Using the Body Systems Model

Refer to Chapter 2 “Assessment,” p. 62: Care Plans Developed after Using the Body Systems Assessment Model
  Client’s name: Mrs. Mary Jones
  Age: 70 years
  Document Includes: Scenario, activities 1–7, pathoflow sheet, assessment (The Body Systems Model) and three care plans.

Scenario

This client was brought to the emergency room. She complained of pain in her left thigh. She stated she tripped over a telephone cord in her kitchen and fell. An X-ray of her leg revealed a fracture of the left femur (medical diagnosis).

Activity 1
Use this initial information from the client’s record to assure you are caring for the right client chosen or assigned by your instructor.

Activity 2
Examine the pathoflow sheet to determine the sequencing of events that probably led to Mrs. Jones’ fall, the fracture of her femur, and the likely complications.
that could follow due to immobility and the nursing diagnoses that relate to each body system (see example provided). This process will help you provide comprehensive nursing care to your clients.

**Activity 3**
Review the Body Systems Assessment provided (for Mrs. Jones) and become familiar with this approach. Be aware that any model chosen should provide the information you need to develop comprehensive individualized care plans for your client.

What seemed to be the most pressing need of Mrs. Jones at this time?

**Activity 4**
Examine the first care plan and note that the client is crying and preoccupied with her husband’s death (see ordered and selected data). Now review the NANDA diagnoses list and note that these behaviors are categorized as Grieving, Dysfunctional.

**Activity 5**
Examine care plan 2, to determine that the problem of altered self concept is likely less pressing than that of grieving.

Why was knowledge deficit about cast care assigned third priority?

**Activity 6**
Examine care plan 3 and conclude that the client did not have the cast applied until after the first two problems were identified. Remember to use critical thinking, problem solving, and decision making to meet client’s needs (prioritize).

Is each care plan individualized?

**Activity 7**
Use the guidelines specified in Appendix A for Chapter One (Individualized Care Plans) to draw conclusions about Mrs. Jones’s care plans.

Note: Remember that a scenario, a pathoflow sheet, and a comprehensive assessment help you provide comprehensive individualized client care.
FIGURE B1–1 Assessment and nursing care plan using the Body Systems Model. Pathoflow sheet for Mrs. Mary Jones, a 70-year-old client with a fractured left femur (medical diagnosis) and dysfunctional grief (nursing diagnosis).
Client Assessment Body Systems Model:

**Sensory Perceptual: Mental Status and Neurological Exam**

1. Mental status, physical appearance, and behavior
   a. Posture and movement, lying supine in bed, shoulders symmetrical
   b. Dress somewhat inappropriate (larger than size—loose fitting)
   c. Grooming and hygiene: hair hanging over face, oily skin, clean, nails very short, evidence of frequent biting
   d. Face: symmetrical, facial expressions: anxious
   e. Affect: flat, somewhat withdrawn, tears in eyes
2. Speech: low volume (crying), intact comprehension of spoken words, nods “yes” and “no”
3. Level of consciousness: oriented to time, place, and person
4. Cognitive abilities/mentation
   a. Attention: within normal limits—not easily destructive
   b. Long-term and short-term memory intact
   c. Judgment: abnormal preoccupation with husband’s death
   e. Spatial perception: intact to familiar sounds, unable to draw due to distraction with fear of surgery and husband’s death
   f. Calculation: unable/reluctant to perform serial 7’s (crying spell)
   g. Abstract reasoning, unable, unwilling to perform
   h. Thought process and content: consistent and coherent
5. Sensory
   a. Exteroceptive sensation
      1. Light touch: intact on both upper and lower extremities
      2. Superficial pain: intact (more sensitive on left lower extremity—broken femur)
      3. Temperature: normal findings (warm to touch)
   b. Proprioceptive sensation
      1. Motion and position: normal findings (identifies changes of position of body part)
      2. Vibration sense: normal findings (perceives vibration over all bony prominences)
c. Cortical sensation
   1. Stereognosis: normal (client able to identify dime placed in hand)
   2. Graphesthesia: normal (identifies the number 3 written in palm of hand)
   3. Two-point discrimination: normal (client able to identify two points at 5 mm apart on the fingertip)
   4. Extinction: normal (recognizes both stimuli on opposite sides of body)

