Mentoring Articles

Title	Authors (Last, First)	Summary	Web Link	General Topic	Empirical study?	Methods	Citation Info	PMID/PMCID
Career Development for Academic Medicine - A Nine Step Strategy	Pololi, Linda	—Lays out a 9 step process for developing a long term career plan (Academic Development Plan or ADP). Steps include: Define values, identify strengths, 10 year goals, 1-3-5 year goals, skills/tasks needed to reach goals, learning contract, meet with supervisor, revise/repeat.	http://careers.bmj.com/careers/advice/view-article.html?id=1446	Career Development Planning (Tool)	No		Pololi L (2006). Career Development for Academic Medicine - A Nine Step Strategy. BMJ Careers 322 (7535):38-39.	Not available on PubMed.
Expand Your Mentoring Horizons: Developing New Paradigms for Academic Medicine Developmental Networks - A New Paradigm in Mentoring	Kram, Kathy PhD	— Provides step-by-step instructions for developing a map of critical relationships. — Creating map is useful in meetings with mentors to determine who is missing from a network	http://www.childrenshospital.org/cfapps/research/data_admin/Site2209/Documents/KathyKramPhDMappingYourNetwork.pdf	Career Development Planning (Tool)	N/A	This is an exercise, not an article or report.	Kram KE (2009). Expand Your Mentoring Horizons: Developing New Paradigms for Academic Medicine. Accessed June 28, 2010 at http://www.childrenshospital.org/cfapps/research/data_admin/Site2209/Documents/KathyKramPhDMappingYourNetwork.pdf.	Not available on PubMed.
The clinical investigator: bewitched, bothered, and bewildered--but still beloved.	Goldstein, Joseph L.; Brown, Michael S.	— Analyzes the importance, and disappearance, of physician-scientists and patient-oriented research (POR). — Suggests peer collaboration, endowed professorships for POR scholars, career development awards targeted to clinical scholars, and an academic reward system that encourages partnerships, especially between clinicians and scientists.	http://www.jci.org/articles/view/119470/version/1/pdf	Career Development Planning	No		Goldstein JL, Brown MS (1997). The clinical investigator: Bewitched, bothered and bewildered—but still beloved. J Clin Invest 99:2803-2812. PMID: 9185499.	9185499/ PMC508127
Retooling Faculty Orientation	Genrich, Sandra PhD, RN; and Pappas, Alice PhD, RN	— Description and evaluation of an orientation program for new nursing faculty, one component of which is mentoring to gradually acclimate the new faculty to the written and unwritten expectations of the institution. — New faculty orientees found the mentoring to be helpful, but suggested that the mentoring should be more formalized, with more concrete assignments and a regular meeting schedule instead of an as-needed basis. — As a result, the orientation program will be adapted to include criteria for mentoring, regular meetings, and flexibility so that orientees may choose a mentor more compatible than the assigned one.	http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6WKV-4G4X16J-8&_user=10&_coverDate=04%2F30%2F1997&_rdoc=1&_fmt=high&_orig=search&_sort=d&_docanchor=&view=c&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=57a48f2008e37b409a1620152fcbfdfa	Career Development Planning (New Faculty)	Yes	Authors implemented a new faculty orientation program and evaluated through voluntary, individual interviews with new faculty, coordinators, associate dean, and dean.	Genrich SJ, Pappas A. Retooling faculty orientation. J Prof Nurs. 1997;13(2):84-9. PMID: 9094834	9094834
Empowering Junior Faculty: Penn State's Faculty Development and Mentoring Program	Thorndyke, Luanne E. MD; Gusic, Maryellen E. MD; George, John H. PhD; Quillen, David A. MD; Milner, Robert J. PhD	— Description of a cross-department program that included a classroom-based curriculum in academic professional development and work with a senior faculty member on a project. — A highly favorable assessment by both participants and mentors, and benefits to the institution through enhanced retention, increased productivity, and the projects completed by junior faculty. — Recommendations from the authors include 1) an empowerment model that provides knowledge, skills, and resources, and a supportive environment that builds relationships, especially through mentoring; 2) institutional investment must accompany a "deeper understanding ... of the need for investment"; 3) an "efficient, relatively modest budget" due to reliance upon speakers within institution and volunteer mentors, although participants' time is a necessary cost; 4) emphasize relationship-building, such as through the class approach, including scientists and clinicians in same class with few tracked sessions, collaboration and networks in the classroom.	http://journals.lww.com/academicmedicine/Fulltext/2006/07000/Empowering_Junior_Faculty__Penn_State_s_Faculty.14.aspx	Career Development Planning	Yes	Authors evaluated the program using postsession evaluations, participants' self-assessments before and afterthe program, and an extensive postcourse survey consisting of both qualitative and quantitative metrics. Mentors also completed evaluation at conclusion, and there was a midpoint survey completed by both mentors and mentees. A longitudinal sudy of the participants career paths and the status of mentoring relationships is underway.	Thorndyke LE, Gusic ME, George JH, Quillen D,Milner RJ (2006). Empowering junior faculty: Penn State's faculty development and mentoring program. Acad Med 81:668-673. PMID: 16799296.	16799296

