

Supplemental Digital Appendix 1

Focus Areas of 72 Studies Conducted Using Undergraduate Medical Education (UME) or Graduate Medical Education (GME) Data From the New York University (NYU) Research on Medical Education Outcomes (ROME) Registry, 2008–January 2015

Focus of study	UME or GME data (GME program)	Citation
Assessment methods (n = 5)	UME	Berger AJ, Gillespie CC, Tewksbury LR, et al. Assessment of medical student clinical reasoning by “lay” vs physician raters: inter-rater reliability using a scoring guide in a multidisciplinary objective structured clinical examination. <i>Am J Surg.</i> 2012;203(1):81-86.
	UME	Tewksbury L, Gillespie C, Ark T, Taffel L, Kalet A. Evaluating approaches to eliciting and grading the patient note: Implications for assessment of clinical reasoning. Oral Presentation at: 14th Ottawa Conference on the Assessment of Competence in Medicine and the Healthcare Professions; 2010.
	UME	Ark T, Gillespie C. I need more time: A new way to capture self-assessment ability in medical students. <i>J Gen Intern Med.</i> 2009;24:94.
	UME and GME	Gillespie C, Tewksbury L, Ark T, Kalet A. What are the dimensions of standardized patients’ recommendation ratings: Is SP satisfaction more than just the sum of their (checklist) ratings? Oral Presentation, Research in Medical Education (RIME), AAMC Annual Meeting. San Antonio, TX. November, 2008.
	GME (Pediatrics [Peds])	Paik S, Gillespie C, Ark T, et al. The reliability and validity of 360 degree evaluations for assessing communication and professionalism skills in pediatric residents. Platform Session at: PAS Annual Meeting, May 2-5, 2009, Baltimore, MD.
Competency assessment (n = 16)	GME (Gastroenterology [GI])	McKeever J, Balzora S, Abiri B, et al. Being a GI fellow means never having to say you're sorry? Assessing skills in disclosing medical errors. <i>Am J Gastroenterol.</i> 2012;107:S565.
	GME (GI)	Shah B, Abiri B, Balzora S, et al. Shared decision making (SDM) skills in GI fellows. <i>Gastroenterology.</i> 2012;142(5):S742.
	GME (GI)	Wang XJ, Balzora S, Abiri B, et al. Crossing the cultural divide: Assessing cultural competency as a clinical skill in gastroenterology fellowship training. <i>Am J Gastroenterol.</i> 2012;107:S565.

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	GME (GI)	Lucero C, Poles M, Gillespie C, Zabar S, Weinschel E, Malter L. Scoping through adversity: Assessing fellows' abilities to deal with disruptive behavior in the workplace. <i>Am J Gastroenterol.</i> 2013;108:S607.
	GME (GI)	Wang X, Sim J, Lucero C, et al. The 1: 00 AM consult: Assessing communication with primary providers as a clinical skill in gastroenterology fellowship training. <i>Am J Gastroenterol.</i> 2013;108:S488.
	GME (GI)	Balzora S, Abiri B, Shah B, et al. The writing's on the wall- or is it? Assessing health literacy awareness in gastroenterology fellowship training. <i>Gastroenterology.</i> 2012;142(5):S403.
	GME (GI)	Williams R, Miler R, Shah B, et al. Observing handoffs and telephone management in GI fellowship training. <i>Am J Gastroenterol.</i> 2011;106(8):1410-1414.
	GME (GI)	Shah B, Miler R, Poles M, et al. Informed consent in the older adult: OSCEs for assessing fellows' ACGME and geriatric gastroenterology competencies. <i>Am J Gastroenterol.</i> 2011;106(9):1575-1579.
	GME (Medicine [MED])	Gillespie C, Porter B, Horlick M, Hanley K, Adams J, Fox J, Burgess A, Zabar S. Using OSCE cases to assess resident physicians' competence in inter-professional collaborative practice. <i>J Gen Intern Med.</i> 2013; 28:S235.
	GME (Med)	Gillespie C, Yeboah N, Burgess A, et al. Missed opportunities for effective patient education and counseling: What the unannounced standardized patient experience can tell us. <i>J Gen Intern Med.</i> 2012;27:S248.
	GME (Med)	Zabar S, Gillespie C, Burgess A, Pierre G, Hanley K, Kalet A. Can we measure agenda setting and balancing priorities in standardized patient encounters and are these skills independent? Oral Presentation at SGIM Annual Meeting, April 2011, Phoenix, AZ.
	GME (Med)	Zabar S, Pierre G, Hanley K, et al. Habla Español, doctor? Exploring bilingual residents' performance on a Spanish language OSCE station. <i>J Gen Intern Med.</i> 2011;26:S249-250.
	GME (Med)	Porter B, Horlick M, Gillespie C. I don't know their names, I just take what the doctor gives me: A medication reconciliation OSCE station. <i>J Gen Intern Med.</i> 2011;26(s1):S582.