6. Cranial nerves
   I. Normal findings (able to distinguish various odors)
   II. Visual acuity 20/30 OU, funduscopic examination deferred
   III., IV., & VI. EOM—normal findings (both eyes move symmetrically in each of the six fields of gaze, converges on held object toward the nose, no nystagmus; pupils equal, round, briskly react to light and accommodation—PERRLA) No ptosis
   V. Masseter and temporalis muscles equally strong; sensation to superficial and light touch intact bilaterally
   VII. Motor component—face symmetrical
   Sensory component (identifies sweet, sour, salty, and bitter tastes accurately)
   VIII. Gross hearing intact: Rinne—AC > BC, Weber Ø laterization
   IX. & X. Gag reflex present, speech clear, no hoarseness or nasal quality, swallows water easily
   XI. Turns head against resistance with smooth, strong, and symmetrical movement
   XII. Tongue in midline of the mouth symmetrical and moves freely

7. Cerebella Function
   a. Coordination
      1. Finger to nose, no impairment on either side
      2. Finger from nose to examiner’s finger—coordinated bilaterally
      3. Heel to shin deferred (fractured femur)
   b. Station
      1. Posture not tested unable to stand
      2. Gait not tested, unable to walk (fractured femur)
      3. Romberg, unable to test balance
   c. Reflexes—deep tendon reflexes
      1. Brachioradialis 2+ bilaterally, biceps 2+ bilaterally, triceps 2+ bilaterally, patella 3+ bilaterally, planter 2+ bilaterally, Achilles 2+ bilaterally, Babinski negative
Cardiovascular: Heart and Peripheral Vascular

Assessment of the heart

1. Inspection: No pulsations visible at aortic, pulmonic, midprecardial (Erb’s point), and tricuspid areas; pulsations visible at mitral landmark (point of maximum impulse—PMI), normal finding
2. Palpation: No pulsations, thrills, or heaves palpated at the aortic, pulmonic, midprecardial, and tricuspid areas. Apical impulse palpable at mitral area (small amplitude, no heaves or thrills)
3. Normal findings at aortic and pulmonic areas, S2 louder than S1, no ejection clicks at aortic area. Tricuspid and mitral areas, S1 louder than S2 (normal finding) no murmurs heard throughout the cardiac landmarks.
4. Jugular veins: no distention, no hepatojugular reflux
5. Palpation and auscultation of arterial pulses: pulses, rate, and rhythm equal bilaterally; no bruits auscultated in carotid and femoral pulses, amplitude 2+ (carotids, brachials, radials, femorals, popliteals, posterior tibials, dorsals pedis
6. Inspection and palpation of peripheral perfusion
   a. Ulcerations: no ulcerations noted—casted left leg (long leg cast)
   b. Manual compression (competency of saphenous veins) valves are competent, no impulse felt
   c. Retrograde filling: not tested, client not able to stand. Homans’ sign negative. Client’s blood pressure 140/88, pulse 86.
   Capillary refill 3+.

Skin

1. Color
2. Bleeding: no ecchymosis or bleeding, no increased vascularity
3. Lesions: no skin lesions present, except for raised mole on right cheek
4. Edema: no edema palpated

Inspection of Hair

1. Color: pale blond, graying on scalp, eyelashes, and body
2. Distribution: even on scalp, eyebrows, eyelashes and axila and pubis hair
3. Palpation of hair feels thin, straight, lacks luster, strands easily removed

Inspection of Nails

1. Color: pink cast; capillary refill 3 seconds.
2. Shape and configuration: nail surface smooth and slightly rounded (normal)
**Palpation of Nails**
Texture: nail bases firm on palpation