Mentoring Articles

Title	Authors (Last, First)	Summary	Web Link	General Topic	Empirical study?	Methods	Citation Info	PMID/PMCID
Mentors, advisors and supervisors: Their role in teaching responsible research conduct	Bird, Stephanie J.	— Overview of the ethical aspects surrounding mentors, and offers sketch of the personal qualities of a good mentor — Mentors are distinct from advisors and supervisors — Mentors must explicitly convey norms (esp. unwritten norms), values, and ethical standards of professional community, as well as act as a good example. — Women and foreign students especially need mentors to overcome their particular obstacles. — Some informal mentoring activities (e.g. going to a bar) can exclude unintentionally, and information conveyed needs to be shared again in less exclusive settings. — Mentor and mentee must remember that mentee will not necessarily follow advice given, due to different values and circumstances. — Other ethical concerns include fair access to mentors, stereotyping or tracking of mentees, and misuse of power by mentor.	http://www.springerlink.com/content/u22871433v65u018/	Ethics in Mentoring	No		Bird SJ (2001). Mentors, advisors and supervisors: Their role in teaching responsible research conduct. Sci Eng Ethics 7:455-468. PMID: 11697001.	11697001
Sex Differences in Attainment of Independent Funding by Career Development Awardees	Reshma, Jagsi, MD DPhil; Motomura, Amy R., BSE; Griffith, Kent A., MS; Rangarajan, Soumya, MPP; Ubel, Peter A., MD	—Fewer than 1/2 of K award recipients received R01 funding within 10 years. —Women were significantly less likely than men to achieve and R01 award. —Offers discussion of possible reasons for the disparity.	http://www.annals.org/content/151/11/804.full.pdf+html	Gender/Racial Issues in Mentoring & Career Development (Transition from K to R01)	Yes	Authors analyzed the 2784 of 2799 (99.5%) recipients of K08 and K23 awards for whom sex could be ascertained from publicly available sources. Authors used actuarial rates at which recipients of K08 and K23 awards from 1997 to 2003 went on to receive R01 awards. Sex-specific rates of R01 award attainment were calculated by using the Kaplan–Meier method, and sex differences were assessed by using a Cox proportional hazards model.	Reshma J, Motomura A, Griffith KA, Rangarajan S, Ubel PA (2009). Sex Differences in Attainment of Independent Funding by Career Development Awardees. Ann Intern Med 151:804-811. PMID: 19949146.	19949146
The POD: A New Model for Mentoring Underrepresented Minority Faculty	Lewellen-Williams, Charlotte MPH; Johnson, Virginia A. EdD; Deloney, Linda A. EdD; Thomas, Billy R. MD, MPH; Goyol, Apollos PhD; Henry-Tillman, Ronda MD	— Offers a synthesis of research into best practices for mentoring underrepresented minority faculty, along with an inventory of skills and content areas needed for academic career. — "Successful mentoring programs should be unique and developed according to the setting and environment. An understanding of the cultural parameters and unique needs and issues of different minority groups" is important. — Formal mentor preparation "increases the frequency and effectiveness of mentoring activities" — Model and example of a targeted, multilevel mentoring program that relies on peer mentors, senior faculty mentors, and distance mentors (i.e. leaders from health care, business, academia, or governmental and political settings). — This POD model designed for mentors with limited time, as "peer mentors provide guidance and support while busy senior faculty focus on specific and generally more challenging tasks on a professional level," and network of external leaders provides further support.	http://journals.lww.com/academicmedicine/Fulltext/2006/03000/The_POD__A_New_Model_for_Mentoring.14.aspx	Gender/Racial Issues in Mentoring & Career Development	No		Lewellen-Williams C, Johnson VA, Deloney LA, Thomas BR, Goyol A, Henry-Tillman R (2006). The POD: A new model for mentoring underrepresented minority faculty. Acad Med 81:275-279. PMID: 16501276.	16501276

