CICL Interdisciplinary Education & Practice Bibliography

Accreditation

Gelmon, S.B., (1996). Can Educational Accreditation Drive Interdisciplinary Learning in the Health Professions? Joint Commission Journal on Quality Improvement. 22(3):213-22.

> This article discusses the following issues: The role of accreditation in education in general and in health professions in particular; the potential of educational accreditation to stimulate continuous improvement in the health professions; and the potential for interdisciplinary curriculum development in health professions education and the challenges this poses for accreditation. The article proposes a set of mock accreditation standards to guide the evaluation of interdisciplinary health professions education. Finally, questions are posed about the role of accreditation in the context of interdisciplinary health professions education.

Lumpkins, R., (1995). Interdisciplinary Collaboration Strengthening Documentation. Nursing Management. 26(10):48L-48P.

> The Joint Commission on the Accreditation of Healthcare Organizations' (JCAHO) "Agenda for Change" initiative contains new and revised standards for acute care facilities. To meet these, nursing departments will have to reevaluate current forms and documentation to ensure that collaborative interdisciplinary practice is demonstrated. Development and use of one such form is described.

Community-academic partnerships

Community groups

Balestreire, J., (1996). The Pennsylvania Local Interdisciplinary Team Journal in Collaborative Learning and Community Health Improvement. Joint Commission Journal on Quality Improvement. 22(3):171-177.

Bloomer, J.S. (1995). Applied Research During Fieldwork: Interdisciplinary Collaboration Between Universities and Clinics. American Journal of Occupational Therapy. 49(3):207-13.

Harman, L.B., et al., (1996). Blessed Are the Flexible: The George Team. Joint Commission Journal on Quality Improvement. 22(3):188-197.

> As a result of their educational collaborations in many fields, the George Washington University and George Mason University became known as the "George Team." In 1994, these universities participated together in the Interdisciplinary Professional Education Collaborative, believing it would support their belief in the importance of continuous improvement and interdisciplinary activities as well as provide a way to expand these activities

into their educational and clinical communities. This article addresses the four major tasks the George Team set out to accomplish in the initial procedures of the Collaborative.

Henry, R.C., (1993). Community Partnership Model for Health Professions Education. Journal of the American Podiatric Medical Association. 83(6):328-331.

The Community Partnership Model is one approach that focuses on public health care needs by educating students in multiprofessional teams in a new organizational structure known as the academic, community-based, primary health care center. This partnership between academic institutions and communities is designed to shift the educational and socializing activities of health professions training outside hospitals to the community setting where research, teaching, and service take place in one structure. Abstract only.

Matheny, P., (1994). Collaborative Partnerships Involving the Community. Journal of Health Administration Education. 12(3):281-290.

Riverside Methodist Hospital in Columbus, OH, is the 1,063-bed flagship hospital of the U.S. Health Corporation. Riverside depends on collaborative activities to carry out its mission to improve the health status of the community, and credits the collaborative spirit to a top-down leadership philosophy. As Riverside's experience demonstrates, choosing collaborative partners carefully and using several key strategies, facilitate successful collaborative efforts.

Maurana, C., et al., (1997). How a Community-Academic Partnership Serves as a Force for Change in Health Care and Health Professions Education. Journal of Health Care for the Poor and Underserved. 8(1):5-17.

Maurana, C.A., et al., (1998). How Principles of Partnership are Applied to the Development of a Community-Campus Partnership. Community-Campus Partnerships For Health - Partnership Perspectives. 1(1):47-53.

The Community-Campus Partnerships for Health (CCPH) has developed seven principles of partnership to facilitate building and sustaining a growing movement of partnerships nationwide. Using the example of an existing partnership between an urban medical school and a rural Wisconsin community, this article discusses how these principles can be applied as well as how successful community-campus partnerships can impact local, state and national policy-making.

Maurana, C., Goldenberg, K., (1996). A Successful Academic-Community Partnership to Improve the Public's Health. Academic Medicine. 71(5):425-431.