**Respiratory System—Assessment of Thorax and Lungs**
1. Intercostal spaces: no retractions or bulging of intercostal spaces
2. Muscles of respiration: no accessory muscles being used
3. Respiratory rate: 20 beats per minute (eupnea)
4. Pattern: regular and even in rhythm
5. Depth of inspiration: nonexaggerated and effortless
6. Symmetry: thorax rises and falls in unison, no paradoxical movement
7. Position: breathes comfortably in low Fowler’s position
8. Audibility: respirations heard by nurse about 8 inches away (normal)
9. Mode of breathing: inhales and exhales through nose
10. Sputum: small amount, clear, odorless

**Gastrointestinal—Abdomen**
Contour: normal (flax)
Symmetry: normal (symmetrical bilaterally)
Pigmentation and color: normal (uniform in color and pigmentation)
Scars: no abdominal scars present
Striae: no evidence of striae present
Respiration—movement: there is no evidence of respiratory retractions—abdomen rises with inspiration and falls with expiration
Masses or nodules: no masses or nodules present
Visible peristalsis: slightly perceptible movements of peristalsis, traverses the abdomen in a slanting downward direction (normal)
Umbilicus: umbilicus depressed and beneath the abdominal surface (normal)
Auscultation
Bowel sounds: bowel sounds heard in all four quadrants
Vascular sounds: no audible bruits on auscultation
Venous hum: no venous hum heard
Friction rubs: no friction rubs heard over liver, spleen, or abdominal quadrants
Percussion: dullness felt over liver and spleen area but not over bladder
Liver span: no hepatomegally
Spleen: dullness not percussed (client obese)
Stomach: gastric air bubble percussed—no abdominal size detected
Palpation
Light palpation: abdomen smooth with consistent softness
Deep palpation: no organ enlargement, abnormal masses, bulges, or swelling palpated

Genital
Hair distribution: pubic hair distribution, normal; shaped like an inverse triangle, graying, (shows some sparse areas)
Presence of parasites: no parasites present
Skin color and condition: the skin color over the mons pubis hair is clear; the labia majora and minora are wrinkled but unbroken; there are no lesions, ecchymosis, excorations, nodules, swelling, or rash.
Clitoris: without lesions
Musculoskeletal: overall appearance—client 5’3” tall, body weight 165 lbs, medium body frame; approximately 37 pounds over-weight, demonstrating pain behavior (at times clinches left hip area, states, “that hurts”), unable to access unit area by walking.
Posture: unable to assess, cannot stand
Gait and mobility: unable to access, broken femur
Inspection: muscle size and shape—no accentuation noted
No evidence of hypertrophy or atrophy, strong muscle strength in upper extremity and right lower leg
**CLIENT:** Mrs. Mary Jones  
**AGE:** 70

<table>
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<tr>
<th>Ordered &amp; Selected Data</th>
<th>Nursing Diagnosis</th>
<th>Goals</th>
<th>Interventions</th>
<th>Rationale</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjective data:</td>
<td>Grieving, Dysfunctional</td>
<td>Short term:</td>
<td>• Encourage client to verbalize deep-seated feelings about loss.</td>
<td>• Expression of grief enables client to hear and analyze own statements.</td>
<td>Short-term goal met:</td>
</tr>
<tr>
<td>Client states</td>
<td>Defining characteristics:</td>
<td>• Client will identify own accomplishments while husband was alive.</td>
<td>• Client will verbalize feelings about loss.</td>
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<td>Client was delighted that a whole 45 minutes was devoted to her by her nurse. She cried for about 5 minutes before talking and then spoke freely. Admitted feeling better because she “never thought anyone cared enough to listen”; accepted the suggestion for another session.</td>
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<tr>
<td>Life has not been the</td>
<td>Crying episodes</td>
<td>Long term:</td>
<td>• Provide atmosphere for verbalization (quiet room, privacy, allotted time, effectively listening, giving of self and attentiveness).</td>
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<td>same since my husband</td>
<td>Sadly recalling past events</td>
<td>• Reluctance to engage in activities of daily living</td>
<td>• Use good communication skills: restatement, clarification, simple questions, and silence.</td>
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<td>died 10 years ago.</td>
<td>Reluctance to engage in activities of daily living</td>
<td>• Preoccupation with lost object or person</td>
<td>• Encourage client to verbalize deep-seated feelings and emotions about husband’s death: provide atmosphere for verbalization (quiet room, privacy, allotted time, effectively listening, giving of self and attentiveness).</td>
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<td>Oh, how I miss</td>
<td>Refusal to live in the present</td>
<td>• Sleep disturbance</td>
<td>• Encourage client to verbalize behaviors and circumstances surrounding husband’s death: care received during last days of illness, funeral, accomplishments.</td>
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<td>him—only if my husband</td>
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<td>• Low self-concept</td>
<td>• Effective listening (empathy) builds trust, encourages soul searching, verbalization, examination, and appreciation of accomplishments.</td>
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<td>were here.”</td>
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<td>• Preoccupation with lost object or person</td>
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<tr>
<td>Objective data:</td>
<td></td>
<td>• Refusal to live in the present</td>
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<td>Frequent crying spells</td>
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<td>Reluctant to engage</td>
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<td>in activities of daily</td>
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<td>living</td>
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### Nursing Care Plan – Priority Nursing Diagnosis 1 (continued)

