CURRICULUM VITAE

Peter A. Toyinbo, MBChB, MSPH, PhD, CPH

James A. Haley VA Hospital
HSR&D Center of Innovation on Disability & Rehabilitation Research (CINDRR).
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EDUCATION

2009	PhD, Public Health (Biostatistics) - University of South Florida, Tampa. Department of Epidemiology and Biostatistics, College of Public Health.
2009	CPH (Certified in Public Health) US National Board of Public Health Examiners (NBPHE)
2006	Postdoctoral Fellowship Certificate in Prevention Research (Methodology), Department of Mental Health, Johns Hopkins School of Public Health.
2004	MSPH, Public Health (Biostatistics) - University of South Florida, Tampa. Department of Epidemiology and Biostatistics, College of Public Health.
1992	F.R.C.R. [1] (Clinical Radiology) - Royal College of Radiologists, U.K. (US equivalency: One year of graduate medical education)
1981	MBChB (Medicine) - University of Ife, Nigeria. (US equivalency: First professional degree in medicine (Doctor of Medicine)
1978	BSc (Health Sciences) - University of Ife, Nigeria

Foreign Credential evaluation by: World Education Services, Inc.
P. O. Box 745 Old Chelsea Station,
New York, NY 10113-0745
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ADDITIONAL EDUCATION

07/2017 - present

Data Science: A 10-course Specialization offered by Johns Hopkins University through Coursera

This Specialization covers the concepts and tools that are needed throughout the entire data science pipeline: asking the right kinds of questions, manipulating data sets, and creating visualizations to communicate results. It includes a final Capstone Project where the skills learned will be applied by building a data product using real-world data.
https://www.coursera.org/specializations/jhu-data-science

07/2013

Certificate in Model Thinking: Offered by the University of Michigan through Coursera

EMPLOYMENT (Last 10 years)

07/2011- present Statistician
James A. Haley VA Hospital
HSR&D Center of Innovation on Disability & Rehabilitation Research (CINDRR)
8900 Grand Oak Circle, Tampa, FL 33637-1022

12/2011- present Affiliate Assistant Professor of Biostatistics
Department of Epidemiology and Biostatistics, University of South Florida.

11/2010- 07/2011 WOC Employee with James A. Haley VA Hospital (Biostatistician, 75% efforts),
HSR&D/RR&D Center of Excellence, Maximizing Rehabilitation Outcome
8900 Grand Oak Circle, Tampa, FL 33637-1022

04/2008- 07/2011 Statistical Data Analyst
Department of Aging and Mental Health Disparities
Louis de la Parte Florida Mental Health Institute
University of South Florida, Tampa, FL

08/2007- 04/2008 Graduate Research Assistant - Prevention Science and Methodology Group (PSMG)
Department of Epidemiology and Biostatistics, University of South Florida

10/2006-08/2007 Research Scholar / Postdoctoral Trainee
American Institutes for Research, Washington, DC

07/2004-06/2006 Prevention Research Postdoctoral Trainee - Department of Mental Health, Johns Hopkins School of Public Health & Department of Epidemiology and Biostatistics
University of South Florida

2004-2006 Graduate Teaching Assistant - Department of Epidemiology and Biostatistics
University of South Florida, Tampa, FL

CONTRIBUTION TO SCIENCE

1. ***Mild TBI symptoms attributable to psychological stressor vs. physical trauma**:*

   It has been challenging to distinguish cognitive, affective, and somatic symptoms induced by a psychological stressor from those induced by physical trauma among our Veterans returning from the theater of war.

   The traditional statistical approach lacks the methodological rigor required to illuminate this problem. Therefore, I innovatively applied a systems science method, Bayesian network modeling, to increase our understanding of the complex interdependency among military deployment related blast exposure, contextual factors, and the subsequent physical and psychological symptoms, particularly teasing out the relative contributions of mild TBI and blast exposure to these later symptoms.

