State of the Science Meeting:

Pregnant at Work

December 3 - 4, 2019

Clearwater, FL

This event is presented through the collaboration of the
University of South Florida College of Public Health
and the NIOSH-funded centers:
Sunshine Education & Research Center
Southeastern Coastal Center for Agricultural Health and Safety

State of the Science Meeting:
Pregnant at Work

08:00 AM to 08:30 AM — **Complimentary Breakfast & Registration (Visit Posters)**

08:30 AM to 09:00 AM — **Welcome**

Thomas E. Bernard
Professor, Center Director
Sunshine Education & Research Center
University of South Florida
Tampa, FL

Donna Petersen, ScD, MHS, CPH
Senior Associate Vice President, USF Health
Dean, College of Public Health
Professor of Public Health
University of South Florida
Tampa, FL

Inaugural Kulkarni Lectures

09:00 AM to 09:40 AM — **An Evolution of Approved Drug Labeling Information for Pregnant Women: FDA Perspective**
Kaushik Datta, PhD
Director of Toxicology
Celgene Corporation
New Providence, NJ

09:40 AM to 10:20 AM — **Application of Physiologically-Based Toxicokinetics to Assess Transfer of Chemicals to the Developing Child**

Speaker:
Janusz Z. Byczkowski, PhD, DSc
Fairborn, OH

10:20 AM to 10:40 AM — **Break (Visit Posters)**

10:40 AM to 11:20 AM	**Understanding and Mitigating Reproductive Hazards in the Workplace** ***Speaker:*** *Carissa Rocheleau, PhD* *Epidemiologist* *Division of Field Studies and Engineering* *National Institute for Occupational Safety and Health* *Centers for Disease Control and Prevention* *Cincinnati, OH*
11:20 AM to 12:00 PM	**Pregnancy Bias at Work: Emergence, Consequences, and Solutions for Remediation** ***Speaker:*** *Kristen Price Jones, PhD* *Assistant Professor of Management* *George Johnson Research Fellow* *The University of Memphis* *Memphis, TN*
12:00 PM to 1:00 PM	**Complimentary Lunch (Visit Posters)**
1:00 PM to 01:40 PM	**Employment Considerations During Pregnancy and in the Postpartum Period: What Can the Obstetrician Do?** ***Speaker:*** *Meredith L. Birsner, MD* *OB - Maternal & Fetal Medicine* *St. Luke's University Health Network* *The American College of Obstetricians and Gynecologists* *Committee on Obstetric Practice* *Philadelphia, PA*
01:40 PM to 02:20 PM	**What to Expect When You Are Expecting – Legal Protections for Pregnant Workers** ***Speaker:*** *Caren S. Marlowe, Esq.* *Ogletree, Deakins, Nash, Smoak & Stewart, P.C.* *Tampa, FL*

02:20 PM to 03:00 PM	**Occupational Pesticide Exposure and Pregnancy Health in Vulnerable Workers** ***Speaker:*** *Joan Flocks, JD* *Director, Social Policy Division* *Center for Governmental Responsibility* *Levin College of Law* *University of Florida* *Gainesville, FL*
03:00 PM to 03:10 PM	**Break**
03:10 PM to 03:50 PM	**Panel Discussion with All Speakers**
03:50 PM to 04:00 PM	**Conclude**

Guest Speakers

Title:

An Evolution of Approved Drug Labeling Information for Pregnant Women: FDA Perspective

Abstract:

In early 1960s, thalidomide teratogenicity, first reported in Western Europe, triggered the US Congress to enact a significant amendment to the Federal Food, Drug and Cosmetic Act. In 1970s, clinicians were faced with gradual increases in information of approved drugs and in 1979, the FDA introducing pregnancy labeling categories. Approximately over 2 decades, this pregnancy labeling category was used during drug approval; however, such system was found to be overly simplistic and misinterpreted as a grading system. In 1990s, a need was realized to change the pregnancy labeling. Following discussion among scientific and clinical communities, draft Pregnancy and Lactation Labeling Rule (PLLR) was proposed in 2008 and subsequently, the final PLLR was published in 2014. Intent of PLLR is to provide the prescriber with relevant information for critical decision-making when treating pregnant women or lactating women. Since its finalization, the PLLR has improved ways to systematically collect pregnancy-related information pre- and post-approval of drugs. In summary, the PLLR offers a structured approach to capture pregnancy-related hazard that can be used to aid in complex risk/benefit discussion between prescribers and their patients.