In this article, the authors describe the development of an academic-community partnership that fosters a different way of thinking, leading to a different way of doing. The Center for Healthy Communities develops programs designed to develop the community's health and educate health professions students in new ways. The authors state the goals of this partnership, explain three key elements that have made it succeed, and discuss the major community and academic-institution difficulties encountered and the strategies for meeting them.

Redington, T.J., et al., (1995). How an Academic Health Center and a Community Health Center Found Common Ground. Academic Medicine. 70(1):21-26.

> Although the respective missions of academic health centers (AHCs) and community health centers (CHCs) diverge greatly from each other, these institutions possess several common interests. These include the training and staffing of primary care physicians, providing access to the uninsured, placing more emphasis on prevention and public health, and coordinating care in managed care systems to improve outcomes and control costs. This article describes a successful joint program begun in 1991 between the Lincoln Heights Health Center and the University of Cincinnati Medical Center. Abstract only.

Seifer, S.D., (1998). Service-Learning: Community-Campus Partnerships For Health Professions Education. Academic Medicine. 73(3):273-277.

> The Pew Health Professions Commission launched the Health Professions Schools in Service to the Nation (HPSISN) program in 1995 to demonstrate service-learning, an innovative form of community-based education. This article defines service-learning, outlines its core concepts, explains how it differs from traditional clinical education in the health professions, describes the benefits of these programs, and recommends resources for its integration into the medical school curriculum.

State and other agencies

Capper, S.A., et al., (1996). Translating Public Health Research Into Public Health Practice: Outcomes and Characteristics of Successful Collaborations. American Journal of Preventive Medicine. 12(4):67-70 (supp).

> Collaborations between academic public health and state and local public health organizations in Alabama, Indiana, and New Mexico have led to the identification of ten characteristics which predict successful academic and practice collaborations. This article describes the outcomes produced and under development by these collaborations and discusses the characteristics in three categories.

Murray, J.L., et al., (1992). A National, Interdisciplinary Consortium of Primary Care Organizations to Promote the Education of Generalist Physicians. Academic Medicine. 67(1):8-11.

> The authors report the strong and unified beginning that the organizations participating in the Primary Care Organizations' Consortium (PCOC) have made to foster the education of generalist physicians. They further describe the clinical education program they have proposed for this purpose. The authors hope that medical school faculties will take note and will be convinced to adopt the kind of program and encourage the kind of interdisciplinary collaboration that are described in this essay.

Community-based education

Duerst, B., et al (1997). Fostering Interdisciplinary Education for Pharmacy Students in a Rural Health Care Setting. American Journal of Pharmaceutical Education 61, 371-374.

This article describes a two-week, interdisciplinary, rural health immersion program that included didactic and experiential learning, living and working together. The article evaluates the Summer Institute for Wisconsin health professions students and explores implications for future interdisciplinary interventions.

Evans, J.R., (1992). The "Health of the Public" Approach to Medical Education. Academic Medicine. 67:719-723.

Fisher, H.M., (1995). Community Service as an Integral Component of Undergraduate Medical Education: Facilitating Student Involvement. Bulletin of the New York Academy of Medicine. 72(1):76-86.

Lee, P.R., (1994). Models of Excellence. The Lancet. 344:1484-1486.

From primary care, two schools of thought have evolved. The first focuses on medical care for the individual in an encounter-based system; the second emphasizes the health of the population served as well as the individual served. The author discusses his perspective of primary health care, sometimes called community-oriented primary care.

Osborn, L., (1996). Implementing Community-Based Education: Essential Elements and Recommendations. Pediatrics. 98(6):1264-1267.

Two elements are essential for implementing community-based educational programs: a vision of how community experiences fit into the training of the health professionals of the future and a local environment that will support innovation, change, and growth. Change cannot occur unless very basic assumptions regarding medical education are challenged. Effective leadership is essential for a group or organization to accomplish its mission, as is an organizational structure that aligns responsibility, authority, resources, and accountability.

