2014 Research Annual Report

Research in Patient Services

Division Summary

**RESEARCH AND TRAINING DETAILS**

<table>
<thead>
<tr>
<th>Details</th>
<th>Value</th>
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<tbody>
<tr>
<td>Number of Faculty</td>
<td>11</td>
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<td>Number of Joint Appointment Faculty</td>
<td>6</td>
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<tr>
<td>Number of Research Fellows</td>
<td>5</td>
</tr>
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<td>Number of Research Students</td>
<td>41</td>
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<td>Number of Support Personnel</td>
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<tr>
<td>Direct Annual Grant Support</td>
<td>$944,119</td>
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<tr>
<td>Peer Reviewed Publications</td>
<td>56</td>
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**CLINICAL ACTIVITIES AND TRAINING**

**Significant Accomplishments**

**Mentoring for Successful Outcomes**

Heather Tubbs Cooley, PhD, RN, is examining the role of missed nursing care as a mediator of the effect of nurse staffing levels on neonatal outcomes through a career development award with mentorship provided by Rita Pickler, PhD, RN, PPCNP-BC, FAAN, Professor and Scientific Director of Nursing. Tubbs Cooley completed post-doctoral training as a Quality Scholar in the James M. Anderson Center (2013), received the inaugural Research Scholars in Patient Services (PS2) Award to study missed nursing care in neonatal intensive care units, analyzed data from Pickler’s existing large data set (resulting in two presentations and two publications), and published several papers related to her emerging program of research. She received the 2014 Brilliant Young Scientist Award from the Council for the Advancement of Nursing Science, a highly prestigious award given to a young scholar who will have a remarkable impact on advancing nursing research and clinical care delivery.

**Translational Science and Collaboration**

Nancy Daraiseh, PhD, specializes in occupational safety and health, and the assessment of workload and work environment on health outcomes in healthcare personnel. She collaborates with individuals from the University of Cincinnati’s Colleges of Nursing and Allied Health Sciences as well as with Maurizio Macaluso, MD, Division of Epidemiology, Cincinnati Children’s, on a study to examine injury under-reporting and near-misses among pediatric nursing personnel, and the impact of individual and organizational factors on these reports.
Additional collaborations include with Drew Barzman, MD, Division of Psychiatry, on the use of motion sensors to monitor patients for early signs of aggression and violence; and with Kathleen Walsh, MD, MSc, The James M. Anderson Center for Health Systems Excellence, on patient and family injury and error reporting. Daraiseh is working on testing an evaluative tool that determines proper personal protective equipment and behavioral plans in psychiatric units with the goals of reducing staff and patient injury and improving care. She has two funded projects related to these areas of research.

**Our Efforts in Reading and Literacy**
Initially created as a research program, the Reading & Literacy Discovery Center (RLDC) has initiated a new program for children with reading disabilities. And the RLDC is piloting a new clinical evaluation program that will expand to meet the needs of the Cincinnati metropolitan area.

Longer-term plans include a literacy outreach arm and a treatment program for dyslexia. RLDC and its partners envision a center that will provide full intervention and assessment services for reading disabilities, with a firm foundation in research. This will provide evidence for the most effective treatments. The RLDC advisory board of leaders from the Cincinnati community meets annually; a website will serve as an informational hub for reading difficulties. The Center is transitioning from a reading research center to a clinical reading and literacy center thanks to the gifts of several generous donors.

**Division Publications**


Faculty, Staff, and Trainees

Faculty Members

Scott Holland, PhD, Professor
  Leadership Director - Research in Patient Services
  Research Interests Advanced neuroimaging applications of MRI in pediatrics

Nancy Daraiseh, PhD, Assistant Professor
  Research Interests Occupational health and safety; human factors; patient safety; health outcomes

Dimitar Deliyski, PhD, Associate Professor
  Leadership Associate Director
  Research Interests Voice and vocal cord research related to otolaryngology surgery

Andrew Dimitrijevic, PhD, Assistant Professor
  Research Interests Electroencephalography related to cochlear implant patients

Karen Harpster, PhD, OTR/L, Assistant Professor
  Research Interests Intervention approaches for children with cerebral palsy and other developmental conditions.