Speaker Biography:

Kaushik Datta is the Director of Toxicology at Nonclinical Development of Celgene Corporation. He serves as toxicology lead in global project teams involving in discovery and development of investigational drugs for several therapeutic indications. In this capacity, Kaushik provides strategic nonclinical development and safety resolution plans to support clinical development of investigational drugs. During this process, he regularly interacts with global Health Authorities to develop regulatory strategies, thus supporting registrations of investigation drugs. Previously, Kaushik was principal scientist and senior principal scientist at Hoffman La Roche and Pfizer to support nonclinical safety for drug discovery and development. Prior to joining pharmaceutical industry, Kaushik completed his doctoral program at the College of Public Health, Univ. of South Florida and postdoctoral fellowship at the School of Pharmacy, Univ. of Texas at Austin. Kaushik published scientific manuscripts in several peer-reviewed journals including Reg. Toxicol. Pharmacol., Curr. Opin. Toxicol., Chem. Res. Toxicol., J. Biol. Chem., Toxicol. Sci. and Biochem. J. Also, Kaushik reviewed manuscripts for several peer-reviewed journals and has been invited to present at various scientific conferences and workshops (SOT, HESI, etc.).

Title:
Application of Physiologically-Based Toxicokinetics to Assess Transfer of Chemicals to the Developing Child.

Abstract:
Legally binding toxicity values which supposed to be “without an appreciable risk of deleterious effects during a lifetime” (e.g. RfDs, RfCs, PELs, etc.), are derived by federal and state agencies (US EPA, OSHA, etc.) for general population, not necessarily considering physiology and anatomy of pregnancy and lactation. In this presentation, I will provide examples of three specific phenomena that may affect the developing child: i. enzymatic activation of pre-carcinogen in placenta (Joseph, et al. Reprod. Toxicol. 8:307,1994); ii. transplacental transfer of pesticide (Byczkowski and Lipscomb, Risk Anal. 21:869,2001); and iii. lactational transfer of occupational toxicant from the exposed mother to her nursing child (Byczkowski and Fisher, Risk Anal. 14:339,1994).

Two computerized physiologically-based pharmacokinetic (PBPK) models have been constructed to assess lactational and transplacental transfer from exposed mothers to their infants for: i. perchloroethylene (PERC), and ii. methylmercury (MeHg). The PBPK models were verified using experimental and clinical data from actual cases of poisoning, described in the literature.
Based on PBPK model predictions it is suggested that physiological parameters from the appropriate age bin should be used in evaluations of health risk from exposure to potentially toxic chemicals in pregnant/lactating women and their developing children.

Speaker Biography:
Janusz Byczkowski is the Independent Consultant at JZB Consulting in Fairborn, OH, providing toxicology and pharmacology services to governmental agencies and private sector. He retired as a Diplomate of the American Board of Toxicology in 2014. He was previously Risk Assessment Coordinator in Ohio EPA, Senior Toxicologist in TN&A, Inc. Consulting Engineers, Study Director in US AF Aerospace National Biomedical Laboratory, Asst. Professor & Research Scientist in Coll. Publ. Hlth, USF, and Cancer Research Scientist in Roswell Park Cancer Inst. He earned M.Sc. in Toxicology, Ph.D. in Pharmacology, and D.Sc. in Biochemical Pharmacology from Medical University of Gdansk, Poland.

Title:

Understanding and Mitigating Reproductive Hazards in the Workplace

Abstract:

Workers who are pregnant, breastfeeding, or planning a pregnancy often have many questions about the safety of their work for their pregnancy—but few authoritative guidelines exist to help them. Researchers in reproductive occupational health at the National Institute for Occupational Safety and Health at the Centers for Disease Control and Prevention have provided hundreds of consultations to occupational safety and health professionals, workers, physicians, and local public health who need guidance to deal with situations right now. These questions have guided the creation of dozens of online resources by the reproductive health team at NIOSH, as well as research partnerships to address critical research gaps. This presentation will discuss lessons learned in working directly with stakeholders, resources for decision-making, current research gaps, current NIOSH partnerships to address some of these gaps, and opportunities and emerging tools (including machine learning algorithms) that are making surveillance of occupational exposures and birth outcomes faster and more cost-effective.