Mentoring Articles

Title	Authors (Last, First)	Summary	Web Link	General Topic	Empirical study?	Methods	Citation Info	PMID/PMCID
Enhancing Mentoring and Networking of Junior Academic Women: What, Why, and How?	Quinlan; Kathleen M.	— Description of the problems posed by traditional mentoring for women — Suggestions of improved mentoring and formal networking schemes, including division-wide, school-wide, nation-wide and international schemes. — Women face career issues less commonly faced by men, which need to be addressed in mentoring programs. — Traditional mentoring does not match women's career patterns, nor those of professionals who pursue several careers during their lifetimes. — "Peers, unlike mentors, are not generally able to offer sponsorship, coaching, exposure and visibility, protection, or challenging work assignments," but they do offer other benefits such as emotional, psychological, and social support.	NOT AVAILABLE FOR FREE ONLINE - Link to ERIC Abstract - http://www.eric.ed.gov/ERICWebPortal/search/detailmini.jsp?_nfpb=true&_&ERICExtSearch_SearchValue_0=EJ591450&ERICExtSearch_SearchType_0=no&accno=EJ591450	Gender/Racial Issues in Mentoring & Career Development	No		Quinlan KM (1991). Enhancing mentoring and networking of junior academic women: What, why, and how? J Higher Educ Policy Management 21:31-42.	Not available on PubMed.
Gender differences in expected outcomes of mentoring relationships	Ragins, Belle R; Scandura, Terri A.	— Current mentoring theory suggests that female mentors expect greater costs and expect greater benefits from mentoring than male mentors. — Through a study of business executives, authors found no significant differences between male mentors and female mentors in anticipated costs and benefits of mentoring, intentions to mentor, or mentoring experience. — Female mentors are more scarce due to "relative absence of women at high ranks rather than gender differences in intention to mentor."	http://www.jstor.org/stable/256606	Gender/Racial Issues in Mentoring & Career Development	Yes	Used mailing lists of high-ranking female managers and executives to identify 1,200 potential respondents. Matched-pairs research design with a matched sample of executive women and men by asking female respondents to identify two male peers. In the end, a final sample of 80 female and 80 male executives.	Ragins BR, Scandura TA (1994). Gender differences in expected outcomes of mentoring relationships. Acad Management J 37:957-971.	Not available on PubMed.
Cross-race faculty mentoring.	Stanley, Christine A.; Lincoln, Yvonna S.	— Suggestions for relationships with majority mentors and minority mentees, gleaned from research and authors' experiences. — Mentors must have extra sensitivity about the views of the mentee, and must be open to reconsider issues that might have seemed unimportant in the past. — Mentors must be aware of white privilege in the norms, traditions, and scholarly "voice" of the department and academia in general. — A relationship is fundamental, and those built on the deficit model (belief that mentees need a mentor because they are minorities and minorities come to academia with scholarly deficit) will be unwelcoming. — Mentors should have familiarity with research topics that are often taken up by scholars of color. — Mentor's must take responsibility for their mentees, and stand up for them within the departmental community. — If there is trust in the relationship, the mentor's feedback can be given without conflict.	NOT AVAILABLE FOR FREE ONLINE - Link to ERIC Abstract - http://eric.ed.gov/ERICWebPortal/search/detailmini.jsp?_nfpb=true&_&ERICExtSearch_SearchValue_0=EJ711665&ERICExtSearch_SearchType_0=no&accno=EJ711665	Gender/Racial Issues in Mentoring & Career Development	No		Stanley CA, Lincoln YS (2005). Cross-race faculty mentoring. Change 37:44-50.	Not available on PubMed.

Mentoring Articles

Title	Authors (Last, First)	Summary	Web Link	General Topic	Empirical study?	Methods	Citation Info	PMID/PMCID
Why Aren't There More Women Leaders in Academic Medicine? The Views of Clinical Department Chairs	Yedidia, Michael J. PhD; Bickel, Janet MA	— Synthesis of interviews with clinical department chairs showing three reasons for the relative scarcity of women leaders in the department: 1) traditional gender roles, 2) sexism, and 3) lack of adequate mentors. — Concluded that most interviewees believed men wouldn't be able to understand or identify with pressures confronting female faculty. However, same-sex mentoring might replicate differential access, and might be impossible in some departments. — Several interviewees suggested multiple mentors for each mentee to segment responsibilities. — Authors suggest that chairs educate men to be more helpful as mentors to female faculty, appoint more women to senior positions and visiting professorships, and encourage women to identify multiple mentors. — Authors suggest that institutions establish and fund associations of women faculty, extend mentoring networks to non-medical departments within the university, and participate in regional and national networks.	http://journals.lww.com/academicmedicine/Fulltext/2001/05000/Why_Aren_t_There_More_Women_Leaders_in_Academic.17.aspx	Gender/Racial Issues in Mentoring & Career Development	Yes	Open-ended interviews averaging 80 minutes in length were conducted with 34 chairs and two division chiefs in five specialties. Individuals were selected to achieve a balance for gender, geographic locale, longevity in their positions, and sponsorship and research intensity of their institutions. The interviews were audiotaped and fully transcribed, and the themes reported emerged from inductive analysis of the responses using standard qualitative techniques.	Yedidia MJ, Bickel J (2001). Why aren't there more women leaders in academic medicine? The views of clinical department chairs. Acad Med 76:453-465.	11346523
Innovative Mentoring Programs to Promote Gender Equity in Academic Medicine	Mark, Saralyn MD; Link, Heather MHS; Morahan, Page PhD; Pololi, Linda MB, BS; Reznik, Vivian MD, MPH; and Tropez-Sims, Susanne MD, MPH	— Description of "innovative" mentoring programs established at four medical schools through initiative by the Office on Women's Health (OWH), Department of Health and Human Services, for their approach to gender equity: 1) MC Hahnemann's program features (a) a preceptoring program for first-year instructors and assistant professors, and (b) a mentoring program designed for junior faculty in the middle of their assistant professorships. An advisory committee of internal and external leaders reviews the program annually. 2) East Carolina's program offers (a) a Mentoring Skills Program for senior and leadership faculty members to train mentors, (b) a Personal Mentoring Program to pair junior and senior faculty, and (c) a Collaborative Mentoring Program for facilitated collaborative career planning and structured experiential sessions for a group of junior faculty. Monitors success through a computerized faculty tracking system.	http://ovidsp.tx.ovid.com/sp-2.3.1b/ovidweb.cgi?&S=GHALFPIJIGDDAMGPNCDLPGMCJOOMAA00&Abstract=S.sh.15|1|1	Gender/Racial Issues in Mentoring & Career Development	No		Mark S, Link H, Morahan P, Pololi L, Reznik V, Tropez-Sims S. Innovative mentoring programs to promote gender equity in academic medicine. Acad Med. 2001;76:39–42. PMID: 11154192	11154192
		3) University of California, San Diego created programs of faculty performance development, and the first year's program activities include: training and education, a formal mentoring program, a faculty leadership council, special events for the community, and academic performance counseling. Also includes ongoing evaluation. 4) Meharry's program developed a one-on-one mentoring program, with an application process, contractual agreement, brown-bag luncheons, senior faculty workshop to improve mentoring skills, and protected time for faculty members' professional development. Also includes ongoing evaluation. — OWH determined two necessities for mentoring programs: 1) institutional commitment and 2) institutional reward and recognition to mentors.						