Roberts, K.B., (1996). Educational Principles of Community-Based Education. Pediatrics. 98(6):1259-1263.

The focus of this article is on the portion of resident education related to community experiences, but the principles are relevant to all educational programs.

Schmitt, H.G., et al., (1991). Network of Community-Oriented Educational Institutions for the Health Sciences. Academic Medicine. 66(5):259-263.

Community-based research

Brown, L., Vega, W., (1996). A Protocol for Community-based Research. American Journal of Preventive Medicine. 12(4):4-5.

> A nationwide Community-based Public Health Initiative (CBPHI) was formed in 1992 by the W.K. Kellogg Foundation to promote long-term change in institutions of public health research and public health practice. One CBPHI, in Oakland, California, established a protocol to establish ground rules for how Oakland research institutions and communities might best work together. Covered in this article are the eight questions asked in this protocol designed to facilitate community-researcher dialogue in Oakland.

Marin, G., et al., (1995). A Research Agenda for Health Education Among Underserved Populations. Health Education Quarterly. (22):346-363.

> This article summarizes the outcome of health education efforts among populations that, due to their cultural heritage, have received limited services. The literature reviewed shows that programs found to be effective in one population cannot be assumed to be equally effective with a different population. An argument is made for the design of culturally appropriate and group-specific interventions which would properly serve the various underserved populations. Research needs to be conducted to identify appropriate approaches and intervention strategies, as well as the group-specific sociopsychological characteristics (attitudes, norms, values, expectancies) that are related to health-damaging and protective behaviors.

Curriculum

Bevil, D.A., et al., (1988). Toward a Core Curriculum for Interdisciplinary Geriatric Care. Gerontology and Geriatrics Education. 8:201-215.

Bottom, P.A, et al., (1977). Curriculum Development for Interdisciplinary Health Team Education. Alabama Journal of Medical Sciences. 14:303-305.

Boyer, M.H., (1997). A Decade's Experience at Tufts with a Four-year Combined Curriculum in Medicine and Public Health. Academic Medicine. 72(4):269-275.

> This article chronicles ten years of experience at the Tufts University School of Medicine where, for a limited number of students, the Combined MD-MPH (Master of Public Health) Program has been created and sustained and continues to produce professionals trained and credentialed in both public health and medicine. The Program is described, and experience-based suggestions are offered for medical schools interested in developing training opportunities that address both the care of the individual patient and the care of populations. The introduction of combined MD-MPH programs can better serve the changing needs of medical practitioners and their patients while also fostering the health of the public.

Browne, A., et al., (1995). Bridging the Professions: An Integrated and Interdisciplinary Approach to Teaching Health Care Ethics. Academic Medicine. 70(11):1002-1005.

In 1993, the authors introduced an interdisciplinary course in health care ethics at the University of British Columbia. They wanted to encourage students from the various health care disciplines to participate in interdisciplinary decision making in their future practices by giving them an opportunity to study health care ethics together during their training. The authors give detailed descriptions of the objectives, format, curriculum, and evaluation of this innovative course in the hope that other educators who may want to develop similar courses can learn from their experience.

Chalmers, R. K., et al., (1992). Ability-Based Outcome Goals for the Professional Curriculum: A Report of the Focus group on Liberalization of the Professional Curriculum. American Journal of Pharmaceutical Education. 56:304-309.

Childers, J.H., Jr., (1985). Health Counseling: An Interdisciplinary Approach. Health Educator. 16(3):7-9.

Clark, M.E., Wawrytko, S.A., (1990). Rethinking the Curriculum: Toward an Integrated, Interdisciplinary College Education. New York: Greenwood Press.

Eichenberger, R.W., Gloor, R.F., (1969). A Team Approach to Learning Community Health. Journal of Medical Education. 44:655-672.

