

### List of Peer-Reviewed Publications from the Jefferson Longitudinal Study

1. Ashikawa, H., Hojat, M., Zeleznik, C., & Gonnella, J. S. (1991). Reexamination of relationships between students' undergraduate majors, medical school performances, and career plans at Jefferson Medical College. *Academic Medicine*, 66(8), 458–464.
2. Ashikawa, H., Xu, G., & Veloski, J. J. (1992). Students' ratings of otolaryngology clerkship activities: the role of residents. *Medical Teacher*, 14(1), 77–81.
3. Berg K, Majdan JF., Berg D, Veloski JJ, Hojat M. (2011). Medical students' self-reported empathy and simulated patients' assessments of student empathy: an analysis by gender and ethnicity. *Academic Medicine*, 86(8):984-988.
4. Berg, K., Blatt, B., Lopreiato, J., Jung, J., Schaeffer, A., Heil, D., ... Hojat, M. (2015). Standardized Patient Assessment of Medical Student Empathy: Ethnicity and Gender Effects in a Multi-Institutional Study. *Academic Medicine*, 90(1), 105–111.  
<http://doi.org/10.1097/ACM.0000000000000529>
5. Berg, K., Majdan, J. F., Berg, D., Veloski, J., & Hojat, M. (2011). A comparison of medical students' self-reported empathy with simulated patients' assessments of the students' empathy. *Medical Teacher*, 33(5), 388–391.  
<http://doi.org/10.3109/0142159X.2010.530319>
6. Blacklow, R. S., Goepp, C. E., & Hojat, M. (1991). Class ranking models for deans' letters and their psychometric evaluation. *Academic Medicine*, 66(9 Suppl), S10–12.
7. Blacklow, R., Goepp, C. E., & Hojat, M. (1993). Further psychometric evaluations of a class-ranking model as a predictor of graduates' clinical competence in the first year

of residency. *Academic Medicine*, 68(4), 295–297.

8. Boulis, A., Jacobs, J., & Veloski, J. (2001). Gender Segregation by Specialty during Medical School. *Academic Medicine*, 76(10), S65–67.
9. Bruce, T. A., Bowman, J. M., & Brown, S. T. (1998). Factors that influence patient satisfaction in the emergency department. *Journal of Nursing Care Quality*, 13(2), 31–37.
10. Bu, Paula, J. Jon Veloski, and Nethra S. Ankam. “Effects of a Brief Curricular Intervention on Medical Students’ Attitudes Toward People with Disabilities in Healthcare Settings.” *American Journal of Physical Medicine & Rehabilitation* 95, no. 12 (December 2016): 939–45. <https://doi.org/10.1097/PHM.0000000000000535>.
11. Bucher, J. T., Vu, D. M., & Hojat, M. (2013). Psychostimulant drug abuse and personality factors in medical students. *Medical Teacher*, 35(1), 53–57. <http://doi.org/10.3109/0142159X.2012.731099>
12. Callahan, C. A., Hojat, M., & Gonnella, J. S. (2007). Volunteer bias in medical education research: an empirical study of over three decades of longitudinal data. *Medical Education*, 41(8), 746–753. <http://doi.org/10.1111/j.1365-2923.2007.02803.x>
13. Callahan, C. A., Hojat, M., Veloski, J., Erdmann, J. B., & Gonnella, J. S. (2010). The predictive validity of three versions of the MCAT in relation to performance in medical school, residency, and licensing examinations: a longitudinal study of 36 classes of Jefferson Medical College. *Academic Medicine*, 85(6), 980–987. <http://doi.org/10.1097/ACM.0b013e3181cece3d>

14. Callahan, C., Veloski, J. J., Xu, G., Hojat, M., Zeleznik, C., & Gonnella, J. S. (1992). The Jefferson-Penn State B.S.-M.D. program: a 26-year experience. *Academic Medicine*, 67(11), 792–797.
15. Callahan, C., Erdmann, J., Hojat, M., Veloski, J., Rattner, S., Nasca, T., & Gonnella, J. (2000). Validity of Faculty Ratings of Students' Clinical Competence in Core Clerkships in Relation to Scores on Licensing Examinations and Supervisors' Ratings in Residency. *Academic Medicine*, 75(10 Suppl), S71–3.  
<http://doi.org/10.1097/00001888-200010001-00023>
16. Collier, V., Hojat, M., Rattner, S., Gonnella, J., Erdmann, J., & Nasca, T. (2001). Correlates of Young Physicians' Support for Unionization to Maintain Professional Influence. *Academic Medicine*, 76(10), 1039–44.  
<http://doi.org/10.1097/00001888-200110000-00014>
17. Cooter, R., Erdmann, J. B., Gonnella, J. S., Callahan, C. A., Hojat, M., & Xu, G. (2004). Economic diversity in medical education: the relationship between students' family income and academic performance, career choice, and student debt. *Evaluation & the Health Professions*, 27(3), 252–264. <http://doi.org/10.1177/0163278704267041>
18. Damjanov, I., Fenderson, B. A., Hojat, M., & Rubin, E. (2005). Curricular reform may improve students' performance on externally administered comprehensive examinations. *Croatian Medical Journal*, 46(3), 443–8.
19. Erdmann, J.B., Hojat, M. & Veloski, J.J. (1992). Comparing the accuracies of entire-group and subgroup models to predict NBME-I scores for medical school applicants. *Academic Medicine*, 67(12), 860–2.

<http://doi.org/10.1097/00001888-199212000-00014>

20. Fenderson, B. A., Hojat, M., Damjanov, I., & Rubin, E. (1999). Characteristics of medical students completing an honors program in pathology. *Human Pathology*, *30*(11), 1296–1301. [http://doi.org/10.1016/S0046-8177\(99\)90059-X](http://doi.org/10.1016/S0046-8177(99)90059-X)
21. Fields, S. K., Hojat, M., Gonnella, J. S., Mangione, S., Kane, G., & Magee, M. (2004). Comparisons of Nurses and Physicians on an Operational Measure of Empathy. *Evaluation & the Health Professions*, *27*(1), 80–94. <http://doi.org/10.1177/0163278703261206>
22. Fields, S. K., Mahan, P., Tillman, P., Harris, J., Maxwell, K., & Hojat, M. (2011). Measuring empathy in healthcare profession students using the Jefferson Scale of Physician Empathy: Health provider – student version. *Journal of Interprofessional Care*, *25*(4), 287–293. <http://doi.org/10.3109/13561820.2011.566648>
23. Forouzan, I., & Hojat, M. (1993). Stability and Change of Interest in Obstetrics-Gynecology among Medical Students: Eighteen Years of Longitudinal Data. *Academic Medicine*, *68*(12), 919–22.
24. Forstater, A., Hojat, M., Chauhan, N., Allen, A., Schmidt, S. G., Brigham, J., ... Christopher, A. (2012). Does Patient Perception of Physician Empathy Affect Patient Compliance in the Emergency Department? (Abstract 274) *Annals of Emergency Medicine*, *60*(4), S98. <http://doi.org/10.1016/j.annemergmed.2012.06.252>
25. Gartland, J. J., Hojat, M., Christian, E. B., Callahan, C. A., & Nasca, T. J. (2003). African American and White Physicians: A Comparison of Satisfaction with Medical

Education, Professional Careers, and Research Activities. *Teaching and Learning in Medicine*, 15(2), 106–12.