Speaker Biography:

Carissa Rocheleau is a reproductive and occupational epidemiologist at the National Institute for Occupational Safety and Health. She has authored 29 scientific papers on reproductive hazards in the workplace, a book chapter in Comprehensive Toxicology on epidemiological risk assessment for female reproductive toxicity, and over 3 dozen topic pages on the CDC and NIOSH web pages. As a designated “Subject Matter Expert” on reproductive hazards in the workplace for CDC, Dr. Rocheleau has provided hundreds of expert consultations-- ranging from helping worried pregnant workers in unusual situations to helping occupational safety professionals to develop appropriate reproductive hazard plans. She has partnered with a wide variety of large population-based studies to improve the collection of data relating to reproductive hazards in the workplace, as well as understanding of how disparities in access to workplace-mediated benefits and risks can impact health. Dr. Rocheleau has a Ph.D. (2009) and M.S. (2006) from The University of Iowa in Epidemiology, and a B.A. in environmental studies and biochemistry & molecular biology from Cornell College (2002). She also completed traineeships in occupational epidemiology at the Heartland Center for Occupational Health at the University of Iowa and in reproductive molecular epidemiology with the Iowa Center for Birth Defects Research and Prevention.

Title:
Pregnancy Bias at Work: Emergence, Consequences, and Solutions for Remediation

Abstract:
An increasing number of women are working through pregnancy, yet many women opt out of the workforce post childbirth. This is not particularly surprising in light of evidence suggesting that pregnant workers continue to be targets of both subtle and overt discrimination in today's workforce. In light of these challenges, this talk will highlight pregnancy bias in employment settings and offer practical solutions to improve pregnant workers' experiences in hopes of retaining the growing number of women who aspire to have both families and successful careers.

Speaker Biography:
Dr. Kristen Jones earned her Ph.D. from George Mason University after completing her undergraduate work at the University of Virginia. As an Assistant Professor of Management at the University of Memphis, she teaches undergraduate and graduate level courses related to human resource management, conducts research on workforce diversity and inclusion, and mentors doctoral students. Her program of research focuses on identifying and remediating subtle bias that unfairly disadvantages diverse employees at work, particularly women and mothers. Her work has been published in outlets including Journal of Management, Journal of Applied Psychology, Harvard Business Review, Human Resource Management, Journal of Business and Psychology, and Journal of Occupational Health Psychology. Dr. Jones's research has also been recognized through grants from the Society of Human Resource Management (SHRM) Foundation, the Society for Industrial and Organizational Psychology (SIOP), the American Psychological Association (APA), and the Society for the Psychological Study of Social Issues (SPSSI).

Title:

Employment Considerations During Pregnancy and in the Postpartum Period: What Can the Obstetrician Do?

Abstract:

In the United States, it is common for women, including mothers and pregnant women, to work outside the home. Working during pregnancy is generally safe. For those in high-risk occupations or with medically complicated pregnancies, work accommodations often can allow for continued safe employment. The major employment issues concerning pregnant women include pregnancy-related discrimination, work accommodations that allow continued employment, job-protected leave, and wage replacement while on leave. Workplace discrimination related to being pregnant and pregnancy-related harassment, including discrimination in the hiring process, is prohibited by federal and state law. Current federal and state laws provide protection for some pregnant women, but not others, because of eligibility requirements and state-by-state differences. By writing appropriate notes to employers, obstetrician–gynecologists and other obstetric care providers can be instrumental in obtaining accommodations for their patients who are able to continue working. Accommodations that allow a woman to keep working are the most reliable way to guarantee pay, benefits, and job protection. Obstetrician–gynecologists and other obstetric care providers also can assist pregnant women and their partners by providing them with information and resources that might help them better understand their employment rights.

Speaker Biography:

Dr. Meredith Birsner is an American Board of Obstetrics and Gynecology (ABOG)-certified maternal-fetal medicine subspecialist at St. Luke's University Health Network in Bethlehem, Pennsylvania. There she is a clinical assistant professor for Temple University Lewis School of Medicine as well as the departmental Director of Obstetric Simulation and Education. After medical school at Jefferson Medical College, she completed residency training in Gynecology and Obstetrics at the Johns Hopkins University where she also did fellowship training in maternal-fetal medicine. Her clinical interests include hypertensive disorders of pregnancy, postpartum hemorrhage, placenta accreta spectrum disorder, prevention of venous thromboembolism, maternal sepsis, multifetal gestation, opiate use disorder, preterm birth prevention, diabetes, employment issues in pregnancy, and access to reproductive services. Since 2013 she has been active on the American College of Obstetricians and Gynecologists (ACOG) Committee on Obstetric Practice and has also served on the Committee on Practice Bulletins Obstetrics. Her experience as a mother has shaped her experience as a maternal-fetal medicine physician and patient advocate.

