



DCCPS FELLOWS SYMPOSIUM 2024

DCCPS Fellows Symposium 2024

Abstracts and Biosketches for Summer Intern Poster Session

Title: *Cancer Prevention Amid Conflicting Health Information: Associations between Perceived Conflict in Expert Recommendations and Cancer Prevention-Related Cognitions*

Hoda Fakhari, MS, Health Communication and Informatics Research Branch, BRP

Co-authors: Irina A. Iles, PhD, MPH and Wen-Ying Sylvia Chou, PhD, MPH and Nicole Senft Everson, PhD

Mentor: Nicole Senft Everson, PhD, Program Director, Health Communication and Informatics Research Branch, BRP

Overview: This study seeks to understand the relationship between two types of perceived conflict in health expert recommendations and cancer prevention-related cognitions, as these may impact cancer prevention communication efforts. **Methods:** Through the Health Information National Trends Survey (HINTS) 6 (2022), a nationally representative sample of US adults (N=6,252) rated perceptions of two types of conflict in health expert recommendations: contemporaneous (i.e., contradictory at a single time point) and temporal (i.e., changing over time) (dichotomized: often/very often, never/rarely). Five items assessed cognitions related to cancer prevention: perceived cancer risk, cancer worry, cancer fatalism (i.e., everything causes cancer, there's not much you can do to prevent it), and confusion (i.e., it is difficult to know which recommendations to follow). Weighted logistic regression models examined associations between each type of perceived conflict and each health cognition separately, adjusting for age, birth sex, race/ethnicity, income, health numeracy, digital health literacy, and cancer experience (survivor, family history, caregiver). **Results:** Those who were extremely/moderately (versus not at all) worried about getting cancer had lower odds of perceiving both contemporaneous or temporal conflict (adjusted odds ratio [aOR]_c=.69, *p*=.02; aOR_t=.61, *p*=.005). The belief that everything causes cancer was associated with higher odds of perceiving both types of conflict (aOR_c=1.65, *p*<.001; aOR_t=1.58, *p*<.001). The belief that there are so many recommendations about preventing cancer was associated with higher odds of perceiving contemporaneous (aOR_c=1.32, *p*=.02) but not temporal conflict. Perceived cancer risk and the belief that there's not much you can do to prevent cancer were not associated with either type of perceived conflict. **Conclusion:** Perceived conflict, especially contemporaneous conflict, is related to higher cancer fatalism and confusion but lower worry. Future work should evaluate strategies to mitigate the potentially harmful consequences of conflicting information on cancer prevention.

Biosketch: Hoda Fakhari, MS, is a summer intern in the Health Communication and Informatics Research Branch (HCIRB) within the Behavioral Research Program (BRP), working under the supervision of Dr. Nicole Senft Everson. She is currently a PhD student in the Media, Technology, and Society program and MS candidate in Applied Statistics at Northwestern University. Within the contexts of science and



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health, she studies the processes and outcomes associated with the communication of complex and uncertain phenomena. Her research interests span health communication, risk perception, and decision-making. She is also interested in the role of communication environments in individual and collective information management behaviors. Hoda holds a BS in Biochemistry and BA in English, with a concentration in media, rhetoric, and cultural studies from the University of Illinois at Chicago (UIC) and an MS in Health Communication from Northwestern University.

Title: *Examining The Scope and Identifying Key Gaps in Adult Long-Term Cancer Survivorship Research.*

Aliza Lubitz, Office of Cancer Survivorship

Co-authors: Crystal Reed, MHA and Michelle Mollica, PhD, MPH, RN, OCN and Lisa Gallicchio, PhD and Lindsey Page, PhD, MPH, ACSM-CEP and Gina Tesauro, MSW and Emily Tonorezos, MD, MPH and Michelle Doose, PhD, MPH.

Mentor: Michelle Doose, PhD, MPH, Program Director, Office of Cancer Survivorship

