eNCPT

CLINICAL CASE STUDIES

2nd Edition

Instructor's Solution Manual

eat right. Academy of Nutrition and Dietetics

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**Case study includes reassessment section*

NOTE: *The terminology used in this manual is based on the eNCPT 2020 edition. Some terminology, and the associated alphanumeric codes, may change in future editions based on terminology development work.*

Objectives

Upon completion of the *eNCPT Clinical Case Studies*, the dietetics student will be able to:

- Identify, define, and describe the steps of the Nutrition Care Process, specifying both the registered dietitian nutritionist and client role in each step.
- Identify and define the purpose of collecting data outcomes for nutrition care.
- Define the importance of documentation in the Nutrition Care Process.
- Identify the terminology domains, classes, and subclasses for each step of the Nutrition Care Process.
- Demonstrate utilization of Nutrition Care Process Terminology correctly in completing case studies for individuals and populations of differing ages and health status in a variety of settings.
- Implement the Nutrition Care Process and Nutrition Care Process Terminology for various populations.

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Electronic Nutrition Care Process Terminology (eNCPT) Student Companion Guide: Recommended Reading Material and Quiz

Students should review the following resources prior to working on the case studies:

- ☐ Complete the eNCPT tutorials: www.ncpro.org/encpt-tutorials
- ☐ Read and review the following recommended resources available on www.ncpro.org:

Nutrition Assessment

- Nutrition Assessment Snapshot
  - www.ncpro.org/pubs/2020-encpt-en/category-1
- Nutrition Assessment Components: Review, Cluster, Identify
  - www.ncpro.org/pubs/2020-encpt-en/page-003
- Nutrition Assessment and Monitoring and Evaluation Terminology Sheet
  - www.ncpro.org/pubs/2020-encpt-en/page-015

Nutrition Diagnosis

- Nutrition Diagnosis Snapshot
  - www.ncpro.org/pubs/2020-encpt-en/category-2
- Nutrition Diagnosis Components: Problem Identification, Etiology, and Signs/ Symptoms
  - www.ncpro.org/pubs/2020-encpt-en/page-030
- Nutrition Diagnosis Terminology Sheet
  - www.ncpro.org/pubs/2020-encpt-en/page-036

Nutrition Intervention

- Nutrition Intervention Snapshot
  - www.ncpro.org/pubs/2020-encpt-en/category-3
- Nutrition Intervention Components
  - www.ncpro.org/pubs/2020-encpt-en/page-050
- Nutrition Intervention Terminology Sheet
  - www.ncpro.org/pubs/2020-encpt-en/page-055

Nutrition Monitoring and Evaluation

- Nutrition Monitoring and Evaluation Snapshot
  - www.ncpro.org/pubs/2020-encpt-en/category-4