Title:
What to Expect When You Are Expecting – Legal Protections for Pregnant Workers

Abstract:

In the workplace, the anticipation and arrival of babies are accompanied by an array of legal considerations, from the Pregnancy Discrimination Act (PDA) and Title VII, to the overlap between the ADA and the FMLA, and EEOC Enforcement Guidance on Pregnancy Discrimination. We will discuss the evolution of pregnancy law and how that affects employees in today's workplace.

Speaker Biography:

Caren Marlowe represents corporations and management in labor and employment matters, including unfair competition, discrimination, retaliation, whistleblowing and FMLA. She regularly litigates employment cases in federal and state court and represents employers in obtaining and defending against injunctions. Caren regularly provides advice and assistance to employers related to employment agreements, employee policies and handbooks and other personnel matters. Caren has extensive experience representing clients in matters involving restrictive covenants (non-compete, non-solicitation and confidentiality agreements) and Caren has a proven track record in litigating unfair competition matters, including several high stakes cases. She has successfully represented employers in ADA, FMLA, and wage and hour claims, including class and collective actions. Caren also provides counseling and training to management, supervisors and staff.

Prior to joining Ogletree Deakins, Caren was an associate at a national labor and employment law firm in Tampa. She was named a Rising Star in 2010, 2011, 2012, 2013, 2014, 2015 and 2019. She also received awards as 2018 Florida Legal Elite and 2019 and 2020 *Best Lawyers in America*. This distinction is awarded to attorneys under the age of 40 based on 12 indicators of peer recognition and professional achievement. Caren also works as a spin instructor in several of Florida's largest fitness centers.

Title:
Occupational Pesticide Exposure and Pregnancy Health in Vulnerable Workers

Abstract:
Occupational hazards, such as pesticide exposure, can be hazardous to workers' pregnancy health. Certain vulnerable workers, such as those in the agricultural industry, are subject to a disproportionate burden of these exposures. Yet, few studies have focused on the health of female agricultural workers distinct from their male counterparts or on the impact of agricultural work on pregnancy outcomes. For more than 20 years, a series of collaborative community/academic research projects have focused on various occupational exposures among Florida agricultural workers, including some study of maternal, pregnancy, and infant health outcomes. This presentation will outline the occupational risks faced generally by female agricultural workers and present findings on these workers' perspectives and experiences with pesticide exposure and its impact on general, reproductive, pregnancy, and fetal health.

Speaker Biography:
Joan Flocks is the Director of Social Policy at the University of Florida (UF) Levin College of Law's Center for Governmental Responsibility. She teaches courses in the areas of social justice lawyering, poverty law, and environmental justice. She is also the Director of Emerging Issues and Planning at the NIOSH-funded Southeastern Coastal Center for Agricultural Health and Safety. She was previously an assistant professor at the UF College of Medicine and before that worked for many years as a legal services attorney in Florida. She has worked with immigrant communities in the Southeast for 30 years and has served as co-PI, project manager, and consultant on several NIEHS and CDC/NIOSH funded community-engaged research projects focusing on occupational and environmental health, vulnerable populations, and community resiliency. She has published on these issues in a variety of law reviews and peer-reviewed journals, including Environmental Health Perspectives, American Journal of Public Health, and American Journal of Industrial Medicine. She received her MA in Latin American Studies and her JD from UF.

Poster Abstracts

Cytotoxicity of Mild-Steel and Stainless-Steel Welding Fume Exposure on First Trimester Trophoblast Cells

Nicole S. Olgun[1], Anna M. Morris[1], Lauren N. Bowers[2], Aleksandr Stefaniak[2], Sherri Friend[1] and Stephen S. Leonard[1]

[1]Health Effects Laboratory Division, National Institute for Occupational Safety and Health, Morgantown, WV

[2]Respiratory Health Division, National Institute for Occupational Safety and Health, Morgantown, WV

