

Supplemental Digital Appendix 2

Alphabetical Reference List and Description of 96 Studies Included in a Scoping Review of the Literature on Social Media Use by Health Care Professionals and Trainees, 2000-2012

References

- Anderson ET, Mercer ZB. Impact of Community Health Content on Nurse Practitioner Practice: A Comparison of Classroom and Web-Based Teaching. *Nurs Educ Perspect.* 2004;25:171-175.
- Andrade AD, Bagri A, Zaw K, Roos BA, Ruiz JG. Avatar-mediated training in the delivery of bad news in a virtual world. *J Palliat Med.* 2010;13:1415-1419.
- Anttila M, Koivunen M, Valimäki M. Information technology-based standardized patient education in psychiatric inpatient care. *J Adv Nurs.* 2008;64:147-156.
- Arikan Y, Benker T. Internet and Social Media Impacts on Turkish Healthcare Professionals' Reaching Health and Drug Side Effect-Related Information. *Drug Safety.* 2011;34:1002-1003.
- Avery E, Lariscy R, Amador E, Ickowitz T, Primm C, Taylor A. Diffusion of Social Media Among Public Relations Practitioners in Health Departments Across Various Community Population Sizes. *Journal of Public Relations Research.* 2010;22:336-358.
- Baker PG, Eley DS, Lasserre KE. Tradition and technology: teaching rural medicine using an internet discussion board. *Rural Remote Health.* 2005;5:435.
- Beard L, Wilson K, Morra D, Keelan J. A Survey of Health-Related Activities on Second Life. *J Med Internet Res.* 2009;11:e17.
- Bello G, Pennisi MA, Maviglia R, et al. Online vs live methods for teaching difficult airway management to anesthesiology residents. *Intensive Care Med.* 2005;31:547-552.
- Bookstaver PB, Rudicill CN, Bickley AR, et al. An evidence-based medicine elective course to improve student performance in advanced pharmacy practice experiences. *Am J Pharm Educ.* 2011;75:9.
- Bradshaw J, Hoiriis K. Improving student performance in radiology courses using video tutorials. ACC Conference Poster Presentations. *Journal of Chiropractic Education.* 2011;25:108.
- Braner DA, Lai S, Hodo R, et al. Interactive Web sites for families and physicians of pediatric intensive care unit patients: a preliminary report. *Pediatr Crit Care Med.* 2004;5:434-439.

- Brooks F, Rospopa C, Scott P. Midwifery on the net: new communication technology. *British Journal of Midwifery*. 2004;12:107-110.
- Brunetaud JM, Leroy N, Pelayo S, et al. Comparative evaluation of two applications for delivering a multimedia medical course in the French-speaking Virtual Medical University (UMVF). *Int J Med Inform*. 2005;74:209-212.
- Buis LR, Carpenter S. Health and medical blog content and its relationships with blogger credentials and blog host. *Health Commun*. 2009;24:703-710.
- Cain J, Dillon G. Analysis of pharmacy-centric blogs: Types, discourse themes, and issues. *J Am Pharm Assoc (2003)*. 2010;50:714-719.
- Campos MN. Communication as Argumentation: The Use of Scaffolding Tools by a Networked Nursing Community. *Canadian Journal of Communication*. 2007;32:457-474.
- Clauson KA, Ekins J, Goncz CE. Use of blogs by pharmacists. *Am J Health Syst Pharm*. 2010;67:2043-2048.
- Cobb SC. Social presence, satisfaction, and perceived learning of RN-to-BSN students in Web-based nursing courses. *Nurs Educ Perspect*. 2011;32:115-119. Erratum appears in *Nurs Educ Perspect*. 2011;32:149.
- Collins CE. Twitter and Rheumatology Based Medical Education - Analysis of the First 100 Followers. *Arthritis and Rheum*. 2011;63:10, S85.
- Cragg CE, Dunning J, Ellis J. Teacher and Student Behaviors in Face-to-Face and Online Courses: Dealing with Complex Concepts. *Journal of Distance Education*. 2008;22:115-128.
- Creutzfeldt J, Hedman L, Medin C, et al. Implementing virtual worlds for systematic training of prehospital CPR in medical school. *Stud Health Technol Inform*. 2007;125:82-84.
- Curran V, Kirby F, Parsons E, Lockyer J. Discourse Analysis of Computer-Mediated Conferencing in World Wide Web-Based Continuing Medical Education. *J Contin Educ Health Prof*. 2003;23:229-238.
- Felsen U, Kunins H, Jeffers A, Stark R. Implementation of a Wiki-Based Education and Resource Tool in a Primary Care Residency Program. *Journal of General Internal Medicine*. 2010;25:455-456.
- Frimming RE, Polsgrove MJ, Bower GG. Evaluation of a Health and Fitness Social Media Experience. *American Journal of Health Education*. 2011;42:222-227.
- Fry-Welch DK. Use of threaded discussion to enhance classroom teaching of critical evaluation of the professional literature. *Journal of Physical Therapy Education*. 2004;18:48-53.

