

Curriculum Vitae

DAWN PENN BREWER, PhD, RD, LD

Professional Address: University of Kentucky
College of Agriculture, Food, and Environment
School of Human Environmental Sciences
Department of Dietetics & Human Nutrition

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CURRENT POSITION

University of Kentucky, Lexington, KY

Assistant Professor & Didactic Program in Dietetics (DPD) Director January 2014 – Present

- **DPD Director**

Duties include evaluation of DPD program, survey development, data collection, analysis and reporting. Responsibilities also include, advise, mentor, and assist student in dietetic education, internship applications, research projects, and student organization activities.

- **Teaching.** Manage all aspects of courses including the development of the syllabus, course materials, and assignment of grades. Courses include:

“Chronic Disease Management and Process” DHN 608 Fall 2015, Spring 2017 - present
This course focuses on the etiology and pathophysiology of nutrition-related chronic disease and conditions including obesity, dyslipidemia, heart disease, diabetes and cancer. Emphasis is placed on the biochemical and physiological mechanisms involved by which nutrients impact the prevention and progression of chronic diseases and conditions.

“Nutritional Biochemistry” DHN 311 Fall 2013 - present

The course is the introductory study of the biochemical basis of nutrition-the physiochemical properties of nutrients and other essential biochemical and their role in physiological and metabolic processes.

“Nutritional Biochemistry Workshop” HES 300 Fall 2014, Fall 2015

The course reinforces the material learned in DHN 311 by giving the students the opportunity to ask questions.

“Dietetics Practice”, DHN 301 Fall 2012 - 2014, 2016 - present

The course provides an overview of dietetic practice including professional ethics, standards of practice, scope of practice, educational pathways, credential attainment and maintenance, competencies required for entry level practice, responsibilities as a professional, and exploration of dietetics practice in medical nutrition therapy, food service management and delivery of nutrition services.

“Research in Nutrition: Application”, DHN 475 Spring 2014

The course allows students to design a research study, write a grant, prepare a comprehensive literature review, design a survey, conduct statistical analyses on collected data, and prepare a professional article and poster to present at University and regional events.

“Food Service Sanitation”, DHN 241 Summer and Fall 2013, Spring 2014

The course covers the principles of food microbiology, important food borne diseases, standards

that are enforced by regulatory agencies, and applied measures for the prevention of food borne diseases and other microbiological problems. It leads to certification from the National Restaurant Association.

“Dietetics Pre-Professional Practice”, DHN 480 Spring and Summer 2013 - present

The course provides the opportunity for students to gain pre-professional experiences that are designed to allow students to apply knowledge and skills assessing, planning, implementing, and evaluating nutrition care delivery systems.

ACADEMIC HISTORY

University of Georgia, Athens, GA

Ph.D in Foods and Nutrition

August 2009

Dissertation “Obesity-related comorbidities, disability, physical inactivity, and food insecurity in Georgia senior centers”

Research focus:

Community research:

- Characterized the relationship between obesity and related comorbidities, physical activity, poor physical function and food insecurity among older Georgians participating in congregate meal site programs throughout Georgia.

Basic science research:

- Earlier research experience focused on studying the effect of serum from leptin-treated animals fed diets differing in macronutrient content, in various stages of leptin resistance on fat cell metabolism in vitro. Also, investigated the relationship among leptin, the sympathetic nervous system and changes in adipose tissue within rat models.

University of Georgia, Athens, GA

M.S. in Foods and Nutrition

August 2003

Thesis: “Effects of the phytochemicals quercetin and genistein on phase I and phase II enzyme activities”

Iowa State University, Ames, IA

Dietetic Internship

June 2001

Completed the Commission on Accreditation for Dietetics Education (CADE)

The Pennsylvania State University, University Park, PA

B.S. Nutrition Science and Applied Dietetics

December 2000

Areas of Concentration: community, clinical, food service, and basic science aspects of nutrition

RELATED WORK EXPERIENCE

The Centers for Disease Control and Prevention (CDC), Atlanta, GA

CDC Public Health Prevention Service (PHPS) Fellow October 2009 – July 2012

Assigned to West Virginia State Health Department October 2010 – July 2012

CDC PHPS Training Rotation

National Center for Environmental Health, Division of Emergency and Environmental Health Services, Healthy Community Design Initiative, Atlanta, GA