   Our findings suggest that blast exposure is a critical shared source of self-reported PTSD symptoms and past mild TBI injury.

   a. **Peter A. Toyinbo**; Rodney D. Vanderploeg; Heather G. Belanger; Andrea M. Spehar; William A. Lapcevic; Steven G. Scott. A Systems Science Approach to Understanding Polytrauma and Blast-Related Injury: Bayesian Network Model of Data from a Survey of the Florida

National Guard. *Am J Epidemiol 2017; 185 (2): 135-146. doi: 10.1093/aje/kww074* https://doi.org/10.1093/aje/kww074

2. *Safe Patient Handling and Mobility (SPHM):*

In 1997, the National Institute of Occupational Safety & Health reported that forceful exertions, awkward postures, and repetitive motions associated with lifting, moving, and transporting patients significantly contributed to back injuries in nurses. In 2013 nurses, nursing assistants, and orderlies still have some of the highest rates of musculoskeletal work-related injuries of any profession in the United States.

Our Center's program of research in SPHM began in 1995 with an HSR&D study led by Audrey Nelson to redesign high-risk nursing tasks and culminated in the VA-wide implementation of SPHM practices in 2008. In partnership with the VA Office of Public Health, our evaluation of the VA program showed a 32% decrease in nurses' injuries over 3 years that was linked to program implementation e.g. ceiling lifts. Because of its sustained work, the VA is perceived by others throughout the world as a leader in SPHM.

Recently, in two-phase publications, our center reported its research findings on making healthcare environments safer for healthcare workers who move, transfer and lift dependent patients. My role was to perform the statistical analyses and interpretation of the findings, and write the methods sections plus substantial contribution to the rest of the manuscripts. The VA's work has been cited in national policy documents; two of the instances involve contributions from our publication (documented below): a CDC Morbidity and Mortality Report (2015), and a 4-part series on SPHM aired in February 2015 on the National Public Radio show *All Things Considered*.

a. Powell-Cope G, **Toyinbo P**, Patel N, Rugs D, Elnitsky C, Hahm B, Sutton B, Campbell R, Besterman-Dahan K, Matz M, Hodgson M. Effects of a national safe patient handling program on nursing injury incidence rates. J Nurs Adm. 2014 Oct; 44(10):525-34.
b. Rugs D, **Toyinbo P**, Patel N, Powell-Cope G, Hahm B, Elnitsky C, Besterman-Dahan K, Campbell R, Sutton B (2013). Processes and Outcomes of the Veterans Health Administration Safe Patient Handling Program: Study Protocol *JMIR Res Protoc 2013;2(2):e49. doi:10.2196/resprot.2905. PMID:24246469*
c. Zwerdling, D. Hospitals fail to protect nursing staff from becoming patients. Special series, injured nurses. Washington: National Public Radio.
d. Morbidity and Mortality Weekly Report: Occupational Traumatic Injuries Among Workers in Health Care Facilities-United States, 2012–2014. *April 24, 2015; 64(15);405-410*.

3. *Consequences of family caregiving for child development and adjustment*:

Family caregiving has become a normative experience in the twenty-first century. For example, the number of families caring for injured and disabled military personnel is growing, and economic pressures have eroded the disposable income of families to hire supportive services. However, despite over 40 years of research and increasingly higher public awareness about adult family caregivers, a large group of informal care providers has gone unnoticed: youth caregivers (under 18) to whom a large share of family caregiving responsibilities has shifted.

The consequences of family caregiving for child development and adjustment are not well understood. Most research in this area in the UK and Australia has been qualitative studies, the few quantitative studies have used relatively small samples, and results have been mixed. To start to address these gaps we (with University of S. Florida researchers) conducted a secondary data analysis on a survey dataset from 1,281 middle school students to analyze the impact of family caregiving on self-reports of psychological well-being. We found that youth caregivers, especially those living with the care recipient, reported significantly higher anxiety/depression and a greater use of both coping styles compared to non-caregivers.

I performed the analysis, wrote the methods and results sections, and contributed substantially to all other sections of our report. Since two of the three outcome variables were subscales of instruments that did not have known psychometric properties with child respondents, measurement errors and potential differential item functioning (DIF) were concerns. Therefore, I used the Multiple Indicators Multiple Causes (MIMIC) model to examine differences in the means of error-free latent factor outcomes across student groups, which is more appropriate than the conventional multivariate regression models.

a. Donna Cohen, Jennifer Greene, **Peter Toyinbo**, Connie Siskowski (2012). Impact of Family Caregiving by Youth on their Psychological Well-Being: A Latent Trait Analysis. *J Behav Health Serv Res. Volume 39, Issue 3 (2012), Page 245-256. DOI 10.1007/s11414-011-9264-9*

4. Applying latest advances in Items Response Theory:

The traditional common factor analysis (CFA) that is commonly performed to test a major assumption of unidimensionality in items response theory (IRT) models usually show some evidence of multidimensionality for most measures of complex behaviors.

