Preventing Malnutrition in Long-term Care

Occupational Therapy Helps Improve Nutritional Status Through Culture and Program Change

Presented by
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Abstract

• This presentation explores the issue of malnutrition among residents of long-term care (LTC) facilities, discusses the importance of educating LTC leadership and staff about the far-reaching effects of this problem, and clarifies how occupational therapy can facilitate cultural and program changes in LTC facilities.

• Such changes have been shown to improve residents’ dining experiences, decrease risks of malnutrition and secondary health complications, increase staff morale and retention, and benefit the financial health of the organization.
Purpose

- This presentation is intended to:
  - educate about malnutrition in LTC.
  - introduce elements of a teaching plan and instructional materials.
  - describe a proposed research project.
  - inspire you to take action
Learning Objectives

By the end of this presentation you should be able to:

- Identify key signs and symptoms of malnutrition.
- Recall effects of malnutrition on cognition and health.
- Understand how personal, institutional, and cultural factors affect an individual’s ability to remain nutritionally sound.
- Describe the Role of OT in managing and preventing malnutrition in LTC residents.
Malnutrition in Long-term Care

- Malnutrition in LTC is a serious problem.

- Who is at risk?
  - Long-term residents
  - Rehabilitation patients.
Prevalence

- Each day in 2012, there were 1,383,700 residents in nursing homes.
  (Harris-Kojetin, Sengupta, Park-Lee, & Valverde, 2013)

- Between 35% and 85% of older adults in nursing homes experience some level of malnutrition.
  (Furman, 2006)

- Percentage of adults with dementia and malnutrition in nursing homes range from 14% - 56%.
Factors in Malnutrition

- Natural aging processes
- Chronic medical conditions
- Cognitive impairment
- Disease
- Injury
- Frailty
- Environments

(Scott et al., 2006; Thomas, Ashmen, Morley, Evans, & the Council for Nutritional Strategies in Long-Term Care, 2000).
### Signs and Symptoms

- skin breakdown and pressure wounds
- anemia
- fatigue
- muscle weakness and wasting.
- dry skin
- dull, dry hair and hair loss
- conjunctival dryness
- receding gums or a change in how their dentures fit.

- increasing levels of confusion
- loss of appetite or interest in mealtimes
- loss of sensation (touch, taste, smell, changes in vision)
Consequences of Malnutrition

- Secondary health complications
- Postoperative complications
- Decreased functional independence
- Cognitive loss
- Increased mortality rates
- Decreased quality of life
- Increased costs of healthcare
Barriers to Good Nutritional Status

- Lack of knowledge about risk factors
- No formalized screening and assessment
- Inadequate staff to resident ratios
- Lack of training in feeding and eating assistance
- Limited communication between disciplines
- Lack of understanding of impact of dementia
- Inattention to the cultural and personal context of mealtime
- Lack of social supports
Dementia and Malnutrition

- Six factors that predict low food intake:
  - Eating difficulty
  - No feeding assistance by caregivers
  - Moderate dependence in activities of daily living
  - Fewer family visits
  - Being female
  - Older age

(Lin, Watson & Wu, 2010)
• It is estimated that up to 45% of people with dementia living in institutions have swallowing difficulties.

(Horner, Alberts, Dawson & Cook, 1994)
Effects of Increased Assistance

- Increases in total daily calorie intake
- Residents maintain or gain weight
- Reduced secondary health complications
- Improved relationship between resident and staff
- Improved quality of life
Role of Occupational Therapy

- OTs and OTAs have:
  - foundational skills and knowledge in eating, feeding and swallowing
  - understanding of multidimensional aspects of eating.
  - expertise in assessment, evaluation, and treatment
  - a holistic view to bring to nutritional care.
OT Interventions

- Attention to psychosocial aspects of dining
- Environmental modification
- Adaptive equipment
- Dysphagia assessment and treatment
- Positioning
- Task analysis
  - Residents
  - Staff
- Caregiver and dining assistant training
- Sensory integration issues: internal and external
“Culture change is an innovation anchored in values and beliefs that return the locus of control to elders and those who work closest with them. Its ultimate vision is to create a culture of aging that is inclusive, life-affirming, satisfying, humane and meaningful”.

(Kantor, B., & Planetree & Picker Institute, 2010)
Trends in Culture Change

• Emphasis on resident choice and person-centered care as essential components to improve dining experiences.