Background: Of the 18.1 million cancer survivors in the United States, 69% are long-term survivors that have lived five or more years post cancer diagnosis. Long-term cancer survivorship has been identified as a critical area in need of further research by the National Cancer Institute (NCI) and other professional organizations. Our objective is to evaluate grants and research articles to determine the current state, scope, and key gaps in research on adult long-term cancer survivors. **Methods:** From the 862 grants in the NIH Cancer Survivorship Research Portfolio fiscal years 2017-2023, we identified 62 that included long-term cancer survivors. Of the 62 grants, 17 were newly awarded and focused on adult survivors. In parallel, we are conducting a scoping review focused on long-term cancer survivorship. We report preliminary grant characteristics and an overview of the scoping review protocol. **Results:** Of the 17 grants analyzed, most (88%; n=15) were observational and few (12%; n=2) were interventional. Many grants (65%; n=11) utilized participants already recruited from previous cohort studies and large publicly available datasets. Breast cancer was the most common cancer type (41%; n=7) followed by prostate cancer (18%; n=3). The research focus of most of the grants was the late-/long-term effects of cancer and its treatment (71%; n=12). Approximately 58% (n=7) of the 12 grants assessed the physical effects of cancer and its therapies (e.g. cardiotoxicity, dental caries), 41% (n=5) assessed cancer-related cognitive impairments, and an additional 41% (n=5) assessed survivors' mental health. The scoping review is under development, with 2,428 records identified for screening, and results are forthcoming.

Conclusion/Discussion: Preliminary findings from our portfolio analysis highlight important gaps in long-term cancer survivorship research. The gaps present opportunities for advancing scientific understanding and management of long-term cancer survivorship issues, ultimately improving patient outcomes and survivors' quality of life.



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Biosketch: Aliza Lubitz is a summer intern under the mentorship of Michelle Doose in the Office of Cancer Survivorship. Aliza is working on a project to understand the current state of science on long-term cancer survivorship. Her research interests include the psychological impacts of cancer, cancer disparities, and adolescent and young adult cancer survivorship. Aliza is a rising junior at Washington University in St. Louis, where she is pursuing a Bachelor's degree in Philosophy-Neuroscience-Psychology and Writing. She recently completed a comprehensive two-year program at her school called the Hallmarks of Cancer & Patient Care. Through the program, she received academic instruction on the biology of cancer and its treatments and engaged in fieldwork and volunteering at the Barnes-Jewish Hospital's Siteman Cancer Center. During the academic year, Aliza works as a research assistant at her school's Cognitive Control and Aging Lab. Aliza previously interned at Children's National Hospital in Washington, D.C. and at Disability Rights International, a non-profit organization dedicated to ending the abuse of children with disabilities worldwide.

Title: *Exploring Shared Decision Making in Cervical Cancer Screening: A Qualitative Study of Interviews with Medical Experts*

Sydney Rubin, Clinical Genetics Branch, DCEG; Behavioral Research Program, DCCPS

Mentors: Dr. Paul Han, MD, MA, MPH, Senior Scientist, Office of the Associate Director, BRP; and Dr. Emily E. Pearce, PhD, MPH, Postdoctoral Fellow, Clinical Genetics Branch, DCEG; and Dr. Jackelyn B. Payne, PhD, MPH, Cancer Prevention Fellow, Office of the Associate Director, BRP

Background: Shared Decision Making (SDM) is a process in which clinicians and patients work together to make medical decisions based on scientific evidence and patients' personal preferences. Cervical cancer screening in low/middleincome countries (LMICs) is an intervention that raises important questions about the scope and implementation of SDM, including how patients and clinicians in LMIC settings perceive the value of SDM for cervical cancer screening, and what challenges may limit its implementation in LMIC settings. **Objective:** To explore perceptions regarding SDM in cervical cancer screening in LMICs using interviews with researchers and clinicians involved in the HPV-automated visual evaluation (PAVE) study in Brazil, Cambodia, Dominican Republic, El Salvador, Eswatini, Honduras, Malawi, Nigeria, and Tanzania. **Design:** We analyzed 18 interviews conducted with PAVE clinicians (n=9) and non-clinicians (n=9), most of whom (n=13) had experience working in LMICs. Individual interviews were conducted using an open-ended interview guide, audio-recorded, and transcribed. Thematic analyses were conducted to identify 1) key elements of SDM (i.e., engaging, informing, and values clarification), and 2) perceptions, attitudes, and preferences regarding the appropriate scope and implementation of SDM. Emerging themes were further classified to identify perceived benefits and challenges of implementation. **Results:** Among key elements of SDM, informing patients was most frequently discussed by participants (94%), followed by patient engagement (72%), and values clarification (61%). Perceived benefits of SDM included listening to patients and respecting patient autonomy. Perceived challenges to implementing SDM included language and cultural differences,



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insufficient time for conversations, and identifying pertinent information. **Conclusion:** Scientific experts perceived particular elements of SDM as beneficial for cervical cancer screening in LMIC settings, but also identified several challenges to implementing SDM. These exploratory data provide preliminary evidence to guide future efforts to disseminate and implement cervical cancer screening interventions in diverse LMIC settings.