In the United States, the number of female welders has increased by more than two percent over the past decade. The U.S. Bureau of Labor Statistics predicts steady industry growth through 2024, and it is expected that many women will continue to fill these roles as the baby-boomer generation prepares to retire. Limited data currently exists on the potential reproductive effects of mild and stainless steel welding fumes on the placenta. Using human placental trophoblast cells (HTR-8/SVneo) from the first trimester, we aimed to identify the mechanisms of toxicity associated with stainless steel (SS) and mild steel (MS) welding rods. MS welding fumes are mainly comprised of iron and manganese, while SS welding fumes primarily contain hexavalent chromium and nickel. During embryogenesis and placentation, cellular migration and invasion is a highly orchestrated and multi-step process that plays an integral role in providing the foundation for a successful pregnancy. In this study, exposure of HTR-8/SVneo cells to both MS and SS welding fumes for 24 h using a CytoSelect^{TM} assay resulted in significant inhibition of cellular invasive capabilities through an extracellular matrix, when compared to controls. Using electron paramagnetic resonance, exposure of cells to SS produced significantly greater amounts of the hydroxyl radical when compared to MS. Results from a multiplex cytokine kit revealed that exposure of cells to SS caused a pro-inflammatory response, with significant increases of IL-8 and IL-6 observed. Transmission electron microscopy was performed to better understand how particles are internalized by placental cells. For both MS and SS, welding fume particles accumulated within the cell, causing chromosomal condensation. Our data shows that SS appears to have a more damaging effect on placental cells than MS, which could be due the presence of hexavalent chromium, not found in MS. Further studies are needed to delineate the toxicity of the individual metals found in welding fumes and their effects on the female reproductive system.

Planning for Parental Leave and Returning to Work

Victoria Stansberry, Gwenith G. Fisher, Ph.D., Kelsie L. Daigle, M.S.,

Kymbre Grauberger, B.S., Candice Thomas, Ph.D., Jing Zhang, Ph.D., & Miranda Nabkel

In the U.S., the percentage of mothers with children under 18 either working or actively seeking out work has increased to 71.5 percent in recent years (Bureau of Labor Statistics, 2018). With most fathers taking 10 days of paternity leave or less, usually unpaid (U.S. Department of Labor, 2015), it's more important than ever to understand how families plan for parental leave and their return to work after leave.

Although a great deal of research has advanced our knowledge and organizational practices regarding work/family issues, relatively little is known about pregnant working women and their experiences before and after giving birth. Planning for parental leave and returning to work following leave represent important aspects of this process that have both largely been neglected in previous research (Alstveit et al., 2011; Millward, 2006). Parental leave policies are related to women's continued employment (e.g., whether and when they return to work), division of household labor (Cleveland, Fisher, & Sawyer, 2015), parental bonding, as well as infant and maternal health (Kamerman, 1999; 2006; Tanaka, 2005). In addition, most mothers in the U.S who return to work do so within 6-12 weeks post-partum (Mirkovic, Perrine, Scanlon, & Grummer-Strawn, 2014). This is in stark contrast to other developed nations, in which women take considerably longer leave times, and often receive pay while away from work on parental leave.

This presentation will report the initial findings from the longitudinal Working Parent study, investigating the parental leave and return to work decision making process among pregnant working women and their spouse or partner, if applicable. Although data collection is ongoing, as of November, 2019 we have analyzed data from 115 women ages 20 to 45 from 24 different states working in a variety of industries. Initial findings show that only 55% of our sample knows their employer's human resource policy on parental leave. Although 92.7% of these women do plan to return to work after their baby is born, 42% of our sample disagrees with the statement "I am satisfied with the amount of time I can take off work after I have my baby." In fact, over 80% of our sample plan to return to work within 12 weeks of having their baby. We will also report results pertaining to work and family-related sources of stress and support, and how work and non-work factors relate to whether and when pregnant working women plan to take parental leave, and their expectations about returning to work.

By advancing our understanding of the parental leave and return to work process, we will describe and discuss resources that may support working parents and their families. Our findings will serve as a needs assessment to facilitate the development of training and other occupational health interventions, such as guiding organizations about the establishment of parental leave policies and human resources practices to assist expecting parents with planning for new family responsibilities and taking parental leave.