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	GME (Peds)	Paik S, Ark T, Gillespie C, et al. Using unannounced standardized patients to assess residents' communication and professionalism skills in managing pediatric phone calls. Oral Presentation at: PAS Annual Meeting; May 2009, Baltimore, MD.
	GME (Ob/Gyn)	Winkel AF, Gillespie C, Hiruma MT, Goepfert AR, Zabar S, Szyld D. Test of integrated professional skills: Objective structured clinical examination/simulation hybrid assessment of obstetrics-gynecology residents' skill integration. J Grad Med Educ. 2014 Mar;6(1):117-22.
	GME (Multiple)	Kramer V, FriedenberG A, Bonura E, et al. Assessment of medical crisis team leadership. Oral Presentation at: Ottawa Clinical Skills Conference; May 2010, Miami, FL.
Curricular evaluation (n = 19)	GME (Med)	Jay M, Schlair S. From the patient's perspective: The impact of training on resident physician's obesity counseling. J Gen Intern Med. 2010;25(5)415-422.
	GME (Med)	Jay M, Gillespie C, Schlair S, et al. The impact of primary care resident physician training on patient weight loss at 12 months. Obesity. 2013;21(1)45-50.
	GME (Med)	Lee J, Gillespie C, Gourevitch MN, et al. Impact of a web-based alcohol screening and brief intervention module. Subst Abus. 2009;30(2):204-204.
	GME (Med)	Gillespie C, Burgess A, Hanley K, et al. Using unannounced standardized patient (USP) visits to assess OSCE practice effects on clinical performance. Oral Presentation at: 18th Ottawa Conference; May 2014, Ottawa, Canada.
	GME (Peds emergency medicine [EM])	Ching K, Auerbach M, Overly F, et al. Impact of base camp: Simulation-based multidisciplinary team training for pediatric emergency medicine fellows. Acad Emerg Med. 2011;18(5):S79.
	GME (multiple programs)	Zabar S, Gillespie C, Morris CA. Competency in system based practice: Making the system transparent-A web module with “learner appeal.” J Gen Intern Med. 2008;23:217.
	GME (Surgery)	Hochberg M, Berman RS, Kalet AL, Zabar S, Gillespie C, Pachter HL. The professionalism curriculum as a cultural change agent in surgical residency education. Am J Surg. 2012;203(1):14-20.
	GME (Surgery)	Hochberg M, Kalet A, Zabar S. Can professionalism be taught? Encouraging evidence. Am J Surg. 2010;199(1):86-93.