Hughes, L., Lucas, J., (1997). An Evaluation of Problem Based Learning in the Multiprofessional Education Curriculum for the Health Professions. Journal of Interprofessional Care. 11(1):77-88.

Multiprofessional education (MPE) in the undergraduate curriculum for the health profession has been delivered using problem based learning (PBL). The first of three modules has been evaluated over a two-year period. The evaluations measure student perception of whether the objectives of MPE and PBL have been met, tutor performance and the quality of the working problems. The overall perception is that both the message (MPE) and the messenger (PBL) have been evaluated positively.

Kahn, N., et al., (1995). The Interdisciplinary Generalist Curriculum Project: A National Medical School Demonstration Project. Academic Medicine. 70(1):S75-S80.

The Interdisciplinary Generalist Curriculum (IGC) Project focuses on the critical pre-clinical medical school curriculum. Five demonstration medical schools will expose students early and consistently to generalist role models and clinical content important to generalist practice. From the project will evolve five unique models for implementing innovative curricular change focusing on early positive exposure to generalism.

Kaplis, N.A., (1983). Interpersonal Skills Training for Dental Students in an Interdisciplinary Core Curriculum. Journal of Dental Education. 47(2):99-100.

Kaufman, A., et al., (1989). The New Mexico Experiment: Educational Innovation and Institutional Change. Academic Medicine. 64:285-294.

Over the past ten years the University of New Mexico School of Medicine has conducted an educational experiment featuring learner-centered, problem-based, community-oriented learning. The experiment was introduced into an

established institution by means of an innovative educational track running parallel to the more conventional curriculum. The parallel-track strategy for introducing curriculum reform succeeded in fostering institutional acceptance of continuing educational innovation. Generic steps in overcoming institutional barriers to change are identified.

Peterson, M.L., (1975). Education Programs for Team Delivery: Interdisciplinary Education of Health Associates, The Johns Hopkins Experience. Primary Care Education. 111-117.

Skochelak, S., Jackson, T., (1992). An Interdisciplinary Clerkship Model for Teaching Primary Care. Academic Medicine. 67(10):639-641.

At the University of Wisconsin Medical School, a unique interdepartmental clerkship in primary care has been developed for third-year medical students through a collaborative effort of the departments of family medicine, internal medicine and pediatrics. The clerkship is unusual in that it is structured as a collaborative venture with the three primary care disciplines at the University. Students are taught by faculty in all three disciplines and must select clinical experiences in two disciplines in different primary care practice settings.

Stubblefield, C., et al., (1994). Interactive Use of Models of Health-Related Behavior to Promote Interdisciplinary Collaboration. Journal of Allied Health. 23(4):237-243.

This pilot study examined the use of models of health-related behavior as foci for interaction to promote interdisciplinary collaboration among students enrolled in a graduate-level course at Washington University in St. Louis, Missouri. The course is one component of a master's program developed to meet the needs of health professionals whose goals are to participate in interdisciplinary roles in a variety of health care settings.

Turton, F.E., (1975). A Multidisciplinary Introduction to Community Medicine and Behavioral Science. Journal of Medical Education. 50:1065-1067.

The freshman behavioral science course, Introduction to Health and Medicine, is Emory University School of Medicine's effort to emphasize the human aspects of medicine in a school year devoted primarily to the basic sciences. Units on medical care, psychiatry, and epidemiology, totaling 105 curriculum hours, are directed toward attitude formation as well as intellectual development. In addition to offering lectures and seminars, the course confronts the student with situations that allow him to practice behavior appropriate for a physician, give him a personally satisfying experience, and are commensurate with his knowledge and skills.

Student perceptions/attitudes

Beatty, P.R., (1987). Attitudes and Perceptions of Nursing Students Toward Preparation for Interdisciplinary Health Care Teams. Journal of Advanced Nursing. 12(1):21-27.