- George DR, Dellasega C. Use of social media in graduate-level medical humanities education: Two pilot studies from Penn State College of Medicine. *Med Teach.* 2011;33:e429-e434.
- Giordano C, Giordano C. Health professions students' use of social media. *J Allied Health.* 2011;40:78-81.
- Giordano RA. An Investigation of the Use of a Wiki to Support Knowledge Exchange in Public Health. *Proceedings of the 2007 International ACM Conference on Supporting Group Work.* 2007; 269-272.
- Goldman RH, Cohen AP, Sheahan F. Using seminar blogs to enhance student participation and learning in public health school classes. *Am J Public Health.* 2008;98:1658-1663.
- Gwozdek AE, Klausner CP, Kerschbaum WE. The utilization of Computer Mediated Communication for case study collaboration. *J Dent Hyg.* 2008;82:8.
- Haigh CA. Wikipedia as an evidence source for nursing and healthcare students. *Nurse Educ Today.* 2011;31:135-139.
- Hajjar IM, Ruiz JG, Teasdale TA, Mintzer MJ. The Use of the Internet in Geriatrics Education: Results of a National Survey of Medical Geriatrics Academic Programs. *Gerontol Geriatr Educ.* 2007;27:85-95.
- Hanson C, West J, Neiger B, Thackeray R, Barnes M, McIntyre E.. Use and Acceptance of Social Media among Health Educators. *American Journal of Health Education.* 2011;42:197-204.
- Hanson K. Blog enabled peer-to-peer learning. *J Dent Hyg.* 2011;85:6-12.
- Hayward LM. Integrating Web-Enhanced Instruction into a Research Methods Course: Examination of Student Experiences and Perceived Learning. *Journal of Physical Therapy Education.* 2004 (18)2:54-65.
- Huang LC, Hsu CW, Ko HC, Kuo FY. Influential factors on physicians' behaviour towards the medical web messaging board: a qualitative exploration. *Int J Electron Healthc.* 2007;3:220-231.
- Hughes B, Joshi I, Lemonade H, Wareham J. Junior physician's use of Web 2.0 for information seeking and medical education: A qualitative study. *Int J Med Inform.* 2009;78:645-655.
- Hunter MH, Irwin C, Mauldin M. MSOL: medical students on line: an interactive medical student website and its application in undergraduate medical education. *J S C Med Assoc.* 2000;96:348-352.
- Jent JF, Eaton CK, Merrick MT, et al. The Decision to Access Patient Information From a Social

- Media Site: What Would You Do? *J Adolesc Health.* 2011;49:414-420.
- Knosel M, Jung K, Bleckmann A. YouTube, Dentistry, and Dental Education. *J Dent Educ.* 2011;75:1558-1568.
- Kohli MD, Bradshaw JK. What is a Wiki, and How Can it be Used in Resident Education? *J Digit Imaging.* 2011;24:170-175.
- Lagu T, Kaufman EJ, Asch DA, Armstrong K. Content of weblogs written by health professionals. *J Gen Intern Med.* 2008;23:1642-1646.
- Lipman AJ, Sade RM, Glotzbach AL, Lancaster CJ, Marshall ME. The incremental value of internet-based instruction as an adjunct to classroom instruction: a prospective randomized study. *Acad Med.* 2001;76:1060-1064.
- Liu BF, Kim S. How organizations framed the 2009 H1N1 pandemic via social and traditional media: Implications for US health communicators. *Public Relations Review.* 2011;37:233-244.
- Llambi L, Esteves E, Martinez E, et al. Teaching tobacco cessation skills to Uruguayan physicians using information and communication technologies. *J Contin Educ Health Prof.* 2011;31:43-48.
- Low S. Supporting student learning during physical therapist student internships using online technology. *J Phys Ther Educ.* 2008;22:75-82.
- Lupianez-Villanueva F, Mayer MA, Torrent J. Opportunities and challenges of Web 2.0 within the health care systems: An empirical exploration. *Inform Health Soc Care.* 2009;34:117-126.
- Lynch-Sauer J, Vandenbosch TM, Kron F, et al. Nursing students' attitudes toward video games and related new media technologies. *J Nurs Educ.* 2011;50:513-523.
- Mahlamaki-Kultanen S, Hulkari K. Pedagogical Functions of Simple Web-Discussion During Work-Based Learning Periods in Vocational Education. 2003.
- Maxwell SR, McQueen DS, Ellaway R. eDrug: a dynamic interactive electronic drug formulary for medical students. *Br J Clin Pharmacol.* 2006;62:673-681.
- Miller AD, Bookstaver PB, Norris LB. Use of Wikis in advanced pharmacy practice experiences. *Am J Pharm Educ.* 2009;73:139.
- Miller EA, Pole A, Bateman C. Variation in health blog features and elements by gender, occupation, and perspective. *J Health Commun.* 2011;16:726-749.
- Monaghan MS, Cain JJ, Malone PM, et al. Educational technology use among US colleges and

