Nutrition Care Process
Objectives

Nutrition Care Process (NCP)

✓ Describe the four steps in the NCP

✓ Demonstrate knowledge of nutrition terminology and standardized language

✓ Construct appropriate PES (Problem-Etiology-signs/symptoms) statements using standardized language
What is the Nutrition Care Process (NCP)?

✓ Standardized process for providing nutrition care

✓ Standardized language

✓ Problem solving method that encourages critical thinking, identifies nutrition problems and provides high quality nutrition care
Steps of NCP

✓ A - Nutrition Assessment
✓ D - Nutrition Diagnosis (PES statements)
✓ I - Nutrition Intervention (Nutrition Prescription)
✓ M & E - Nutrition Monitoring & Evaluation
Step 1 – Nutrition Assessment

Purpose

✓ Obtain, verify, and interpret data to make decisions about the nature and cause of nutrition-related problems.

Domains

✓ Food / Nutrition-Related History
✓ Anthropometric Measurements
✓ Biochemical Data, Medical Tests, & Procedures
✓ Nutrition-Focused Physical Findings
✓ Client History
✓ Comparative Standards
Step 2 – Nutrition Diagnosis

Purpose

✓ Identify and label the nutrition problem that the **dietitian** is responsible for treating

✓ It is the “missing link” between assessment and intervention
Nutrition Diagnosis Terminology

Domains

✓ Intake (NI)
✓ Clinical (NC)
✓ Behavioral-Environment (NB)

Each domain represents unique characteristics that contribute to nutrition health.

Within each domain are classes and in some cases, subclasses of nutrition diagnosis.

Q: RD interventions have the most impact on the _________ Domain?
Nutrition Diagnosis Terminology

Domains

✔ Intake (NI)
✔ Clinical (NC)
✔ Behavioral-Environment (NB)

Each domain represents unique characteristics that contribute to nutrition health.

Within each domain are classes and in some cases, subclasses of nutrition diagnosis.

Q: RD interventions have the most impact on the Intake Domain?
Describes nutritional status and/or nutrition problem

\[ \text{P = Problem} \]
\[ \text{E = Etiology} \]
\[ \text{S = Signs/Symptoms} \]

Problem related to Etiology as evidenced by Signs/Symptoms
Medical Dx vs. Nutrition Dx

✓ The Medical Diagnosis does not change as long as the disease or condition exists

✓ The Nutrition Diagnosis is a diagnosis that may change as long as the patient/clients/group’s response changes
Medical Dx vs. Nutrition Dx

**Medical Dx**
- Type 2 Diabetes
- Burns
- Cancer

**Nutrition Dx**
- ???
- ???
- ???
Medical Dx vs. Nutrition Dx

**Medical Dx**
- Type 2 Diabetes
- Burns
- Cancer

**Nutrition Dx**
- Excessive carbohydrate intake
- Increased energy expenditure
- Inadequate oral intake
PES Statement

**Problem** (What?)
- Nutrition Dx that actually exists (not just a “risk of…”)

**Etiology** (Why?)
- Cause of the Problem

**Signs and Symptoms** (How do I know?)
- Evidence of the Problem

**P:** Inadequate Energy Intake related to

**E:** Changes in Appetite as evidenced by

**S:** Average daily kcal intake 50% less than estimated recommendations
Diagnostic Labels can be Problems or Etiologies

- **Inadequate energy intake** (NI-1.2) related to food-nutrition related knowledge deficit (NB-1.1)

- **Unintended weight loss** (NC-3.2) related to inadequate energy intake (NI-1.2)
Nutrition Diagnosis

Inadequate fiber intake related to limited intake of fruits, vegetables, and whole grains as evidenced by intake averaging less than 10 grams of fiber per day.
Abbreviations

✔ RT “related to”
✔ AEB “as evidenced by”

Make sure they are on the approved abbreviation list at your facility before using
Evaluate your PES Statement

- There is no right or wrong PES statements (some are just better than others)

- When you have a choice between two different domains
  → consider the intake nutrition diagnosis

- Intake problems are more likely to be caused by a nutritional etiology and have a nutrition directed intervention
Evaluate your PES Statement

 ✓ Can the RD resolve or improve the nutrition diagnosis?
 ✓ Does the assessment data support all of the component of the PES?
 ✓ Is the etiology the root cause?
 ✓ Will measuring signs / symptoms tell you if the problem is resolved or improved?
 ✓ Are Signs and Symptoms specific enough that you can measure/evaluate changes?
Let’s evaluate some intern PES Statements