Biosketch: Sydney Rubin, is a summer research fellow working jointly in the DCEG Clinical Genetics Branch and the DCCPS Office of the Associate Director. Ms. Rubin's summer research is primarily focused on a sub-study within the international HPV-automated visual evaluation (PAVE) cervical cancer screening study where she is assisting with coding qualitative interviews with medical experts regarding shared decision making in the global cervical cancer screening context. As part of her work on the PAVE project, she is co-leading an international team of qualitative coders from Canada, the United States, and Nigeria. In addition, Ms. Rubin is working in the Office of the Associate Director in the DCCPS Behavioral Research Program (BRP) where she is assisting with manuscript development for a study on risk communication surrounding alcohol use. Before joining NCI, she was a virology lab intern at Ichilov Hospital in Tel Aviv. In that capacity, she performed routine immunoassay batch testing for infectious diseases using VIDAS equipment. Ms. Rubin is a rising senior at Case Western Reserve University (CWRU) where she is studying biology and minoring in chemistry and childhood studies. While at school, she is an undergraduate intern at the CWRU anatomy lab where she assists with dissections and lab organization for the SPARC Reconstructing Vagal Anatomy (REVA) project.

Title: *Waterpipe (WP) Smoking Patterns in the US*

Ashley Sanchez, MPH, Tobacco Control Research Branch, BRP

Co-authors: Sarah Volz, PhD and Haley Goss-Homes, MPH

Mentor: Carolyn Reyes-Guzman, PhD, MPH, Program Director, Tobacco Control Research Branch, TCRB

Background: Waterpipe (WP) smoking, also known as hookah, is considered to be the second global tobacco epidemic due to its harmful and addictive nature.^{1,2} Emerging research indicates higher prevalence of use among young people, males, and being high socioeconomic status.³ With rising global trends, this project aimed to further examine patterns of WP smoking in the US. **Methods:** We analyzed data from the 2010-2023 waves of the Tobacco Use Supplement to the Current Population Survey (TUS-CPS) to examine differences in sociodemographic characteristics (i.e., age, sex, race/ethnicity, education, family income, employment, urbanicity, US region, nativity) among WP use behaviors (i.e., exclusive WP smoking versus dual WP-smoking, duration, time since quit, and flavors). As part of the US Census, the TUS-CPS includes nationally representative self-reported data from non-institutionalized civilian adults 18 years old and older. The questionnaire defines WP use as water or hookah pipes (as long as they are filled with tobacco, and not with cannabis), and WP is also referred to as shisha, argileh, narghile, or



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hubble-bubble. All analyses included self-response and replicate weights to account for the complex survey design and survey nonresponse. **Results:** WP use for May 2019 and September 2022 was most common among adults ages 25-24 (48.30%, 48.08%), men (62.59%, 55.13%), Non-Hispanic White adults (59.86%, 60.90%), individuals with highest incomes (49.66%, 44.23%) and education levels (48.98%, 45.51%), those living in the South (43.54%, 48.72%), and former smokers (53.74%, 53.21%), respectively. **Conclusions:** This study will highlight patterns in WP use among US adults, which can be used to inform future surveillance and tobacco cessation intervention efforts for addressing health disparities in communities disproportionately affected.

References

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2. Maziak, W., Taleb, Z. B., Bahelah, R., Islam, F., Jaber, R., Auf, R., & Salloum, R. G. (2015). The global epidemiology of waterpipe smoking. *Tobacco control*, 24 Suppl 1(Suppl 1), i3–i12. <https://doi.org/10.1136/tobaccocontrol-2014-051903>
3. Ibid.

Biosketch: Ashley Sanchez, MPH, is a summer intern through the Cancer Research Interns Summer Internship Program (CRI SIP) in the DCCPS Tobacco Control Research Branch (TCRB). Under the mentorship of Dr. Carolyn Reyes-Guzman, Ashley is primarily working on her summer project focusing on waterpipe (WP) smoking trends in the United States using the Tobacco Use Supplement to the Current Population Survey (TUS-CPS). Additionally, she is supporting a project on cultural values, specifically on the role of familism in sexual risk behaviors among adult Hispanic/Latina women. Ashley recently graduated with her MPH in Health Behavior from the Brown University School of Public Health. Her thesis focused on the impact of the COVID-19 pandemic on the experiences of Latina breast cancer survivors enrolled in a weight loss intervention. Ashley’s interests include cancer prevention and survivorship, cancer disparities, and health behavior.