- schools of pharmacy. *Am J Pharm Educ.* 2011;75:87.
- Moore WA. Reaching the masses: physical therapist students learn to use YouTube to share clinical information with patients and the public. *Internet Journal of Allied Health Sciences & Practice.* 2010;8:1-8.
- Moore-Cox A. Socialization in the Asynchronous Online Course Discussion of Graduate Nursing Administration Students: A Case Study. ProQuest LLC PhD Dissertation, State University of New York at Albany. 2010.
- Moran R. Enriching clinical learning experiences in community health nursing through the use of discussion boards. *Int J Nurs Educ Scholarsh.* 2005;2:Article 23.
- Mostaghimi A, Crotty BH, Landon BE. The Availability and Nature of Physician Information on the Internet. *J Gen Intern Med.* 2010;25:1152-1156.
- Muhlhauser I, Oser F. [Does WIKIPEDIA provide evidence-based health care information? A content analysis]. [Article in German]. *Z Evid Fortbild Qual Gesundheitswes.* 2008;102:441-448.
- Nathoo AN, Goldhoff P, Quattrochi JJ. Evaluation of an Interactive Case-Based Online Network (ICON) in a Problem Based Learning Environment. *Adv Health Sci Educ Theory Pract.* 2005;10:215-230.
- Naylor CJ, Madden DL, Oong DJ. Use of communication technology among public health professionals in New South Wales, Australia. *N S W Public Health Bull.* 2007;18:13-16.
- Oldenburg NL, Hung WC. Problem solving strategies used by RN-to-BSN students in an online problem-based learning course. *J Nurs Educ.* 2010;49:219-222.
- Paulus TM, Myers CR, Mixer SJ, Wyatt TH, Lee DS, Lee JL. For faculty, by faculty: a case study of learning to teach online. *Int J Nurs Educ Scholarsh.* 2010;7:Article 13.
- Pereira J, Palacios M, Collin T, et al. The impact of a hybrid online and classroom-based course on palliative care competencies of family medicine residents. *Palliat Med.* 2008;22:929-937.
- Poirier J, Cooley J, Wessely M, Guebert G, Petrocco-Napuli K. Evaluation of Three Different Methods of Distance Learning for Postgraduate Radiology Education: A Pilot Study. *The Journal of Chiropractic Education.* 2011;25:72-120.
- Poonawalla T, Wagner RF Jr. Assessment of a blog as a medium for dermatology education. *Dermatol Online J.* 2006;12:5.
- Rajagopalan MS, Khanna VK, Leiter Y, et al. Patient-oriented cancer information on the internet: a comparison of wikipedia and a professionally maintained database. *J Oncol Pract.*

2011;7:319-323.

Rangel EM, Costa Mendes IA, Carnio EC, Marchi Alves LM, de Godoy S, de Almeida Crispim J. Development, Implementation, and Assessment of a Distance Module in Endocrine Physiology. *Adv Physiol Educ.* 2010;34:70-74.

Rebar CR. Perceptions of Community of Associate Degree Nurse Learners in an RN-to-BSN Online Program. ProQuest LLC PhD Dissertation, Northcentral University. 2010.

Robinson L, Reeves P, Murphy F, Hogg P. Supporting socialisation in the transition to university: a potential use for on-line discussion boards. *Radiography.* 2010;16:48-55.

Romanov K, Nevgi A. Learning outcomes in medical informatics: comparison of a WebCT course with ordinary web site learning material. *Int J Med Inform.* 2006;75:156-162.

Sandars J, Schroter S. Web 2.0 technologies for undergraduate and postgraduate medical education: an online survey. *Postgrad Med J.* 2007;83:759-762.

Schmidt B, Stewart S. Implementing the virtual world of Second Life into community nursing theory and clinical courses. *Nurse Educ.* 2010;35:74-78.

Simons DF, Baron JA, Knicely KS, Richardson JS. Online learning: perspectives of students and faculty in two disciplines--occupational therapy and teacher education. *Occupational Therapy in Health Care.* 2002;14:21-52.

Simpson A, Reynolds L, Light I, Attenborough J. Talking with the experts: evaluation of an online discussion forum involving mental health service users in the education of mental health nursing students. *Nurse Educ Today.* 2008;28:633-640.

