia

3. Return of menses

4. Physical condition by performing an examination including

assessment of:

a) vital signs,

b) systems function,

c) breastfeeding, condition of breast and nipples,

d) muscle prolapse of vagina and rectum (cystocele, rectocele,

etc.),

e) strength of pelvic floor,

f) condition of uterus, ovaries and cervix,

g) condition of the vulva, vagina, perineum and anus