Using a modification of the Snyder's Health Care Team Questionnaire, the author conducted a study pertaining to attitudes of undergraduate nursing students toward health care teams, and perception of curriculum content on

health care teams. Analysis of the date collected suggested differences in attitudes of students. In addition, the data indicated that differences did exist between programs on specific health care team concepts taught and settings chosen for clinical experiences. Differences were also detected between programs in perception of readiness of the students to participate as health care team members, and the number of courses taught on health care teams.

Hayward, K.S., et al., (1996). Changes in Student Perceptions of Interdisciplinary Practice in the Rural Setting. Journal of Allied Health. 25(4):315-327.

This study examined whether students' professional perceptions of interdisciplinary practice change following participation in a planned interdisciplinary experience in the rural setting, relative to their own profession and other health related disciplines. Data were collected from students enrolled in varied academic programs who participated in planned interdisciplinary experiences in the care of patients while in the clinical area through the Idaho Rural Interdisciplinary Training Project.

Distance Learning

Sweeney, M.A., Schuster, M.L. (2000). Collaboration between pharmacy and osteopathic medicine to teach via the Internet. The Journal of the American Osteopathic Association. 100(12):792-4.

This article describes the results of a survey of graduate pharmacy students who completed a course taught by a pharmacist and osteopathic physician via the Internet. Students indicated that the collaboration of medicine and pharmacy provided an educational model that should be duplicated for future courses.

Faculty training/development

Feather, J., et al., (1988). Interdisciplinary Faculty Training in Geriatrics and Gerontology: A Non-Clinical Model. Gerontology and Geriatrics Education. 8:165-179.

Foley, R., et al., (1996). Recruiting and Retaining Volunteer Community Preceptors. Academic Medicine. 71(5):460-463.

As more medical schools are providing primary care experience for their students, competition among schools to recruit and retain volunteer community preceptors is increasing dramatically. This paper describes the development of the University of Illinois College of Medicine at Chicago's Longitudinal Primary Care (LPC) Program and the specific methods used to recruit new preceptors (e.g., using a recruitment brochure), and to retain and reward preceptors (e.g., offering adjunct faculty positions, faculty development programs, etc.).

Howard, J., Bye, N., (1971). Pitfalls in Interdisciplinary Teaching. Journal of Medical Education. 46:772-781.

Increased interest in interdisciplinary teaching in the health professions has occurred as a result of many pressures. This paper is concerned with an

experience in such teaching at the University of California Medical Center in San Francisco.

Irwin, W.G., (1998). Multidisciplinary Teaching in a Formal Medical Ethics Course of Clinical Students. Journal of Medical Ethics. 14(3):125-128.

Ivey, S.L., et al., (1988). A Model for Teaching About Interdisciplinary Practice in Health Care Settings. Journal of Allied Health. 17(3):189-195.

The authors describe a continuum of collaborative interdisciplinary professional practice which can be used for teaching students in health care settings. Choices about the nature of interdisciplinary practice can be made not only on the imperatives of patient care but also on the interpersonal characteristics of health care providers as well as their needs for professional autonomy. This model can enable students to make clear career decisions about the types of interdisciplinary practice best suited to their interpersonal style and professional needs.

History/Philosophy/Future of interdisciplinary education

Baldwin, D.C. The Case for Interdisciplinary Education. In Rubin, E.R. (ed.) Mission Management: A New Synthesis, vol. 2. Washington, D.C.: Association of Academic Health Centers, 1998.

This chapter briefly traces the history and current status of interdisciplinary health professions education and argues the case for expanded interdisciplinary efforts. The paper suggests how academic health centers can continue to support such activity.

Baldwin, D.C., (1996). Some Historical Notes on Interdisciplinary and Interprofessional Education and Practice in Health Care in the USA. Journal of Interprofessional Care. 10(2):173-187.

