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Medical Education  
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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

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

## Recent Publications

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

Lee, J., Papa, F. J., Jaini, P. A., Alpini, S. & Kenny, T., 1 Jan 2019, In : American Journal of Lifestyle Medicine.

### **Improving diagnosis by improving education: a policy brief on education in healthcare professions**

Graber, M. L., Rencic, J., Rusz, D., Papa, F. J., 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.

### **Faculty development directed at curricular reforms designed to improve patient outcomes**

Papa, F. J. & D'Agostino, D., 1 Nov 2016, In : Journal of the American Osteopathic Association. 116, 11, p. 736-741 6 p.

### **Outcomes-oriented medical training: A critical curricular design consideration in developing 21st century health care professionals**

D'Agostino, D. & Papa, F. J., 1 Nov 2016, In : Journal of the American Osteopathic Association. 116, 11, p. 742-746 5 p.

### **Envisioning a global role for osteopathic medicine in the 21st century: Using Blue Ocean Strategy to promote osteopathic health care as the World's leader in healthcare education and do it more efficiently, effectively and at the lowest cost**

Slocum, P. C. & Papa, F. J., 1 Jan 2014, In : International Journal of Osteopathic Medicine. 17, 1, p. 38-42 5 p.

### **Practitioner Research Literacy Skills in Undergraduate Medical Education: Thinking Globally, Acting Locally**

des Crusier, A., Brown, S. K., Ingram, J. R., Papa, F. J., Podawiltz, A. L., Lee, D. & Knox, V., 1 Oct 2012, In : Medical Science Educator. 22, 3, p. 162-184 23 p.

### **A comparison of different tutorial materials for teaching chest pain diagnosis**

Hamm, R. M., Fetters, N. L., Mui, J. W., Li, Y., Papa, F. J. & Aldrich, D. G., 1 Jan 2009, In : Journal of Physician Assistant Education. 20, 3, p. 6-14 9 p.

**Cognitive and Social Issues in Emergency Medicine Knowledge Translation: A Research Agenda**

Brehaut, J. C., Hamm, R., Majumdar, S., Papa, F. J., Lott, A. & Lang, E., 1 Nov 2007, In : Academic Emergency Medicine. 14, 11, p. 984-990 7 p.

**Improving diagnostic capabilities of medical students via application of cognitive sciences-derived learning principles**

Papa, F. J., Oglesby, M., Aldrich, D. G., Schaller, F. & CIPHER, D. J., 1 Apr 2007, In : Medical Education. 41, 4, p. 419-425 7 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.

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1/09/13 → 28/02/15