

Member Spotlight

Carol Lawson Connell

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For this edition of The Digest, we are spotlighting RDPG member Carol Lawson Connell, PhD, RD, an Associate Professor of Nutrition and Food Systems at The University of Southern Mississippi (USM). Dr. Connell is the lead research scientist for the Delta Obesity Prevention Research Unit (Delta OPRU) at USM as well as the director of the Didactic Program in Dietetics. She has a long-standing relationship with the USM Delta OPRU which has been instrumental in her research career development and progression. Read below to learn about how she is using her background in food insecurity to conduct exciting research to help women incorporate the Dietary Guidelines for Americans and thereby improve their health and ultimately the health of the communities served by the Delta OPRU.

Dr. Connell, please tell us about your background. How did you get where you are now?

I received a BS in nutrition from Auburn University and completed my supervised practice as part of the coordinated program that Auburn had at the time. Following five years of clinical experience, I returned to Auburn University and completed a Masters of Science in nutrition. After my MS degree I returned to clinical dietetics and practiced for another five years before taking a position as a research coordinator for the Delta Nutrition Intervention Research Initiative (Delta NIRI) at USM in 1996. This position allowed me to indulge my enjoyment of research and provided me with excellent exposure to multi-disciplinary community based research since Delta NIRI was a research initiative that included three states (Arkansas, Louisiana, Mississippi) and 6 universities and

research entities in cooperation with the USDA, Agricultural Research Service. One of my career goals after finishing the MS degree was to eventually earn a PhD so the Delta NIRI research coordinator position was a perfect opportunity to combine work and education. While working with a Delta NIRI group charged with assessing food insecurity and dietary intake, I began to think back on many of my clinical dietetics experiences with low-income patients. I began to see potential connections between food insecurity and management of chronic diseases. This led to my focus on food insecurity for my dissertation topic which remains one of my interests today. I was also involved with food security and food access research conducted as part of the Delta NIRI during this time and eventually conducted my own research on children's perceptions of household food insecurity and developed an instrument on food security that could be directly administered to children over the age of 12. I moved into a tenure track position as an assistant professor at USM in 2005 with a 50% appointment for continued research with Delta NIRI.

Could you please summarize your current research for us?

Because of the high prevalence of obesity (>30%) in the three states included in the Delta NIRI research, the initiative evolved over time into the current Delta Obesity Prevention Research Unit (Delta OPRU). Each cooperating institution within Delta OPRU has a research focus aimed at adapting the current Dietary Guidelines for Americans (DGAs) for the Delta

cultural and food environment and then implementing interventions to promote adoption of the guidelines in a specific population group within the region (e.g. young mothers, children, women's civic/altruistic groups etc.). At USM, we are testing the effectiveness of two different theory-based nutrition education programs on the adoption of several of the DGAs among women's groups. We developed these 6-month interventions using diffusions of innovation theory along with psycho-social constructs of self-efficacy, social support and decisional balance from social cognitive theory. One treatment group will attend education sessions that promote dietary behavior change in only one category of the DGAs (Solid Fats Alcohol and Added Sugars, SoFAAS) while the other treatment group will attend education sessions promoting dietary behavior change in the fruit, vegetable, whole grain and SoFAAS components of the DGAs. Outcome measures are changes in number of servings of the targeted food groups as well as weight and blood pressure changes. Over time we hope to follow up the initial research with studies aimed at determining the diffusion of the most effective of the two treatments into the broader communities in which our current study participants live and the consequences in terms of diet, anthropometric and clinical outcomes.

How did you become involved/interested in your current line of research?

My involvement in the current line of research related to obesity was a progression over time that evolved

out of the original work of the Delta NRI. Delta NRI was commissioned to identify nutritionally responsive health problems in the Lower Mississippi Delta and then develop and test interventions that were aimed at ameliorating these problems. Obesity clearly surfaced as a major issue in the three states and as a contributing factor to some of the other chronic diseases such as diabetes and hypertension that are prevalent at very high rates in the region. Cultural and environmental factors including traditional foods and even food access and food insecurity in this region play a role in dietary behavior. For me, it was natural to continue my research with Delta OPRU and try to address the most crucial nutrition-related health problem facing our region.

What advice would you give to a young researcher for developing a successful line of research?

I would strongly encourage a young researcher to start in an area that s/he finds fascinating and can see her/himself doing for a long time. Then find a supportive research mentor that can guide your efforts and brainstorm ideas with you. I was able to do that at both USM and within the Delta NRI collaborative. I also believe researchers who are interested in public health issues or community based research should become part of a collaborative effort that includes various disciplines. My affiliation with Delta NRI introduced me to researchers in rural sociology, anthropology, psychology, dietary assessment, food science, and medicine. A multi-disciplinary team provides so much depth to research that is aimed at addressing public health issues.

What are your career goals?

Through my research, I would like to continue to address nutrition and food issues that impact health risks such as obesity in this region. I continue to have an interest in food insecurity and food access and enjoy working with students who want to study these issues as well. I hope that the research I conduct can also inform policy related to creating and maintaining healthy communities.

How has your affiliation with AND impacted your career progression?

My affiliation with The Academy helped to keep the importance of research to dietetic practice, both clinical and community, ever present in my mind. It made it seem like a normal progression of my career to move from dietetic practitioner to researcher.

If someone were to ask you to explain, "why research is important to the field of dietetics" what would you say?

It is absolutely essential! If we want to be able to claim the title of "nutrition expert," we must continue to contribute to advancing scientific knowledge related to human health. This includes all areas of research from studies of gene-nutrient relationships to qualitative studies that help to inform the development of culturally appropriate nutrition education programs!

Upcoming Conferences

February 6-10, 2012

Food + Health Entrepreneurship Academy. UC-Davis.

March 1-3, 2012

Kenes International /Nutrition & Growth 2012 International Conference on Nutrition and Growth. Paris, France.

March 27-28, 2012

Mediterranean Diet Foundation IX Barcelona International Conference on the Mediterranean Diet. Barcelona, Spain.

April 21-25, 2012

American Society for Nutrition Scientific Sessions & Annual Meeting, Experimental Biology. San Diego, CA.

May 14-17, 2012

8th International Conference on Diet and Activity Methods, Rome, Italy.

June 22-24, 2012

American Society for Nutrition Advances & Controversies in Clinical Nutrition. Chicago, IL.

June 26-30, 2012

First World Renal Nutrition Week, Honolulu, HI.

July 14-17, 2012

Society for Nutrition Education Annual Conference. Washington, DC.