As the IRT field advances, simulations studies showed that traditional cutoffs and standards for CFA fit statistics are not adequate for establishing unidimensionality of item banks, that an item bank that fails CFA test may be 'sufficiently undimensional' based on some additional criteria including advanced statistical tests. Whenever the CFA unidimensional test fails, researchers are uncertain, so if the required advanced statistical skill is not available they either ignore the CFA results or risk accepting a false negative test result.

Our team recently developed new Quality-of-Life item banks for military deployment-related mild traumatic brain injury (TBI) population, in alignment with the Patient Reported Outcomes Measurement Information System (PROMIS) developed by the National Institutes of Health. I applied the latest advances in IRT statistical techniques as recommended by expert methodologists in the field, using different statistical platforms (R, Mplus, and IRTPRO).

a. **Peter A. Toyinbo**, Rodney D. Vanderploeg, Alison J. Donnell, Sandra A. Mutolo, Karon F. Cook, Pamela A. Kisala, David S. Tulsky. Development and Initial Validation of Military Deployment-related TBI Quality of Life Item Banks. J Head Trauma Rehabil. 2014 Oct 13. [Epub ahead of print] PubMed PMID: 25310294.

SKILLS

Analytical Software & Programing:

I have extensive experience in the use of analytical software and programing to analyze, manipulate, synthesize, and innovatively present data using a wide variety of analytical software, including R, SAS, SPSS, MPlus, IRT-PRO and Microsoft Office Suite products such as Excel, Visio.

As my first preference, I have adopted R, one of the most popular programing languages among data scientists. R allows me do a lot more different things from one platform, e.g. leverage the strengths of SQL, HTML, JAVA, and work on different data files (.xml; .json etc).

For example, within the VINCI environment, for the project Leveraging EHR information to measure pressure ulcer risk in Veterans with SCI (PI: Luther), I manipulate data stored in SQL database right from the R platform using the sqlQuery function implemented in the R package RODBC.

Statistical Methods:

I have experience in the use of wide variety of analytical methods appropriate for the data structure and the task at hand.

Examples include study design and analytic approach for linear and non-linear regressions including mixed regression and generalized additive models (GAM), latent variable modeling (e.g. SEM), item response theory (IRT), social network analysis (SNA), Bayesian network (BN) modeling, predictive modeling (e.g. using random forest), and text mining using natural language processing (NLP).

Text Mining:

In the Data Science Specialization course, I also learned to analyze text data using natural language processing, to understand and build predictive text models like those used by SwiftKey.

This example involved an analysis of huge data (84 million words). The final product will be an application that takes in a word phrase and returns next-word choices. The report of the first part of the project can be accessed through this link:
https://rpubs.com/pettoy/399806

Creating Web-Based Data Products:

I can create a data product as an output of a data analysis. For example, if I build a clever machine learning algorithm, I can embed that algorithm in a web site so that users can input values and get predictions.

I am proficient in *R* statistical program, a very prevalent data analysis language, and in *RStudio*. Using *Shiny*, a web application framework for R, I can turn analytic results into interactive web applications.

Examples of data products I created include interactive analysis web-based interactive graphics, maps, apps, and presentations, as described below:

Data Product 1: *Diagnostic Test App*

Typical problem related to the diagnosis of a condition:
Any diagnostic test has inherent error rates:

- can detect conditions that are absent (false positive)
- can miss conditions that are present (false negative)

The **prevalence** of the condition and the **test error rates** are interrelated. This relationship is nonlinear, and its computation is nontrivial. Applying the test results directly without considering the test error rates can have grave consequences.

My proposed solution:
Any diagnostic test has inherent error rates:

- can detect conditions that are absent (false positive)
- can miss conditions that are present (false negative)

The prevalence of the condition and the test error rates are interrelated. This relationship is nonlinear, and its computation is nontrivial. Applying the test results directly without considering the test error rates can have grave consequences.

My proposed solution:
I proposed the *inferDtest* app that provides interactive aid to enable the diagnostic practitioner to correctly infer from diagnostic test results. Using automated Bayes' rule, the app automates correct inference from test results.