Simpson BP. Web-based and computer-assisted instruction in physical therapist education. *Journal of Physical Therapy Education.* 2003;17:45-49.

Smith A, Peck B. The teacher as the 'digital perpetrator': Implementing web 2.0 technology activity as assessment practice for higher education Innovation or Imposition? *Innovation and Creativity in Education.* 2010;2:4800-4804.

Snodgrass S. Wiki Activities in Blended Learning for Health Professional Students: Enhancing Critical Thinking and Clinical Reasoning Skills. *Australasian Journal of Educational Technology.* 2011;27:563-580.

Solomon P, King S. Online interprofessional education: perceptions of faculty facilitators. *Journal of Physical Therapy Education.* 2010;24:51-53.

Spinello E, Fischbach R. Problem-based learning in public health instruction: a pilot study of an online simulation as a problem-based learning approach. *Educ Health (Abingdon).*

2004;17:365-373.

Stehr-Green J, Gathany N. Training in outbreak investigation through use of an online discussion group. *J Environ Health*. 2005;68:9-13.

Sternberger C. Using a Hyperlearning Model for Web Course Development. *Nursing Education Perspectives*. 2002;23:72-75.

Stokes CW, Cannavina C, Cannavina G. The state of readiness of student health professionals for web-based learning environments. *Health Informatics Journal*. 2004;10:195-204.

Stone DM, Barber CW, Potter L. Public health training online: the National Center for Suicide Prevention Training. *Am J Prev Med*. 2005;29:247-251.

Swain D. Can blogging be used to improve medication error collection as part of health informatics knowledge management? In: S. Al-Hawemdeh, ed. *Creating Collaborative Advantage Through Knowledge and Innovation*. Hackensack, NJ: World Scientific;2007.

Thompson LA, Black E, Duff WP, Paradise Black N, Saliba H, Dawson K. Protected health information on social networking sites: ethical and legal considerations. *J Med Internet Res*. 2011;13:e8.

Thurzo A, Stanko P, Urbanova W, et al. The WEB 2.0 induced paradigm shift in the e-learning and the role of crowdsourcing in dental education. *Bratisl Lek Listy*. 2010;111:168-175.

Townsend E, Curran-Smith J. *Accessible Adult Learning in the Health Professions: Interactive Uses of Distance Technology*. Norfolk, VA: Association for the Advancement of Computing in Education; 2002.

Usher W. Types of Social Media (Web 2.0) Used by Australian Allied Health Professionals to Deliver Early Twenty-First-Century Practice Promotion and Health Care. *Soc Work Health Care*. 2011;50:305-329.

Vicdan H. *Constitution of the market through social media: Dialogical co-production of medicine in a virtual health community organization*. Texas: The University of Texas - Pan American; 2010.

Ward R, Moule P, Lockyer L. Adoption of Web 2.0 Technologies in Education for Health Professionals in the UK: Where Are We and Why? *Electronic Journal of e-Learning*. 2009;7:165-172.

Wetmore AO, Boyd LD, Bowen DM, Pattillo RE. Reflective Blogs in Clinical Education to Promote Critical Thinking in Dental Hygiene Students. *J Dent Educ*. 2010;74:1337-1350.

Wiecha JM, Gramling R, Joachim P, Vanderschmidt H. Collaborative e-learning using streaming

video and asynchronous discussion boards to teach the cognitive foundation of medical interviewing: a case study. J Med Internet Res. 2003;5:e13.

Williams B, Bearman M. Can wikis be used to support case-based learning in paramedic education? Journal of Paramedic Practice. 2011;3:388-392.

Wjst M. When air is rare: behind the scenes of an asthma web site. J Asthma. 2001;38:399-404.

Wu C, Lai C. Wireless Handhelds to Support Clinical Nursing Practicum. Educational Technology and Society. 2009;12:190-204.

Zolezzi M, Blake A. Principles-based learning design for an online postgraduate psychiatric pharmacy course. Am J Pharm Educ. 2008;72:107.