Mentoring Articles

Title	Authors (Last, First)	Summary	Web Link	General Topic	Empirical study?	Methods	Citation Info	PMID/PMCID
Increasing Women's Leadership in Academic Medicine: Report of the AAMC Project Implementation Committee	Bickel, Janet; Wara, Diane M.D.; Atkinson, Barbara M.D.; Cohen, Lawrence M.D.; Dunn, Michael M.D.; Hostler, Sharon M.D.; Johnson, Timothy M.D.; Morahan, Page Ph.D.; Rubenstein, Arthur M.D.; Sheldon, George M.D.; Stokes, Emma Ph.D.	— An analysis of four years of data from schools on the representation of women faculty and leaders, with suggestions for improving the professional development of female faculty. — Appendices include examples of medical school faculty mentoring programs and conclusions specific to female faculty and mentoring, including: 1) Women are gaining less benefit from the mentor relationship, but have a greater need for mentoring. 2) Those who succeed later in their career had the investment of influential mentors in early stages of their career, even if not on an obvious "fast track." 3) Those who receive mentoring that is basically instructional (as opposed to fuller relationships and confidence-building) plateau later in their career. 4) Cross-race and cross-gender relationships encounter various extra difficulties. 5) Add items on mentoring to annual faculty evaluations evaluations, and ask senior faculty to name their proteges and junior faculty to name their mentors.	http://journals.lww.com/academicmedicine/Abstract/2002/10000/Increasing_Women_s_Leadership_in_Academic.23.aspx	Gender/Racial Issues in Mentoring & Career Development	Yes	Examined four years of data collected from schools on the representation of women faculty and leaders. Carried out inductive analysis of open0ended in-depth interviews with a sample of 34 chairs and two division chiefs. Examined medical schools Women in Medicine initiatives and faculty mentoring programs, reviewed new research and consulted with experts.	Bickel J, Wara D, Atkinson BF, et al. Increasing women's leadership in academic medicine: report of the AAMC Project Implementation Committee. Acad Med. 2002;77:1043-61. PMID: 12377686	12377686
Mentoring Program for Minority Faculty at the University of Pennsylvania School of Medicine	Johnson, Jerry MD; Williams, Beverly MS, JD; and Jayadevappa, Ravishankar PhD	— Description of the development of a faculty development program aimed at developing underrepresented minority faculty. — The program has 4 components: 1) annual career development meetings with new minority faculty, 2) assistance identifying and assigning mentors from a cadre of mentors, 3) formal courses to develop research skills, and 4) a database and tracking system to monitor minority faculty retention.	http://journals.lww.com/academicmedicine/Abstract/1999/04000/Mentoring_program_for_minority_faculty_at_the.29.aspx	Gender/Racial Issues in Mentoring & Career Development	Yes	Two surveys were conducted at University of Pennsylvania School of Medicine, one to evaluate the school's mentoring programs and the second to determine whether a cohort of URM and other junior faculty had comparable mentoring experiences. The small sample size precluded meaningful tests of statistical significance.	Johnson JC, Williams B, Jayadevappa R. Mentoring program for minority faculty at the University of Pennsylvania School of Medicine. Acad Med. 1999;74:376–79. PMID: 10219215	10219215
Extending the Pipeline for Minority Physicians: A Comprehensive Program for Minority Faculty Development	Johnson, Jerry MD; Jayadevappa, Ravishankar PhD; Taylor, Lynne PhD; Askew, Anthony; Williams, Beverly MS, JD; and Johnson, Bernett MD	— Description of the University of Pennsylvania Comprehensive Minority Faculty Development program, which offers development for minorities at four levels: undergraduate, pre-medical students; medical students; advanced trainees (residents, fellows, and postdoctoral trainees); and faculty. Mentoring occurs in various forms at the various levels of the program. — Each program is discussed in detail, along with evaluative measurements and constraints. — The authors contrast their program's nurturing pipeline and work with MD candidates with the traditional model of faculty development—linking a trainee with a successful investigator. — The authors offer four lessons from their center: 1) it was advantageous that the new center's director is senior minority faculty member known to many of the division and department chiefs, 2) the director underestimated the time commitment necessary to implement and maintain program;	http://journals.lww.com/academicmedicine/Abstract/1998/03000/Extending_the_pipeline_for_minority_physicians__a.11.aspx	Gender/Racial Issues in Mentoring & Career Development	No	However, they do provide evaluative metrics for each facet of the program.	Johnson JC, Jayadevappa R, Taylor L, et al. Extending the pipeline for minority physicians: a comprehensive model for minority faculty development. Acad Med. 1998;73:13-20.	9526450