Kristen Van Buren, MPH

Title: Maternal noise exposure and reproductive outcomes: identifying current gaps in literature and guidance for future research

Background: Noise exposure has been recognized as a potential health hazard for several decades. With regards to reproductive outcomes, epidemiologic studies have provided evidence of an association between noise exposure and small-for-gestational age (SGA), low birth weight (LBW), preterm birth (PTB), and congenital malformations; however, findings are limited and inconsistent. Further, noise exposure levels and thresholds differ notably between environmental and occupational studies. Occupational studies consistently favor higher ranges of noise exposure levels ($\geq$80 dBA) compared to environmental studies, where the predominant sources of exposure are transportation or residential ($\leq$70 dBA). This phenomenon has led to a gap in our current understanding of the potential effects of noise on reproductive outcomes at exposure levels that are above most environmental sources, but below the current NIOSH PEL (85 dBA over an 8-hr average). Recent findings cite an association between maternal occupational exposure to noise (75-84 dBA) and increased risk of SGA, LBW, and PTB among expectant workers, indicating the need for future studies to examine potential reproductive outcomes associated with noise exposure levels that have been previously overlooked.

Methods: Utilizing PubMed, ScienceDirect, and Google (Scholar), selected peer-reviewed articles from 1990-2019 were reviewed and categorized by noise exposure level(s) and/or threshold values, type of study, and year of publication. In addition, study design, exposure assessment strategy, birth outcome of interest, and measure of association were also summarized. Studies were excluded if noise exposure assessment was subjective or if outcomes were not birth related. Visually summary of results were displayed in order to 1] identify gaps in the current literature for specific noise exposure ranges; 2] assess and summarize the measures of association between maternal noise exposure and birth outcomes; and 3] guide future research efforts with regards to maternal noise exposure.

Results: A total of 38 (20 environmental and 18 occupational) studies were included for review. Figure 1 displays the range of noise exposure levels by study design and date of publication. Only two environmental studies included noise exposure ranges above 69 dBA. By contrast, all occupational studies (N=18) included noise exposure ranges of $\geq$80 dBA. Outcomes of interest varied but included at least one of the following: preterm birth (PTB), small-for gestational age (SGA), low birth weight (LBW), spontaneous abortion, and/or congenital malformations.

Discussion: Epidemiologic studies on maternal noise exposure and birth outcomes remain extremely limited. Variations in exposure assessment, limited sample size, potential biases, and the inability to distinguish independent effects (i.e. noise and air pollution) may contribute to the inconsistency among study findings. Future research should focus on noise exposures below the current NIOSH PEL (85 dBA), as there is indication that reproductive health may be affected at lower levels.

Nisha Vijayakumar

Title: Characterization of Environmental Contaminants Found in Donated Breast Milk in Florida

Authors: Nisha Vijayakumar, Naya Martin, Akhil Tumpudi, Rebecca Park, Mariam Badru, Maya Bourgeois, Thomas Mason, Marie Bourgeois

College of Public Health, University of South Florida

Introduction:

Breastfed infants may be exposed to a variety of environmental contaminants via lactational transfer. Chronic exposures to environmental contaminants such as pesticides may disrupt physiological development in infants. Neonates are particularly vulnerable to toxicant effects because breast milk expressed rights after the initial onset of lactation may contain the highest concentrations of accumulated environmental toxicants. The objective of this study is to determine the concentration of common environmental contaminants in the breast milk of donor.

Methods:

Breast milk samples of approximately 4 to 6 ounces were collected from lactating female participants (n= 15) ages 18 or older- throughout Florida and from Florida breast milk banks. The samples were prepared using the QuEChERS Method. The samples were spiked prior to extraction and internal standards were added prior to injection. Quality assurance and quality control were done using procedural blanks. The samples were analyzed for pesticides using the GC/MS.

Results:

The environmental compounds analyzed by this study are PAHs and pesticides such as atrazine, carbaryl malathion and chlorpyrifos. The preliminary results are expected to find the concentration of these compounds below or equal to the regulatory levels established at the federal and local levels.

Conclusion:

It is critical to understand the exposures of environmental contaminants in lactating mothers to quantify the body burden. The study will quantify these contaminants in human milk to organize a database of the exposures in women in Florida. This can help establish a biomonitoring program in Florida designed to identify ‘hotzones’ - regions of elevated pesticide residues in breastmilk that may adversely impact nursing infants.

Kristin A. Horan, Ph.D.

Title:
A Descriptive Analysis of the Work and School-Related Experiences of Employed Students with Family Care Responsibilities

Abstract:
Employees hold multiple roles outside of work, including roles in school and family context. A sample of employed students with family care responsibilities reported on their experiences in work, school, and family life, as well as their coping and time management strategies. Descriptive analyses revealed that employed students with family care responsibilities were enrolled in a high number of credit hours, worked a high number of hours, and cared for young children and elders in their family. To manage these demands, participants reported both problem and emotion-focused coping and the use of organization, prioritization, and planning strategies.

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