From 2015 Spring Start Class

Inadequate oral intake
related to Diverticulitis
as evidenced by Clear liquid diet order, and pt report of little-no intake PTA d/t pain
Let’s evaluate some intern PES Statements

From 2015 Spring Start Class

Increased energy and nutrient needs

related to skin integrity and wound healing

as evidenced by two unstageable pressure areas on left heel and left foot
Let’s evaluate some intern PES Statements

From 2015 Spring Start Class

Malnutrition

related to hyperemesis gravidarum

as evidenced by patient reports of severe nausea, vomiting, and poor appetite for the last 3-4 weeks
Let’s evaluate some intern PES Statements

From 2015 Spring Start Class

Inadequate oral intake

related to decreased ability to consume sufficient energy

as evidenced by altered mental status
Let’s evaluate some intern PES Statements

From 2015 Spring Start Class

Altered nutrition-related lab value (potassium)

related to food and nutrition related knowledge deficit and non-compliance with HD appointments

as evidenced by pt’s verbalization of eating high potassium foods daily, pre-admit K value at 9 mEq/L and pt with pattern missing HD appointments (four missed appointments since the start of HD in Oct 2014, per MD)
Let’s work on a Case Study – Cardiac Disease

Newly admitted 58 yo male with Chest Pain
Ht 5’9”  Wt 250#

Cholesterol 322, HDL 28, LDL 247, Trig 435

Business man who travels M-F. Meals are mostly fast food or steak house dinners. Loves McDonald’s double quarter pounder w/ cheese and milkshake. He has never visited a dietitian or received education.
Let’s work on a Case Study – Cardiac Disease

✅ Potential PES Statement ✅

Altered nutrition related lab values related to cardiac disease as evidenced by elevated lipid panel.

...let’s evaluate this statement...
Let’s work on a Case Study – Cardiac Disease

✔️ A Better Choice

Excessive fat intake related to food and nutrition related knowledge deficit as evidenced by frequent consumption of high-fat foods, Cholesterol 322, HDL 28, LDL 247, Trig 435, and BMI 37.
Let’s Practice

Case study handout

Each table write a PES statement for one of the case studies.
Moving on … Step 3 – Nutrition Intervention
Purpose

Plan and implement actions to address the identified nutrition problem

- Goal Setting
- Nutrition Prescription
- Plan intervention → action / activity
- Implementation of interventions

Ask yourself: What am I going to do?
Step 3 – Nutrition Intervention

4 Types

✓ Food and/or nutrient delivery
✓ Nutrition education
✓ Nutrition counseling
✓ Coordination of nutrition care
Include the >>> Nutrition Prescription <<<

- Designates type, amount, frequency of feeding based on patient’s needs, care goals
- May specify calorie goal
- May limit or increase various components of the diet
- Estimate energy, protein, and fluid needs
- May also be called nutrition needs or estimated needs
Step 3 – Nutrition Intervention

>>> Plan the Nutrition Intervention <<<

✓ Identify patient goals and expected outcomes

✓ Select intervention strategies
  ✓ What, how long, frequency of contact
  ✓ When to follow-up
  ✓ How client participates

✓ Should be targeted at etiology or signs and symptoms

✓ Interventions should help patient improve
### Step 3 – Nutrition Intervention and Evaluation

<table>
<thead>
<tr>
<th>P</th>
<th>Excessive energy intake</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>related to eating frequently in fast food restaurants</td>
</tr>
<tr>
<td>S</td>
<td>as evidenced by BMI and diet history</td>
</tr>
</tbody>
</table>

**Intervention**  
Counsel patient about best choices in fast food restaurants

**Evaluation**  
Recheck weight and diet history at next visit
Implement the Nutrition Intervention

- Communicate plan for nutrition care with patient
- Continue data collection and modify the plan and strategies as condition or response changes
Step 4 – Nutrition Monitoring & Evaluation

Purpose

✓ Monitor progress, determine progress being made toward goals or desired outcomes

Initial Assessment / chart note

- Determine what you will monitor
- Determine patient goals
- **No evaluation** in initial chart note
Step 4 – Nutrition Monitoring & Evaluation

✔ Follow-up chart note and re-assessment

Monitoring ➔ The review and measurement of the new pt data or status during follow-up

Evaluation ➔ Comparison of current findings with previous pt data or status, intervention goals, or a reference standard
Let’s pull it all together - Charting

A – assessment data listed
D – diagnosis
  • PES statement
I – intervention
  • Nutrition prescription
  • List specific intervention
  • Patient outcome goals
M – monitoring
E – evaluation
Let’s work on an example

Let’s look at a completed Initial Assessment
Initial Assessment

Assessment:
Patient reports fair appetite, poor intake past week, lost 20 pounds last two months.