Title	Authors (Last, First)	Summary	Web Link	General Topic	Empirical study?	Methods	Citation Info	PMID/PMCID
		3) the program is labor-intensive, and requires personal contacts to establish collaborations among distinct and sometimes competitive units; 4) the data mangement and tracking system to monitor the program outcomes and trainees' progress can be difficult because of lack of reliable, valid sources of data. — The two major stumbling blocks were shortage of funds (or restrictions on the manner that funds could be used) and a tradition of decentralized decision making in the medical school that interfered with collaboration.						
Generation X: Implications for Faculty Recruitment and Development in Academic Health Centers	Bickel, Janet MA; Brown, Ann J. MD	— Approaches mentoring relationships, work style, and career development with focus upon minimizing tension and improving understanding between Baby Boomers and Generation X'ers. — Outlines differences in outlook between the two generations and how differences obstruct mentoring, such as the relative homogeneity of Baby Boomers and Generation X'ers relative disinterest in role models — Generation X'ers prefer variety of models, with less top-down approach, and focus more on creating a work-life balance. — Array of mentoring techniques offered: (a) begin mentor-protege relationships with discussion about values, influences and backgrounds to create productive discussion of generational differences; (b) build-in milestones in career planning and deemphasize delayed gratification; (c) participative, outcome-focused approach to problems more palatable than authoritative imposition of mentor's idea about process upon protege; (d) proteges want frequent, frank feedback and prefer rewards in the form of thanks, professional development opportunities, new electronic equipment, time off and increased flexibility; (e) encourage protege to mentor others; (f) refrain from comparing today to "glories of yesterday"	http://journals.lww.com/academicmedicine/Fulltext/2005/03000/Generation_X__Implications_for_Faculty_Recruitment.3.aspx	Mentoring Challenges & Techniques	No		Bickel J, Brown AJ (2005). Generation X: Implications for faculty recruitment and development in academic health centers. Acad Med 80:205-210. PMID: 15734801.	15734801
A Guide to Training and Mentoring in the Intramural Research Program at NIH	National Institutes of Health	— A basic introduction and overview of the importance of mentoring in order to train scientists in scientific investigation, public and personal communication, career planning, and the legalities and ethics of research. This training can be formal—i.e. through institutional structures—or informal—i.e. through the example of and conversations with the mentor. — Training current and potential mentors in the skills of mentorship is important. — Trainees must take an active role in their mentorship	http://sourcebook.od.nih.gov/ethic-conduct/mentor-guide.htm	Mentoring Challenges & Techniques (Tool)	No		National Institutes of Health. A guide to training and mentoring in the intramural research program at NIH. Accessed September 1, 2006 at http://www1.od.nih.gov/oir/sourcebook/ethic-conduct/mentor-guide.htm .	Not available on PubMed.