TITLE: *Climate Change Communication Research – A review of the Literature*

Kiersten Straley, BCH, Health Communication and Informatics Branch, BRP

Mentors: Heather D’Angelo, PhD, MHS, Program Director, Health Communication and Informatics Research Branch, HCIRB; and Irina Iles, PhD, MPH, Program Director, Health Communication and Informatics Research Branch, HCIRB

Overview: To describe a data collection subset of over 9,000 studies intended to advance our understanding of climate change communication and awareness. **Background:** Climate change poses a



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threat to human health by increasing mortality risk, respiratory problems, and injuries from natural disasters. Understanding how to effectively communicate the effects of climate change with the public is a vital step in promoting the uptake of both climate change mitigation and adaptation strategies. In this brief review, we broadly characterize research focused on climate change communication strategies to better understand gaps and opportunities in this area. **Methods:** Data regarding study characteristics, communication strategies and outcomes were extracted from 14 studies selected from a larger set of peer-reviewed articles included in a scoping literature review of climate change communication interventions. Articles were published between January 2008 and June 2024 and included an intervention/treatment condition in which participants were exposed to messages focused on climate change. **Results:** Out of 14 studies, 9 concentrated on climate change mitigation, 6 on climate change broadly, and 1 on climate change adaptation. Intervention formats included text/written material (n=9), a combination of text and visual images (n=3), and video (n=2). Message framing was the most common communication strategy (n=10), followed by source manipulation, (n=3) and wording changes (e.g. climate change vs. global warming) (n=3). Specific message frames included health/public health (n=3), national security (n=3) and environmental conservation (n=2). Outcomes included behavioral intentions (n=11), knowledge/beliefs/attitudes (n=10), and policy support (n=7). Communication-related outcomes (e.g., perceived message effectiveness) (n=5), harm perceptions (n=5), and emotions (n=6) were assessed less frequently. **Conclusion:** Written materials and message framing were most commonly used to disseminate climate change information. There is an opportunity for future research to focus on communication strategies and formats that are better suited to digital information environments. Another notable gap is that no studies included actual behavior change measures. Overall, more research is needed to better understand the most effective climate change communication approach.

Biosketch: Kiersten Straley, BCH, is a summer fellow in the Health Communication and Informatics Branch where she is primarily researching the effects of climate change on individual and population health. She recently graduated from the University of Maryland where she studied Behavioral and Community Health. She completed her undergraduate capstone internship at the National Cancer Institute under the leadership of Drs. Heather D'Angelo and Kara Hall. Her main research interests include healthcare delivery, health communication, and women's health. Kiersten plans to go back to school to earn her master's degree.

Title: *Emerging Disparities in Vulvar Cancer Mortality Trends: 1990-2022*

Victoria M. Telles, MPH, Data Analytics Branch, SRP

Co-authors: Nadia Howlader, PhD, MS and Anne-Michelle Noone, PhD, MS

Mentor: Anne-Michelle Noone, PhD, MS (Mathematical Statistician, Data Analytics Branch, SRP) and Nadia Howlader, PhD, MS, Mathematical Statistician, Data Analytics Branch, SRP



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Background: Vulvar cancer (VC) has seen an average annual 2.7% increase in mortality rates since 2013. Disparities in VC mortality trends across race and SES subgroups are insufficiently understood. This analysis investigates changes in VC mortality rates over the past three decades and differences across race, region, and SES subgroups. **Methods:** We used mortality data from the National Center for Health Statistics linked to time-dependent, county-attributes from 1990-2022. NCI's Joinpoint Regression Program was used to estimate longitudinal trends in age-adjusted VC mortality rates among women aged 20+ by race/ethnicity (non-Hispanic Black (NHB), non-Hispanic White (NHW), and Hispanic (H)) and across subgroups (county-level poverty, urban/rural status, and geographic region). County-level poverty (% persons below 150% poverty) was categorized as low (<10%), moderate (10-19.99%), and high (>20%). The average annual percent change (AAPC) from the most recent 9 years was estimated. **Results:** From 2014-2022, VC mortality rates increased for NHW and NHB women, with the greatest AAPC observed for NHW (2.6%), followed by NHB (2.1%). Among NHW women, mortality rates increased faster in areas with high poverty (3.7%) compared to moderate poverty (1.9%). Conversely, among NHB, the fastest increase was observed in areas with moderate poverty (4.8%), followed by high poverty (1.2%). Among both NHW and NHB women, rates increased faster in rural areas compared to urban. Among NHW, rates increased 3.8% in rural areas compared to 2.4% in urban areas. Among NHB, rates increased 3.4% in rural areas, although not statistically significant, compared to 1.8% in urban areas. NHW in the Midwest saw the fastest increase (3.4%), followed by the South (2.8%). Among NHB, the South (2.2%) saw the greatest increase. Trends among Hispanic women remained stable across all subgroups. **Conclusion:** These upward trends in VC mortality rates reveal disparities among different population groups, which may have implications for targeted efforts to address inequalities in healthcare access and outcomes.