The concept of interdisciplinary teams of health professionals was espoused as a means for providing comprehensive and continuous care to the poor and underserved populations. This movement had significant implications for the education and training of future health professionals and both the federal government and philanthropic foundations have endeavored to effect changes in traditional disciplinary models. Despite repeated efforts, there remain many barriers to interdisciplinary and interprofessional education and practice in the US.

Bassoff, B.Z., (1983). Interdisciplinary Education as a Facet of Health Care Policy: The Impact of Attitudinal Research. Journal of Allied Health. 12(4):280-286.

The past decade has seen a move toward a conscious interdisciplinary practice in health care delivery. Educational institutions have remained largely untouched structurally in regard to providing interdisciplinary models of education, and issues such as the professional "hierarchies" in health and "turf" are seen as barriers to institutional response. This article describes a program of interdisciplinary education at one university, specifically in the context of potential impact on educational policies. Research on cognitive and

attitudinal learning of participating students was undertaken, supporting the educational rationale for conjoint, problem-focused learning. The article traces the history of the program's impact on education policies and points to the need for a stronger empirical base. Innovative education experiences, constructed from the earlier research undertaken, are described.

de Tornyay, R., (1994). Creating the Teachers of Tomorrow's Professionals. Inquiry. 31:283-288.

Changes in the health delivery system will require individuals with different skills, attitudes, and values. There will be increased attention to population and clinical perspectives in education, research, and service, and more emphasis on functioning effectively as a team in providing care to persons with complex needs. A community-oriented health care delivery system focuses on health and pays more attention to the nonmedical provinces of public health, social work, and nursing. A letter that might be written by a health science student in 10 years gives a vision of the future education for physicians and nurses.

Hutchinson, R., Quartaro, E., (1990). Recognition for Interdisciplinary Collaboration. Nursing Outlook. 38(3):119. Letter to the editor.

Kaufman, A., et al., (1996). Fostering the Health of Communities: A Unifying Mission for the University of New Mexico Health Sciences Center. Academic Medicine. 71(5):432-440.

Fostering the health of communities can serve as a unifying mission of the academic health center (AHC), which can set the AHC apart from other health providers in the community. To achieve this mission, the University of New Mexico's AHC is increasingly focusing education, research, and service upon the identified health and service needs of communities in its state. Evidence shows that an integrated, coordinated AHC intervention can generate strong and lasting AHC-community alliances, improve the quality and economic viability of community health systems, and enhance the financial resources of the AHC.

Kindig, D., (1975). Interdisciplinary Education for Primary Health Care Team Delivery. Journal of Medical Education. 50:97-110.

This paper is divided into five sections. The first summarizes the historical background of the primary health care team. The second attempts to answer a number of key questions about team delivery. The third reviews the past experiences in interdisciplinary education for primary care. The fourth discusses some guidelines for future educational experiences. The fifth, and final, presents a model for the realistic implementation of these concepts in any health science center at the present time.

Kirchhoff, K.T., (1995). The Way of the Future: Interdisciplinary Research. Reflections. 21(3):15.

Larson, E.L., (1995). New Rules for the Game: Interdisciplinary Education for Health Professionals. Nursing Outlook. 43:180-185.

Lecca, P.J., McNeil, J.S., (1985). Interdisciplinary Team Practice: Issues and Trends. New York: Praeger Publishers.

Leininger, M., (1971). This I Believe About Interdisciplinary Health Education for the Future. Nursing Outlook. 19:787-791.

Pew Health Professions Commission, (February 1993). Health Professions Education for the Future: Schools in to the Nation. San Francisco. Pew Commission.

Purtilo, R.B., (1994). Interdisciplinary Health Care Teams and Health Care Reform. Journal of Law Medical Ethics. 22(2):121-126.

Schmitt, M., (1994). USA: Focus on Interprofessional Practice, Education and Research. Journal of Interprofessional Care. 8:9-18.

Tichy, M.K. Health Care Teams: An Annotated Bibliography. New York: Praeger Publishers, 1974.