Mentoring Articles

Title	Authors (Last, First)	Summary	Web Link	General Topic	Empirical study?	Methods	Citation Info	PMID/PMCID
"Having the Right Chemistry": A Qualitative Study of Mentoring in Academic Medicine	Jackson, Vicki MD, MPH; Palepu, Anita MD, MPH; Szalacha, Laura PhD; Caswell, Cheryl MBA; Carr, Phyllis MD; and Inui, Thomas ScM, MD	— Authors held in-depth interviews to understand the lived experiences of academic medicine faculty members regarding mentoring, and found qualities of more and less effective mentoring relationships. — Found that compatibility and "chemistry" was very important. — In addition to recommendations for individuals, the authors provide recommendations for institutions: 1) mentoring should be formalized and recognized like any other activity in academic medicine; 2) bring junior faculty and potential mentors together in a systematic way early in the careers of new faculty; 3) potential mentors and mentees should meet in social as well as professional settings to begin networking process, perhaps by encouraging junior faculty to meet with each member of the department at the start of their time at institution; 4) Mentoring should be a no-fault relationship that either party has the option to terminate for good reason at any time without risk or harm to careers; 5) institutions should encourage and reward mentors by publicly recognizing their efforts and scheduling formal time for the activity;	http://journals.lww.com/academicmedicine/Abstract/2003/03000/_Having_the_Right_Chemistry___A_Qualitative_Study.20.aspx	Mentoring Challenges & Techniques	Yes	Authors conducted individual telephone interviews of 16 faculty members about their experiences. Interviews were taped and transcribed and authors identified major themes through multiple readings. A consensus taxonomy for classifying content evolved from comparisons of coding by four reviewers. Themes expressed by participants were studied for patterns of connection and grouped into broader categories.	Jackson VA, Palepu A, Szalacha L, Caswell C, Carr PL, Inui T. Having the right chemistry: a qualitative study of mentoring in academic medicine. Acad Med. 2003;78:328–34. PMID: 12634219	12634219
		6) assigned mentoring can be useful, but the environment must support the mentee in finding another mentor if the current one is not meeting his or her needs; 7) women and minority mentors should be available to faculty members, but it should not be assumed that all mentees would prefer a mentor who is of the same gender or race. — Authors have also made available a comprehensive survey instrument for studying mentoring experience.							
Junior Faculty Members' Mentoring Relationships and Their Professional Development in U.S. Medical Schools	Palepu, Anita MD MPH; Friedman, Robert MD; Barnett, Rosalind PhD; Carr, Phyllis MD; Ash, Arlene PhD; Szalacha, Laura EdM; and Moskowitz, Mark MD	— A study of the prevalence, quality, variation by gender or race, and perceived benefits of junior faculty mentoring relationships in US medical schools. — 80% of women faculty reported that it was not important to have a mentor of the same gender, and 86% of the minority faculty reported that having a mentor of the same race was not important. But significantly more of the women believed that inadequate mentoring had impeded their career growth. — Faculty with mentors allocate more time during the week to research than did those without mentors, are more likely to have been awarded a research grant, and had significantly higher career-satisfaction. — No significant gender difference in the percentages of junior faculty who had had recent mentoring, suggesting increased targeting of mentor programs for women has worked. — Men report more invitations to informal, work-related sporting events from their mentors.	http://ovidsp.tx.ovid.com/sp-2.3.1b/ovidweb.cgi?&S=EAJOFPHJOODDAMKGNCDLCGJJGHMJAA00&Abstract=S.sh.15|1|1	Mentoring Challenges & Techniques	Yes	Authors mailed 177-item questionnaires to 3,013 faculty at 24 medical schools randomly selected from 106 eligible schools. 60% of the faculty surveyed (1,808 individuals) returned questionnaires. Responses were analyzed using chi-square test, descriptive and multivariate analyses, and regression analysis.	Palepu A, Friedman R, Barnett R, Carr P, et al. Junior faculty members' mentoring relationships and their professional development in U.S. medical schools. Acad Med. 1998;73:318–23. PMID: 9526459	9526459
Measuring the Effectiveness of Faculty Mentoring Relationships	Berk, Ronald PhD; Berg, Janet MS, RN; Mortimer, Rosemary MS, MSEd, RN; Walton-Moss, Benita DNS, RN; and Yeo, Theresa MSN, MPH, RN	— The findings of a committee that set out to define mentorship and the mentor's responsibilities, and develop instruments for a mentee to describe and evaluate his or her mentor's effectiveness. They provide those instruments—a questionnaire to be filled out by the mentee, and a formal rating scale—in the appendices.	http://journals.lww.com/academicmedicine/Abstract/2005/01000/Measuring_the_Effectiveness_of_Faculty_Mentoring.17.aspx	Mentoring Challenges & Techniques (Evaluative)	No		Berk RA, Berg J, Mortimer R, Walton-Moss B, Yeo TP. Measuring the effectiveness of faculty mentoring relationships. Acad Med. 2005;80:66-71. PMID: 15618097	15618097