26. Glaser, K., Hojat, M., & Callahan, C. (n.d.). Evaluation of an enrichment programme for entering medical student predicted to be in need of academic preparation. *Education for Health*, 9, 221–228.
27. Glaser, K., Hojat, M., Veloski, J. J., Blacklow, R.S., & Goepf, C. E. (1992). Science, Verbal, or Quantitative Skills: Which is the Most Important Predictor of Physician Competence? *Educational and Psychological Measurement*, 52(2), 395–406.  
<http://doi.org/10.1177/0013164492052002015>
28. Gonnella, J.S. (1993). *Assessment measures in medical school, residency, and practice: the connections*. New York: Springer Pub. Co.
29. Gonnella, J.S., Callahan, C.A., Erdmann, J.B., Veloski, J.J., Jafari, N., Markle, R.A., Hojat, M. (2020). Preparation for the MD: How long, at what cost, with what outcome? *Academic Medicine* (posted ahead of print). Accessible at:  
[https://journals.lww.com/academicmedicine/Abstract/9000/Preparing\\_for\\_the\\_MD\\_\\_How\\_Long\\_at\\_What\\_Cost\\_and.97242.aspx](https://journals.lww.com/academicmedicine/Abstract/9000/Preparing_for_the_MD__How_Long_at_What_Cost_and.97242.aspx)
30. Gonnella, J.S., Callahan, C.A., Louis, D., Hojat, M., & Erdmann, J.B. (2004). Medical education and health services research: The linkage. *Medical Teacher*, 26(1), 7–11.  
<http://doi.org/10.1080/0142159032000156515>
31. Gonnella, J. S., Erdmann, J. B., & Hojat, M. (2004). An empirical study of the predictive validity of number grades in medical school using 3 decades of longitudinal data:

implications for a grading system. *Medical Education*, 38(4), 425–434.

<http://doi.org/10.1111/j.1365-2923.2004.01774.x>

32. Gonnella, J.S., & Hojat, M. (1983). Relationship between performance in medical school and postgraduate competence. *Journal of Medical Education*, 58(9), 679–85.

<http://doi.org/10.1097/00001888-198309000-00001>

33. Gonnella, J., Hojat, M., Erdmann, J., & Veloski, J. (1998). The role of resident performance evaluation in board certification. In E.L. Mancall & P.G. Bashook (Eds.), *Evaluating Residents for Board Certification*. (pp.3-14). Evanston, IL: American Board of Medical Specialties.

34. Gonnella, J., Hojat, M., Erdmann, J., & Veloski, J. (1993). What have we learned, and where do we go from here? *Academic Medicine*, 68, S79–S87.

35. Gonnella, J. S. & Hojat, M. (2001). Biotechnology and ethics in medical education of the new millennium: physician roles and responsibilities. *Medical Teacher*, 23(4), 371–377. <http://doi.org/10.1080/01421590120042982>

36. Gonnella, J. S. & Hojat, M. (2012). Medical education, social accountability and patient outcomes. *Medical Education*, 46(1), 3–4.

<http://doi.org/10.1111/j.1365-2923.2011.04157.x>

37. Gonnella, J. S., Hojat, M., Erdmann, J. B., & Veloski, J. J. (1993). A case of mistaken identity: signal and noise in connecting performance assessments before and after graduation from medical school. *Academic Medicine*, 68(2 Suppl), S9–16.

38. Gonnella, J. S., Hojat, M., Erdmann, J. B., & Veloski, J. J. (1996). The impact of early career

specialization on licensing requirements and related educational implications.

*Advances in Health Sciences Education*, 1(2), 125–139.

<http://doi.org/10.1007/BF00159277>

39. Gonnella, J. S., Hojat, M., & Veloski, J. (2011). AM Last Page: The Jefferson Longitudinal Study of Medical Education: *Academic Medicine*, 86(3), 404.  
<http://doi.org/10.1097/ACM.0b013e31820bb3e7>
40. Gonnella, J. S., Hojat, M., Veloski, J. J., & Zeleznik, C. (1983). Measuring the contribution of medical education to patient care: a review. *Proceedings of the Annual Conference on Research in Medical Education*, 22, 3–16.
41. Gonnella, J. S., & Veloski, J. J. (1982). The impact of early specialization on the clinical competence of residents. *The New England Journal of Medicine*, 306(5), 275–277.  
<http://doi.org/10.1056/NEJM198202043060505>
42. Gonnella, J. S., Veloski, J. J., Xu, G., & Hojat, M. (1994). Social responsibilities of medical schools. *Educacao Medica*, 86–97.
43. Gottlieb, J., Fields, S. K., Hojat, M., & Veloski, J. J. (1995). Should half of all medical school graduates enter primary care? Perceptions of faculty members at Jefferson Medical College. *Academic Medicine*, 70(12), 1125–1133.
44. Herman, M., & Veloski, J. J. (1980). Performance and career expectations of women medical students: A comparison with men. *The New England Journal of Medicine*, 302, 1035–36.
45. Herman, M., Veloski, J. J., & Hojat, M. (1982). Professional attitudes and interpersonal

relationships of physicians: are they a problem? *Proceedings of the Twenty-First Annual Conference on Research in Medical Education.*, 117–122.

46. Herman, M. W. (1984). Medical students' opinions concerning the health care system. *Journal of Community Health*, 9(3), 196–205. <http://doi.org/10.1007/BF01326700>
47. Herman, M. W. (1985). Medical Students' Opinions on Economic Aspects of the Health Care System. *Journal of Medical Education*, 60(6), 431–38.
48. Herman, M. W., & Veloski, J. (1977). Family Medicine and Primary Care: Trends and Student Characteristics. *Journal of Medical Education*, 52, 99-106.
49. Herman, M. W., & Veloski, J. J. (1981). Premedical training, personal characteristics and performance in medical school. *Medical Education*, 15(6), 363–367.
50. Herman, M. W., Veloski, J. J., & Hojat, M. (1983). Validity and importance of low ratings given medical graduates in noncognitive areas. *Journal of Medical Education*, 58(11), 837–843.
51. Hojat, M. (1996). Perception of maternal availability in childhood and selected psychosocial characteristics in adulthood. *Genetic, Social, and General Psychology Monographs*, 122(4), 425–450.
52. Hojat, M. (1998). Protecting adolescents from harm. *Journal of the American Medical Association*, 279(5), 353–354.
53. Hojat, M. (1998). Satisfaction with Early Relationships with Parents and Psychosocial Attributes in Adulthood: Which Parent Contributes More? *The Journal of Genetic Psychology*, 159(2), 203–220. <http://doi.org/10.1080/00221329809596146>