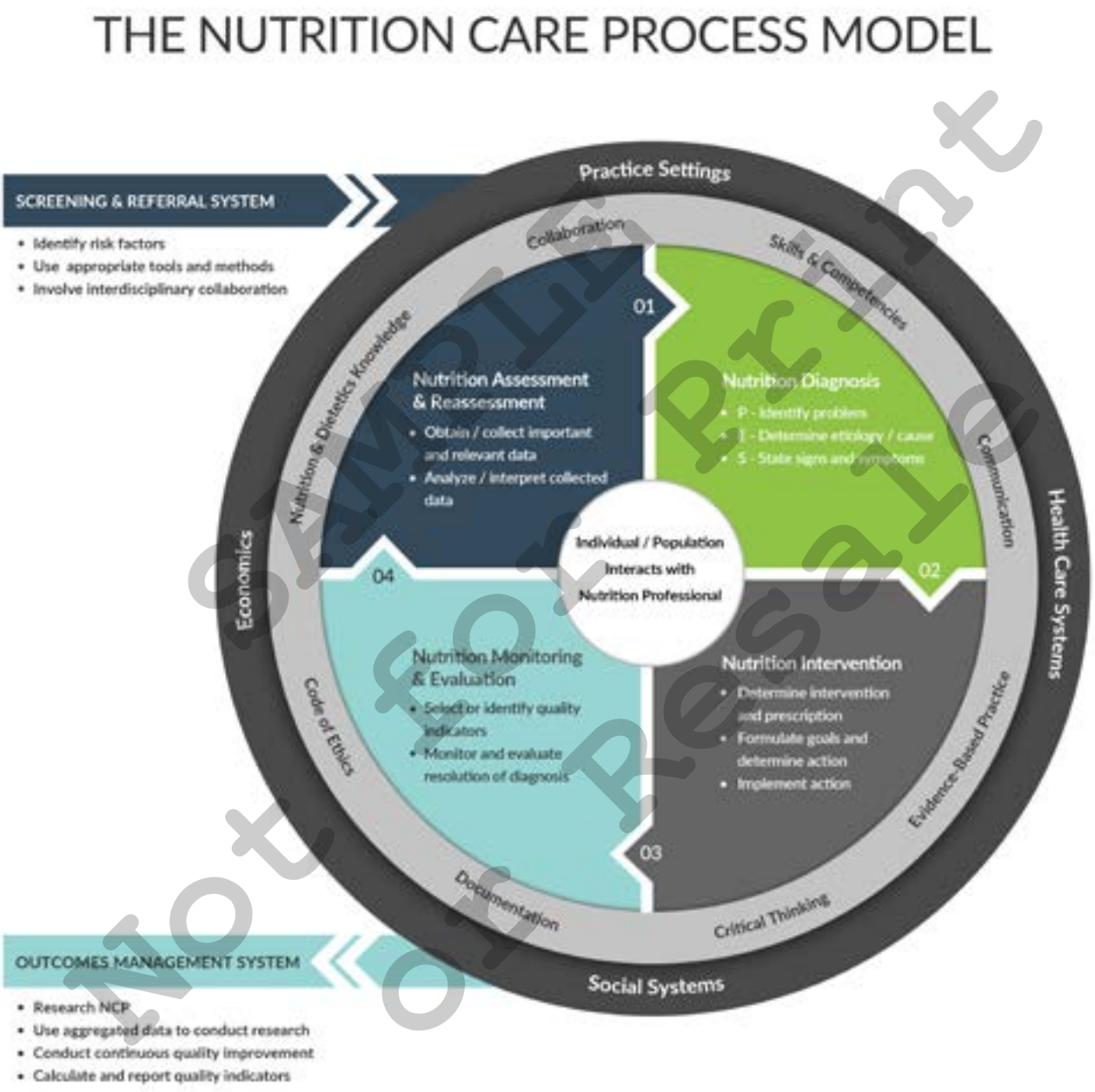
☐ Review the following Nutrition Care Process (NCP)–related journal articles available in the *Journal of Academy of Nutrition and Dietetics*:

- Swan WI, Vivanti A, Hakel-Smith NA, et al. Nutrition Care Process and model update: toward realizing people-centered care and outcomes management. *J Acad Nutr Diet.* 2019:117(12):2003-2014.
- Swan WI, Pertel DG, Hotson B, et al. Nutrition care process (NCP) update part 2: Developing and using the NCP terminology to demonstrate efficacy of nutrition care and related outcomes. *J Acad Nutr Diet.* 2019;119(5):840-855.

☐ Review the Nutrition Care Process Model

The Nutrition Care Process Model is a graphic visualization that illustrates the steps of the Nutrition Care Process as well as internal and external factors that impact application of the NCP. The central component of the model is the relationship of the target client or group and the registered dietitian nutritionist (RDN). One of two outer rings represent the skills and abilities of the RDN along with application of evidence-based practice, application of the Code of Ethics, and knowledge of the RDN. The second of two outer rings represent environmental factors, such as health care systems, socioeconomics, and practice settings that impact the ability of the target group or client to benefit from RDN services. Screening and referral and outcomes management are also components of the model. See NCP model on page 4.

