

Frank Papa, DO, PhD
Medical Education & Health Systems Science
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Area of Expertise

Dr. Papa's research interest in education began shortly after joining UNTHSC in 1979 when a student asked him to explain how he was using each piece of patient data, one sign and symptom at a time, to arrive at a diagnosis. While unable to provide a coherent answer, he used his programming and math skills to create a crude, computer-based model that could explicitly represent how a physician might process each sign/symptom while diagnosing patients with acute chest pain.

This computer-based representation of diagnostic reasoning eventually led to the construction of an artificial intelligence tool called KBIT. Dr. Papa has since redesigned KBIT as an intelligent, web-based tutor that allows students to acquire the declarative knowledge and procedural knowledge that serve as antecedents to the development of diagnostic competence.

Qualifications

DO, Philadelphia College of Osteopathic Medicine
PhD in Higher Education, University of North Texas

Recent Publications

Semantic competence and prototypical verbalizations are associated with higher OSCE and global medical degree scores: A multi-theory pilot study on year 6 medical student verbalizations

Diogo, P. G., Pereira, V. H., Papa, F., Van Der Vleuten, C., Durning, S. J. & Sousa, N., 1 Aug 2023, In: Diagnosis (Berlin, Germany). 10, 3, p. 249-256 8 p.

Medical Student Perception of Lifestyle Medicine and Willingness to Engage in Lifestyle Counseling: A Pilot Study of Allopathic and Osteopathic Medical Students

Lee, J. S., Xierali, I. M., Jaini, P. A., Jetpuri, Z. & Papa, F., 1 Mar 2023, In: American Journal of Lifestyle Medicine. 17, 2, p. 280-289 10 p.

Effects of using an abdominal simulator to develop palpatory competencies in 3rd year medical students

Hamm, R. M., Kelley, D. M., Medina, J. A., Syed, N. S., Harris, G. A. & Papa, F. J., Dec 2022, In: BMC Medical Education. 22, 1, 63.

An Epigenetic Perspective on Lifestyle Medicine for Depression: Implications for Primary Care Practice

Lee, J. S., Jaini, P. A. & Papa, F., Jan 2022, In: American Journal of Lifestyle Medicine. 16, 1, p. 76-88 13 p.

Learning Sciences Theories, Principles, and Practices Comprising a Framework for Designing a New Approach to Health Professions Education

Papa, F. J., Feb 2021, In: Medical Science Educator. 31, 1, p. 241-247 7 p.

An Epigenetics-Based, Lifestyle Medicine-Driven Approach to Stress Management for Primary Patient Care: Implications for Medical Education

Lee, J., Papa, F., Jaini, P. A., Alpini, S. & Kenny, T., 1 May 2020, In: American Journal of Lifestyle Medicine. 14, 3, p. 294-303 10 p.

Aggregated student confidence estimates support continuous quality improvements in a competencies-oriented curriculum

Papa, F. J. & Alexander, J. H., 1 Mar 2019, In: BMJ open quality. 8, 1, e000398.

Competencies for improving diagnosis: An interprofessional framework for education and training in health care

Olson, A., Rencic, J., Cosby, K., Ruzs, D., Papa, F., Croskerry, P., Zierler, B., Harkless, G., Giuliano, M. A., Schoenbaum, S., Colford, C., Cahill, M., Gerstner, L., Grice, G. R. & Graber, M. L., 2019, In: *Diagnosis* (Berlin, Germany). 6, 4, p. 335-341 7 p.

Improving diagnosis by improving education: A policy brief on education in healthcare professions

Graber, M. L., Rencic, J., Ruzs, D., Papa, F., Croskerry, P., Zierler, B., Harkless, G., Giuliano, M., Schoenbaum, S., Colford, C., Cahill, M. & Olson, A. P. J., 25 Sep 2018, In: *Diagnosis* (Berlin, Germany). 5, 3, p. 107-118 12 p.

A Dual Processing Theory Based Approach to Instruction and Assessment of Diagnostic Competencies

Papa, F. J., 1 Dec 2016, In: *Medical Science Educator*. 26, 4, p. 787-795 9 p.

Sponsored Projects

Comparison of the Diagnostic Performance of Pre-Clinical Medical Students Trained via Dual Processing Theory versus a Traditional Faculty Led Approach to Differential Diagnosis

Papa, F. (PI)

AACOM: Amer Assoc of Coll of Osteo Med

1/09/13 → 28/02/15