> This volume on primary health care teams was prepared by staff of the Institute for Health Team Development at Montefiore Hospital and Medical Center in New York. The book has annotated citations in three sections (clinical teams, educational teams, and general teams), and also includes a topic index and general reference materials.

Zungolo, E., (1994). Interdisciplinary Education in Primary Care: The Challenge. Nursing and Health Care. 15:288-292.

Interdisciplinary practice

Hospital settings

Bulger, R.J., (1985). Hospital Team Practice. In: Lecca, P.J., McNeil, J., (eds.) Interdisciplinary Team Practice. New York, NY: Praeger Press, 1985.

> Teams and teamwork have existed in hospitals since their first establishment. However, due to an increasingly complex hospital environment, the emphasis on these concepts has grown. This chapter discusses the forces that have encouraged team practice in the past, those that are likely to influence it in the future, and presents some thoughts about ways we might influence the future for the better.

Cowles, L., Lefcowitz, M., (1992). Interdisciplinary Expectations of the Medical Social Worker in the Hospital Setting. Health and Social Work. 17:57-65.

> Nearly 500 physicians, nurses, and social workers affiliated with four general hospitals participated in a mailed questionnaire survey designed to compare interprofessional expectations of the medical social worker role in the hospital. These groups perceive the special focus of the medical social worker in the hospital as enhancing the environmental support and resources of the patient, viewing the patient's family as part of that support system. These

other groups may not understand or accept the person-in-environment focus of social work.

Felten, S., et al., (1997). Implementation of Collaborative Practice Through Interdisciplinary Rounds on a General Surgery Service. Nursing Case Management. 2(3):122-126.

Interdisciplinary teaching rounds, initiated on a general surgery service at a university teaching hospital, were designed to enhance communication among health-care professionals, thereby promoting more efficient patient care. The authors describe their methods of rounds development and the impact of the rounds on patient outcomes. Abstract only.

Freeman, J.A., et al., (1996). Outcomes-based Research in Neurorehabilitation: The Need for Multidisciplinary Team Involvement. Disability and Rehabilitation. 18(2):106-110.

Evaluation of neurorehabilitation needs to reflect the integrated multidisciplinary input since it is fundamental to the intervention process. This article addresses, in particular, multiple sclerosis as an example of the many problems inherent in chronic neurological disease that must be addressed in the evaluation of the rehabilitation program. The authors describe current difficulties of research in this specialty as well as suggestions for the future.

Halm, M.A., (1997). Collaborative Care: Improving Patient Outcomes in Cardiovascular Surgery. Progress in Cardiovascular Nursing. 12(2):15-23.

Collaborative care is a multidisciplinary process that standardizes and streamlines care for selected case types. The goals of these programs are to improve the quality and continuity of care, while decreasing length of stay and cost. This article addresses key components, issues, and challenges of developing, implementing, and evaluating a collaborative care program for cardiovascular patients.

McHugh, M., et al., (1996). Establishing an Interdisciplinary Patient Care Team: Collaboration at the Bedside and Beyond. Journal of Nursing Administration. 26(4):21-27.

The authors describe how an interdisciplinary team used skills in communication and collaboration to improve patient care on a busy surgical service. A major goal was to establish and maintain continuity of care in the face of decreasing lengths of stay and increasing patient acuity. The authors share their insight about designing and supporting a successful interdisciplinary patient care team and discuss how their experiences relate to concepts such as case management and career development.

Ribby, K.J., Cox, K.R., (1997). Organization and Development of a Pediatric End Stage Renal Disease Teaching Protocol For Peritoneal Dialysis. Pediatric Nursing. 23(4):393-399.

A considerable amount of expertise is required for peritoneal dialysis, one of the treatments for end stage renal disease. When neonates or children develop this disease, substantial education and training of both the patient

and family members is paramount, especially as length of stay is limited with managed care. This article discusses the development of an organized interdisciplinary approach for this instruction and pediatric patient teaching protocol for management of home peritoneal dialysis therapy. Abstract only.