Admit weight: 150 pounds (68 kg)
Usual weight: 170 pounds (77 kg)

Nutrition Diagnosis:
Involuntary weight loss related to increased energy needs due to prolonged catabolic illness as evidenced by involuntary weight loss of 20 pounds (12%) in 2 months.
Initial Assessment

**Goals:**
- Consume >75% most meals and nutritional supplement
- No further weight loss

**Interventions:**
- Provide 2 cans of Ensure Plus per day between meals (this provides an additional 700kcal, 26g Protein per day)
- Weekly weights

**Monitor & Evaluation:**
- Within 2 days monitor consumption of supplement; within 7 days evaluate weight status and follow-up
Follow-up note

Follow-up note should include...

✓ Nutrition Re-assessment
  → Status of monitoring and evaluation listed in initial note
  → Goals achieved, discontinue of care is needed
  → Updated information
  → Restate estimated needs if they have changed

✓ Nutrition Diagnosis
  → Indicate if nutrition problem is resolved
  → Only re-list previous diagnosis if it is not yet resolved
  → List new pertinent diagnosis
KEEP CALM AND LET'S PRACTICE
Nutrition Assessment
(Back to our obese male inpatient from earlier – he is now seeing us in an outpatient setting)

- Still consumes large meat portions
- Uses lots of butter and margarine at home
- Could not identify foods with saturated fats
- Current intake of saturated fat estimated to be >15% calories
- Limited previous nutrition education during inpatient stay
Nutrition Diagnosis
(let's put what we know into our standardized language)

- Excessive fat intake (saturated) related to regular use of solid margarine and large meat portions as evidenced by daily average of saturated fat in excess of 15% of calories.

or

- Food and nutrition related knowledge deficient related to no previous nutrition education as evidenced by client not able to name any foods that are sources of saturated fat.
Nutrition Intervention  
(what are we going to do about this?)

- Plan with client to determine expected outcomes targeted at the causes
- Large meat portions – **decrease portion size** and **change** the types of meat consumed
- Use of solid margarine – **instead use** olive oil in cooking and eating
- Little to no knowledge – **nutrition education**
  - Provide appropriate materials to recognize foods and read labels
NCP Example → Outpatient Setting

✓ Nutrition Monitoring and Evaluation
(let see if our interventions work…)

• Monitor progress
  o Check for understanding
  o May provide follow-up phone call
  o Food records or calorie count

• Measure outcomes
  o Average daily % of saturated fat

• Evaluate outcomes
  o Compare with baseline diet history
✓ **Nutrition Assessment**  *(things we learned)*

- 99 yo female with depression
- LTC resident
- She reports appetite not good lately
- Meal intake records show decline x 3 days
- Unable to feed self
- Ht: 61”, Wt:1/20 120#, ↓13# (10%) x 30 days and ↓21# (15%) x 180 days
- Diet: Regular, ground meat
NI-1.2 Inadequate energy intake
NI-1.3 Excessive energy intake
NI-2.1 Inadequate oral intake
NI-2.3 Inadequate intake from EN
NI-3.1 Inadequate fluid intake
NI-3.2 Excessive fluid intake
NI-5.1 Increased nutrient needs
NI-5.3 Inadequate protein-energy intake
NI-5.7.1 Inadequate protein intake
NI-5.8.4 Inconsistent carbohydrate intake
NI-5.8.5 Inadequate fiber intake

NC-1.1 Swallowing difficulty
NC-1.2 Biting/Chewing difficulty
NC-2.2 Altered nutrition-related lab values
NC-3.1 Underweight
NC-3.2 Unintended weight loss
NC-3.3 Overweight/obesity
NC-3.4 Unintended weight gain
NB-1.7 Undesirable food choices
NB-2.3 Inability to manage self-care
NB-2.6 Self-feeding difficulty
NCP Example → Long-Term Care (LTC)

✓ Nutrition Diagnosis → PES Statement
(let’s put what we know into our standardized language)

Inadequate oral intake related to depression and inability to feed self as evidenced by decreased po intake, significant wt loss of 13 pounds (10%) in 30 days and 21 pounds (15%) in 180 days, resident verbalizes decreased appetite
Nutrition Intervention
(what are we going to do about this?)