The resulting data products include:

Web based slides

To demonstrate my skill for creating visually pleasing html5 presentation (web based), I produced a very short web-based presentation as a pitch for the new *inferDtest* app. Click the link below:

https://rpubs.com/pettoy/370989. You may click on a slide and use the arrow keys on your keyboard to move through the pages.

The app

Click the link below to see the *inferDtest* app in action:

https://patoyinbo.shinyapps.io/inferDtest_app/

Data Product 2: *Interactive Graph*

I can create interactive graph for descriptive analysis of raw data using tools that convert the graphs into JavaScript displays that can be embedded into web pages and html presentations.

Data source

The Healthy Aging Data Portal at https://www.cdc.gov/aging/agingdata/data-portal/index.html is a compilation of several other reports published by CDC that are designed to provide data on key indicators and strategies for public health and aging professionals, researchers, healthcare providers, journalists, decision makers and others interested in older adult health.

Click the link below to see an example:

https://patoyinbo.shinyapps.io/HealthyAging_Floridians/

Data Product 3: *Interactive Map*

“Understanding who rural veterans are and what sets them apart from other veterans, as well as from their rural neighbors, provides the necessary perspective for rural communities, government agencies, veterans’ advocates, and other policymakers interested in directing programs and services to this population” (Kelly Ann Holder, 2017).

Data: Veterans in Rural America: 2011–2015, January 25, 2017, Report Number ACS-36, by Kelly Ann Holder https://www.census.gov/library/publications/2017/acs/acs-36.html

In this example I used *leaflet,* one of the most popular R packages for creating interactive maps to display some key findings in the Holder's report. The interactive map can be accessed via the following link:

https://patoyinbo.shinyapps.io/MapRuralVeterans/

CONFERENCES & WORKSHOPS

Presentations

1. Kozel FA, Van Trees KA, Larson V, Phillips S, Hashimie J, Gadbois B, Johnson S, Gallinati J, Dreschnack D, Barrett B, **Toyinbo P**, Weisman M, Centorino M, Gibson CA, Glenn Catalano. Targeting Disability from PTSD with Transcranial Magnetic Stimulation. *2017 Military Health System Research Symposium (MHSRS). Kissimmee, FL.* 29 Aug 2017 (poster)

2. Rugs, D., Powell-Cope, G., **Toyinbo, P**., Patel, N., Elnitsky, C., Valente, T.W., Kip, K.E. Use of a Peer Leader Implementation Method to Increase the Use of a VA Safe Patient Handling and Mobility Program. *9th Annual Conference on the Science of Dissemination and Implementation in Health, Washington, D.C.*, 14 Dec 2016 (poster)

3. Hae Park, Elizabeth Melzer, **Peter Toyinbo**, Nitin Patel, Martin Esuzor. Voiding Intervention at Discharge (VOID). *Florida Geriatric Society's annual conference in Orlando, FL.* 6 Aug 2017

4. Luther SL, **Toyinbo P,** Erbes C, Kisala P, Marx B, Campbell T, Tulsky D. Improved Measures of Health-Related Quality of Life (HRQOL) for Veterans with Deployment-Related Post-Traumatic Stress Disorder (PTSD). *HSR&D/QUERI National Conference July 18-20 2017 in Arlington, VA*

5. Vanessa Panaite, Stephen L. Luther, **Peter Toyinbo,** Brian Marx, Thomas Campbell, Christopher Erbes, Pamela Kisala, David Tulsky. Modified PROMIS anger measure for Veterans with deployment-related PTSD. *HSR&D/QUERI National Conference July 18-20 2017 in Arlington, VA*

6. **Toyinbo, P.** Who benefits or is harmed by this intervention program? Meeting Theme: Transforming Veteran Healthcare through Partner-Oriented Research. *HSR&D/QUERI National Conference, National Harbor, MD. Jul 2012*

7. **Toyinbo, P.** Poster title: Additive Latent Variable (ALV) Modeling: Assessing Variation in Intervention Impact in Randomized Field Trials. Meeting Theme: Implementation Science: Translating Evidence-Based Health Behavior Research to Practice. *Annual Meeting of the American Academy of Health Behavior (AAHB), Clearwater, FL. Feb 2010. http://www.aahb-temp.net/index.php*

8. **Toyinbo P**, Brown CH, Sloboda Z, Grey S, Tonkin P, Teasdale B, Stephens R. Additive Latent Variable (ALV) Modeling: Assessing Variation in Intervention Impact in the Adolescent Substance Abuse Prevention Study—A Methodological Discussion. Meeting Theme: Power of Relationships: Implications for Prevention Science**.** *17th Annual Meeting of the Society for Prevention Research. May 2009. http://www.preventionresearch.org/*

Trainings

June 2013
Receipt of certificate of successful completion of a 10 week online non-credit course “Model Thinking” authorized by University of Michigan and offered through Coursera.