THE NUTRITION CARE PROCESS MODEL



CASE STUDIES

Type 2 Diabetes Mellitus With Obesity

NOTE: *All* **bolded blue** *words or phrases throughout this case are part of the Nutrition Care Process Terminology (NCPT). Each term is designated with an alphanumeric NCPT hierarchical code for reference only and should never be used in documentation.*

Case Study Narrative

RM, a 63-year-old female with newly diagnosed type 2 diabetes mellitus is referred to the outpatient dietitian for medical nutrition therapy. RM's medical history includes carpal tunnel and hypertension. Currently, RM works full-time as an administrative assistant in a social services office. She lives at home alone but has family nearby. Client reports she has never met with a dietitian, does not follow any special meal plan, and likes to eat at fast food chains three to four times per week. She also states she likes to walk but does not make time for exercise. RM typically spends her evening after work watching television for at least 3 hours per night. She reports she just started checking her blood sugar once daily with her new testing supplies last week. Her greatest fear prior to coming to the visit is that she will need to make many changes to her eating habits and she does not feel she will be able to adhere to the changes. Her 24-hour food recall includes Cheerios with 2% milk (27 g CHOs), one banana (30 g CHOs) and two scrambled eggs and 8 oz orange juice (30 g CHOs) for breakfast. Morning snack of one croissant (26 g CHOs), and lunch includes deli ham on two pieces of whole wheat bread (30 g CHOs) with one individual bag of potato chips (15 g CHOs) and a 12-oz can of regular soda (36 g CHOs). No afternoon snack. For dinner, RM consumed one chicken parmesan frozen dinner (30 g CHOs) with a 12-oz regular soda (36 g CHOs) and two chocolate chip cookies (25 g CHOs) for dessert.

Per the hospital medical record:

Age: 63-year-old
Measured height: 61" (1.55 m)
Measured weight: 204 lb (92.5 kg)
Waist circumference: 38 in (96.5 cm)
Blood pressure: 130/85 mm Hg
Body mass index (BMI): 38.5
Hemoglobin A1C (HgbA1C): (7.9%)
Medications: Furosemide (20 mg/d), Metformin (500 mg/d)

Suggested Bibliography

1. Dickerson RN, Patel JJ, McClain CJ. Protein and calorie requirements associated with the presence of obesity. *Nutr Clin Pract.* 2017;32(1_suppl):86S-93S.
2. Evert AB, Dennison M, Gardner CD, et al. Nutrition therapy for adults with diabetes or prediabetes: a consensus report. *Diabetes Care*. 2019;42(5):731-754.
3. Franz MJ, MacLeod J, Evert A, et al. Academy of Nutrition and Dietetics Nutrition practice guideline for type 1 and type 2 diabetes in adults: systematic review of evidence for medical nutrition therapy effectiveness and recommendations for integration into the nutrition care process. *J Acad Nutr Diet*. 2017;117(10):1659-1679.
4. Grundy SM, Cleeman JI, Daniels SR, et al. Diagnosis and management of the metabolic syndrome: an American Heart Association/National Heart, Lung, and Blood Institute Scientific Statement. *Circulation.* 2005;112:2735-52.
5. Lennon SL, DellaValle DM, Rodder SG, et al. 2015 Evidence Analysis Library evidence-based nutrition practice guideline for the management of hypertension in adults. *J Acad Nutr Diet*. 2017;117(9):1445-1458 e1417.
6. Whelton PK, Carey RM, Aronow WS, et al. 2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults: Executive Summary: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. *Hypertension*. 2018;71(6):1269-1324.

Step #1: Nutrition Assessment

Identify client indicator(s) using the NCP terminology within the domains below. All **bolded blue** words or phrases throughout this case are part of the Nutrition Care Process Terminology (NCPT).

Client History (CH)

Food/Nutrition-Related History (FH)

Biochemical Data, Medical Tests, and Procedures (BD)

Anthropometric Measurements (AD)

Nutrition-Focused Physical Findings (PD)

Assessment, Monitoring and Evaluation Tools (AT)

Comparative Standards (CS)

Step #2: Nutrition Diagnosis

Build the PES statement by first identifying the nutrition problem(s). Then consult the nutrition diagnosis etiology matrix and nutrition diagnosis reference sheets for determining the appropriate etiology(ies). Ensure the signs and symptoms are detailed and specific to the problem and etiology. After building the PES statement, identify the applicable etiology category by checking the appropriate box.