April 2010 – September 2010**CDC PHPS Training Rotation**

National Center for Chronic Disease Prevention and Health Promotion, Division for Heart Disease and Stroke Prevention, Atlanta, GA

October 2009 - April 2010

TEACHING EXPERIENCE

University of Kentucky, Lexington, KY

Lecturer & Didactic Program in Dietetics (DPD) Director July 2012 – December 2013

- Managed all aspects of Didactic Program in Dietetics including the development of the 10-year re-accreditation report and overseeing and organizing the onsite evaluation. Duties also include evaluation of DPD program, survey development, data collection, analysis and reporting. Assist students in completing DICAS application process.
- Managed all aspects of courses including the development of the syllabus, course materials, and assignment of grades. Courses include:
 - “Nutritional Biochemistry” DHN 311 Fall 2013
 - “Food Service Sanitation”, DHN 241 Summer and Fall 2013
 - “Introductory Nutrition”, DHN 212 Spring 2013
 - “Human Nutrition & Wellness”, DHN 101 Spring 2013
 - “Dietetics Pre-Professional Practice, DHN 480 Spring and Summer 2013
 - “Dietetics Practice”, DHN 301 Fall 2012
 - “Nutrition and Wellness in the Life Cycle”, DHN 312 Fall 2012

University of Georgia, Athens, GA

Instructor

“Human Nutrition and Food for Health Professionals”, FDNS 3000

June 2008 – July 2008

University of Georgia, Athens, GA

Instructor

“Human Nutrition and Food”, FDNS 2100

July 2005 – August 2005

University of Georgia, Athens, GA

Teaching Assistant

“Human Nutrition and Food”, FDNS 2100

- Taught lectures in the absence of the instructor.
- Created exams to assess students' understanding of lecture material.
- Provided technical assistance to students by answering any class-related questions by email, phone or in person.

August 2001 – July 2003

OTHER EXPERIENCE

Veterans Affairs Medical Center / Duke University, Durham, NC

Clinical Research Assistant/Dietitian

- Investigated the safety, efficacy, and compliance of VA patients following a low-carbohydrate diet versus a low-fat diet plus the drug Orlistat.

June 2004 – June 2005

University of Georgia, Athens, GA

Research Technician II

- Investigated the relationship among leptin, the sympathetic nervous system, changes in adipose tissue and other biochemical markers within male Sprague-Dawley rats.

August 2003 – May 2004

The Pennsylvania State University, University Park, PA

Laboratory Assistant**June 1999 – December 2000**

- Conducted research in the area of iron deficiency using male Sprague-Dawley rats.

PUBLICATIONS

Submitted:

- **Brewer D**, Bellamy H, Hoover A, Koempel A, Gaetke L (2018). Nutrition and Environmental Pollution Extension Curriculum Improved Behaviors and Environmental Health Literacy. Health Promotion Practice, submitted January 2018.
- **Brewer D**, Travis E, Koempel A, Ormsbee L and Pennell K (2017). Community Forum Identifies Opportunities to Engage with Community Leaders about Chronic Disease and Environmental Pollution in Eastern Kentucky. Journal of Environmental Health, submitted December 2017.

Accepted:

- **Brewer D**, Bellamy H and Gaetke L (2017). University of Kentucky Family and Consumer Sciences Extension Series FCS3596 – 3603: Body Balance: Protect Your Body from Pollution with a Healthy Lifestyle. Available online: http://dept.ca.uky.edu/agc/pub_prefix.asp?series=FCS3
- Dunn K*, Gaetke L, Stephenson T, **Brewer D** (2017). Older Adults' Perception of Nutrition Being Protective Against the Detrimental Health Effects of Environmental Pollution. Journal of Extension 55(4): 1-8. *Undergraduate researcher.
- **Brewer D**, Dickens E, Humphrey A, Stephenson T (2016). Increased Fruit and Vegetable Intake among Older Adults Participating in Kentucky's Congregate Meal Site Program. Journal of Educational Gerontology; September: 771 – 784. Published online September 3, 2016: <http://dx.doi.org/10.1080/03601277.2016.1231511>
- **Brewer D**, Hershberger, S and Gaetke, L (2016). Healthy Hunger-Free Kids Act Increases Phytochemicals in Menus and Curriculum Furthers Identification of Phytochemical-Rich Foods. Journal of Nutritional Health & Food Science; March: 4(1): 1-6.
- **Brewer D**, Brewer D and Stephenson T (2016). A Student-Driven Nutritional Biochemistry Recitation Course Demonstrated Better Grades and Acceptability among Enrolled Students. North American Colleges and Teachers of Agriculture (NACTA) Journal; Dec 2016: 60(4): 372 – 378.
- **Brewer DP**, Catlett CS, Porter KN, Lee JS, Hausman DB, Reddy S, Johnson MA (2010). Physical Limitations Contribute to Food Insecurity and the Food Insecurity-obesity Paradox in Older Adults at Senior Centers in Georgia. Journal of Nutrition for the Elderly; April: 29(2): 150 - 169.
- **Penn DM**, Fischer JG, Lee JS, Hausman DB, and Johnson MA (2009). High BMI and Waist Circumference are Associated with a High Prevalence of Comorbidities in Older Americans Act Programs in Georgia Senior Centers. The Journal of Nutrition, Health, and Aging; 13:827 - 32.
- Johnson MA, Park S, **Penn D**, McClelland JW, Brown K, and Adler A (2008). Nutrition Education Issues for Older Adults. The Forum for Family and Consumer Issues, ISSN 1540 5273; Vol 13 (3).
- **Penn DM**, Jordan LC, Kelso EW, Davenport JE, and Harris RB (2006). The effects of central or peripheral leptin administration on norepinephrine turnover in defined fat depots. American Journal of Physiology: Regulatory, Integrative, and Comparative Physiology; 291(6): R1613-21.
- **Penn DM**, Rooks CR, and Harris RBS. Leptin: A metabolic perspective. Handbook of contemporary Neuropharmacology. John Wiley and Sons (2007).
- **Penn DM**, Rooks CR, Kelso EE, Bower RR, Bartness TJ, and Harris RB (2005), Sympathetic Denervation Does not Prevent a Reduction in Fat Pad Size of Rats or Mice Treated with Peripherally Administered Leptin. American Journal of Physiology:

PRESENTATIONS

- **Brewer D**, Koempel A and McHugh K. BerryCare: Community Partnerships to Increase Consumption of Phytonutrient-rich Blackberries among Older Adults. Poster presentation, Superfund Research Program Annual Meeting, December 2017.
- **Brewer D**, Bellamy H, Koempel A, and Gaetke L. Positive Behavior Changes Made Following Participation in Cooperative Extension Education Curriculum Focused on Dietary Strategies to Protect Against Environmental Pollutants. Poster presentation, Food and Nutrition Conference and Exposition (FNCE) Conference, October 2017.
- **Brewer D**, Koempel, Hosier A, Strang J, Price A, Amorese A, and Stephenson T. BerryCare: Blackberry Cooperative Extension Lessons to Promote Phytonutrient Intake. Poster presentation, Food and Nutrition Conference and Exposition (FNCE) Conference, October 2017.
- TNS Oo (Kendra), Hege A, **Brewer D**, Gamboa L, Hildesheim L, Serra L, Houlihan J, Stephenson T. Sustainable Approaches to Fighting Hunger: Development and Evaluation of an Innovative Gleaning and Nutrition Education Program Among Food Insecure Children in Lexington, KY. Poster presentation, Food and Nutrition Conference and Exposition (FNCE) Conference, October 2017.
- Oo TNS (Kendra), Hege A, **Brewer D**, Gamboa L, Serra L, and Stephenson T. Sustainable Approaches to Fighting Hunger: Development and Evaluation of an Innovative Gleaning and Nutrition Education Program Among Food Insecure Children in Lexington, Kentucky. 2017 Kentucky Posters-at-the-Capital. Frankfort, KY, USA.
- **Brewer D**, Travis E, Petriello M, Pennell K, Hoover A, Hilt Z, and Ormsbee L. Appalachian Health and Well-being Forum. Poster presentation, Superfund Research Program Annual Meeting, December 2016.
- **Brewer D**, Dickens E, Humphrey A, Gaetke L, Stephenson S. Color Your Plate: A Pilot Nutrition Education Intervention to Increase Fruit and Vegetable Intake among Older Adults participating in the Congregate Meal Site Program in Kentucky Senior Centers. Poster presentation, Food and Nutrition Conference and Exposition (FNCE) Conference, October 2016.
- Alyson Humphrey, Tammy Stephenson, **Dawn Brewer** and Emily Dickens. Efficacies of Color Your Plate Nutrition Education Curriculum in Senior Center Congregate Meal Sites. Poster presentation, Society for Nutrition Education and Behavior (SNEB) Annual Conference, August 2016.
- Emma Simpson, Tammy Stephenson, **Dawn Brewer**, Aaron Schwartz, and Sandra Bastin. Perceived Stress, Caffeine Consumption, and GPA of Undergraduate Students at a Large Public University. Poster presentation, Society for Nutrition Education and Behavior (SNEB) Annual Conference, August 2016.
- Emily Ashton, Tammy Stephenson, **Dawn Brewer**, Kelly Webber, and Aaron Schwartz. The Effects of a 16-Week Introductory Nutrition Course on the Dietary Habits and Body Composition of College Students. Poster presentation, Society for Nutrition Education and Behavior (SNEB) Annual Conference, August 2016.
- Kathryn Cardarelli, Margaret McGladrey, Nicole Peritore, Kelly Webber, Angela Carman, and **Dawn Brewer**. Multi-Sector Collaboration to Reduce Obesity Disparities in Rural Kentucky. Oral presentation, Kentucky Association of Public Health Association Conference, April 2016.
- Kurzynske J, **Brewer D**, Mullins J, Vail A, Ammerman A, Baker S, Dollahite J, and Savaiano D.