54. Hojat, M. (2012). Viewpoint: guiding medical students toward empathetic patient care. *AAMC Reporter*, 21(6), 3.
55. Hojat, M. (2014). Assessments of empathy in medical school admissions: what additional evidence is needed? *International Journal of Medical Education*, 5, 7–10.  
<http://doi.org/10.5116/ijme.52b7.5294>
56. Hojat, M., Axelrod, D., Spandorfer, J., & Mangione, S. (2013). Enhancing and sustaining empathy in medical students. *Medical Teacher*, 35(12), 996-1001.  
<http://doi.org/10.3109/0142159X.2013.802300>
57. Hojat, M., Blacklow, R. S., Robeson, M., Veloski, J. J., & Borenstein, B. D. (1990). Postbaccalaureate preparation and performance in medical school. *Academic Medicine*, 65(6), 388–391.
58. Hojat, M., Borenstein, B. D., & Veloski, J. J. (1988). Cognitive and noncognitive factors in predicting the clinical performance of medical school graduates. *Journal of Medical Education*, 63(4), 323–325.
59. Hojat, M., Brigham, T. P., Gottheil, E., Xu, G., Glaser, K., & Veloski, J. J. (1998). Medical students' personal values and their career choices a quarter-century later. *Psychological Reports*, 83(1), 243–248. <http://doi.org/10.2466/pr0.1998.83.1.243>
60. Hojat, M., Callahan, C. A., & Gonnella, J. S. (2004). Students' personality and ratings of clinical competence in medical school clerkships: a longitudinal study. *Psychology, Health & Medicine*, 9(2), 247–252. <http://doi.org/10.1080/13548500410001670771>
61. Hojat, M., & Gonnella, J. S. "In Reply to Quinn and Zelenski." *Academic Medicine: Journal*

of the Association of American Medical Colleges 92, no. 9 (September 2017): 1219.  
<https://doi.org/10.1097/ACM.0000000000001853>.

62. Hojat, Mohammadreza, and Joseph S. Gonnella. "What Matters More About the Interpersonal Reactivity Index and the Jefferson Scale of Empathy? Their Underlying Constructs or Their Relationships With Pertinent Measures of Clinical Competence and Patient Outcomes?" *Academic Medicine* 92, no. 6 (June 2017): 743.  
<https://doi.org/10.1097/ACM.0000000000001424>.
63. Hojat, Mohammadreza, Jennifer DeSantis, and Joseph S. Gonnella. "Patient Perceptions of Clinician's Empathy: Measurement and Psychometrics." *Journal of Patient Experience* 4, no. 2 (June 2017): 78–83. <https://doi.org/10.1177/2374373517699273>.
64. Hojat, M., Erdmann, J. B., & Gonnella, J. S. (2014). *AMEE Guide 79 : Personality assessments and outcomes in medical education and the practice of medicine*. Dundee, UK: *Association for Medical Education in Europe (AMEE)*.
65. Hojat, M., Erdmann, J. B., Robeson, M., Damjanov, I., & Al, E. (1994). A study of psychometric characteristics of abridged versions of selected psychological measures given to medical school students for the purpose of predicting their clinical competence. *Interdisciplinaria*, 11, 129–148.
66. Hojat, M., Erdmann, J. B., Veloski, J. J., Nasca, T. J., Callahan, C. A., Julian, E., & Peck, J. (2000). A validity study of the writing sample section of the medical college admission test. *Academic Medicine*, 75(10 Suppl), S25–27.
67. Hojat, M., Fields, S., & Gonnella, J. S. (2003). Empathy: an NP/MD comparison. *The Nurse*

*Practitioner*, 28(4), 45–7. <http://doi.org/10.1097/00006205-200304000-00010>

68. Hojat, M., Fields, S. K., Rattner, S. L., Griffiths, M., Cohen, M. J., & Plumb, J. D. (1997). Attitudes toward physician-nurse alliance: comparisons of medical and nursing students. *Academic Medicine*, 72(10 Suppl 1), S1–3.
69. Hojat, M., Fields, S. K., Veloski, J. J., Griffiths, M., Cohen, M. J., & Plumb, J. D. (1999). Psychometric properties of an attitude scale measuring physician-nurse collaboration. *Evaluation & the Health Professions*, 22(2), 208–220.
70. Hojat, M., Glaser, K. M., & Veloski, J. J. (1996). Associations between selected psychosocial attributes and ratings of physician competence. *Academic Medicine*, 71(10 Suppl), S103–105.
71. Hojat, M., Glaser, K., Xu, G., Veloski, J. J., & Christian, E. B. (1999). Gender comparisons of medical students' psychosocial profiles. *Medical Education*, 33(5), 342–349.
72. Hojat, M., & Gonnella, J. S. (2011). An instrument for measuring pharmacist and physician attitudes towards collaboration: preliminary psychometric data. *Journal of Interprofessional Care*, 25(1), 66–72. <http://doi.org/10.3109/13561820.2010.483368>
73. Hojat, M., & Gonnella, J. S. (2015). Eleven Years of Data on the Jefferson Scale of Empathy-Medical Student Version (JSE-S): Proxy Norm Data and Tentative Cutoff Scores. *Medical Principles and Practice: International Journal of the Kuwait University, Health Science Centre*, 24, 344–350. <http://doi.org/10.1159/000381954>
74. Hojat, M., Gonnella, J. S., Erdmann, J. B., Rattner, S.L., Veloski, J.J., Glaser, K., Xu, G. (2000). Gender comparisons of income expectations in the USA at the beginning of

medical school during the past 28 years. *Social Science & Medicine* (1982), 50(11), 1665–72. [http://doi.org/10.1016/S0277-9536\(99\)00407-4](http://doi.org/10.1016/S0277-9536(99)00407-4)

75. Hojat, M., Gonnella, J. S., Erdmann, J. B., & Veloski, J. J. (1996). The fate of medical students with different levels of knowledge: Are the basic medical sciences relevant to physician competence? *Advances in Health Sciences Education: Theory and Practice*, 1(3), 179–196. <http://doi.org/10.1007/BF00162915>

76. Hojat, M., Gonnella, J. S., Erdmann, J. B., Veloski, J. J., Louis, D. Z., Nasca, T. J., & Rattner, S. L. (2000). Physicians' perceptions of the changing health care system: comparisons by gender and specialties. *Journal of Community Health*, 25(6), 455–471.

77. Hojat, M., Gonnella, J. S., Erdmann, J. B., Veloski, J. J., & Xu, G. (1995). Primary care and non-primary care physicians: a longitudinal study of their similarities, differences, and correlates before, during, and after medical school. *Academic Medicine*, 70(1 Suppl), S17–28.

78. Hojat, M., Gonnella, J. S., Erdmann, J. B., & Vogel, W. H. (2003). Medical students' cognitive appraisal of stressful life events as related to personality, physical well-being, and academic performance: a longitudinal study. *Personality and Individual Differences*, 35(1), 219–235.  
[http://doi.org/10.1016/S0191-8869\(02\)00186-1](http://doi.org/10.1016/S0191-8869(02)00186-1)

79. Hojat, M., Gonnella, J. S., Mangione, S., Nasca, T. J., Veloski, J. J., Erdmann, J. B., ... Magee, M. (2002). Empathy in medical students as related to academic performance, clinical competence and gender. *Medical Education*, 36(6), 522–527.