June 2013
National Board of Public Health Examiners (NBPHE) Item Writing Training session.

Workshops

April 2010
Co-hosted a pre-conference workshop *“Designing the Next Stage of Effectiveness and Implementation Research to Meet the Needs of Communities and Institutions”*.
Main conference title: *“The Quality of Behavioral Healthcare: A Drive for Change through Research”*

PUBLICATIONS:

1. Stephen Luther; Susan S Thomason; Sunil Sabharwal; Dezon K Finch; James McCart**; Peter Toyinbo**; Lina Bouayad; Michael E Matheny; Glen T Gobbel; Gail Powell-Cope. Leveraging Electronic Health Care Record Information to Measure Pressure Ulcer Risk in Veterans with Spinal Cord Impairment: A Protocol Review. JMIR Res Protoc. doi:10.2196/resprot.5948. http://dx.doi.org/10.2196/resprot.5948

2. **Peter A. Toyinbo;** Rodney D. Vanderploeg; Heather G. Belanger; Andrea M. Spehar; William A. Lapcevic; Steven G. Scott. A Systems Science Approach to Understanding Polytrauma and Blast-Related Injury: Bayesian Network Model of Data from a Survey of the Florida National Guard. *Am J Epidemiol* 2017; 185 (2): 135-146. doi: 10.1093/aje/kww074 https://doi.org/10.1093/aje/kww074

3. Jennifer Greene, Donna Cohen, Constance Siskowski, **Peter Toyinbo** (2016). The Relationship Between Family Caregiving and the Mental Health of Emerging Young Adult Caregivers. *J Behav Health Serv Res DOI 10.1007/s11414-016-9526-7*

4. **Peter A. Toyinbo**, Rodney D. Vanderploeg, Alison J. Donnell, Sandra A. Mutolo, Karon F. Cook, Pamela A. Kisala, David S. Tulsky (2014). Development and Initial Validation of Military Deployment-related TBI Quality of Life Item Banks. *J Head Trauma Rehabil. 2014 Oct 13. [Epub ahead of print] PubMed PMID: 25310294*

5. Powell-Cope, G., **Toyinbo, P**., Patel, N., Rugs, D., Elnitsky, C., Hahm, B., Sutton, B., Campbell, R., Besterman-Dahan, K., Matz, M., & Hodgson, M. (2014). “Effects of a National Safe Patient Handling Program on Caregiver Injury Incidence Rates”. *Journal of Nursing Administration, 44(10), 525-534.*

6. Rugs D, **Toyinbo P**, Patel N, Powell-Cope G, Hahm B, Elnitsky C, Besterman-Dahan K, Campbell R, Sutton B (2013). “Processes and Outcomes of the Veterans Health Administration Safe Patient Handling Program: Study Protocol” *JMIR Res Protoc 2013;2(2):e49.* URL: http://www.researchprotocols.org/2013/2/e49/ doi:10.2196/resprot.2905. PMID:24246469

7. Donna Cohen, Jennifer Greene, **Peter Toyinbo**, Connie Siskowski (2012). Impact of Family Caregiving by Youth on their Psychological Well-Being: A Latent Trait Analysis. *J Behav Health Serv Res. Vol 39, Issue 3, p 245-256, 2012. DOI 10.1007/s11414-011-9264-9*

8. Brown CH, Wang W, Kellam SG, Petras H, **Toyinbo P**, Poduska J, Ialongo N, Wyman PA, Chamberlain P, Sloboda Z, MacKinnon D, Windham A. “Methods for Testing Theory and Evaluating Impact in Randomized Field Trials: Intent-to-Treat Analyses for Integrating the

Perspectives of Person, Place, and Time". *Drug and Alcohol Dependence, Volume 95, Supplement 1, S74–S104, June 2008*

