BIOGRAPHICAL SKETCH

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NAME: Quadri, Mohammed

eRA COMMONS USER NAME (credential, e.g., agency login): Quadri

POSITION TITLE: Vice President Strategy for Academics, Research and Innovation

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	Completion Date MM/YYYY	FIELD OF STUDY
St. Petersburg State Medical Academy Named after Mechnikov, St. Petersburg, Russia	MD	05/2001	Internal Medicine
Perfect Computers, Hyderabad, India	Post Grad	06/2002	Computer Applications
Stratford College, London, UK	Post Grad	06/2004	Business Studies
University of Arizona Global Campus (formerly Ashford University)	MBA	06/2016	Healthcare Administration

A. Personal Statement

My research career has focused on improving patient care and outcomes through innovative approaches, particularly in sleep disorders and metabolic syndrome. I leverage secondary data to identify disparities in health outcomes and develop targeted interventions. I am particularly interested in understanding the complex interplay between sleep disorders and metabolic syndrome, and how these factors contribute to health disparities in vulnerable populations. My research experience includes leading and participating in numerous studies on these topics, publishing extensively in peer-reviewed journals, and developing expertise in secondary data analysis. My research has made significant contributions, including developing a value-based care model for sleep disorders, identifying the prevalence of sleep apnea in specific populations, and investigating the relationship between sleep apnea and metabolic syndrome.

I am committed to continuing my research on sleep disorders and metabolic syndrome, with a focus on addressing health disparities and improving health outcomes especially for vulnerable populations. I am particularly interested in developing and implementing culturally-sensitive interventions, facilitating earlier diagnosis utilizing advanced technologies, and collaborating with community organizations and policymakers. I am confident that my research experience, skills, and commitment to addressing health disparities make me well-suited to lead this proposed project. I have collaborated with various investigators in the past, and I believe that these collaborations will allow me to lead this project along with the other subject matter experts in endocrinology and sleep disorders clinicians.

B. Positions, Scientific Appointments, and Honors

2022-present   Assistant Professor, Medicine Department, Hackensack Meridian School of Medicine
2022-present   VP, Strategy for Academics, Research and Innovation
2018-2022   Director Strategy, North, Hackensack Meridian Health

2017-2018	Network Director, Strategic Development, Hackensack Meridian Health
2016	Certified Public Health Professional (CPH), National Board of Public Health Examiners
2015-2017	Director of Epidemiological Strategies, Research Investigator, Department of Patient Care, Hackensack University Medical Center, Hackensack, NJ
2014	Black Belt, Lean Six Sigma, Villanova University, Villanova, PA
2013-2015	Epidemiology Specialist, Research Investigator, Department of Patient Care, Hackensack University Medical Center, Hackensack, NJ
2006-2013	Research Investigator, Institute of Sleep and Wake Disorders, Hackensack University Medical Center, Hackensack, NJ

C. Contributions to Science

1. Sleep Disturbances and Comorbid Conditions: Most of my previous work has focused on creating clinical decision-making pathways for early diagnosis and management of sleep apnea considering comorbid conditions. These studies showed the prevalence of sleep apnea in patients with COPD, Chronic Kidney Disease, and patients with TBI. It is important to include sleep apnea in the clinical decision-making pathways and detect and early diagnose sleep apnea in above mentioned comorbid conditions.
   a. Zafarlotfi S, Ashtyani H, **Quadri M**. Prevalence of insomnia in geriatric COPD patients who are enrolled in a pulmonary rehabilitation program. Abstract, Chest, Vol, 134 No. 4, pp. 23002, Annual ACCP Conference, Philadelphia, PA, October 2008.
   b. Zafarlotfi S, Ashtyani H, **Quadri M.** Effects of prolonged Nocturnal Hemodialysis on Sleep Apnea. Abstract, Chest, Vol. 136, No. 4, pp. 66, Annual ACCP Conference, San Diego, CA, November 2009.
   c. Zafarlotfi S, **Quadri M,** Borodovsky J. Understanding Brain Damage and Sleep Apnea: A Review. Health Outcomes Research in Medicine Vol. 1, Issue 2, pp. e103-e110, 2010, DOI: 10.1016/j.ehrm.2010.09.004.
   d. **Quadri M.** Fibromyalgia and Sleep. A2Zzzz - American Association of Sleep Technologists, Vol 19 Issue 1, 2010.