• Culture change requires transformation in:
  ○ organizational practices
  ○ physical environments
  ○ workplace practices
  ○ communication and relationships among all stakeholders
Benefits of Culture Change

- LTCs who implement cultural changes...
  - Improve quality-of-life for residents, patients and staff.
  - Increase performance on clinical outcomes
    (Planetree & Picker Institute, 2010; Baier, Butterfield, Harris & Gravenstei, 2008)
  - Experience positive effects on occupancy rates and the financial bottom line of LTC.
    (Doty, Koren, & Sturla, 2008; Elliot, 2010; LaPorte, 2010)
Key Points for Program & Culture Change

- Residents are unique individuals.
- Facility leadership must seek further education.
- Leaders must support the changes in environment.
- Interdisciplinary staff education and training at all levels.
- Formalize screening and referral process.
- Changes to dining organization and staffing duties
- Utilize expertise and unique perspective of OT.
Future Work

- Increase multidisciplinary collaboration.
- Increase knowledge base for OT through research.
- Design and share educational programs across disciplines and settings.
Future Work

- Explore and implement innovative approaches to feeding and eating assistance.

- Design programs specific to the dining experience of persons with dementia or cognitive impairment.

- Advocate with government and industry to promote person centered care in LTC.
Education is Key to Change

- Industry leaders, nursing home administrators and management need to be educated about the extent of malnutrition in nursing homes.

- There is a need for educational plans and instructional materials on preventing and treating malnutrition in LTC.

- Healthcare providers must take time to advocate with facilities and present educational workshops.
Recognizing and preventing malnutrition in nursing homes

- A teaching plan was developed and incorporated into the coursework for the OTD 610; Practitioner as Educator course at Pacific University.

- An extensive literature review has been created to provide evidence and foundational knowledge for healthcare providers, LTC administrators and stakeholders.
Purpose

- Educate skilled nursing facility administrators and management about:
  - effects of poor nutritional status
  - skilled OT assessment, analysis and Interventions
  - improving nutritional status of residents
  - enhancing the dining experience
  - improving staff effectiveness and efficiency
LTC administrators and managers will:
- demonstrate basic knowledge of effects of poor nutritional status
- describe barriers to providing excellent nutritional care
- explain how skilled OT services contribute to proving holistic nutritional care
### Teaching Elements

**Appendix D: Preventing Malnutrition in Nursing Homes - Teaching plan elements**  
**Elizabeth C. Bair**

**Purpose:**  
To increase LTC knowledge about malnutrition among nursing home residents and improve nutritional status of LTC residents.

**Program Goal:**  
Skilled nursing facility administrators and managers will demonstrate basic knowledge of effects of poor nutritional status on nursing home residents, describe barriers to providing excellent nutritional care and explain how skilled OT services may contribute to the provision of holistic nutritional care in order to enhance their residents’ health, wellness, and quality of life.