Description of studies, listed by first author and year

Anderson 2004

Method	Quantitative: cross-sectional
Participants	51 nurse practitioner and nurse-midwifery students
Interventions	Discussion board
Outcomes	Skills

Andrade 2010

Method	Quantitative: before-after
Participants	10 clinical geriatric medicine fellows, internal medicine residents
Interventions	Second Life
Outcomes	Skills

Anttila 2008

Method	Qualitative; randomized controlled trial
Participants	56 registered and practical psychiatric nurses
Interventions	Discussion board
Outcomes	Satisfaction, clinician-patient communication, content, usability

Arikan 2011

Method	Quantitative: cross-sectional
Participants	604 health care professionals

Interventions	Social networking sites
Outcomes	Knowledge usage

Avery 2010

Method	Quantitative: cross-sectional
Participants	281 public information officers or public relations practitioners
Interventions	Internet usage, including Twitter, social networking, wiki, blogs, and discussion boards
Outcomes	Social media preferences and satisfaction

Baker 2005

Method	Quantitative: cross-sectional
Participants	83 third-year rural medicine students
Interventions	Discussion board
Outcomes	Knowledge of condition/complication, satisfaction, usability

Beard 2009

Method	Quantitative: content analysis
Participants	68 virtual world users
Interventions	Second Life
Outcomes	Clinician-public communication, instructor-student communication, peer-peer communication, content

Bello 2005

Method	Quantitative: randomized controlled trial
Participants	56 anesthesiology residents
Interventions	Discussion forum
Outcomes	Knowledge of condition/complication, satisfaction, skills

Bookstaver 2011

Method	Quantitative: before-after
Participants	49 fourth-year pharmacy students
Interventions	Wiki
Outcomes	Comprehension, recall, satisfaction, instructor-student communication, skills

Bradshaw 2011

Method	Quantitative: cross-sectional
Participants	Radiology students
Interventions	YouTube
Outcomes	Knowledge of condition/complication, satisfaction

Braner 2004

Method	Quantitative: prospective descriptive case series
Participants	26 pediatric intensive care unit physicians
Interventions	Web-based communications program (messages, email, patients,

video)

Outcomes	Satisfaction, clinician-patient communication, referral patterns and demographics
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Brooks 2004

Method	Qualitative: grounded theory
Participants	12 midwives
Interventions	Discussion board
Outcomes	Usability, peer-peer communication, contributions to policy decision-making

Brunetaud 2005

Method	Mixed methods: think aloud, cross-sectional
Participants	11 fifth-year medical students
Interventions	Discussion forum
Outcomes	Satisfaction, usability

Buis 2009

Method	Quantitative: content analysis
Participants	398 health or medical blogs
Interventions	Blog
Outcomes	Content, usability, demographics

Cain 2010

Method	Qualitative: thematic analysis
Participants	136 pharmacists, pharmacy trainees, or pharmacy technicians
Interventions	Blog
Outcomes	Clinician-public communication, content

Campos 2007

Method	Quantitative: participatory action research
Participants	263 cardiac nurses
Interventions	Discussion forum
Outcomes	Peer-peer communication

Clauson 2010

Method	Quantitative: cross-sectional
Participants	44 pharmacists
Interventions	Blog
Outcomes	Clinician-public communication

Cobb 2011

Method	Quantitative: cross-sectional
Participants	128 RN-BSN students
Interventions	Discussion board

Outcomes	Satisfaction, usability, social presence
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Collins 2011

Method	Quantitative: cross-sectional
Participants	100 medical trainees and physicians
Interventions	Twitter
Outcomes	Demographics

Cragg 2008

Method	Qualitative: content analysis
Participants	28 Masters nursing students
Interventions	Discussion forum
Outcomes	Comprehension, instructor-student communication, peer-peer communication

Creutzfeldt 2007

Method	Quantitative: before-after
Participants	12 first-year medical students
Interventions	Virtual world
Outcomes	Skills

Curran 2003

Method	Quantitative and qualitative: discourse analysis
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Participants	37 rural physicians
Interventions	Discussion forum
Outcomes	Satisfaction, peer-peer communication

Felsen 2010

Method	Qualitative (unspecified)
Participants	20 primary care residents
Interventions	Wiki
Outcomes	Satisfaction, usability

Frimming 2011

Method	Quantitative and qualitative: cross-sectional
Participants	127 physical education students
Interventions	Facebook
Outcomes	Knowledge of condition/complication, satisfaction, peer-peer communication, skills

Fry-Welch 2004

Method	Quantitative: cross-sectional
Participants	64 physical therapy students
Interventions	Discussion forum
Outcomes	Comprehension, peer-peer communication, skills

George 2011

Method	Quantitative and qualitative: cross-sectional
Participants	30 fourth-year medical students
Interventions	Twitter, YouTube, Flickr, blogging, Skype
Outcomes	Comprehension, satisfaction, instructor-student communication, peer-peer communication, boundaries

Giordano 2011

Method	Quantitative: cross-sectional
Participants	1,057 students in programs related to health education (biotechnology, couple and family therapy, medicine, nursing, occupational therapy, physical therapy, public health, radiologic and imaging sciences, and pharmacy)
Interventions	Facebook, Twitter, LinkedIn
Outcomes	Peer-peer communication, demographics, usage,