<http://doi.org/10.1046/j.1365-2923.2002.01234.x>

80. Hojat, M., Gonnella, J. S., Mangione, S., Nasca, T. J., & Magee, M. (2003). Physician empathy in medical education and practice: experience with the Jefferson scale of physician empathy. *Seminars in Integrative Medicine, 1*(1), 25–41.  
[http://doi.org/10.1016/S1543-1150\(03\)00002-4](http://doi.org/10.1016/S1543-1150(03)00002-4)
81. Hojat, M., Gonnella, J. S., Nasca, T. J., Fields, S. K., Cicchetti, A., Lo Scalzo, A., ... Torres-Ruiz, A. (2003). Comparisons of American, Israeli, Italian and Mexican physicians and nurses on the total and factor scores of the Jefferson scale of attitudes toward physician-nurse collaborative relationships. *International Journal of Nursing Studies, 40*(4), 427–435.
82. Hojat, M., Gonnella, J. S., Nasca, T. J., Mangione, S., Veloksi, J. J., & Magee, M. (2002). The Jefferson Scale of Physician Empathy: further psychometric data and differences by gender and specialty at item level. *Academic Medicine, 77*(10 Suppl), S58–60.
83. Hojat, M., Gonnella, J. S., Nasca, T. J., Mangione, S., Vergare, M. J., & Magee, M. (2002). Physician Empathy: Definition, Components, Measurement, and Relationship to Gender and Specialty. *American Journal of Psychiatry, 159*(9), 1563–1569.
84. Hojat, M., Gonnella, J. S., & Veloski, J. (2010). Rebuttals to critics of studies of the decline of empathy. *Academic Medicine, 85*(12), 1812; author reply 1813–1814.  
<http://doi.org/10.1097/ACM.0b013e3181fa3576>
85. Hojat, M., Gonnella, J. S., Veloski, J. J., & Erdmann, J. B. (1993). Is the glass half full or half empty? A reexamination of the associations between assessment measures during

medical school and clinical competence after graduation. *Academic Medicine*, 68(2).

86. Hojat, M., Gonnella, J. S., Veloski, J. J., & Erdmann, J. B. (1996). Jefferson Medical College longitudinal study: a prototype for evaluation of changes. *Education for Health: Changes in Training and Practice*, 9, 99–113.
87. Hojat, M., Gonnella, J. S., Veloski, J. J., & Moses, S. (1990). Differences in professional activities, perceptions of professional problems, and practice patterns between men and women graduates of Jefferson Medical College. *Academic Medicine*, 65(12), 755–761.
88. Hojat, M., Gonnella, J. S., & Xu, G. (1995). Gender comparisons of young physicians' perceptions of their medical education, professional life, and practice: a follow-up study of Jefferson Medical College graduates. *Academic Medicine*, 70(4), 305–312.
89. Hojat, M., & Herman, M. W. (1985). Developing an instrument to measure attitudes toward nurses: preliminary psychometric findings. *Psychological Reports*, 56(2), 571–579.  
<http://doi.org/10.2466/pr0.1985.56.2.571>
90. Hojat, M., Kowitt, B., Doria, C., & Gonnella, J. S. (2010). Career satisfaction and professional accomplishments. *Medical Education*, 44(10), 969–976.  
<http://doi.org/10.1111/j.1365-2923.2010.03735.x>
91. Hojat, M., & LaNoue, M. (2014). Exploration and confirmation of the latent variable structure of the Jefferson scale of empathy. *International Journal of Medical Education*, 5, 73–81. <http://doi.org/10.5116/ijme.533f.0c41>
92. Hojat, M., Louis, D., Maxwell, K., & Gonnella, J. (2011). The Jefferson Scale of Empathy

(JSE): An Update. *Population Health Matters (Formerly Health Policy Newsletter)*, 24(2), 5–6.

93. Hojat, M., Louis, D. Z., Maio, V., & Gonnella, J. S. (2013). Editorial: Empathy and Health Care Quality. *American Journal of Medical Quality*, 28(1), 6–7.  
<http://doi.org/10.1177/1062860612464731>
94. Hojat, M. & Lyons, K. (1998). Psychosocial Characteristics of Female Students in the Allied Health and Medical Colleges: Psychometrics of the Measures and Personality Profiles. *Advances in Health Sciences Education*, 3(2), 119–132.  
<http://doi.org/10.1023/A:1009733623166>
95. Hojat, M., Mangione, S., Gonnella, J. S., Nasca, T. J., Veloski, J., & Kane, G. (2001). Empathy in Medical Education and Patient Care (Letter to the Editor). *Academic Medicine*, 76(7), 669.
96. Hojat, M., Mangione, S., Kane, G. C., & Gonnella, J. S. (2005). Relationships between scores of the Jefferson Scale of Physician Empathy (JSPE) and the Interpersonal Reactivity Index (IRI). *Medical Teacher*, 27(7), 625–628.  
<http://doi.org/10.1080/01421590500069744>
97. Hojat, M., Mangione, S., Nasca, T. J., Cohen, M. J. M., Gonnella, J. S., Erdmann, J. B., ... Magee, M. (2001). The Jefferson Scale of Physician Empathy: Development and preliminary psychometric data. *Educational and Psychological Measurement*, 61(2), 349–365. <http://doi.org/10.1177/00131640121971158>
98. Hojat, M., Mangione, S., Nasca, T. J., Gonnella, J. S., & Magee, M. (2005). Empathy scores

in medical school and ratings of empathic behavior in residency training 3 years later. *The Journal of Social Psychology*, 145(6), 663–672.  
<http://doi.org/10.3200/SOCP.145.6.663-672>

99. Hojat, M., Mangione, S., Nasca, T. J., Rattner, S., Erdmann, J. B., Gonnella, J. S., & Magee, M. (2004). An empirical study of decline in empathy in medical school. *Medical Education*, 38(9), 934–941. <http://doi.org/10.1111/j.1365-2929.2004.01911.x>
100. Hojat, M., Michalec, B., Veloski, J. J., & Tykocinski, M. L. (2015). Can empathy, other personality attributes, and level of positive social influence in medical school identify potential leaders in medicine? *Academic Medicine*, 90,505-510.  
<http://doi.org/10.1097/ACM.0000000000000652>
101. Hojat, M., Nasca, T. J., Cohen, M. J., Fields, S. K., Rattner, S. L., Griffiths, M., ... Garcia, A. (2001). Attitudes toward physician-nurse collaboration: a cross-cultural study of male and female physicians and nurses in the United States and Mexico. *Nursing Research*, 50(2), 123–128.
102. Hojat, M., Nasca, T. J., Erdmann, J. B., Frisby, A. J., Veloski, J. J., & Gonnella, J. S. (2003). An operational measure of physician lifelong learning: its development, components and preliminary psychometric data. *Medical Teacher*, 25(4), 433–437.  
<http://doi.org/10.1080/0142159031000137463>
103. Hojat, M., Nasca, T. J., Magee, M., Feeney, K., Pascual, R., Urbano, F., & Gonnella, J. S. (1999). A comparison of the personality profiles of internal medicine residents, physician role models, and the general population. *Academic Medicine*, 74(12), 1327–1333.