Mentoring Articles

Title	Authors (Last, First)	Summary	Web Link	General Topic	Empirical study?	Methods	Citation Info	PMID/PMCID
Profile of Administrators of Schools of Nursing, Part II: Mentoring Relationships and Influence Activities	Short, Judy DSN, RN	— As part of a larger study of administrators at schools of nursing, this part studies the influence of past mentoring upon the administrators. — From this study, the author makes a number of conclusions, including: a) It is important to seek a mentor of a higher position upon promotion. b) New deans and directors should continue to seek out mentors, although they may be less able to find one at a higher position. Having a mentor within the institution but in a different field is preferable to a mentor within the field but at a different institution. c) For mentoring to be increased in both frequency and usefulness in leadership development, it would need to start from the top down and be filtered throughout the organization. Administrators supportive of mentoring and who role model the mentoring functions can do much for advancing mentoring as a tool.	http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6WKV-4G603KK-BP&_user=10&_coverDate=02%2F28%2F1997&_rdoc=1&_fmt=high&_orig=search&_sort=d&_docanchor=&view=c&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=78bff44083a4d43c49ea72f7f9a6005d	Mentoring Challenges & Techniques (Evaluative)	Yes	Authors created questionnaires from instruments used and validated in other studies. Sent out 441 questionnaires and received 324, upon which a descriptive statistical analysis was used.	Short JD. Profile of administrators of schools of nursing, Part II: Mentoring relationships and influence activities. J Prof Nurs. 1997;13(1):13-8. PMID: 9183108	9183108
Mentoring New Faculty	Brown, Hazel	— Report on and evaluation of a 12-year long mentoring program for faculty in the University of North Carolina at Greensboro School of Nursing. The mentor-mentee relationship is not a formal arrangement, but a personal helping relationship. — From responses by mentors and protégés, the authors arrive at "Mentoring Points" for mentors to use as a guide and recommendations for designing mentoring programs, which are: 1) Establish a School philosophy aimed at developing young/new faculty members. 2) Mentoring program must be supported by Dean and leadership in school. 3) One individual needs to be in charge of pairing mentors and mentees and shepherding that process. 4) Gather evaluation data from mentors and mentees each year. — Additionally, the authors suggest that mentors and mentees: 1) Meet weekly for a month, then at least monthly 2) Establish goals for the relationship for the year 3) Discuss history and culture of the School 4) Discuss political environment and decision making in the School 5) Discuss the progress of the mentoring relationship, at least quarterly.	http://journals.lww.com/nurseeducatoronline/Abstract/1999/01000/Mentoring_New_Faculty.14.aspx	Mentoring Challenges & Techniques	Yes	Questionnaires were presented to the mentors and the proteges, with four questions each.	Brown H.N. Mentoring new faculty. Nurs Educ. 1999;24(1):48-51. PMID: 10335214	10335214
Support-challenge-vision: A model for faculty mentoring	Bower, Douglas; Diehr, Sabina; Morzinski, Jeffrey; and Simpson, Deborah.	— Authors seek to validate Daloz's theoretically derived mentoring model, which sees effective mentor/protégé interactions as a balance of three elements: support, challenge, and a vision of the protégé's future career. — Tested this hypothesis through Formal Mentoring Program at Department of Family and Community Medicine at the Medical College of Wisconsin, which focuses on values, norms and expectations, career planning, and fostering collaborative interactions with colleagues. — Study found that the Daloz challenge-support-vision model helps to explain the interactions of effective faculty mentors. Mentors who were highly recommended balanced significant levels of challenge and support, and foster vision through role modeling and stimulating self-and future awareness.	http://informahealthcare.com/doi/abs/10.1080/01421599880373	Mentoring Challenges & Techniques	Yes	Authors used a three-part protege questionnaire based on the characteristics of effective mentors 6 months after the program completion. Descriptive statistics and t-tests were used on quantitative responses, and content analysis was used to test the categories of the Daloz model.	Bower DJ, Diehr S, Morzinski JA, Simpson DE. Support-Challenge-Vision: A Model for Faculty Mentoring. Medical Teacher. 1998;20:595-7.	Not available on PubMed.

Mentoring Articles

Title	Authors (Last, First)	Summary	Web Link	General Topic	Empirical study?	Methods	Citation Info	PMID/PMCID
A New Approach to Mentoring	Kram, Kathy E., and Higgins, Monica C.	—Historic one-to-one mentoring relationship not longer works. —Instead need to develop a developmental network of advisors that changes over time. —Network is characterized by mutual support and learning, rather than traditional teacher-student structure.	https://sloanreview.mit.edu/executive-adviser/articles/2008/4/50410/a-new-approach-to-mentoring/	Peer Mentoring & Mentoring Networks	No		Kram KE, Higgins MC (2008). A New Approach to Mentoring. MIT Sloan Management Review. Accessed June 28, 2010 at https://sloanreview.mit.edu/executive-adviser/articles/2008/4/50410/a-new-approach-to-mentoring/.	Not available on PubMed.
Repaving the Road to Academic Success: The IMeRGE Approach to Peer Mentoring	Bussey-Jones, Jada MD; Bernstein, Lisa MD; Higgins, Stacy MD; Malebranche, David MD, MPH; Paranjape, Anuradha MD, MPH; Genao, Inginia MD; Lee, Bennett MD, MPH; Branch, William MD	— Outlines pros and cons of traditional mentoring vs peer mentoring, and explains how one self-directed peer mentoring program dealt with those challenges through a didactic curriculum, peer support group, and group projects. — Traditional mentoring: (a) encourages homogeneity; (b) can be explotative of mentees; (c) lacks consistency from mentor to mentor; (d) is limited by number of suitable mentors, esp. for minorities and women. — Peer mentoring: (a) can create competition; (b) draws upon more limited experiences. — Challenges for this mentoring program: (a) competing responsibilities; (b) maintaining accountability to peers; (c) selecting senior advisors; (d) finding common interests in peer group. — Attributes success of program partially to a supportive division, available funding to support advisors' time, and weekly scheduled meeting times.	http://journals.lww.com/academicmedicine/Fulltext/2006/07000/Repaving_the_Road_to_Academic_Success__The_IMeRGE.15.aspx	Peer Mentoring & Mentoring Networks	No		Bussey-Jones J, Bernstein L, Higgins S, Malebranche D, Pranjape A, Genao I, Lee B, Branch W (2006). Repaving the road to academic success: The IMeRGE approach to peer mentoring. Acad Med 81:674-679. PMID: 16799297.	16799297
Helping Medical School Faculty Realize Their Dreams: An Innovative, Collaborative Mentoring Program	Pololi, Linda H. MBBS; Knight, Sharon M. PhD, RN; Dennis, Kay EdD, RN; Frankel, Richard M. PhD	— Description of a learner-centered, experiential peer mentoring program carried out among junior faculty, involving group discussions and exercises, self-reflection, and collaborative scholarly writing — Outcomes: 1) clarification of values; 2) career planning; 3) development of relationships and feelings of being more involved in institution and community; 4) development of skills in (a) scholarly writing, (b) oral presentation, (c) gender and power issues, (d) negotiation and conflict management; 5) better retention of junior faculty at institution. — Emphasis upon the safe, non-hierarchical aspect of peer mentoring, which is especially suited for dealing with gender and power issues and isolation of junior faculty.	http://journals.lww.com/academicmedicine/Fulltext/2002/05000/Helping_Medical_School_Faculty_Realize_Their.5.aspx	Peer Mentoring & Mentoring Networks	Yes	Authors evaluated the program using qualitative and quantitative methods: tracked participants' written learning objectives for each day, requested written narratives from participants, audio-taped dyadic interviews with open-ended questions, and had participants review the qualitative analysis of their comments for completeness and acuracy.	Pololi LH, Knight SM, Dennis K, Frankel RM (2002). Helping medical school faculty realize their dreams: An innovative, collaborative mentoring program. Acad Med 77:377-384. PMID: 12010691.	http://www.ncbi.nlm.nih.gov/pubmed/12010691