Giordano 2007

Method	Qualitative (unspecified)
Participants	Public health workers
Interventions	Wiki
Outcomes	Peer-peer communication

Goldman 2008

Method	Quantitative: cross-sectional
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Participants	60 public health graduate students
Interventions	Blog
Outcomes	Comprehension, peer-peer communication, usability

Gwozdek 2008

Method	Mixed methods: cross-sectional, focus groups
Participants	28 first-year dental hygiene students
Interventions	Blog
Outcomes	Knowledge of condition/complication, peer-peer communication

Haigh 2011

Method	Quantitative: cross-sectional
Participants	50 nursing students
Interventions	Wikipedia
Outcomes	Content

Hajjar 2007

Method	Quantitative: cross-sectional
Participants	68 medical geriatrics education programs
Interventions	Discussion board
Outcomes	Usage, demographics

Hanson CW 2011

Method	Quantitative: cross-sectional
Participants	503 certified health education specialists
Interventions	Social media tools
Outcomes	Usability

Hanson K 2011

Method	Mixed methods: survey, discourse analysis
Participants	30 dental hygiene students
Interventions	Blog
Outcomes	Knowledge of condition/complication, comprehension, peer-peer communication

Hayward 2004

Method	Qualitative: content analysis
Participants	57 fifth-year physical therapy students
Interventions	Discussion board
Outcomes	Comprehension, peer-peer communication

Huang 2007

Method	Qualitative: thematic analysis
Participants	20 physicians
Interventions	Discussion board

Outcomes	Usability, clinician-patient communication
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Hughes 2009

Method	Qualitative: thematic analysis
Participants	35 junior physicians
Interventions	Wikis, blogs, social networking, social bookmarking, media sharing
Outcomes	Knowledge of condition/complication, clinician-patient communication, usage

Hunter 2000

Method	Mixed methods: interviews, survey
Participants	122 third-year medical students
Interventions	Discussion forum
Outcomes	Satisfaction

Jent 2011

Method	Quantitative: cross-sectional
Participants	109 pediatric trainees, pediatricians, psychologists, clinical social workers
Interventions	Facebook
Outcomes	Boundaries, clinical decision making

Knosel 2011

Method	Quantitative: cross-sectional
Participants	120 dentistry students, professionals, and lay public
Interventions	YouTube
Outcomes	Content and accuracy

Kohli 2011

Method	Quantitative: cross-sectional
Participants	51 radiology residents
Interventions	Wiki
Outcomes	Satisfaction, usability

Lagu 2008

Method	Qualitative: content analysis
Participants	271 physicians and nurses
Interventions	Blog
Outcomes	Clinician-patient communication, boundaries

Lipman 2001

Method	Quantitative: randomized controlled trial
Participants	130 second-year medical students
Interventions	Discussion board

Outcomes	Satisfaction, instructor-student communication, instructor preparation times
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Liu 2011

Method	Quantitative: content analysis
Participants	2,240 organizations related to public health (government and corporate--airline, pharmaceutical, pork production, food services)
Interventions	Twitter, Facebook
Outcomes	Clinician-patient communication

Llambi 2011

Method	Quantitative: controlled before-after
Participants	335 health professionals
Interventions	Wiki
Outcomes	Knowledge of condition/complication, guideline adherence

Low 2008

Method	Quantitative: cross-sectional
Participants	81 physical therapy Masters students
Interventions	Discussion forum
Outcomes	Knowledge of condition/complication, treatment options, satisfaction, peer-peer communication, skills

Lupianez-Villanueva 2009

Method	Quantitative: cross-sectional
Participants	4,266 physician, nurses, pharmacists, patient support groups
Interventions	Social media tools, including discussion forum, blog, Wikipedia, social networking sites, YouTube
Outcomes	Knowledge of condition/complications, clinician-patient communication, peer-peer communication, usage, demographics

Lynch-Sauer 2011

Method	Quantitative: cross-sectional
Participants	218 baccalaureate and graduate nursing students
Interventions	Virtual gaming world
Outcomes	Knowledge of condition/complications, treatment options, skills, attitudes

Mahlamaki-Kultanen 2003

Method	Qualitative: thematic analysis
Participants	7,913 practical nursing students
Interventions	Discussion forum
Outcomes	Peer-peer communication

Maxwell 2006

Method	Qualitative: cross-sectional
Participants	Medical students

Interventions	Discussion board
Outcomes	Comprehension, usability

Miller 2009

Method	Quantitative: cross-sectional
Participants	16 advanced pharmacy students
Interventions	Wiki
Outcomes	Comprehension, satisfaction, peer-peer communication

Miller 2011

Method	Quantitative and qualitative: content analysis
Participants	951 health care professionals, patients/consumers, caregivers
Interventions	Blog
Outcomes	Clinician-public communication, demographics, content