104. Hojat, M., Paskin, D. L., Callahan, C. A., Nasca, T. J., Louis, D. Z., Veloski, J., ... Gonnella, J. S. (2007). Components of postgraduate competence: analyses of thirty years of longitudinal data. *Medical Education*, *41*(10), 982–989.  
<http://doi.org/10.1111/j.1365-2923.2007.02841.x>
105. Hojat, M., Robeson, M., Damjanov, I., Veloski, J.J., Glaser, K., & Gonnella, J.S. (1993). Students' psychosocial characteristics as predictors of academic performance in medical school. *Academic Medicine*, *68*(8), 635–637.
106. Hojat, M., Robeson, M., Veloski, J.J., Blacklow, R.S., Xu, G. & Gonnella, J.S. (1994). Gender Comparisons Prior to, during, and after Medical School Using Two Decades of Longitudinal Data at Jefferson Medical College. *Evaluation & the Health Professions - EVAL HEALTH PROF*, *17*(3), 290–306.  
<http://doi.org/10.1177/016327879401700303>
107. Hojat, M., Spandorfer, J., Isenberg, G. A., Vergare, M. J., Fassihi, R., & Gonnella, J. S. (2012). Psychometrics of the scale of attitudes toward physician-pharmacist collaboration: a study with medical students. *Medical Teacher*, *34*(12), e833–837.  
<http://doi.org/10.3109/0142159X.2012.714877>
108. Hojat, M., Spandorfer, J., Louis, D. Z., & Gonnella, J. S. (2011). Empathic and Sympathetic Orientations toward Patient Care: Conceptualization, Measurement, and Psychometrics: *Academic Medicine*, *86*(8), 989–995.  
<http://doi.org/10.1097/ACM.0b013e31822203d8>
109. Hojat, M. Veloski, J. J., & Gonnella, J.S. (2010). Physician lifelong learning: Conceptualization, measurement, and correlates in full-time clinicians and academic

clinicians. In M.P. Caltone (Ed). Handbook of lifelong learning development (pp. 37-78). New York: Nova Science Publishers.

**Commented [JD1]:** This item and following item (no. 47 and 48) are original and updated book chapters. Should we have two entries each with the same abstract, or only one abstract with two references? Please advise how to incorporate this into the JLS Abstracts book.

110. Hojat, M., & Veloski, J. J. (1984). Subtest scores of a comprehensive examination of medical knowledge as a function of retention interval. *Psychological Reports*, 55(2), 579–586. <http://doi.org/10.2466/pr0.1984.55.2.579>
111. Hojat, M., Veloski, J.J., & Borenstein, B.D. (1986). Components of Clinical Competence Ratings of Physicians: An Empirical Approach. *Educational and Psychological Measurement*, 46(3), 761–69.
112. Hojat, M., Veloski, J. J., & Gonnella, J. S. (2009). Measurement and correlates of physicians' lifelong learning. *Academic Medicine*, 84(8), 1066–1074. <http://doi.org/10.1097/ACM.0b013e3181acf25f>
113. Hojat, M., Veloski, J.J., & Gonnella, J. S. (2012). Physician lifelong learning: Conceptualization, measurement, and correlates in full-time clinicians, academic clinicians, and medical students. In *Continuing Professional Development and Lifelong Learning: Issues, Impacts and Outcomes* In Neimeyer, G.J. & Taylor, J.M., H Continuing Professional Development and Lifelong Learning Issues, Impacts and Outcomes, Nova Science Publishers (pp. 29–70).
114. Hojat, M., Veloski, J. J., Gonnella, J. S., Erdmann, J. B., & Rattner, S. (1999). Attitudes toward managed care: A brief instrument to measure attitudes of medical students toward changes in the health care system. *Academic Medicine*, 74(10).
115. Hojat, M., Veloski, J. J., Louis, D. Z., Xu, G., Ibarra, D., Gottlieb, J. E., & Erdmann, J. B.

- (1999). Perceptions of medical school seniors of the current changes in the U.S. health care system. *Evaluation & the Health Professions*, 22(2), 169–183.
116. Hojat, M., Veloski, J., Nasca, T. J., Erdmann, J. B., & Gonnella, J. S. (2006). Assessing physicians' orientation toward lifelong learning. *Journal of General Internal Medicine*, 21(9), 931–936. <http://doi.org/10.1111/j.1525-1497.2006.00500.x>
117. Hojat, M., Veloski, J. J., & Zeleznik, C. (1985). Predictive validity of the MCAT for students with two sets of scores. *Journal of Medical Education*, 60(12), 911–918.
118. Hojat, M., Vergare, M., Isenberg, G., Cohen, M., & Spandorfer, J. (2015). Underlying construct of empathy, optimism, and burnout in medical students. *International Journal of Medical Education*, 6, 12–16. <http://doi.org/10.5116/ijme.54c3.60cd>
119. Hojat, M., Vergare, M. J., Maxwell, K., Brainard, G., Herrine, S. K., Isenberg, G. A., ... Gonnella, J. S. (2009). The Devil is in the Third Year: A Longitudinal Study of Erosion of Empathy in Medical School: *Academic Medicine*, 84(9), 1182–1191. <http://doi.org/10.1097/ACM.0b013e3181b17e55>
120. Hojat, M., Vogel, W. H., Zeleznik, C., & Borenstein, B. D. (1988). Effects of academic and psychosocial predictors of performance in medical school on coefficients of determination. *Psychological Reports*, 63(2), 383–394. <http://doi.org/10.2466/pr0.1988.63.2.383>
121. Hojat, M., & Zuckerman, M. (2008). Personality and specialty interest in medical students. *Medical Teacher*, 30, 400–406.
122. Hojat, M., Zuckerman, M., Magee, M., Mangione, S., Nasca, T., Vergare, M., & Gonnella,

J. S. (2005). Empathy in medical students as related to specialty interest, personality, and perceptions of mother and father. *Personality and Individual Differences*, 39(7), 1205–1215. <http://doi.org/10.1016/j.paid.2005.04.007>

123. Isenberg, G., Brown, A.M., DeSantis, J., Veloski, J., Hojat, M. (2020). The relationship between grit and selected personality measures in medical students. *International Journal of Medical Education*, 11, 25-30.

124. Isenberg, G. A., Roy, V., Veloski, J., Berg, K., & Yeo, C. J. (2015). Evaluation of the validity of medical students' self-assessments of proficiency in clinical simulations. *The Journal of Surgical Research*, 193(2), 554–559. <http://doi.org/10.1016/j.jss.2014.09.036>

125. Kusurkar, R. A., & Croiset, G. (2016). Creating a longitudinal database in medical education: Perspectives from the pioneers. *Education for Health*, 29, 266-70.

126. Louis, D. Z., Gottlieb, J., Markham, F. W., Hojat, M., Rabinowitz, C., & Gonnella, J. S. (1996). Students' gender and examination of patients in a third-year family medicine clerkship. *Academic Medicine : Journal of the Association of American Medical Colleges*, 71(10 Suppl), S19–21. <http://doi.org/10.1097/00001888-199610000-00032>

127. Mangione, S., Kane, G. C., Caruso, J. W., Gonnella, J. S., Nasca, T. J., & Hojat, M. (2002). Assessment of empathy in different years of internal medicine training. *Medical Teacher*, 24(4), 370–373. <http://doi.org/10.1080/01421590220145725>

128. Markham F, Westlake E, DeSantis J. The Effect of Reflection Rounds on Medical Students' Empathy. *Medical Research Archives*, Volume 9, Issue 7, (in press).

