Fine Tuning the Nutrition Care Process

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Overview

• Review the Nutrition Care Process
• Explore benefits and challenges of the NCP
• Expand NCP skill set
• Refine PES writing
• Provide inspiration and resources for further learning

Brief History

• 1998: Health Services Task Force explores values of nutrition services
• 2002: Recommendations to BOD and HOD of American Dietetic Association regarding Nutrition Diagnosis and Nutrition Care Process
• 2003-2007: Standardized Language and NCP emerge
  • Formation of Nutrition Care Process-Standardized Language Committee
  • Nutrition Care Process and Model published
  • Various terminology books published
    • Nutrition Diagnosis
    • Nutrition Intervention
    • Nutrition Monitoring and Evaluation
• Nutrition Care Process continues to be reviewed and updated
2015 Readex Survey
Annual random sample inquiry of Academy members and non-members. Membership, Demographics and NCP utilization information gathered. Of those surveyed:
• 56.5% of RDs are Academy members
• 53% were familiar with the Nutrition Care Process Standardized Language Terminology
• 36% agreed that NCP and Model is easy to use
• 32% either did not know what the PES acronym stood for, or answered incorrectly.

Benefits of Utilizing the NCP
• Standardized language gives structure to the efforts of the RD
• Connects and documents the ADIME process (Assess, Diagnose, Intervene, Monitor & Evaluate)
• Provides application to Electronic Health Records, research, surveys, etc.
• Increases visibility and quality of nutrition care

Challenges to Utilizing the NCP
• How exactly to apply the Nutrition Care Process?
• Time—to learn and apply
• Not all institutions have implemented
• May be more difficult if not an Academy Member.
Nutrition Assessment
Nutrition Care Process
Nutrition Diagnosis
Nutrition Intervention
Monitoring Evaluation

ADIME = Nutrition Care Process
ADIME still relevant, NCP used to communicate

- 2015: eNCPT electronic Nutrition Care Process Terminology
  - “Home-base” for the NCP
  - Over 1000 online pages, updates immediately available
  - Features Terminology Sheets and comprehensive references/definitions for each step in ADIME
  - “Rebranding” of IDNT: International Dietetics and Nutrition Terminology
  - IDNT “the yellow book”—no longer available

NCP Step 1: Assessment

- Purpose: gather information to identify nutrition-related problems
- 10 page terminology list—also used for step 4 Monitoring and Evaluation
- Organized into 5 domains in eNCPT
  - Food and Nutrition Related History
  - Anthropometric Measurements
  - Biochemical Data, Medical Tests and Procedures
  - Nutrition-Focused Physical Findings
  - Client History (not used in Monitoring and Evaluation)
NCP Step 2: Diagnosis-PES

- Purpose: identify “treatable” nutrition problem
- Organized into 3 domains on eNCPT
  - Intake
  - Clinical
  - Behavioral-environmental
- Communicated using PES statement

Nutrition Diagnostic Terminology

- 3 Domains on eNCPT:
  - **Intake**: “too much or little of a food or nutrient compared to actual or estimated needs”
  - **Clinical**: “nutrition problem that relates to medical/physical conditions”
  - **Behavioral/Environmental**: “knowledge, attitudes, beliefs, physical environment, access to food, or food safety”
- The Academy advises using an **Intake Diagnosis** if possible
- More specific to our role

The PES Statement

- **(P) Problem** or Nutrition Diagnosis
  - Describes alterations in the patient’s nutritional status
- **(E) Etiology**
  - Cause/Contributing Risk Factors; the root cause
  - Linked to the nutrition diagnosis term by the words “related to”
- **(S) Signs/Symptoms**
  - Data or indicators used to determine the patient’s nutrition diagnosis.
  - Linked to the etiology by the words “as evidenced by”
Examples of PES Statements

• P: Inadequate protein-energy intake, related to:
  • E: Poor appetite status post recent appendectomy, as evidenced by:
  • S: Patient consumed less than 25% of meals for 4 days.

• P: Increased nutrient needs—protein/vitamin/mineral, related to:
  • E: Wound healing, maintenance of skin integrity, as evidenced by:
  • S: Stage III pressure ulcer on sacrum, Stage I pressure ulcer on coccyx.

Problem: “P” in the PES Statement

• Problem=Nutrition Diagnosis
  • Based on the most urgent issue(s), may not be able to address all issues.
  • Can problem realistically be resolved or improved?
  • Written in the “P” portion of PES, with verbiage taken directly from the Nutrition Diagnostic Terminology Sheet
  • In NCP Step 4, Monitoring and Evaluation, the Problem statement should be reviewed/revised with comment pertaining to progress being made—more to follow…

Nutrition Diagnostic Terminology

Frequently Used Nutrition Diagnoses:
  • Inadequate energy intake (NI 1.2)
  • Inadequate oral intake (NI 2.1)
  • Swallowing difficulty (NC 1.1)
  • Altered nutrition-related laboratory values (NC 2.2)
  • Malnutrition (NC 4.1)
  • Food/nutrition-related knowledge deficit (NB 1.1)
Nutrition Diagnostic Terminology
Several diagnoses of note:
• “Increased energy expenditure” (NI 1.1)
  • Ideally used with a comparative reference—such as a predictive equation—to quantify actual increase.
• “Increased nutrient needs” (NI 5.1) and “Decreased nutrient needs” (NI 5.4)
  • Need to further specify which nutrients.
  • Several other diagnoses require specific nutrients of concern.
• “Malnutrition” diagnoses (NC 4.1, 4.1.1, 4.1.2, 4.1.3)
  • Can alert physicians to make medical diagnosis of malnutrition leading to reimbursement.