9. Kellam SG, Brown CH, Poduska J, Ialongo N, Petras H, Wang W, **Toyinbo P**, Wilcox HC, Ford C, Windham A. "Effects of a Universal Classroom Behavior Management Program in First and Second Grades on Young Adult Behavioral, Psychiatric, and Social Outcomes". *Drug and Alcohol Dependence, Volume 95, Supplement 1, S5–S28, June 2008*

10. Poduska J, Kellam SG, Wang W, Brown CH, Ialongo N, **Toyinbo P**. "Impact of the Good Behavior Game, a Universal Classroom–Based Behavior Intervention, on Young Adult Service Use for Problems with Emotions, Behavior, or Drugs or Alcohol". *Drug and Alcohol Dependence, Volume 95, Supplement 1, S29–S44, June 2008*

11. Kellam SG, Brown CH, Poduska J, Ialongo N, Petras H, Wang W, **Toyinbo P**, Wilcox HC, Ford C, Windham A. "Summary of Cohort 2 Analyses" **-** *Supplementary Material to* "Effects of a Universal Classroom Behavior Management Program in First and Second Grades on Young Adult Behavioral, Psychiatric, and Social Outcomes". *Drug and Alcohol Dependence, Volume 95, Supplement 1, June 2008*

Recent Presentations:

ONGOING QUALITY IMPROVEMENT PARTICIPATION

ONS Gail Powell-Cope (PI) 2018-2020
Quality improvement projects involving partnership between the Veterans Health Administration (VHA) Office of Nursing Services (ONS), the funder, and the Tampa Nursing Innovation Center for Evaluation (NICE):

1. Title: **Evidence-Based Practice Field Advisory Committee Project (EBP FAC)**

The NICE evaluation project's goals:

- Describe how evidence-based practice related social networks develop over time between FAC members and within individual members' local networks to accomplish the FAC group's goals.
- Make recommendations to ONS will be developed to improve dissemination of understanding and adoption of Evidence-Based Practice as a framework for nursing practice within the VA.

Role: Co-Investigator/ Biostatistician

2. Title: **RN Residency Program Project (RNPP)**

The RN Transition to Practice Program (RNTTP), a Nurse Residency Program in the VA is implemented for staff in the first year of transitioning from academics to nursing practice. There are continuing program quality assessments but standardization is needed across all 167 VA Medical centers. NICE will

- Develop and validate a VHA RNTTP End of Program Satisfaction survey tool
- Revise and pilot test the Residency Competency Assessment survey tool to align with the 2015 Commission on Collegiate Nursing Education (CCNE) standards
- Make recommendations to help ONS strengthen this program

Role: Co-Investigator/ Biostatistician

3. Title: **Practice Authority of APRNs in the VHA Project (FPA)**

In September 2017, the Department of Veterans Affairs (VA) released a Directive which permits full practice authority for APRNs in the VA nationwide, even in states that have not yet allowed it. NICE will evaluate Outcomes & Value of Full Practice Authority of APRNs in the VA Healthcare System. Specifically, NICE will:

- Evaluate the impact of VHA full practice authority for Nurse Practitioners on quality indicators for primary and mental health care in the VHA
- Make recommendations based on our evaluations to help ONS strengthen this program

Role: Co-Investigator/ Biostatistician

LATEST RESEARCH PARTICIPATION

DOD Peterson (PI) 2016-2019
Title**: An Automated Pressure Ulcer Monitoring System (PrUMS) to Improve Pressure Ulcer Healing Outcomes for Veterans with Spinal Cord Injury (SCI)**
The study goal is to automate PrU measurement to track PrU healing progress for Veterans with SCI through development and evaluation of a computer aided PrUMS. Role: Co-I/Biostatistician

VA HSR&D 1 I50 HX001233-01 - Mann (PI/Director) 2013-2018
Title: **Center of Innovation on Disability and Rehabilitation Research (CINDRR)**
CINDRR engages in research to improve rehabilitation services and the long-term management of disability, including issues that impact family members. Role: Co-Investigator

IIR 13-196 – Belanger (PI) 2014 – 2018
Title: **Smart Phone Application for Postconcussion Symptom Reduction [HSR&D]**
A 4-year randomized controlled trial to investigate the utility of a smart phone application to reduce post-concussion symptoms and improve family and community participation among Veterans with mild traumatic brain injury. Role: Biostatistician