129. Markham, F. W., Rattner, S., Hojat, M., Louis, D. Z., Rabinowitz, C., & Gonnella, J. S. (2002). Evaluations of medical students' clinical experiences in a family medicine clerkship: differences in patient encounters by disease severity in different clerkship sites. *Family Medicine*, 34(6), 451–454.
130. Michalec, B., Veloski, J. J., & Hafferty, F. (2016). Predicting peer nominations: A social network approach. *Academic Medicine*, 91(6), 847-852.
131. Michalec, B., Veloski, J. J., Hojat, M., & Tykocinski, M. L. (2014). Identifying potential engaging leaders within medical education: The role of positive influence on peers. *Medical Teacher*, 677-683. <http://doi.org/10.3109/0142159X.2014.947933>
132. Modi, Anita, Michele Fascelli, Zachary Daitch, and Mohammadreza Hojat. "Evaluating the Relationship Between Participation in Student-Run Free Clinics and Changes in Empathy in Medical Students." *Journal of Primary Care & Community Health* 8, no. 3 (July 2017): 122–26. <https://doi.org/10.1177/2150131916685199>.
133. Nasca, T. J., Gonnella, J. S., Hojat, M., Veloski, J., Erdmann, J. B., Robeson, M., ... Callahan, C. (2002). Conceptualization and measurement of clinical competence of residents: a brief rating form and its psychometric properties. *Medical Teacher*, 24(3), 299–303. <http://doi.org/10.1080/01421590220134141>
134. Nicholson, S. (2005). How Much Do Medical Students Know about Physician Income? *The Journal of Human Resources*, 40(1), 100–114.
135. Novielli, K.D., Hojat, M., Nasca, T., Erdmann, J., Veloski, J. (2000). Correlates of Physicians' Endorsement of the Legalization of Physician-assisted Suicide. *Academic*

*Medicine*, 75(10 Suppl), S53–5. <http://doi.org/10.1097/00001888-200010001-00017>

136. Novielli, K., Hojat, M., Park, P. K., Gonnella, J. S., & Veloski, J. J. (2001). Change of interest in surgery during medical school: a comparison of men and women. *Academic Medicine*, 76(10 Suppl), S58–61.
137. Papadakis, M. A., Teherani, A., Banach, M. A., Knettler, T. R., Rattner, S. L., Stern, D. T., ... Hodgson, C. S. (2005). Disciplinary Action by Medical Boards and Prior Behavior in Medical School. *New England Journal of Medicine*, 353(25), 2673–2682. <http://doi.org/10.1056/NEJMsa052596>
138. Pohl, C. A., Hojat, M., & Arnold, L. (2011). Peer nominations as related to academic attainment, empathy, personality, and specialty interest. *Academic Medicine*, 86(6), 747–751. <http://doi.org/10.1097/ACM.0b013e318217e464>
139. Pohl, C. A., Robeson, M. R., Hojat, M., & Veloski, J. J. (2002). Sooner or later? USMLE step 1 performance and test administration date at the end of the second year. *Academic Medicine*, 77(10 Suppl), S17–19.
140. Pohl, C. A., Robeson, M. R., & Veloski, J. (2004). USMLE Step 2 performance and test administration date in the fourth year of medical school. *Academic Medicine*, 79(10 Suppl), S49–51.
141. Rabinowitz, H. K. (1983). A program to recruit and educate medical students to practice family medicine in underserved areas. *Journal of the American Medical Association*, 249(8), 1038–1041.
142. Rabinowitz, H. K. (1988). Evaluation of a selective medical school admissions policy to

increase the number of family physicians in rural and underserved areas. *The New England Journal of Medicine*, 319(8), 480–486.

<http://doi.org/10.1056/NEJM198808253190805>

143. Rabinowitz, H. K., Diamond, J. J., Hojat, M., & Hazelwood, C. E. (1999). Demographic, educational and economic factors related to recruitment and retention of physicians in rural Pennsylvania. *The Journal of Rural Health: Official Journal of the American Rural Health Association and the National Rural Health Care Association*, 15(2), 212–218.
144. Rabinowitz H.K., Diamond JJ, Markham F.W., & Hazelwood C.E. (1999). A program to increase the number of family physicians in rural and underserved areas: Impact after 22 years. *Journal of the American Medical Association*, 281(3), 255–260.  
<http://doi.org/10.1001/jama.281.3.255>
145. Rabinowitz H.K., Diamond J.J., Markham F.W., & Paynter N.P. (2001). Critical factors for designing programs to increase the supply and retention of rural primary care physicians. *Journal of the American Medical Association*, 286(9), 1041–1048.  
<http://doi.org/10.1001/jama.286.9.1041>
146. Rabinowitz, H. K., & Hojat, M. (1989). A comparison of the modified essay question and multiple choice question formats: their relationship to clinical performance. *Family Medicine*, 21(5), 364–367.
147. Rabinowitz, H. K., Hojat, M., Veloski, J. J., Rattner, S. L., Robeson, M. R., Xu, G., ... Kanter, S. L. (1999). Who is a generalist? An analysis of whether physicians trained as generalists practice as generalists. *Evaluation & the Health Professions*, 22(4),

497–502.

148. Rabinowitz, H. K., Veloski, J. J., Aber, R. C., Adler, S., Ferretti, S. M., Kelliher, G. J., ...  
Xu, G. (1999). A statewide system to track medical students' careers: the  
Pennsylvania model. *Academic Medicine*, 74(1 Suppl), S112–118.
149. Rabinowitz, C., Veloski, J., Robeson, M., Xu, G., & Hojat, M. (1998). Development and  
implementation of a longitudinal tracking system for medical school graduates.  
*Changing Medical Education and Medical Practice*, 13, 8–9.
150. Rabinowitz, H. K., Xu, G., Robeson, M.R., Hojat, M., Rattner, S.L., Appel, M.H.,  
...Veloski, J.J. (1997). Generalist career plans: Tracking medical school seniors  
through residency. *Academic Medicine*, 72(10 Suppl 1), S103–5.
151. Rabinowitz, H. K., Xu, G., Veloski, J. J., Rattner, S. L., Robeson, M. R., Hojat, M., ...  
Kanter, S. L. (2000). Choice of first-year residency position and long-term generalist  
career choices. *Journal of the American Medical Association*, 284(9), 1081–1082.
152. Rattner S.L., Louis D.Z., Rabinowitz C., Gottlieb, J.E., Nasca, T.J., Markham, F.W.,  
...Gonnella, J.S. (2001). Documenting and comparing medical students' clinical  
experiences. *Journal of the American Medical Association*, 286(9), 1035–1040.  
<http://doi.org/10.1001/jama.286.9.1035>
153. Rattner, S. L., Robeson, M. R., & Veloski, J. J. (1997). Assessment of physicians' interest  
in primary care training/retraining. *Academic Medicine*, 72(12), 1103–1105.
154. Rimoldi, H. J. A., Raimondo, R., Erdmann, J. B., & Hojat, M. (2002). Intra- and  
intercultural comparisons of the personality profiles of medical students in Argentina



and the United States. *Adolescence*, 37(147), 477–494.