Monaghan 2011

Method	Quantitative: cross-sectional
Participants	89 schools and colleges of pharmacy
Interventions	Social media tools including Blogger, Twitter, GoogleDocs, Second Life, Wikispaces, Facebook, YouTube
Outcomes	Usage

Moore 2010

Method	Quantitative: cross-sectional
Participants	27 doctoral physical therapy students
Interventions	YouTube
Outcomes	Clinician-public communication, peer-peer communication

Moore-Cox 2010

Method	Qualitative: phenomenology, discourse analysis
Participants	6 graduate nursing administration students
Interventions	Discussion forum
Outcomes	Peer-peer communication

Moran 2005

Method	Qualitative: thematic analysis
Participants	RN to BN students
Interventions	Discussion board
Outcomes	Comprehension, peer-peer communication, skills

Mostaghimi 2010

Method	Quantitative: cross-sectional
Participants	250 internal medicine physicians
Interventions	Facebook, LinkedIn, Plaxo, Friendster, blogs, physician rating sites

Outcomes	Clinician-public communication, demographics
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Muhlhauser 2008	
Method	Qualitative: content analysis
Participants	22 health sciences students
Interventions	Wikipedia
Outcomes	Content and accuracy

Nathoo 2005	
Method	Quantitative and qualitative: case study
Participants	24 second-year medical students
Interventions	Discussion forum
Outcomes	Instructor-student communication, peer-peer communication

Naylor 2007	
Method	Quantitative and qualitative: cross-sectional, content analysis
Participants	12 public health/health promotion professionals
Interventions	Bulletin board
Outcomes	Peer-peer communication, usage

Oldenburg 2010	
Method	Qualitative: case study

Participants	6 RN to BN students
Interventions	Discussion forum
Outcomes	Comprehension, peer-peer communication

Paulus 2010

Method	Qualitative: case study
Participants	25 College of Nursing faculty development programs
Interventions	Blog, discussion forum
Outcomes	Peer-peer communication

Pereira 2008

Method	Quantitative: before-after
Participants	36 rural-based family medicine residents (palliative care)
Interventions	Discussion forum
Outcomes	Knowledge of condition/complication, satisfaction, skills

Poirier 2011

Method	Qualitative: cross-sectional
Participants	45 chiropractic radiology residents
Interventions	Discussion board
Outcomes	Satisfaction

Poonawalla 2006

Method	Quantitative: cross-sectional
Participants	13 dermatology interest groups
Interventions	Blog
Outcomes	Usability, usage

Rajagopalan 2011

Method	Quantitative: cross-sectional
Participants	10 cancer information consumers
Interventions	Wikipedia
Outcomes	Content and accuracy, usability

Rangel 2010

Method	Quantitative: cross-sectional
Participants	44 undergraduate nursing students
Interventions	Discussion forum
Outcomes	Knowledge of condition/complication, recall, instructor-student communication, peer-peer communication

Rebar 2010

Method	Qualitative: phenomenology
Participants	5 RN to BN students
Interventions	Discussion boards

Outcomes	Instructor-student communication, peer-peer communication, mental health, sense of community
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Robinson 2010

Method	Quantitative and qualitative: ethnography, usage statistics, content analysis
Participants	12 students transitioning into the BS (honors) diagnostic radiography program
Interventions	Discussion board
Outcomes	Peer-peer communication, demographics

Romanov 2006

Method	Quantitative: randomized controlled trial
Participants	85 medical informatics students
Interventions	Discussion board
Outcomes	Knowledge of condition/complications, comprehension, satisfaction, instructor-student communication, peer-peer communication, skills

Sandars 2007

Method	Quantitative and qualitative: cross-sectional, descriptive statistics, grounded theory
Participants	1,239 medical students and qualified medical practitioners
Interventions	Blogs, wikis, social bookmarking, media sharing, social networking

Outcomes	Usage, demographics
Schmidt 2010	
Method	Quantitative: cross-sectional
Participants	28 public health nursing students
Interventions	Second Life
Outcomes	Comprehension, satisfaction, peer-peer communication
Simons 2001	
Method	Mixed methods: before-after, content analysis
Participants	19 occupational therapy masters students
Interventions	Discussion forums
Outcomes	Satisfaction, instructor-student communication, usability, efficiency, effectiveness, self-efficacy
Simpson 2008	
Method	Mixed methods: interviews, usage statistics
Participants	47 mental health nursing students
Interventions	Discussion forum
Outcomes	Knowledge of condition/complication, comprehension, satisfaction, clinician-public communication

Simpson 2003

Method	Quantitative: cross-sectional
Participants	135 physical therapist education programs
Interventions	Bulletin board
Outcomes	Instructor-student communication, peer-peer communication, usage, demographics