Nutrition Diagnosis Etiology Matrix: www.ncpro.org/pubs/2020-encpt-en/page-046

Nutrition Assessment Matrix: www.ncpro.org/pubs/2020-encpt-en/page-013

PES Statement(s)

Problem related to etiology as evidenced by signs and symptoms

Nutrition problem(s):

RESOURCES

Sample Case Study: Pediatric Obesity Outpatient

NOTE: *All* **bolded blue** *words or phrases throughout this case are part of the Nutrition Care Process Terminology (NCPT). Each term is designated with an alphanumeric NCPT hierarchical code for reference only and should never be used in documentation.*

Case Study Narrative

The registered dietitian nutritionist (RDN) receives a referral for TN, who is a 16-year-old male in the outpatient diabetes center. He has two younger sisters that have obesity and are also seeing the dietitian. His mother has type 2 diabetes mellitus, and his father has history of coronary artery disease. TN reports that he often skips breakfast and snacks midmorning on peanut butter and crackers. His lunch consists of two bean and cheese burritos and a sports drink. His evening meal consists of two to three pieces of breaded chicken patties with barbeque sauce. The family eats take out from a fast food restaurant at least twice per week. He drinks sports drinks throughout the day. He drinks between three to four 20-oz bottles of sports drinks per day. TN has a history of asthma and complains of difficulty staying asleep at night. He wakes up four to five times per night to use the restroom. TN enjoys playing role playing game (rpgs) online and states "games can last days if you are lucky." Most of the time the games last around 4 to 6 hours. He is on no medication but does take a multivitamin with iron. No laboratory values are available. Acanthosis nigricans is visible around TN's neck, as well as striae on abdomen and gynecomastia in axillary area. TN's mother is present for counseling session and often responds to questions directed at TN. Mother disclosed that their doctor insisted they come for counseling with the dietitian; no one in their family has ever met with a dietitian before, and she states they've never thought that much about nutrition. When mother steps out of the room, TN discloses that his parents separated 3 months ago. He and his sisters stay with their father every other weekend. The father only has a studio apartment, so they eat out often when they stay with him.

Per the hospital medical record:

Age: 16-year-old
Measured height: 66" (1.68 m)
Measured weight: 290 lb (131.5 kg)
Weight gain: 12 lb (5.4 kg) over past 2 months
Body mass index (BMI)-for-age percentile (2 to 20 years): >95th percentile
BMI: 46.8
Waist circumference: 58.7 in (149 cm)
Blood pressure: 120/78
Heart rate: 75 bpm

Suggested Bibliography

1. Academy of Nutrition and Dietetics Evidence Analysis Library. Pediatric Weight Management (2015) Evidence- Based Nutrition Practice Guideline. Accessed August 2, 2020. www.andeal.org /topic.cfm?menu=5296
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Step #1: Nutrition Assessment

Identify client indicator(s) using the NCP terminology within the domains below. All **bolded blue** words or phrases throughout this case are part of the Nutrition Care Process Terminology (NCPT).