Mentoring Articles

Title	Authors (Last, First)	Summary	Web Link	General Topic	Empirical study?	Methods	Citation Info	PMID/PMCID
Developing senior doctors as mentors: a form of continuing professional development. Report of an initiative to develop a network of senior doctors as mentors: 1994-99	Connor, M P; Bynoe, A G; Redfern, N; Pokora, J; and Clarke, J	— Description and investigation of a regional mentoring network for senior doctors. Participants rotate roles of mentor, mentee, and observers. — Also offers recommendations for the future, although these recommendations seem to be specific to this particular program.	http://web.ebscohost.com/ehost /detail?vid=1&hid=111&sid=acaf b5a7-6c80-4266-8754- f36be2fa8d08%40sessionmgr11 2&bdata=JnNpdGU9ZWhvc3Qt bGl2ZQ%3d%3d#db=aph&AN= 5867242	Peer Mentoring & Mentoring Networks	Yes	Participants in research sample were 83 senior doctors from four programs, 144 clinical tutors, medical directors and human resource directors, and the program organizers who were two associate postgraduate deans. Postal questionnaires (following focus groups) were used to determine the experiences of those in the program.	Connor MP, Bynoe AG, Redfern N, Pokora J, Clark J. Developing senior doctors as mentors: a form of continuing professional development. Report of an initiative to develop a network of senior doctors as mentors: 1994–99. Med Educ. 2000;34:747–53. PMID: 10972754	10972754
Mentoring Alternatives: The Role of Peer Relationships in Career Development	Kram, Kathy E., and Isabella, Lynn A.	— A study of peer relationships in a manufacturing company, from which conclusions are drawn about types and functions of peer relationships. — Peer relationships offer a degree of mutuality that enables both individuals to be the giver and the receiver of mentoring functions. — Information peers share information; collegial peers share feedback, career strategizing and friendship; and special peers provide confirmation, emotional support, personal feedback and friendship. — Special peer relationships and collegial peers especially offer a sense of "looking up to" peers for guidance. — Peer relationships are more universally available than conventional mentoring relationships, and an exciting alternative to them. — Peer relationships appear to have a longevity that exceeds that of most mentoring relationships. — Conventional mentors are most important in early career, but peers seem to be important at all stages.	http://www.jstor.org/pss/256064	Peer Mentoring & Mentoring Networks	Yes	Interview sequence with 15 focal participants, with consistent questions and transcribed for content analysis.	Kram K, Isabella L. Mentoring alternatives: the role of peer relationships in career development. Academy of Management J. 1985;28:110–32.	Not available on PubMed.
The Future-Oriented Department Chair	Grigsby, R Kevin DSW; Hefner, David S. MPA; Souba, Wiley W. MD, ScD, MBA; Kirch, Darrell G. MD	— Outlines changing environment of academic medicine, the characteristics department chairs now need, and how to find, develop, and retain those chairs. — Suggests proper succession planning through mentorship, and especially multiple mentors for future leaders. — Developing chair's mentoring skills allows for successful mentoring and professional development of junior faculty, esp. female faculty. — Ongoing development of chair through leadership training, mentoring, and investments to make sure the chair feels fulfilled in his or her position and in the organizational culture (e.g. climate of peer support, recognition and reward, and proper values and ideals in institutional environment).	http://journals.lww.com/academi cmedicine/Fulltext/2004/06000/ The_Future_Oriented_Departm ent_Chair.14.aspx	Role of Department Chair	No		Grigsby RK, Hefner DS, Souba WW, Kirch DG (2004). The future-oriented department chair. Acad Med 79:571-577. PMID: 15165977.	15165977