SDR 12-302 Powell-Cope (PI) 2014 - 2018
Title: **Action ethnography of community reintegration for Veterans with TBI**
The goal of this 4-year longitudinal ethnography of Veterans with moderate to severe TBI is to use a Community-Based Participatory Research approach to better understand the experiences of Veterans with moderate to severe TBI, their families and friends, and Community Reintegration workers as they transition to and sustain living in communities.
Role: Co-I/Biostatistician

RR&D 006325 - Kozel (PI) 2014-2017*
Title**: Targeting Disability from PTSD with Transcranial Magnetic Stimulation**
The primary objective is to test whether right prefrontal cortex 1 Hz repetitive Transcranial Magnetic Stimulation (rTMS) versus right prefrontal cortex 10 Hz rTMS provides a significantly greater improvement in Psychosocial Functioning (IPF) and PTSD symptoms. Role: Biostatistician

VA ONS/QUERI PEC 13-430 - Powell-Cope (PI) 2013-2017
Title: **VA nursing innovations center for evaluation**
The goal of this partnered evaluation center is to evaluate implementation of the VA Pressure Ulcer Prevention Handbook in medical/surgical and critical care units. Role: Co-Investigator

IIR 10-169 – Luther (PI) 2012 – 2016*
Title: **Measuring Quality of Life in Veterans with Deployment-Related PTSD [VA HSR&D]**
To develop a psychometrically sound tool to measure health-related quality of life applicable to wounded warriors with deployment-related PTSD.
Role: Biostatistician

IIR-12-064 - Luther (PI) 2013 – 2016*
Title: **Leveraging Information in the EHR to Measure Pressure Ulcer Risk in Veterans with SCI [VA HSR&D]**
Aims are to develop natural language processing programs to identify the occurrence of pressure ulcers and develop robust risk assessment methods or tests predictive of pressure ulcers. Role: Co-Investigator

RX14-009 – Chapman (PI) 2014 – 2016
Title: **Pre-Treatment Physiological Reactivity and Treatment Outcomes [VA RRD]**

While there are several validated treatment options for PTSD, little objective guidance exists for selecting the best treatment option for a given patient. The primary objective of this grant is to determine whether physiological non-reactors benefit from Prolonged Exposure (PE) therapy for PTSD to the same extent as Veteran reactors. Role: Co-Investigator/Biostatistician

PI: Powell-Cope, Gail M. 2009 - 2012
Title: **Evaluation of the VHA Safe Patient Handling Initiative (SPHI): VISN 8 Patient Safety Center of Inquiry, Tampa VAMC**
In 2008 Veterans Affairs (VA) launched a system-wide effort to implement a national, evidence-based initiative for safe patient handling (SPH) to reduce the severity of patient handling injuries, improve staff satisfaction, increase staff retention and decrease turnover, and improve patient outcomes. The purpose of the program evaluation is to assess the processes and outcomes associated with implementation of the comprehensive SPH Initiative across VA Medical Centers (VAMCs) and across time. Role: Biostatistician

B6237R-PI: Fitzgerald [Groer] 2009 - 2011
Title: **Development of a Quality of Life Tool for Deployment Related TBI [VA HSR&D]**
To develop a psychometrically sound tool to measure health-related quality of life applicable to wounded warriors with deployment-related TBI. Role: Biostatistician

MEMBERSHIPS AND HONORS:

2004-2007	Member, Search Committee for faculty positions, Epidemiology & Biostatistics Department, University of South Florida.
2004-present	Member, Prevention Science and Methodology Group (PSMG)
2010	Member, Florida Mental Health Institute (FMHI) Executive Committee, University of South Florida.
2011-present	Member, VA Statisticians' Association (VASA)
2012-2013	Manuscript reviewer, Journal of Rehabilitation Research & Development Item writer, Item development for the Certified in Public Health (CPH) examination program of the National Board of Public Health Examiners (NBPHE)
2014-present	Reviewer, VA RR&D SPiRE
2015	Reviewer, Service-Directed Research on Gulf War Merit Review

Honors

2009 One of Top 3 Submissions Award in the Annual Early Career Preventionists Network (ECPN) Poster Contest, at the 17th Annual Meeting of the Society for Prevention Research (SPR), Washington, DC