Client History (CH)	**Personal data (CH-1.1)** **Age (CH-1.1.1)**: 16-year-old **Gender (CH-1.1.2)**: Male **Patient/client OR family nutrition-oriented medical/health history (CH-2.1)** History of asthma and complaints of difficulty sleeping through the night. Two younger sisters and parents are obese; mother has type 2 diabetes mellitus; father has coronary artery disease. When mother steps out of the room, TN discloses that his parents separated 3 months ago. He and his sisters stay with their father every other weekend. The father only has a studio apartment, so they eat out "a lot" when they stay with him.
Food/Nutrition-Related History (FH)	**Food intake (FH-1.2.2)**: Breakfast: None Midmorning snack: one package of peanut butter and crackers Lunch: two bean and cheese burritos and 20-oz sports drink Dinner: two to three breaded chicken patties with barbeque sauce. The family eats take out from a fast food restaurant at least twice per week. He drinks between three to four 20-oz bottles per day of sports drinks. **Diet Experience (FH-2.1.2)**: No previous nutrition education or counseling. **Medications (FH-3.1):** Multivitamin with iron, one per day.
Biochemical Data, Medical Tests, and Procedures (BD)	No laboratory values available, and no blood work done in several months. **Blood pressure, systolic (PD-1.1.21.1)** and **Blood pressure, diastolic (PD-1.1.21.2)**: 120/78 **Heart rate (PD-1.1.21.5)**: 75
Anthropometric Measurements (AD)	**Measured height (AD-1.1.1.1)**: 66" (1.68 m) **Measured weight (AD-1.1.2.1)**: 290 lb (131.5 kg) **Weight gain (AD-1.1.4.1)**: 12 lb (5.4 kg) over past 2 months **BMI for age percentile (AD-1.1.6.1)**: 2 to 20 years >95th percentile

Anthropometric Measurements (AD) *(continued)*	**Body mass index (BMI) (AD-1.1.5.1)**: 46.8 **Waist circumference (AD-1.1.7.14)**: 58.7 in (149 cm)
Nutrition-Focused Physical Findings (PD)	**Overall findings (PD-1.1.1)**: Obese **Skin (PD-1.1.17)**: Acanthosis nigricans around neck, striae on abdomen, gynecomastia in axillary area.
Assessment, Monitoring and Evaluation Tools (AT)	Not applicable
Comparative Standards (CS)	**Ideal/reference body weight (IBW) (CS-5.1.1)**: 142 lb (Hamwi method) **Total energy estimated needs in 24 hours (CS-1.1.1)**: 3,800 kcal/d **Method for estimating total energy needs (CS-1.1.2)**: Nataiona Academy of Medicine's total energy expenditure equation for overweight boys. (Activity Factor = sedentary.)

Step #2: Nutrition Diagnosis

Build the PES statement by first identifying the nutrition problem(s). Then consult the nutrition diagnosis etiology matrix and nutrition diagnosis reference sheets for determining the appropriate etiology(ies). Ensure the signs and symptoms are detailed and specific to the problem and etiology. After building the PES statement, identify the applicable etiology category by checking the appropriate box.

Nutrition Diagnosis Etiology Matrix: www.ncpro.org/pubs/2020-encpt-en/page-046

Nutrition Assessment Matrix: www.ncpro.org/pubs/2020-encpt-en/page-013

PES Statement(s) *Problem related to etiology as evidenced by signs and symptoms*	**Overweight/obesity (NC-3.3)** *related to* excessive energy intake and physical inactivity *as evidenced by* BMI 46.8, BMI-for-age percentile >95th percentile, overconsumption of high fat, energy-dense foods per client reported food intake, excessive TV and computer activity. Identify **Nutrition Diagnosis Etiology Category Identification (EY-1)**: ☐ **Beliefs attitudes etiology (EY-1.1)** ☐ **Cultural etiology (EY-1.2)** ☐ **Knowledge etiology (EY-1.3)**

Blank Case Study Form

Case Study Narrative

Nutrition Care Process Documentation Evaluation Form

Nutrition Care Process Comprehensive Audit Tool for a Health Record Audit

Audit Date:

Professional Reviewed:

Reviewer:

Client/Patient Record Number:

Initial Health Record Documentation Date:

Criteria	***Score*** *Met/acceptable = 1 point* *Present/not acceptable = 0.5 point* *Not met = 0 point* *N/A = not included in total score*	***Comments*** *(1) List the positive points of implementation* *(2) Recommendations for improvement*
Nutrition Assessment (NA)		
1. Does the NA follow the guidelines for a NA including (not all may be required): **a.** Food/Nutrition-Related History **b.** Biochemical Data, Medical Tests, & Procedures **c.** Anthropometric Measurements **d.** Nutrition Focused Physical Findings; **e.** Client History		