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	GME	Zabar S, Hanley K, Adams J, Ark T. No place like home: Teaching home visits. <i>Med Educ.</i> 2009;43(11):1102-1103.
	GME	Zabar S, Hanley K, Kachur E, et al. “Oh! She doesn’t speak English!” Assessing resident competence in managing linguistic and cultural barriers. <i>J Gen Intern Med.</i> 2006;21(5):510-513.
	UME	Schlair S, Hanley K, Gillespie C, et al. How medical students’ behaviors and attitudes affect the Impact of a brief curriculum on nutrition counseling. <i>J Nutr Educ Behav.</i> 2012;44(6):653-657.
	UME	Hanley K, Zabar S, Disney L, Gillespie C. Impact of adding videotape review of standardized patient encounters on students’ attitudes and skills. <i>J Gen Intern Med.</i> 2009;24(10):230-230.
	UME	Sutin D, Rolita L, Yeboah N. A novel longitudinal geriatric medical student experience: Using teaching objective structured clinical examinations. <i>J Am Geriatr Soc.</i> 2011;59(9):1739-1744.
	UME	Lee J, Gillespie C, Gourevitch M, Jay M, Paik S, Richter R, Triola M, Zabar S, Kalet A, Evaluation of a web-based alcohol screening and brief intervention via patient-level outcomes. <i>Substance Abuse</i> 2007; 28 (1):54-5.
	UME	Truncali A, Lee J, Gillespie C, et al. A web-based module on neurobiology to engage students in substance abuse research. <i>Subst Abus.</i> 2011;32(1):53-54.
	UME	Hanley K, Zabar S, Charap J, et al. Self-assessment and goal-setting is associated with an improvement in interviewing skills. <i>Medical education online</i> Published: 23 July 2014.
	UME	Bhatia D, Gillespie C, Berger A, Hochberg M, Ogilvie J. Cutting too deep? Assessing the impact of a shorter surgery clerkship on students’ clinical skills and knowledge. <i>Am J Surg.</i> 2014;207(2):209-212.
	UME	Cox B, Rosendale N, Avery A, Gillespie C, Greene R. Effect of curriculum in LGBT health on medical students’ knowledge and attitudes toward LGBT patients. Oral Presentation at: GLMA Annual Conference, September 2013, Denver, CO.
	UME	Stevens D, King D, Laponis R, et al. Medical students retain pain assessment and management skills long after an experiential curriculum: A controlled study. <i>Pain.</i> 2009;145(3):319-324.

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Needs assessment (n = 12)	GME (Med)	Horlick M, Fox J, Gillespie C. Preparing internal medicine residents for effective practice in the patient centered medical home: Identifying educational needs and perceived skills. <i>J Gen Intern Med.</i> 2012;27:S278
	GME (Multiple)	Gillespie C, Jay M. Applying the principles of professionalism to preventing, treating, and identifying obesity. <i>Virtual Mentor.</i> 2010;12(4):278.
	GME (Multiple)	Jay M, Kalet A, Ark T, et al. Physicians’ attitudes about obesity and their associations with competency and specialty: A cross-sectional study. <i>BMC Health Serv Res.</i> 2009;9(1):106.
	GME (Multiple)	Jay M, Gillespie C, Ark T, et al. Do internists, pediatricians, and psychiatrists feel competent in obesity care? <i>J Gen Intern Med.</i> 2008;23(7):1066-1070.
	GME (Multiple)	Truncali A, Gillespie C, Ark TK, Lee J, Zabar S, Kalet AL. Need for targeted training in substance abuse prevention and treatment competencies. <i>J Gen Intern Med.</i> 2008;23:350.
	GME (Multiple)	Paik S, Gillespie C, Richter R, et al. An assessment of the training needs for residents in professionalism. Oral Presentation at: Pediatric Academic Societies Annual Meeting; May 2009, Baltimore, MD.
	GME (Multiple)	Gillespie C, Paik S, Ark T, Zabar S, Kalet A. Residents’ perceptions of their own professionalism and the professionalism of their learning environment. <i>J Grad Med Educ.</i> 2009;1(2):208-215.
	GME (Peds)	Paik S, Gillespie C, Ark T, et al. What pediatric residents perceive as barriers to quality patient care. Oral Present Pediatric Academic Societies Annual Meeting, May 2009, Baltimore, MD.
	GME (Surgery)	Hochberg MS, Berman RS, Kalet AL, Zabar SR, Gillespie C, Pachter HL. The stress of residency: Recognizing the signs of depression and suicide in you and your fellow residents. <i>Am J Surg.</i> 2013;205(2):141-146.
	UME	Rosendale N, Cox B, Avery A, Gillespie C, Kalet A, Greene R. Pre-clinical medical students' knowledge and attitudes in caring for lesbian, gay, bisexual and transgender patients. <i>J Gen Intern Med.</i> 2011;26:S151-S1
UME	Mercuri J, Gillespie C, Hanley K, Zabar S, Kalet A. What they bring with them to medical school: moral reasoning and OSCE performance in newly matriculated medical students. <i>J Gen Intern Med.</i> 2010;25:431.	