Lisa Hunter, PhD, FAAA, Associate Professor
  Leadership Scientific Director Pediatric Audiology
  Research Interests Middle ear physiology; newborn hearing screening; childhood hearing loss diagnosis

Ann Kummer, PhD, Professor
  Leadership PhD, CCC-SLP, ASHA-F
Research Interests Speech and resonance disorders secondary to cleft palate; craniofacial and orofacial anomalies; velopharyngeal dysfunction

David Moore, PhD, Professor
Leadership Director - Communication Sciences Research Center

Research Interests Psychoacoustic research and how it affects hearing

Rita Pickler, PhD, RN, PNP-BC, FAAN, Professor
Leadership Scientific Director in Nursing

Research Interests Preterm infant care; prematurity prevention; transition to home; biobehavioral research

Jennifer Schmit, DPT, PhD, Assistant Professor

Heather Tubbs-Cooley, PhD, RN, Assistant Professor

Research Interests Outcomes research; health services research; improvement and implementation science; nursing workforce research

Joint Appointment Faculty Members

Tzipi Horowitz-Kraus, PhD, Assistant Professor (General Pediatrics)

Research Interests Program Director - Reading and Literacy Discovery Center. Language executive function in typical children and those with reading difficulties

Jason Long, PhD, Assistant Professor (Director - Motion Analysis Lab)

Research Interests Motion analysis; biomechanics; cerebral palsy; foot and ankle pathology

Ardythe Morrow, PhD, Professor (Neonatology and Pulmonary Biology)

Research Interests Scientific Director of Nutrition Research. Human milk; child health and nutrition

Mark Paterno, PT, PhD, MBA, SCS, ATC, Assistant Professor (Sports Medicine)

Research Interests Physical therapy management; ACL and sports overuse injuries; patellofemoral pain

Catherine Quatman-Yates, PT, DPT, PhD, Assistant Professor (Sports Medicine)

Research Interests Postural sway as biomarker for concussion; upper extremity injuries

Alexander Vinks, PharmD, PhD, FCP, Professor (Clinical Pharmacology)

Research Interests Scientific Director of Pharmacy Research. Population pharmacokinetics, pharmacokinetic-pharmacodynamic modeling, pharmacogenetics/genomics, clinical trial design and simulation, pharmacometrics/systems pharmacology

Trainees
- Shruti Balvati, AuD, University of Cincinnati, Cincinnati, OH
- Aniruddha Deshpande, AuD, University of Cincinnati, Cincinnati, OH
- Alaaeldin Elsayed, MD, AuD, Missouri State University, Springfield, MO
- Rola Farah, PhD, CCC-A, University of Cincinnati, Cincinnati, OH
- Dobrinka Georgieva, PhD, University of Bulgaria, Bulgaria
- Maria Golla, MSP, CCC-SLP, University of Cincinnati, Cincinnati, OH
- Edith Morris, MSN, PhD, University of Cincinnati, Cincinnati, OH
- Yingying Wang, , University of Cincinnati, Cincinnati, OH
- J'ai Watson, MS, University of Cincinnati, Cincinnati, OH
- Yang-soo Yoon, PhD, House (Ear) Research Institute, Los Angeles, CA
Division Collaboration

Noise reduction on Inpatient Units (Nancy Daraiseh, PhD)
  Heart Institute » Angela Kinstler
  Patient Services Informatics » William Vidonish

Patient Reported Errors (Nancy Daraiseh, PhD)
  Biostatistics and Epidemiology » Maurizio Macaluso, MD, DPH
  James M. Anderson Center for Health Systems Excellence » David Hartley, PhD, MPH and Kathleen Walsh, MD, MSC

Barriers and Facilitators of adverse event reporting by patients/families (Nancy Daraiseh, PhD)
  Social Services » Payal Sawhney
  James M. Anderson Center for Health Systems Excellence » Kathleen Walsh, MD, MSC

Clinical Supervision (Nancy Daraiseh, PhD)
  Patient Services - College Hill » Adam Knight Hill

Patient safety research in NICU development team (Heather Tubbs Cooley, PhD, RN)
  Biomedical Informatics » Yizhao Ni, PhD
  James M. Anderson Center for Health Systems Excellence » Kathleen Walsh, MD, MSC
  Section of Neonatology, Perinatal and Pulmonary Biology » Kristin Melton, MD

Pediatric voice outcomes after airway reconstruction (Dimitar Deliyski, PhD)
  Otolaryngology » Alesandro De Alarcon, MD, MPH

Vibratory features of supraglottal phonation (Dimitar Deliyski, PhD)
  Otolaryngology » Charles Myer IV, MD

Access to pediatric voice therapy: a telehealth solution (Dimitar Deliyski, PhD)
  Biostatistics & Epidemiology » Meredith Tabangin
  Otolaryngology » Alesandro De Alarcon, MD, MPH and Lisa Kelchner, PhD
  Speech-Language Pathology » Janet Beckmeyer and Stephanie Zacharias
  Physical Medicine and Rehabilitation » Shari Wade, PhD
  Information Services » Brian Hicks

Clinical assessment of pediatric vocal fold vibration (Dimitar Deliyski, PhD)
  Speech-Language Pathology » Stephanie Zacharias

Evaluation of electrophysiology and psychoacoustics in children with single sided deafness. (Andrew Dimitrijevic, PhD)
  Otolaryngology » Daniel Choo, MD, PhD