155. Rodgers, J., Veloski, J. J., & Moses, S. (1987). Student ratings of clerkship activities as a basis for curriculum modification: A four year comparison of six departments (pp. 179–184). Presented at the Proceedings of the Twenty-Sixth Annual Conference on Research in Medical Education, Washington, DC.
156. Rosenfeld, L. M., Hojat, M., Veloski, J. J., Blacklow, R. S., & Goepp, C. (1992). Delays in completing medical school: Predictors and outcomes. *Teaching and Learning in Medicine*, 4(3), 162–167. <http://doi.org/10.1080/10401339209539556>
157. Rosenthal, S. R., Russo, S., Berg, K., Majdan, J., Wilson, J., Grinberg, C., Veloski, J. J. (2019). Identifying students at risk of failing the USMLE Step 2 Clinical Skills Examination. *Family Medicine*, 51(6):483-8.
158. Rosenthal, M. P., Turner, T. N., Diamond, J., & Rabinowitz, H. K. (1992). Income expectations of first-year students at Jefferson Medical College as a predictor of family practice specialty choice. *Academic Medicine*, 67(5), 328–331.
159. Rosenthal, S., Schluskel, Y., Yaden, M.B., DeSantis, J., Trayes, K., Pohl, C., Hojat, M. (2020). The impact of persistent imposter phenomenon on psychological well-being in medical students. Study on imposter assessment in medical students. *Family Medicine* 53(2), 118-122.
160. Rosenzweig, S., Reibel, D. K., Greeson, J. M., Brainard, G. C., & Hojat, M. (2003). Mindfulness-based stress reduction lowers psychological distress in medical students. *Teaching and Learning in Medicine*, 15(2), 88–92.

[http://doi.org/10.1207/S15328015TLM1502\\_03](http://doi.org/10.1207/S15328015TLM1502_03)

161. Schwartz, G. F., & Gonnella, J.S. (1973). The Surgical Clerkship: Assessment of Clinical Competence. *Journal of Surgical Research*, 14, 373.
162. Schwartz, G. F., Gonnella, J.S. (1973). Measurement of Clinical Competence in the Surgical Clerkship. *Journal of Medical Education*, 48, 762.
163. Schwartz, G. F., Gonnella, J.S (1974). Cognitive Knowledge of Gastrointestinal Surgery: Students versus Surgeons. *American Journal of Surgery*, 127, 9.
164. Schwartz, G. F., Veloski, J., & Gonnella, J. S. (1976). Evaluation of the surgical clerkship experience in affiliated hospitals: performance on objective examinations. *The Journal of Surgical Research*, 20(3), 179–182.
165. Seltzer, J. L., & Veloski, J. M. (1983). Migration of Physicians to and from Anesthesiology. [Letter]. *Anesthesia & Analgesia*, 62(7).
166. Seltzer, J. L., & Veloski, J. (1982). Changing specialties: do anesthesiologists differ from other physicians? *Anesthesia and Analgesia*, 61(6), 504–506.
167. Sierles, F. S., Vergare, M. J., Hojat, M., & Gonnella, J. S. (2004). Academic performance of psychiatrists compared to other specialists before, during, and after medical school. *The American Journal of Psychiatry*, 161(8), 1477–1482.  
<http://doi.org/10.1176/appi.ajp.161.8.1477>
168. Silber, C., Nasca, T., Paskin, D., Eiger, G., Roberson, M., Hojat, M., & Veloski, J. J. (2004). Program directors' ratings of residents' general clinical competence in six areas. *Academic Medicine*, 79, 549–556.

169. Silber, C., Nasca, T., Paskin, D., Eiger, G., Robeson, M., & Veloski, J. J. (2004). Do global rating forms enable program directors to assess the ACGME competencies? *Academic Medicine*, *79*(6), 549–556.
170. Silber, C., & Veloski, J. J. (2005). Predictors of board certification for physicians in obstetrics and gynecology. *American Journal of Obstetrics and Gynecology*, *19*, 318–322.
171. Smith, M.B. & Yaden, et al. (2020). Content analysis of letters of interest in medicine and empathy in medical school applicants. *International Journal of Medical Education* (in press).
172. Swanson, D. B., Case, S. M., Waechter, D., Veloski, J., Hasbrouck, C., Friedman, M., ... Maclaren, C. (1993). A preliminary study of the validity of scores and pass/fail standards for USMLE steps 1 and 2. *Academic Medicine*, *68*(10 Suppl), S19–21.
173. Turner, B. J., Hojat, M., & Gonnella, J. S. (1987). Using ratings of resident competence to evaluate NBME examination passing standards. *Journal of Medical Education*, *62*(7), 572–581.
174. Veloski, J. (2005). Using Postgraduate Clinical Performance to Monitor Change in the Medical School. In *Proceedings of the Eighteenth Annual Conference on Research in Medical Education*. Washington, DC (Abstract 425).
175. Veloski, J. J., Callahan, C. A., Xu, G., Hojat, M., & Nash, D. B. (2000). Prediction of students' performances on licensing examinations using age, race, sex, undergraduate GPAs, and MCAT scores. *Academic Medicine*, *75*(10 Suppl), S28–30.

176. Veloski, J. J., Fields, S. K., Boex, J. R., & Blank, L. L. (2005). Measuring Professionalism: A Review of Studies with Instruments Reported in the Literature between 1982 and 2002. *Academic Medicine, 80*(4), 366–370.
177. Veloski, J. J., & Gonnella, J. S. (1986). Preparing for the examination: Principles to remember. In *Burnside's Medical Examination Review* (pp. 1–18). Churchill Livingstone.
178. Veloski, J., Herman, M. W., Gonnella, J. S., Zeleznik, C., & Kellow, W. F. (1979). Relationships between performance in medical school and first postgraduate year. *Journal of Medical Education, 54*(12), 909–916.
179. Veloski, J., Hojat, M., Erdmann, J. B., & Gonnella, J. S. (1998). Affirmative action and special consideration admissions to medical school. *Journal of the American Medical Association, 279*(7), 508–509; author reply 510.
180. Veloski, J. J., Hojat, M., & Gonnella, J. (2013). The Jefferson Longitudinal Study of Medical Education: Five Decades of Outcomes Assessment. *Population Health Matters (Formerly Health Policy Newsletter), 26*(1), 2–3.
181. Veloski, J. J., Hojat, M. & Gonnella, J.S. (1990). A Validity Study of Part III of the National Board Examination. *Evaluation and the Health Professions, 13*(2), 227–40.
182. Veloski, J., Hojat, M., & Zeleznik, C. (1981). The overall validity of the new MCAT. *Annual Conference on Research in Medical Education. Conference on Research in Medical Education, 20*, 129–134.
183. Veloski, J., Zeleznik, C., & Hojat, M. (1981). The income expectations of medical students

in the time period 1970 to 1980. *Annual Conference on Research in Medical Education. Conference on Research in Medical Education*, 20, 61–66.