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- Encourage client to verbalize positive as well as negative behaviors; emphasize positive behaviors of self, and others.

- Have client identify individuals who have contributed to her coping needs—stating what they did. Capitalize on these.

- Have client state problems that are most bothersome at this time.

- Discuss religious affiliation and availability of counseling.

- Provide list of groups and agencies that help with grieving.

- Recalling events helps to categorize bad from good occurrences, provides data for the nurse to focus and examine occurrences and thus helps the client to identify issues.

- Significant others can provide support over time.

- Identifying lingering hurt will provide data for intervention.

- Pastoral care and counseling often brings peace and additional support.

- Specialists who deal with grieving individuals have tools that are proven and effective.

- Cousin from neighboring state promised to spend one week with client during hospitalization.

- Agencies and groups identified. Client expressed appreciation for the list, began to eat larger portions of diet, engaged in selecting items from menu. Asked about cast care.
Subjective data: “Look how ugly I have become. I cannot help myself.”

Objective data: Demonstrates lack of pride in cosmetic appearance (large, loose-fitting dress, hair unkept). Reluctant to engage in activities of daily living (hygiene).

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| Subjective data: “Look how ugly I have become. I cannot help myself.” | Body image, disturbed | Short term:  
- Lack of motivation  
- Rejection of self  
- Neglect of cosmetic principles and tasks | Work with client to relive her past (childhood through elder years). List positives and negatives, give praise for positives.  
- Identify skills/talents/tasks with which client is familiar and has benefited in the past.  
- Explore possibility of restructuring a project where these can be recreated.  
- Explore ways of beginning while in the hospital.  
- Explore available resources such as occupational therapists. | Recounting the past will enable identification of strengths and accomplishments. Praise and commendation will show appreciation and acceptance.  
- Identification of strengths and accomplishments will divert self-preoccupation and denouncement and will create positive focus.  
- Engagement in tasks/skills that previously generated positive results should provide the stimulus for new desire to make worthwhile | Short-term goals met: Client discussed her happy years as a child, stated she took piano lessons from her mother who was a music teacher and that she excelled above the other students, not only played piano but also played harp, violin, and guitar. Stated she played and sang for the church until she was 25 years old when she got married. From then her husband “supported and gave her all she ever needed.” |
| Objective data: Demonstrates lack of pride in cosmetic appearance (large, loose-fitting dress, hair unkept). Reluctant to engage in activities of daily living (hygiene). | | Long term  
- Client will discuss tasks that will bring satisfaction.  
- Client will list reasons for reengaging in these tasks.  
- Client will identify benefits that can be derived from these tasks.  
- Client will discuss ways to improve body image. | | Long-term goals met: The possibility of forming a small orchestra in her home and teaching all the | continues |
• Explore benefits previously achieved, ways of marketing and distributing of product.
• Identify community resources that need client’s expertise.
• Discuss appropriate appearance of the new business-woman: hair, clothes (attire), body weight, cosmetic appearance.