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	UME/GME	Hochberg M, Billig J, Berman R, et al. When Surgeons Decide to Become Surgeons: New Opportunities for Surgical Education. <i>Am J Surg.</i> 2013;32:960-963.
Patient outcomes (n = 4)	GME (Med)	Jay M, Gillespie C, Schlair S, Sherman S, Kalet A. Physicians’ use of the 5As in counseling obese patients: Is the quality of counseling associated with patients’ motivation and intention to lose weight? <i>BMC Heal Serv Res.</i> 2010; 10(1): 159
	GME (Med)	Gillespie C, Jay M, Schlair S. Resident Physicians’ patient activating skills are associated with obese patients’ weight loss. Oral Presentation at: SGIM Annual Meeting; April 2011, Phoenix, AZ.
	GME (Med)	Schlair S, Jay M, Gillespie C, et al. Physicians’ counseling practices and personal and professional characteristics associated with patient activation to lose weight? <i>J Gen Intern Med.</i> 2009;24:24.
	GME (Med)	Jay M, Gillespie C, Schlair S, et al. The impact of primary care resident physician training on patient weight loss at 12 months. <i>Obesity.</i> 2013;21(1)45-50.
Quality of care (n = 4)	GME (Med)	Zabar S, Gillespie C, Burgess A, Pierre G, Hanley K, Kalet A. Using unannounced standardized patients to assess quality of care: Charting and outpatient safety. Oral Presentation at: SGIM Annual Meeting; April 2011, Phoenix, AZ.
	GME (EM)	Zabar S, Ark T, Gillespie C, et al. Can unannounced standardized patients assess professionalism and communication skills in the emergency department? <i>Acad Emerg Med.</i> 2009;16(9):915-918.
	GME (Med)	Zabar S, Murphy J, Hanley K, et al. Unannounced standardized patients: A novel method of assessing the clinical care team. <i>J Gen Intern Med.</i> 2010;25(9):472-473.
	GME (Med)	Zabar S, Hanley K, Stevens D, et al. Unannounced standardized patients: A promising method of assessing patient-centered care in your health care system. <i>BMC Heal Serv Res.</i> 2014;14(1):157.
Remediation (n = 2)	UME	Kalet A, Tewksbury L, Bruno JH, Taffel L. Who fails clinical skills exams? Descriptive epidemiology to inform clinical skills remediation. <i>J Gen Intern Med.</i> 2010;25:454.
	UME	Kalet A, Taffel L, Bruno JH, Tewksbury L. She fell off the cliff and survived! Stereotype threat as a treatable cause for clinical incompetence in non-traditional medical students. <i>J Gen Intern Med.</i> 2010;25:547.

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Skills development (n = 8)	GME (Med)	Gillespie C, Hanley K, Kalet A, Zabar S, Porter B. Patient activation: How are patient activating skills related to other core clinical skills? J Gen Intern Med. 2010;25:340-341.
	GME (Med)	Greene R, Gillespie C. How does medicine resident proficiency with the physical exam relate to communication performance and patient understanding? J Gen Intern Med. 2010;25:547.
	GME (Med)	Gillespie C, Hanley K, Altshuler L, et al. Time in training and clinical skills as measured by unannounced standardized patients. Oral Presentation at: SGIM Annual Meeting; April 2014, San Diego, CA.
	GME (Multiple)	Gillespie C, Kalet AL, Lipkin M, et al. Trends in patient education and counseling skills during residency. J Gen Intern Med. 2008;23(Supp 2):428.
	UME	Adams J, Triola M, Djukic M, et al. Patient safety and interprofessional collaboration assessment: A distinct skills set for medical students. J Gen Intern Med. 2013;28:S136-S137.
	UME	Gillespie C, Hanley K. Baseline assessment of incoming medical students communication skills: The NYU curriculum for the 21st century baseline OSCE. J Gen Intern Med. 2010;25:232.
	UME	Communication performance in selected cases from UME to GME. J Gen Intern Med. 2009;24(Supp 1):S161.
	UME/GME	Gillespie C, Kalet A, Tewksbury L, et al. The development of patient education and counseling skills from UME to GME. AAMC Annual Research in Medical Education Meeting, October 2008, San Antonio, TX.
Skills transfer (n = 2)	GME (Med)	Gillespie C, Jay M, Schlair S, Kalet AL, Zabar S. Relationship between OSCE obesity counseling performance and actual practice. J Gen Intern Med. 2009;24(Supp 1):S45.
	GME (Med)	Zabar S, Lipkin M, Hanley K, et al. Assessing residents' competence in two contexts: Standardized patient exams and unannounced standardized patient visits. J Gen Intern Med. 2010;25(9):227.