2. Sleep Apnea Treatments: CPAP is an effective treatment option in patients with sleep apnea. To improve compliance with treatment, it is important to provide guidelines for patients to ensure proper and effective methods are used for patient CPAP adherence. There are other alternative options that one might choose based on the severity of sleep apnea. This study demonstrated the importance of timing between meals to improve CPAP compliance and adherence.
   a. **Quadri M**. Alternative OSA Treatment Options. Sleep Review - The Journal of Sleep Specialists, November 2011.
   b. **Quadri M**. Research Highlights: Meal Time and CPAP compliance. A2Zzzz - American Association of Sleep Technologists, Vol 18 Issue 3, 2009.
   c. Zafarlotfi S, Ashtyani H, **Quadri MN.** To examine the correlation between CPAP and timing of last meal before bed time. Abstract, Sleep, Vol. 32, p.17, Sleep 2009: 23th Annual Meeting of the Associated Professional Sleep Societies, Seattle, WA, June 2009.

3. Impacts of Sleep Apnea: One specific breath biomarker is fractional exhaled Nitric Oxide (FENO). Currently, FENO is used to detect, diagnose, and manage other pathologies, such as airway inflammatory diseases, including asthma. This study confirmed that FENO could be used to screen sleep apnea and can be incorporated into a portable device that could be cost-effective, sensitive (ppb), and clinically acceptable. This research could serve as a base for the creation of a prototype and proof-of-concept of future computer simulations of sleep-related metabolic cycles. Such simulations would economize and optimize our research efforts increasing our ROI (return on our research "investments"). The simulation prototype characteristics include but are not limited to: a) a suite of inter-related animated simulations scalable up to and optimized to run on multiple operating systems; b) User-defined variable-driven simulations; c) multi-layered hierarchical structure from cellular up to organ levels.

   a. **Quadri M,** Sleep, Obstructive Sleep Apnea and Memory. A2Zzzz - American Association of Sleep Technologists, Vol 18 Issue 2, 2009.

   b. Zafarlotfi S, Nyirenda T, Lyons L, Ruskin M, Ashtyani H, **Quadri M.** Fractionally Exhaled Nitric Oxide in Sleep Apnea, Abstract, Sleep, Vol. 33 pp.109, Sleep 2010: 24th Annual Meeting of Associated Professional Sleep Societies, San Antonio, TX, 2010.

   c. **Quadri M,** Obstructive Sleep Apnea and the Immune system. A2Zzzz - American Association of Sleep Technologists, Vol 17, Issue 4, 2008.

4. Delivery of Value-Based Care: In recent years I have worked on implementing epidemiological strategies and creating a value-based care model in alignment with the triple aim of IHI (provide quality care at low cost with improved patient experience). I utilize a data-driven Lean Six Sigma process improvement methodology to eliminate waste by determining a current value stream map and establishing a future value stream map. This work highlights the importance of a value-based care model to improve population health and reduce per capita costs. This model provides a platform to improve care and the importance of incorporating a multidisciplinary team in creating and implementing clinical decision-making pathways in both acute and chronic care settings and maintaining continuity of care.

   a. Douglas C, Aroh D, Colella J, **Quadri M.** The HackensackUMC Value-Based Care Model: Building Essentials for Value-Based Purchasing. Nurs Adm Q. 2016 Jan-Mar;40(1):51-9. PMID: 26636234

Complete List of Published Work in MyBibliography:

https://pmc.ncbi.nlm.nih.gov/articles/PMC9453623/

https://pubmed.ncbi.nlm.nih.gov/29077594/

https://pubmed.ncbi.nlm.nih.gov/26636234/