

INTERPROFESSIONAL EDUCATION: AHECONNECT NORMAL & ABNORMAL CHANGES IN OLDER AGRICULTURAL POPULATIONS

INTRODUCTION/BACKGROUND

Objectives and Aims:

- 1) Identify the rationale for preparing interprofessional health providers to assess specific needs of the aging agricultural worker.
- 2) Demonstrate access to designed modules for extending learning for health providers, agricultural specialists, and farm families.
- 3) Discuss future plans for additional modules to meet health and safety training of individuals assisting with aging health status.
- 4) Strategize on any emerging health and safety training needs for health providers, agricultural specialists, and farm families.

Background:

Virginia Geriatrics Education Center (VGEC)
The VGEC is an interdisciplinary consortium of Virginia Commonwealth University, Eastern Virginia Medical School, and University of Virginia. Its mission is to advance the quality of healthcare for older adults across the Commonwealth of Virginia through interprofessional faculty development, curriculum development, clinical student training and continuing professional education.

Federal funding of the VGEC as a Geriatric Workforce Enhancement Program is provided to increase the number of health care professionals who are trained in geriatrics and to reach out to areas of the state which are medically underserved. Funding for this program is provided by the Bureau of Health Professions (BHP), Health Resources and Services Administration (HRSA), Department of Health and Human Services under Grant No. U1QHP28744 (Virginia Geriatric Education Center).

METHODS

The Virginia Geriatric Educational Center offers an interprofessional fellowship to Virginia and the surrounding region for faculty development for a certificate in geriatric care. Fellows accepted into the program work in teams for a selected project and can also work on an individual basis.

Program Format
The FDP 200-hour curriculum includes approximately 75 hours of in-class participation, a curriculum project, the Richmond Health and Wellness Program practicum, and self-study. At monthly seminars, Scholars participate in didactic sessions, discussions, and analyses led by the VGEC's interprofessional team of educators. The seven sessions in Richmond are complemented by retreats in western Virginia, the Tidewater area, and at the annual Virginia Geriatrics Society meeting.

Curriculum Project
Scholars work with VGEC faculty mentors and their fellow Scholars on a capstone project over the course of the program to develop, implement and evaluate an interprofessional curriculum of their own choosing, incorporating the content and experiences of the FDP.

Practicum
FDP Scholars observe Richmond Health & Wellness Program -- an innovative, interprofessional care coordination and wellness clinic for older adults residents of five low-income housing communities.

AHEConnect Modules: Normal and Abnormal Changes

Changes in the Body

- Respiratory System
- Circulatory System
- Digestive System
- Urinary System
- Musculoskeletal System
- Endocrine Systems
- Integumentary System

Systems Approach to Learning

Respiratory System: Effects of Aging on Respiratory Health

- Respiratory problems develop easily and difficult to manage
- Changes in upper airway paths, nose, and trachea
- Reduce cough
- Lungs reduce in size and weight
- Decreased elastic recoil
- Alveoli less elastic
- Reduction in vital capacity; increase residual volume
- Loose or brittle teeth can be aspirated

Circulatory System: Effects of Aging on Cardiovascular Health

- Heart valves become thicker & rigid
- Aorta becomes dilated
- Slight ventricular hypertrophy
- Thickening of left ventricular wall
- Myocardial muscle less efficient
- Decreased contractile strength
- Decreased cardiac output when demands increased
- Calcification
- Reduced elasticity of vessels
- Less sensitive to baroreceptor regulation of blood pressure

Digestive System: Effects of Aging on GI Health

- Digestion and bowels work slower
- Dehydration slows bowels down more
- PH is higher and acid is lower
- Increase risk of constipation
- Higher risk of gallstones
- Pancreatic changes

Urinary System: Effects of Aging on Urinary Elimination

- Think thicker muscle material
- Decrease expansion
- Reduced storage
- Increased urinary frequency
- Changes in micturition
- Kidney filtration system changes
- Tubular function changes
- Blockages from stones
- Reduced renal functioning

Occupational Application to Aging

Aging Alterations in Agricultural Populations

When thinking about respiratory health promotion, prevention of infection is key.

Make sure farmers are getting an annual influenza and pneumonia vaccine. This is particularly important for workers interacting with animals such as: hogs, chickens, turkeys or cattle.

These individuals are around dust particles that have manure, feathers that have other bacteria and viral agents, and they will have greater risk for exposure. Think about farmers who are picking row crops such as: corn, cotton and soybeans. Fine particles actually stick along with the dust in their lung passageway.

These farmers should use a personal protective equipment (PPE) as primary precautions to protect them in these environments.

Encourage deep breathing exercises for health promotion. While agricultural health studies have found that farmers actually smoke less than the general population, it is important to screen or at least ask if they are smoking or using tobacco in other form.

Respiratory System: Respiratory Health Promotion

- Prevention of infection
- Influenza and pneumonia vaccines important
- Avoiding exposure to people with respiratory infections
- Deep-breathing exercises
- Smoking cessation
- Immobility major threat
- Caution with self-treatment of respiratory issues
- Review of medications
- Consider environmental factors

Aging Effects on Occupation Safety & Health

Musculoskeletal System: Effects of Aging on Musculoskeletal Function

- Tissue changes: decline size/number muscle fibers
- Reductions in joint and muscle flexibility
- Gout
- Foot problems
- Work environment

Integumentary System: Effects of Aging on the Integumentary System

- Reduction and thickening
- Atrophy of hair bulbs: thinning of hair and nail growth

AHEConnect Link & ACKNOWLEDGEMENTS

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AHEConnect Link: <http://www.ashce.com/default.asp>

And <http://www.ashce.com/courses.asp>

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