Biosketch: Victoria Telles, MPH, is a Cancer Research Training Award (CRTA) Summer Fellow in the SRP Data Analytics Branch, where she is primarily working with the SEER registry database exploring trends in disparities relating to vulvar cancer mortality among cancer survivors. Additionally, she is collaborating with the Office of Cancer Survivorship (OCS) on a project evaluating the risk of death due to hypertension among early-stage cancer survivors using the SEER-Medicare database. Ms. Telles received her MPH from Claremont Graduate University and is currently a PhD student in the Joint Doctoral Program in Public Health at UC San Diego and San Diego State University. As a graduate student researcher, she works on various community-based projects relating to improving the health of Latinas in San Diego County, as well as understanding and addressing social risks and needs among cancer survivors during cancer care. Her research interests center around understanding social determinants of health as they relate to cancer disparities to address social needs and advance cancer health equity.



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Title: *The Role of Familism in Sexual Risk Behaviors Among Hispanic/Latina Women*

Luz Maria Villanueva, BS, Basic Biobehavioral and Psychological Sciences Branch, BRP

Co-authors: Ashley Sanchez, MPH, Jacqueline Hua, PhD, MPH, and Amanda Acevedo, PhD

Mentors: Jacqueline Hua, PhD, MPH, Cancer Prevention Fellow, BBPSB, Behavioral Research Program; and Amanda Acevedo, PhD, Program Director, BBPSB, Behavioral Research Program

Background: Hispanic/Latina (H/L) women experience disproportionately higher rates of cervical cancer and sexual risk behaviors are one modifiable factor that increase the risk for cervical cancer. Cultural values are associated with health behaviors among H/L, but limited research has focused on the role of familism or its facets (i.e., familial obligation, familial support, family as referents) in sexual risk behaviors. The present project examined the association between the familism facets and sexual risk behaviors among H/L women. **Method:** A secondary analysis of data from a survey examining sociocultural factors and cervical cancer risk was conducted including 444 H/L adult women in the US ($M_{age}=27.5$ years, $SD_{age}=8.8$). Participants completed measures of familism, willingness to engage in sexual risk behaviors, and number of lifetime sexual partners. In two regression models, we examined whether familism was associated with willingness to engage in sexual risk behaviors and number of lifetime sexual partners and whether these associations were modified by generation status. Covariates included age, income, education, relationship status, and sexual orientation. **Results:** Overall familism, familial obligation, and familial support were not significantly associated with willingness to engage in sexual risk behavior nor the number of lifetime sexual partners. Family as referents was positively associated with willingness to engage in sexual risk behavior ($\exp(b)=.11$, $p<.001$, 95% CI=.04, .19) and negatively associated with the number of sexual partners ($RR=.91$, $p=.001$, 95% CI=.86, .96) and these associations were modified by generation status. Generation status also significantly modified the associations between familial obligation, familial support, and number of lifetime sexual partners. **Conclusion:** Contrary to previous studies, our findings suggest familism was not a protective factor for sexual risk behaviors among H/L adult women. Additional research examining the roles of acculturation and developmental stage in association with familism, and health behavior is needed.

Biosketch: Luz Maria Villanueva, BS in Biochemistry, recently joined the Basic Biobehavioral and Psychological Sciences Branch (BBPSB) of the Behavioral Research Program (BRP) as a summer intern. Under the mentorship of Drs. Jacqueline Hua and Amanda Acevedo, she is primarily working on a project examining the role of familism in sexual risk behaviors among Hispanic/Latina women in the US. Luz is currently a second-year student at the University of Maryland where she is pursuing a Master of Public Health degree with a concentration in biostatistics. Her research interests include chronic disease treatment, prevention, and survivorship, particularly among minoritized populations. Prior to her internship at the NCI, Luz was a student researcher at the Center for Vascular and Inflammatory Diseases at the University of Maryland. In this role, she performed different allergen models to understand the role of M2 macrophages in lung inflammation and asthma.