Nutrition Diagnostic Terminology
“Wording” -- a few more tips:
• Several nutrition diagnoses contain the word “Inadequate”
  Example: “Inadequate energy intake” (NI 1.2)
  Does the word “inadequate” suggest negligence? No, according to legal counsel, but could be misinterpreted.
  May substitute the word “suboptimal” for “inadequate”.
  May also consider comparing patient’s intake to standard reference, indicating a nutrition status to address.
  Could also be questioned in Joint Commission/CMS audit

Etiology: “E” in the PES Statement
• The cause or contributing risk factors of the nutrition diagnosis.
• Connected to the nutrition diagnosis by the words “related to”
• Not “pre-written”, although many good examples on eNCPT site
• Grouped by the type of cause or contributing risk factor—10 categories
Careful Consideration of Etiology

- Etiology leads to the selection of the nutrition intervention
- Considering the categories of etiologies can be helpful in teaching and understanding the relationship between the nutrition diagnosis and the underlying cause.
- Sharpens critical thinking skills.

Etiology Categories

- Beliefs-Attitudes
- Cultural
- Knowledge
- Physical Function
- Physiologic-Metabolic
- Psychological
- Social Personal
- Treatment
- Access
- Behavioral

Can use more than one etiology in same PES statement

Etiology “Wording” -- a few more tips:

- Sometimes, the verbiage from the Nutrition Diagnostic Terminology sheet works well in the Etiology. Examples:
  - Problem: Chronic disease or condition related malnutrition,
  - Etiology: Suboptimal protein intake due to effects of gastric banding,

- Problem: Limited adherence to nutrition-related recommendations,
  - Etiology: Excessive carbohydrate intake, despite past education/counseling on diet for diabetes,
  - Signs/Symptoms: over 60% of calories from carbohydrates per diet recall, HbA1C of 8.4.
Signs and Symptoms: “S” in PES

- The “evidence” that supports the nutrition diagnosis
- Ideally, objective data or indicators that can be measured
- Will be re-evaluated to measure effectiveness of intervention
- Linked to the etiology by the words “as evidenced by”
- Commonly used:
  - Lab values
  - Intake history
  - Nutrition knowledge base, education/counseling history
  - Anthropometric data, findings of nutrition focused physical exam

PES Statements: more examples

- P: Malnutrition, related to:
- E: Inability to meet estimated energy needs due to nausea resulting from chemotherapy, as evidenced by:
- S: Unintended weight loss of 23 pounds over 2 months, 84% of Ideal Body Weight, evidence of lean tissue loss.

- P: Food and nutrition-related knowledge deficit, related to:
- E: New diagnosis of Type 2 Diabetes, as evidenced by:
- S: Recent HbA1c of 10.4, patient unable to list sources of carbohydrate.

PES Statements: more examples

- P: Acute disease or injury related malnutrition/possible severe calorie-protein malnutrition
- E: Behavioral—Inadequate energy intake
- E: Physiologic-metabolic—Altered GI function, changes in appetite and taste, decreased ability to consume sufficient protein and energy, teeth extraction
- E: Treatment—1500 ml fluid restriction, limits intake of oral supplements
- S/S: Nutrition Related—less than 50% intake for ~ 5 days
- S/S: Anthropometric—8% weight loss, edema,
- S/S: Nutrition-Focused—appetite loss, change in taste acuity
- S/S: Client History—heart failure, hypertension, GERD, poor dental health
NCP Step 3: Intervention

• Purpose: Improve or resolve the nutrition diagnosis...
• Nutrition Intervention Terminology—can be used to communicate the “Nutrition Prescription” or nutrition plan of care,
  • Useful as a “check-list” of interventions; helpful wording and organization
• Organized into 4 domains on eNCPT:
  • Food and/or Nutrient Delivery—majority of interventions
  • Nutrition Education
  • Nutrition Counseling
  • Coordination of Care

NCP Step 4: Monitoring/ Evaluation

• Purpose: Gauge effectiveness of intervention, progress toward planned goals
• Organized into 4 domains on eNCPT:
  • Food/Nutrition Related History Outcomes
  • Anthropometric Measurement Outcomes
  • Biochemical Data, Medical Tests, and Procedure Outcomes
  • Nutrition-Focused Physical Finding Outcomes
Recall—these are the same terminologies and domains as the Assessment portion of ADIME, except for Client History which is not used in monitoring and evaluation. On the eNCPT the same list is used for Assessment and Monitoring/Evaluation