Regional Nutrition Education and Obesity Prevention Centers of Excellence (RNECE) National Coordination Center at the University of Kentucky. Poster presentation, Association of SNAP-Ed Nutrition Networks and Other Implementing Agencies (ASNNA); February 2016.

- Dickens E*, **Brewer D** and Gaetke L. Level of Concern Regarding Harmful Health Effects of Environmental Contaminants among Older Adults Participating in Kentucky's Congregate Meal Site Program and their Understanding of the Protective Role of Good Nutrition. Poster presentation, Superfund Research Program Annual Meeting, November 2015.
- **Brewer, Dawn**, Hannah Clifton, Lisa Gaetke: Land-Grant Institution's Cooperative Extension Service Serves as a Valued Partner in UK-SRC's Community Engagement Core Efforts. Poster presentation, Superfund Research Program Annual Meeting, November 2015.
- **Brewer D**, Kurzynske J, Mullins J, Ammerman A, Baker S, Dollahite J, Savaiano D, and Vail A. Improving Health through USDA's SNAP & EFNEP: Regional Nutrition Education and Obesity Prevention Centers of Excellence. Poster presentation, Food and Nutrition Conference and Exposition (FNCE) Conference, October 2015.
- **Brewer D**, Shroff S, Hershberger S, and Gaetke L. Healthy Hunger-Free Kids Act of 2010 Increased Phytochemical and Antioxidant Content of School Lunch Menus and Science-based Curriculum Taught Adolescents Nutrition and "Fighting Foods". Poster presentation, Food and Nutrition Conference and Exposition (FNCE) Conference, October 2015.
- **Brewer D** and Stephenson T. Innovative Approach to Higher-level Learning of Complex Concepts in a Rigorous Nutritional Biochemistry Course. Poster presentation, North American Colleges and Teachers of Agriculture (NACTA) Conference, June 2015.

*Graduate student.

INVITED PRESENTATIONS

- **Brewer D**. Metabolism: Healthy vs. Obese. Oral presentation, Bluegrass Academy of Nutrition and Dietetics regional meeting, February 2017.
- Birnbaum L, **Brewer D**, Caudill L M, and Feltner F. Appalachian Health and Well-Being Forum, Whitesburg, KY, invited panelist, July 2016.
- **Brewer DP**, Dickens E and Humphrey A. A Pilot Nutrition Education Intervention to Increase Fruit and Vegetable Intake among Seniors Participating in the Congregate Meal Site Program in Kentucky Senior Centers, Oral Presentation, School of Human Environmental Sciences, University of Kentucky, February 2016.
- **Brewer DP**. A Perspective on Aging: Inflamm-aging and Chronic Disease. Oral presentation, Bluegrass Academy of Nutrition and Dietetics regional meeting, January 2014.
- **Brewer DP**. Knowing Just Enough To Be Healthy. Oral presentation, West Virginia Women's Health Conference, May 2011.