• Nutrition Intervention:
  o Increase foods high in caloric density, i.e. add whole milk to each meal, pm ice cream, HS pudding
  o Recommend MVI/mineral supplement
  o Assist resident with self feeding
  o Weekly weights x 4

• Nutrition prescription:
  o 1500 kcal and 48 g protein to meet nutrient needs

• Goal:
  o Pt to consume > 75% q meals
  o Pt to experience no further weight loss
Nutrition Monitoring and Evaluation
(let see if our interventions work…)

- Monitor meal/snack pattern during daily meal rounds and CNA records
- Monitor weekly weight changes
NCP Example → Long-Term Care (LTC)

✓ Re-assessment
(let’s compare our goals with what actually happened…)

- A week later the same resident developed a stage II pressure area on her L/buttock (3 cm diameter)
- Wt 1/27 115#, down 5# from last week
Let’s work on a follow-up note

- First - **New Nutrition Diagnosis based on our re-assessment:**
  - Inadequate oral intake related to
    - PO intake less than calorie expenditure/energy needs for wound healing as evidenced by
    - continued decreased meal intake, further significant weight loss of 5# (4%) in one week, new stage II pressure area on L buttock.
Let’s work on a follow-up note

- **Next - New Interventions**
  - Nutrition Rx: Recommend ~1600 kcal and 57 grams protein from meal, planned snacks and supplement to meet nutrient needs. Encourage PO intake, assist with feeding as needed.
  - Continue current interventions, see care plan.
  - Recommend Ensure Original BID, between meals for additional 440 kcal, 18 gm protein.
  - Recommend Vit C 500 mg to promote wound healing.
  - Calorie Count x 3 days, starting xx/xx/xxxx
Let’s work on a follow-up note

- Last Updated Monitoring and Evaluation
  - Monitor skin status monthly/prn
  - Monitor weight weekly
  - Monitor meal/snack patterns during daily meal rounds and CNA records
  - Monitor labs as ordered
  - Notify family/physician of significant weight changes
Now it’s your turn!

Practice time in groups

Use NCP case template

Report to all
Case Study 1  ➔ Renal Patient (Outpatient Setting)

Chronic Kidney Disease with multiple shifts in lab values

40 yo male, Ht: 6’2” Wt: 165#

Typically skips breakfast, orders out often from his favorite Mexican restaurant for lunch or dinner, snacks include chips, salsa, nuts. Recent BUN, Creat, Phos, and Na are elevated

Requesting help with lifestyle changes no prior education would like to stay off of dialysis, family Hx of CKD
Case Study 2 → Assisted Living Resident

Assisted living resident with 15 pound unintentional weight loss and poor appetite

75 yo female. Severe arthritis in feet and hands.

c/o of constant discomfort and inability to get around by her self over the past several months.

HT: 5’5” Weight 5 mo. ago – 128#  Current Wt: 113#
Labs: prealbumin – 11, Ca  6.7, low H&H

Meal history reveals over the past 3 months mostly starch items with estimated daily intake of 750 kcals and 35 grams protein.
Recent MVA admission to ICU

32 yo female s/p MVA with broken and now wired jaw

HT 5’8”, WT: 145#  Labs – WNL

Full Liquid diet order to begin today

Feeling depressed due to current status and concerned with ability to eat and receive adequate nutrition
Enteral Feeding
66 yo male 5’8” 132 lbs

Sedated, intubated, severe COPD

Tube feeds of 1 kcal/mL formula continuous at 35 mL/hr x 24 hours for 2 days – prior NPO x 3 days

Prealbumin 10, H/H 10/32,
Glucose WNL, O₂ stats WNL
Take Away Points

Ask yourself:

- Can the RD resolve or improve the issue?
- Does the nutrition assessment data support the diagnosis, etiology, signs/symptoms?
- Is the etiology listed the root cause?
- Will measuring the signs and symptoms indicate if the problem is resolved or improved?
- Are the s/s specific enough that the RD can measure and evaluate changes to document resolution or improvement of the nutrition diagnosis?

< Think about your interventions before finalizing your PES statement >
Take Away Points

Remember

- Standardized process
- Individualized care
- Common language
- High quality care and better outcomes
- Documentation
- Critical thinking skills
References


What questions do you have?