Smith 2010

Method	Qualitative: cross-sectional, thematic analysis
Participants	94 first-year undergraduate nursing students
Interventions	YouTube
Outcomes	Satisfaction, instructor-student communication, skills

Snodgrass 2011

Method	Mixed methods: cross-sectional, thematic analysis
Participants	58 third-year undergraduate physiotherapy students
Interventions	Wiki
Outcomes	Comprehension, satisfaction, instructor-student communication, skills

Solomon 2010

Method	Qualitative: content analysis
Participants	11 faculty online facilitators

Interventions	Discussion forum
Outcomes	Instructor-student communication, peer-peer communication

Spinello 2004

Method	Mixed methods: cross-sectional, focus groups
Participants	14 undergraduate students in health behavior course
Interventions	Virtual community
Outcomes	Knowledge of condition/complications, satisfaction, peer-peer communication

Stehr-Green 2005

Method	Mixed methods: cross-sectional (quantitative and qualitative)
Participants	18 public health practitioners
Interventions	Discussion forum
Outcomes	Satisfaction, peer-peer communication

Sternberger 2002

Method	Qualitative: case study
Participants	27 undergraduate nursing students
Interventions	Discussion board
Outcomes	Knowledge of condition/complications, satisfaction, peer-peer communication

Stokes 2004

Method	Quantitative: cross-sectional
Participants	191 Faculty of Medicine students (departments: medicine, dentistry, nursing, dental nursing and hygiene, speech therapy)
Interventions	Discussion forum
Outcomes	Usage

Stone 2005

Method	Quantitative: before-after
Participants	1,258 public officials, service providers, and community-based coalitions involved in suicide prevention
Interventions	Discussion forum
Outcomes	Knowledge of condition/complication, recall, satisfaction, skills

Swain 2007

Method	Qualitative: textual analysis
Participants	9 novice nurses
Interventions	Blog
Outcomes	Knowledge of condition/complications, peer-peer communication

Thompson 2011

Method	Quantitative: cross-sectional
Participants	1,023 medical students and residents

Interventions	Facebook
Outcomes	Boundaries

Thurzo 2010

Method	Quantitative: randomized controlled trial
Participants	24 dental students
Interventions	e-learning tool with wiki-like contributions, discussion forum
Outcomes	Knowledge of condition/complication, recall

Townsend 2002

Method	Mixed methods: cross-sectional, focus groups
Participants	Distance students in the Faculty of Health Professions
Interventions	Discussion board
Outcomes	Satisfaction, instructor-student communication, peer-peer communication, usability, accessibility

Usher 2011

Method	Quantitative: cross-sectional
Participants	935 psychiatrists, general physicians, social workers, dietitians, chiropractors, physiotherapists, optometrists, pharmacists
Interventions	Facebook, MySpace, Twitter, YouTube, blogs, wikis, message boards, Slideshare, Flickr, Medworm, Delicious, Twine
Outcomes	Clinician-patient communication, clinician-public communication, peer-peer communication, usage and

demographics

Vicdan 2010

Method	Qualitative: netnography, content analysis, grounded theory
Participants	Patients with multiple sclerosis and mental health communities
Interventions	Patients Like Me
Outcomes	Clinician-patient communication, peer-peer communication, usability

Ward 2009

Method	Mixed methods: cross-sectional, case study
Participants	93 health care, nursing, and midwifery programs
Interventions	e-learning technologies
Outcomes	Boundaries

Wetmore 2010

Method	Quantitative: non-randomized controlled trial
Participants	58 first-year dental hygiene students
Interventions	Blog
Outcomes	Skills

Wiecha 2003

Method	Qualitative: case study
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Participants	10 medical students between first and second year
Interventions	Discussion forum
Outcomes	Knowledge of condition/complication, comprehension, satisfaction, instructor-student communication, peer-peer communication

Williams 2011

Method	Quantitative and qualitative: cross-sectional
Participants	29 second-year bachelor of emergency health students
Interventions	Wiki
Outcomes	Satisfaction, peer-peer communication

Wjst 2001

Method	Quantitative: cross-sectional
Participants	9,380 physicians, pharmacists, researchers, other health care professionals, and asthma patients
Interventions	Art gallery and discussion board
Outcomes	Usage

Wu 2009

Method	Qualitative (unspecified)
Participants	6 undergraduate nursing students
Interventions	Discussion forum
Outcomes	Instructor-student communication, peer-peer communication

Zolezzi 2008

Method	Quantitative: before-after
Participants	14 health care practitioners with interest in providing pharmaceutical care to people with mental disorders
Interventions	Discussion forum
Outcomes	Comprehension, satisfaction, skills