### Rationale
- Contributions to societal needs.
- Insight into factors that create a positive business arena should stimulate motivation.

### Evaluation
- Instruments she was comfortable with was explored. Client showed positive reaction and said those were her dreams before marriage. Collaboration with occupational therapists resulted in a keyboard being brought to the client’s room. She played for the staff and requested music books for the harp, piano, violin, and guitar. It was suggested that the hairdresser style her hair the next morning. She agreed. She stated she would be choosing foods low in calories so she wouldn’t gain extra weight while in “this cast and would possibly “lose a pound or two.”
### Knowledge Deficient about Care of Cast

**Subjective data:**
Client states “I have never had a cast before. I wonder what I am to do about it.”

**Objective data:**
- Long leg cast on left lower extremity for immobilizing leg, after closed reduction of fractured femur
- Touching cast only with one finger

**Defining characteristics:**
- Verbalizes concern
- Actively seeks knowledge about a health care situation
- Noncompliance
- Lack of ownership
- Distancing self

**Goals:**
- **Short term:** Client will discuss the care of the cast for days 1–3 after application.
- **Long term:** Client will discuss care of the cast for the rest of the hospital stay and discharge planning.

**Interventions:**
- **Tell client:**
  - The cast was applied to maintain good bone alignment and mobility (fracture should heal properly).
  - Keep cast uncovered until completely dry (will take from 1–3 days).
  - Avoid putting anything wet or applying any pressure on cast.
  - Keep elevated on pillow (above heart) for 48 hours.
  - Do not remove the padding. Do not insert any objects inside the cast.

**Rationale:**
- Understanding of underlying principles provides satisfaction and aids compliance.
- Provides understanding that covering the cast will retain the moisture and cause weakness to the structure.
- Minimizes swelling.
- Prevents skin tears and abrasions (prevents infection)

**Evaluation:**
- **Short-term goal met:** Client complaint, stated, “I never knew there was so much to know about a cast.”
- **Long-term goal met:** There were several teaching sessions, client stated, “I will need someone to help me because I have not done anything for myself for almost 10 years.” She was assured that the Home Health Agency would evaluate her need for help before discharge.

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**CLIENT:** Mrs. Mary Jones  
**AGE:** 70  

**Nursing Care Plan – Priority Diagnosis 3**

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<tbody>
<tr>
<td>Subjective data:</td>
<td>Knowledge deficient about care of cast.</td>
<td>Short term: Client will discuss the care of the cast for days 1–3 after application.</td>
<td>Tell client:</td>
<td>Understanding of underlying principles provides satisfaction and aids compliance.</td>
<td>Short-term goal met: Client complaint, stated, “I never knew there was so much to know about a cast.”</td>
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<tr>
<td></td>
<td>Evidenced by client’s statement and behavior (see objective/subjective data).</td>
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<tr>
<td>Objective data:</td>
<td>Long leg cast on left lower extremity for immobilizing leg, after closed reduction of fractured femur</td>
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<td>Long-term goal met: There were several teaching sessions, client stated, “I will need someone to help me because I have not done anything for myself for almost 10 years.” She was assured that the Home Health Agency would evaluate her need for help before discharge.</td>
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<td>Touching cast only with one finger</td>
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- Report feeling of tingling sensation, numbness, tightness, pain, heat, bleeding, foul odor, and color changes of foot and toes.
- Tell client that you will be turning her every 2 hours, checking cast for drainage, discoloration, wetness, pulses, swelling, tightness, and asking her about pain.
- Instruct client that “if the cast gets wet, it should be dried right away (this can be done with a small fan at home). Ambulation will be allowed with some type of assistive device: cane, walker, crutches. Teaching will be done by the physical therapist.
- These are abnormal changes that may be sequela of infection or cardiovascular or neurological problems. Quick attention minimizes complications.
- Provides understanding of the regimen of care and facilitates conjugal partnership.
- Reduces fear of the unknown, generates confidence and encourages self-help.