GRANTS

Awarded

External Funding

4/01/2015 – 03/31/2016 National Institute of Environmental Health Sciences: Superfund Hazardous Substance Research and Training Program – Core D2 Expansion Core, 5 P42 ES007380-16 (Core Leader 5%), total \$30,500, **awarded** April 2015

3/31/14 – 3/31/2019 National Institute of Environmental Health Sciences: Superfund Hazardous Substance Research and Training Program – Core D Community Engagement Core, 5 P42 ES007380-16
DAWN PENN BREWER, PhD, RD, LD

(Co- Core Leader 16.5%), total \$500,000, **awarded** April 2014

9/30/2014- 9/30/2018 Programs to Reduce Obesity in High Obesity Areas (Co-PI, 5%), CDC, total indirect \$429782, total direct \$1,364,385 **awarded** September 2014

10/1/2014 – 9/30/2017 Supplemental Nutrition Assistance Program and Expanded Food and Nutrition Education Program: Regional Nutrition Education and Obesity Prevention Centers of Excellence (Co-PI 2%), USDA, total indirect \$15,908 Total direct \$159,089, **awarded** September 2014

Internal Funding

Office of the Vice President for Research Fall 2017 Minor Research Equipment Competition (PI), total \$15,200, **awarded** December 2017.

College of Agriculture, Food and Environment, School of Human Environmental Sciences, 2017-2018 Research Activity Award (PI), total \$4,000, **awarded** December 2017.

College of Agriculture, Food and Environment Undergraduate Experiential Research Project Grants Program (PI), total \$1,500, **awarded** November 2017.

College of Agriculture, Food and Environment Charles E. Barnhart Fund for Excellence (Co-PI), DHN 313 Student Field Trip to Whitesburg KY, total \$800, **awarded** spring 2017.

Human Environmental Sciences (HES) Research Activity Award Application (Co-PI). Walking Trail Program, total \$3,000, **awarded** November 2016.

Human Environmental Sciences (HES) Extension Activity Award, School of HES, College of Agriculture, Food and Environment (PI). Berrycare: A Blackberry Club to Facilitate Community Engagement and Phytonutrient Intake, total \$3,417, **awarded** November 2016.

NOT FUNDED

External Funding

7/1/2017 – 6/30/2022 National Institutes of Health: Science Education Partnership Award (SEPA) R25 (Co-PI 0.6%). Creating Community Awareness of Toxicant Taming Foods (Susan Hershberger, PI), total \$75,000, **submitted** June 2016.

Internal Funding

7/1/2017 – December 2018 Center for Clinical and Translational Science Pilot and Innovation Research Program. Fruit and Vegetable Prescriptions in Appalachia Kentucky to Increase Fruit and Vegetable Consumption and Improve Obesity-related Health Outcomes (Dawn Brewer (PI) and Kelly Webber) total \$50,000, submitted May 2017 NOT FUNDED.

HONORS and AWARDS

- Recipient of Wethington Award, 2016, 2017
- Nominated for University of Georgia's Pacesetter Award, October 2016
- Recipient of BGAND's Outstanding Dietetic Educator Award, 2015
- Recipient of the Teachers Who Make a Difference Award, 2014, 2015 (2 nominations in 2015)

CERTIFICATIONS and SKILLS

- Registered Dietitian, September 2001 – present
- Licensed Dietitian, August 2008 – present

DAWN PENN BREWER, PhD, RD, LD

- Computer Skills: Proficient in MS Word, Power point, Excel and Epi Info. Working knowledge of Statistical Analysis Software (SAS), Statistica Software and MS Access
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PROFESSIONAL ORGANIZATIONS

- Academy of Nutrition and Dietetics (AND), June 2012 – present
- Kentucky Academy of Nutrition and Dietetics, June 2012 – present
- Bluegrass District Dietetic Association, July 2012 – present
- Nutrition and Dietetics Educators and Preceptors Dietetics Professional Group, June 2012 – present
- Nutrition Educators of Health Professionals, Dietetics Professional Group, June 2012 - present
- Healthy Aging Dietetics Professional Group, June 2014 - present