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Content Outline</th>
<th>Method of Instruction</th>
<th>Time (min.)</th>
<th>Resources</th>
<th>Method of Evaluation</th>
</tr>
</thead>
</table>
| Following a 10 minute introduction attendees will:  
1. Identify three risk factors for malnutrition among nursing home residents  
2. What behaviors and feelings do residents exhibit as a result of institutionalized policies and practices?  
3. Following the introduction activity (personal survey) the attendee will identify a personal experience of being in a supportive dining environment. | Physical, social, medical (use handout)  
Increased dependence. Decreased social interaction  
Boredom. Loss of self-identity  
Self-reflection | Lecture, PEM  
Lecture, PEM  
Group learning | 10  
2  
3  
10 | Handout #1: Risks/symptoms/effects  
Handout #3: Background | Self-quizzing  
Post-it notes on board |
| Following section one of the presentation the attendee will:  
1. List three signs of malnutrition.  
2. Name at least two negative effects of malnutrition on cognition and health of nursing home residents.  
3. Specify at least two methods to prevent malnutrition in nursing home residents. | Unintentional weight loss, weakness  
Loss of appetite  
Increased infections, skin breakdown, nausea, diarrhea, mental confusion, sensory and motor loss  
Screening assessment  
Environment, food and culture changes  
Staff training, food supplements/diet | Individual  
Group  
Activity | 15  
2  
2 | Handout #1: Risks/symptoms/effects  
Post-it notes on board | Self-quizzing  
Post-it notes on board |
| Following section one in small group (A or B) discussion the attendee will:  
1. Discuss barriers to providing an enjoyable dining experience for LTC residents.  
2. Discuss methods to improve the psychosocial eating experience of the LTC residents  
3. Discuss methods to improve the LTC dining environment to a supportive dining environment. | Funding, Environment, noise, administrative  
medications, promoting prevention of processed foods  
Environment, engagement, training, delivery, foods, cultural fit  
Strength, Wellness | Small Group Activity  
Entire Group Activity  
Entire Group | 10  
10  
5 - 10 | Interactive Review handouts  
Interactive Review handouts  
Post-it group | Group discussion  
Group discussion  
Post-it group |
| Following section two of the presentation the attendee will:  
1. Recall at least three mealtime difficulties faced by persons with dementia or cognitive impairments.  
2. Small group design intervention for specific risk or effect of malnutrition for all nursing home residents  
3. Small group design intervention for specific risk or effect of malnutrition for residents with cognitive impairment | Aversive eating, feeding and meal behaviors: (earbuds and physiological, oral health, swallow problems, resistive behaviors (refuse to eat, turn away food, chew teeth), paranoia, agitation, inability to recognize, transfer, food to mouth, attend | Individual activity  
Small group activity  
Small group activity | 2  
10  
10 | Handout #1: Risks/symptoms/effects  
Intervention worksheet  
Intervention worksheet | Self-quizzing  
Completed worksheet  
Completed worksheet |
| Following the educational presentation the attendee will:  
1. Explain one possible role of occupational therapy in preventing malnutrition among nursing home residents  
2. Complete Workshop Process Evaluation and Feedback form | Summarizing days learning  
Physiology, social affective factors, staff training and participation, environmental barriers, role of OT.  
Attendees complete Process Evaluation | Individual activity  
Workshop Feedback and Evaluation Questionnaire | 10  
Completed feedback form |
Teaching Session

- Lecture- group instruction
- Printed educational handouts
- Printed worksheets
- Interactive activities among learners
- Small and whole group discussions
- Self-reflection and sharing
- Resource table with additional learning tools
- Short video (added as a result of feedback to pilot session)
Targeted learners

- professionals in health care provision or administration
- extensive experience in the long-term healthcare industry in the area of nutrition and dietary food service.
- men and women
- multicultural group
- 30 – 60 years of age
Setting

- **Intended LTC workshop:**
  - Skilled nursing facility conference room during weekday business hours

- **Pilot Group workshop:**
  - Large open-plan dining/living space with participants around large oval table.
Outcome of Pilot

Appendix. C: Malnutrition Workshop Process Evaluation

1. Please indicate your evaluation of the workshop. (Please circle one number for each topic.)

<table>
<thead>
<tr>
<th></th>
<th>Very Poor</th>
<th>Below Average</th>
<th>Average</th>
<th>Above Average</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Was organized and followed a logical order</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>b. Provided information I can use in my work</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>c. Up-to-date and forward-looking</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>d. Included sufficient examples</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>e. Expanded my thinking about the topic</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>f. Related information to resident/patient needs</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>g. Provided material I can use with residents/patients</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

2. From the following list of topics that were covered today, please indicate how useful you found each to be. (Please circle one number for each topic.)

<table>
<thead>
<tr>
<th></th>
<th>Not Useful</th>
<th>Slightly Useful</th>
<th>Moderately Useful</th>
<th>Very Useful</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Scope of malnutrition in nursing homes (NH)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. History of research on malnutrition in NH residents</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. Risks of malnutrition in nursing homes</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>d. Effects of malnutrition on residents in nursing homes</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>e. Occupational therapy interventions for improving nutritional status of residents in NH</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>f. Culture change to improve nutritional status and dining experience of NH residents</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
What would I do differently?

- Schedule more convenient time
- Include more participants
- Ask for feedback
- More anonymous feedback option
- Simplify language
Proposed Changes to Workshop

- Provide printed quiz to go with handouts
- Add video component
- Rework handouts for comprehension and application to learners' needs.
Discussion

- After learning more about the problem of malnutrition in long-term care, are you considering how you might introduce this topic into your practice or your teaching?

- Are there other venues where this type of educational program is appropriate and might influence the management of nutritional care for elders?
Questions ?
References

References

Thank You!

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