184. Williams, T., Sachs, L., & Veloski, J. J. (1986). Performance on the NBME Part II examination and career choice. *Journal of Medical Education*, 61(12), 979–981.
185. Wolfson, P. J., Robeson, M. R., & Veloski, J. J. (1991). Medical students who enter general surgery residency programs: a follow-up between 1972 and 1986. *American Journal of Surgery*, 162(5), 491–494.
186. Xu, G. (1995). Performance on the NBME Part I Examination. *The Journal of the American Medical Association*, 273(8), 617.  
<http://doi.org/10.1001/jama.1995.03520320025024>
187. Xu, G., Brigham, T. P., Veloski, J. J., & Rodgers, J. F. (1993). Attendings' and residents' teaching role and students' overall rating of clinical clerkships. *Medical Teacher*, 15(2-3), 217–222.
188. Xu, G., Brigham, T. P., Veloski, J. J., & Rodgers, J. F. (1993). Perceptions of practice problems encountered by family physicians, pediatricians, and orthopedic surgeons. *Evaluation & the Health Professions*, 16(1), 119–129.
189. Xu, G., Hojat, M., Brigham, T. P., Robeson, M. R., & Veloski, J. J. (1994). Primary care and nonprimary care physicians' concerns in practice and perceptions of medical school curriculum. *Evaluation & the Health Professions*, 17(4), 436–445.
190. Xu, G., Hojat, M., Brigham, T. P., & Veloski, J. J. (1999). Factors associated with changing levels of interest in primary care during medical school. *Academic*

*Medicine*, 74(9), 1011–1015.

191. Xu, G., Hojat, M., & Veloski, J. J. (1994). Emergency medicine career change: associations with performances in medical school and in the first postgraduate year and with indebtedness. *Academic Emergency Medicine*, 1(5), 443–447.
192. Xu, G., Hojat, M., Veloski, J. J., & Brose, J. (1996). A national study of factors influencing primary care career choices among underrepresented-minority, white, and Asian American physicians. *Academic Medicine*, 71(10 Suppl), S10–12.
193. Xu, G., Hojat, M., Veloski, J. J., & Gonnella, J. S. (1999). The changing health care system. A research agenda for medical education. *Evaluation & the Health Professions*, 22(2), 152–168.
194. Xu, G., Rattner, S. L., Veloski, J. J., Hojat, M., Fields, S. K., & Barzansky, B. (1995). A national study of the factors influencing men and women physicians' choices of primary care specialties. *Academic Medicine*, 70(5), 398–404.
195. Xu, G., & Veloski, J. J. (1991). A comparison of Jefferson Medical College graduates who chose emergency medicine with those who chose other specialties. *Academic Medicine*, 66(6), 366–368.
196. Xu, G., & Veloski, J. J. (1992). Factors influencing physicians' decisions to remain in emergency medicine. *Academic Medicine*, 67(6), 413.
197. Xu, G., & Veloski, J. J. (1993). Comparing the academic performances of geriatricians and other family physicians and internists. *Academic Medicine*, 68(5), 388.
198. Xu, G., & Veloski, J. J. (1993). Influence of previous clerkship experiences on students'

satisfaction with their current clerkship. *Academic Medicine*, 68(3), 230.

199. Xu, G., Veloski, J. J., Barzansky, B., Hojat, M., Diamond, J., & Silenzio, V. M. B. (1996). Comparisons among three types of generalist physicians: Personal characteristics, medical school experiences, financial aid, and other factors influencing career choice. *Advances in Health Sciences Education*, 1(3), 197–207.  
<http://doi.org/10.1007/BF00162916>
200. Xu, G., Veloski, J. J., & Brigham, T. P. (1995). A correlation study of students' perception of their active role as related to their clerkship experiences. *Medical Teacher*, 17(2), 199–203. <http://doi.org/10.3109/01421599509008308>
201. Xu, G., Veloski, J. J., & Hojat, M. (1993). Changing interest in family medicine and students' academic performance. *Academic Medicine*, 68(10 Suppl), S52–54.
202. Xu, G., Veloski, J. J., & Hojat, M. (1998). Board certification: associations with physicians' demographics and performances during medical school and residency. *Academic Medicine*, 73(12), 1283–1289.
203. Xu, G., Veloski, J. J., Hojat, M., & Fields, S. K. (1995). Physicians' intention to stay in or leave primary care specialties and variables associated with such intention. *Evaluation & the Health Professions*, 18(1), 92–102.
204. Xu, G., Veloski, J. J., Hojat, M., Gonnella, J. S., & Bacharach, B. (1993). Longitudinal comparison of the academic performances of Asian-American and white medical students. *Academic Medicine*, 68(1), 82–86.
205. Xu, G., Veloski, J. J., Hojat, M., Politzer, R. M., Rabinowitz, H. K., & Rattner, S. (1997).

Factors influencing physicians' choices to practice in inner-city or rural areas.

*Academic Medicine*, 72(12), 1026.

206. Xu, G., Veloski, J. J., Hojat, M., Politzer, R. M., Rabinowitz, H. K., & Rattner, S. L. (1997). Factors influencing primary care physicians' choice to practice in medically underserved areas. *Academic Medicine*, 72(10 Suppl 1), S109–111.
207. Yaden, M.E., Yaden, D.B., Buffone, A.E.K., Eichstaedt, J.C., Crutchley, P. Smith, L.K., Cass, J.L., Callahan, C.A., Rosenthal, S.R., Ungar, L.H., Schwartz, H.A., Hojat, M. (2020). Linguistic analysis of empathy in medical school admission essays. *International Journal of Medical Education*. 11, 186-190. doi: 10.5116/ijme.5f2d.0359.
208. Zeleznik, C., Hojat, M., Goepf, C. E., Amadio, P., Kowlessar, O. D., & Borenstein, B. (1988). Students' certainty during course test-taking and performance on clerkships and board exams. *Journal of Medical Education*, 63(12), 881–891.
209. Zeleznik, C., Hojat, M., & Veloski, J.J. (1983). Long-Range Predictive and Differential Validities of the Scholastic Aptitude Test in Medical School. *Educational and Psychological Measurement*, 43(1), 223–232.  
<http://doi.org/10.1177/001316448304300129>
210. Zeleznik, C., Hojat, M., & Veloski, J. (1983). Baccalaureate preparation for medical school: does type of degree make a difference? *Journal of Medical Education*, 58(1), 26–33.
211. Zeleznik, C., Hojat, M., & Veloski, J. (1983). Levels of recommendation for students and



academic performance in medical school. *Psychological Reports*, 52(3), 851–858.  
<http://doi.org/10.2466/pr0.1983.52.3.851>

212. Zeleznik, C., Hojat, M., & Veloski, J. J. (1987). Predictive validity of the MCAT as a function of undergraduate institution. *Journal of Medical Education*, 62(3), 163–169.
213. Zeleznik, C., Veloski, J., Conly, S., & Hojat, M. (1980). The relationship between MCAT science subtest scores and performance in medical school - the impact of the undergraduate institution. *Annual Conference on Research in Medical Education. Proceedings of the Conference on Research in Medical Education*, (19), 257–262.