NCP Step 4: Monitoring/Evaluation

• As with the entire ADIME/NCP, requires data gathering and critical thinking:
  • What information do I need to review?
  • Have nutrition interventions been effective?
  • Is nutrition diagnosis still valid?
  • What has hindered progress?
  • Should nutrition care continue vs. discharge from care?
NCP Step 4: Monitoring/Evaluation

- Monitoring and Evaluation documentation begins with review of previous PES statement:
- NCP tutorials suggest adding one of the following modifiers to the Problem portion of the previous PES:
  - No Improvement
  - Improving
  - Resolved
  - Diagnosis No Longer Applies

Codes assigned to all Terms

Each term assigned NCPT hierarchical code and an Academy SNOMED CT/LOINC unique identifier

- **NCPT Code**: Nutrition Care Process Terminology Code
  - Identifies the specific domain, indicates a hierarchy of nutrition terminology within each domain. Each diagnosis has its own 5 digit code
- **ANDUID**: Academy of Nutrition and Dietetics Unique Identifier
  - Used for data tracking/information exchange in electronic health records
  - Linked to SNOMED CT and LOINC informatics systems
- **SNOMED CT**: Systemized Nomenclature of Medicine-Clinical Terms
- **LOINC**: Logical Observation Identifiers Names and Codes
  - Trackable in electronic health records, used in research

Case Study One: Pelvic Mass

- 63 year old female. Pelvic mass involving reproductive organs
- RD consulted for poor appetite, triggered at admission screen
  - Weight upon admission: 73 kg/ 160 # 152% of Ideal
  - Weight history: loss of ~ 21 kg/ 46 # over past 9 months
  - Interview revealed situation differently...
Case Study One: Pelvic Mass

• Possible Nutrition Diagnoses:
  • “Problem” of the PES statement
  • “Inadequate protein-energy intake” ???
  • “Unintended Weight Loss” ???
  • “Class 1 Obesity” ???
  • “Food and nutrition-related knowledge deficit” ???

Case Study Two: Head Trauma

• 29 year old male, traumatic head injury.
  • Mandible/maxilla resection, evisceration of eye, surgical excision of ear. Floor of mouth, base of tongue involvement.
  • Extensive reconstruction, skin graft/flap creation, exposed carotid artery repair. Cervical neck > oral cavity fistula.
  • Estimated energy/protein needs: 2300-2650 kcal, and 165-200 grams protein. ~ 700 kcal over non-injury state.
  • Reference comparison: Penn State Equation: 1733 kcal
  • Clinical judgement: aggressively feed; as high as 3000 kcal
  • G-tube placed

Case Study Two: Head Trauma

• Diagnosis– first PES Statement:
  • Problem: Increased energy expenditure
  • Etiology: related to healing wounds resulting from traumatic head injury and extensive surgical reconstruction
  • Signs/Symptoms: large skin grafts, neck dissection, temporal bone reconstruction, estimated increase of ~ 700 kcal/day over non-injury state.

  • Intervention, Monitoring, and Evaluation
  Recommendations for enteral feed, modular protein, wound care supplements. Did not tolerate feeding at goal, TPN for 7 days and trickle feed via G tube. TPN stopped due to line infection.
  Underfed: nausea, interruptions of feeding. Wounds not healing, stage 1 pressure ulcer on left heel.
Head Trauma: follow-up

• First PES Statement:
  • Problem: Increased energy expenditure – No Improvement
    (Etiology and Sign/Symptoms unchanged)

• Second PES statement added:
  • Problem: Inadequate protein-energy intake
    • Etiology: Loss of feeding opportunity due to intolerance, feeds on hold
    for surgical procedures
    • Signs/Symptoms: patient receiving ~ 50% of estimated nutrient needs,
      suboptimal wound healing, stage I pressure ulcer on left heel
    • Interventions, Monitoring, and Evaluation reflected in chart notes.

• New concern for renal function once feeding at goal...

Head Trauma, follow-up:

• First and second diagnoses (problems) now noted as “improving”
  and commented upon in chart note:
  • Problem: Increased energy expenditure – Improving
  • Problem: Inadequate protein-energy intake—Improving

• Third PES Statement reflected concern for renal function:
  • Problem: Altered nutrition-related laboratory values
    • Etiology: Metabolic response to aggressive feeding
    • Signs/Symptoms: BUN trending upward, 30 mg/dL,
      Phosphorus also above normal limits at 5 mg/dl on 11-30-15

Head Trauma, final follow-up:

Patient continued to progress and renal function labs were
stable. Feeding at goal and tolerated fairly well.
Final note before patient was discharged:
  • Problem: Increased energy expenditure – Improving
  • Problem: Inadequate protein-energy intake—Improving
  • Problem: Altered nutrition-related laboratory values—Resolved

Also included discharge recommendations and
communication for use at acute rehab center...
Other considerations...

• How many PES statements are too many?
• How much information included in chart note?
• What about inconsistencies within your team?
• Questions/Comments?

Conclusion 😊

• Important to have familiarity with NCP even if not using regularly.
• Standardized language and specific format of PES statements can be powerful tools of documentation.
• Impressive amount of information and resources on eNCPT home page, check it out!
• THANKS!!!!

Resources

• Contact: NCP@eatright.org
• rtrepas1@hfhs.org