Objective measures of speech perception in people with cochlear implants Collaborative Division with names.
Evaluation of electrophysiology and psychoacoustics in children with known genetic disorders of vision. (Andrew Dimitrijevic, PhD)

Human Genetics » Huang Taosheng, MD, PhD

Noise exposure and physiologic measures of cochlear function (Lisa Hunter, PhD)

Sports Medicine » Greg Myer, PhD
Biomedical Informatics » Lily Ding, PhD and Resmi Gupta

Objective measures and outcomes for cochlear implants (Lisa Hunter, PhD)

Audiology » Mike Scott
Otolaryngology » Daniel Choo, MD, PhD

Vestibular assessment in children: Normative aspects and results in children with Enlarged Vestibular Aqueduct (EVA). (Lisa Hunter, PhD)

Audiology » Violette Lavender, AuD and Kay Bachmann, PhD
Otolaryngology » John Greinwald, PhD and Jeffrey Kuhn, MD
Biostatistics and Epidemiology » Jareen Meinzen-Derr, PhD

Wideband translational tests for prediction of middle ear, cochlear and neural hearing loss (NIH R01) (Lisa Hunter, PhD)

Otolaryngology » Sally Shott, MD and Dan Choo, MD, PhD
Biostatistics and Epidemiology » Jareen Meinzen-Derr, PhD

Women, Infant and Children (WIC) and Early Hearing Detection and Intervention (EHDI) to improve loss to follow up for newborn hearing screening (Place Award and CDC grant) (Lisa Hunter, PhD)

Audiology » Kelly Baroch, AuD
Developmental and Behavioral Pediatrics » Susan Wiley, MD
Emergency Medicine » Lisa Vaughn, PhD
Biostatistics and Epidemiology » Jareen Meinzen-Derr, PhD
Section of Neonatology, Perinatal and Pulmonary Biology » Scott Wexelblatt, MD
Otolaryngology » Dan Choo, MD, PhD

Development of childhood testing and training technology (David Moore, PhD)

Biomedical Informatics » John Stullenberger

Evaluation of listening difficulties in children (David Moore, PhD)

Audiology » Lisa Hilbert, AuD

Statistical aspects of childhood hearing problems (David Moore, PhD)

Biomedical Informatics » Lily Ding, PhD

Structural MRI investigations of listening difficulty in children (David Moore, PhD)
Radiology, Pediatric Neuroimaging Research Consortium » Weihong Yuan, PhD

Using eye movements to measure hearing in infants (David Moore, PhD)

Neurology, Pediatric Neuroimaging Research Consortium » J. Adam Wilson, PhD

Reading & Literacy Discovery Center (Scott Holland, PhD and Tzipi Horowitz-Kraus, PhD)

Communication Sciences Research Center » David Moore, PhD

General and Community Pediatrics » Thomas Dewitt, MD, Director and John Hutton, MD

Speech Language Pathology » Ann Kumer, PhD, SLP-CCC, ASHA, Carol Grasha, and Rachelle Schmitz

Psychiatry » Richard Gilman, PhD

Grants, Contracts, and Industry Agreements

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<td>Six Month Follow-up of Functional Electrical Stimulation Neuroprosthesis in Children with Hemiplegic Cerebral Palsy</td>
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<td>Implementation of Antimicrobial Stewardship Interventions in Children’s Hospitals using Benchmarking</td>
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<td>Pfizer, Inc.(Children’s Mercy Hospital)</td>
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<td><strong>DARAISEH, N</strong></td>
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<td>Just-in-Time Methods for Understanding Near-Misses, Injuries &amp; Risk Factors</td>
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<td>Access to Pediatric Voice Therapy: A Telehealth Solution</td>
<td>09/30/12-09/29/14</td>
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<td>Agency for Healthcare Research and Quality(University of Cincinnati)</td>
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<td>Palliative Cancer Care: Music Video for AYA-Parent Communication and Resilience</td>
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<td><strong>HUNTER, L</strong></td>
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<td>Collaboration between WIC and EHDI to Improve Follow-up of Newborn Hearing Screening in Greater Cincinnati</td>
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<td>Centers for Disease Control and Prevention(University of South Carolina)</td>
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<td>Project Title</td>
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<td>Wideband Clinical Diagnosis and Monitoring of Middle-Ear and Cochlear Function</td>
<td>JAEGE, S</td>
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<td>PICKLER, R</td>
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<td>Patterned Experience for Preterm Infant</td>
<td>RIEHLE, E</td>
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<td>Project SEARCH Augmented for Youth with ASD</td>
<td>RUTKOWSKI, S</td>
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<td>Project SEARCH Training Institute Curriculum Development</td>
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<td>Transition Options in Postsecondary Settings for Students with Intellectual Disabilities</td>
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<td>Electric-Acoustic Stimulation and Neurological Measure</td>
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Current Year Direct: $944,119  
Total: $944,119