Community settings

Anderson, L.A., et al., (1994). Interdisciplinary Team Training in Geriatrics: Reaching Out to

Small and Medium-Size Communities. Gerontologist. 34(6):833-838.
Since 1989, six teams in the state of Michigan have been involved in a team training program designed to promote the development of geriatric services in small to medium-size communities. The program was enthusiastically received by participants, but after 18 months, only half of the teams had implemented clinical services for older adults. Monitoring the progress of the teams over 18 months and analyzing the activities of two teams revealed that financially stable and supportive sponsoring agencies and the community were critical factors in the implementation of interdisciplinary clinical services in geriatrics. Future team training programs trying to promote the development of geriatric services in small to medium-size communities should try to address these issues through community organization interventions.

Brand, M.K., (1993). Nurses are Key Members of Rural Interdisciplinary Teams. American Nurse. 25(10):17.

Carlton, W., (1977). The Health Team Training Model: A Teaching-Learning Approach in Community Health. Health Education Monographs 5(1):62-74.

Health science students worked as members of interdisciplinary health teams which provided services to multiple-problem Appalachian families. The family became the focus of attention in care delivery while the Problem-Oriented Medical Record (POMR) and the family health plan were used by the teams to provide services. Intra-team issues that evolved included communication, decision making, leadership style, and role identity.

Eng, E., et al., (1992). Community Empowerment: The Critical Base for Primary Health Care. Family and Community Health. 15(1):1-12.

The purpose of this article is to provide an overview of the theoretical and practice-related basis for enabling primary health care programs to enhance health through effecting social change in communities. The authors briefly review the theoretical basis underlying a social change model for community health and empowerment. Both the strategies and expected outcomes that emerge from such a model are described. Finally, implications of these approaches for primary health care practitioners and managers are discussed.

Erkel, E.A., (1995). Intensive Immersion of Nursing Students in Rural Interdisciplinary Care. Journal of Nursing Education. 34(8):359-365.

The goal of the Rural Interdisciplinary Practicum is to develop culturally sensitive health professionals who can function within an interdisciplinary team to deliver care in rural settings. Working closely with preceptors and

faculty, students are immersed in a rural community. They gain expertise in their own specialties, collaborate in an interdisciplinary team approach to community-based care, and gain experience with culturally and geographically diverse groups. By actually living and practicing in a rural community, students learn that rural healthcare presents unique challenges as well as opportunities for a positive, high quality lifestyle, both personally and professionally. Findings to date indicate that the practicum positively influences students' attitudes toward rural interdisciplinary practice. Abstract only.

Kretzmann, J. P., McKnight, J.L., (1993). Building Communities from the Inside Out: A Path Toward Finding and Mobilizing a Community's Assests. Chicago: ACTA Publications.

Lee, P.R., (1994). Models of Excellence. The Lancet. 344:1484-1486.

From primary care, two schools of thought have evolved. The first focuses on medical care for the individual in an encounter-based system; the second emphasizes the health of the population served as well as the individual served. The author discusses his perspective of primary health care, sometimes called community-oriented primary care.

Lough, M.A., (1996). An Interdisciplinary Educational Model for Health Professions Students in a Family Practice Center. Nursing Educator. 21(1):27-31.

Health professions students have little or no opportunity to practice together during their formative stages of development. Therefore, can we realistically expect them to practice together as professionals? This is an important area for educators to address, given the current emphasis on interdisciplinary collaboration. The authors describe an interdisciplinary education program model for nursing, medicine, and social work students in a family practice center. Abstract only.

Marcus, M.T. (2000). An interdisciplinary team model for substance abuse prevention in communities. Journal of Professional Nursing. 16(3):158-68.

The University of Texas-Houston Health Science Center School of Nursing developed a model to link faculty to communities to provide preventive interventions. In addition to the preventive interventions, the project resulted in enhanced curriculum for the students and expanded collaborations with other community-based organizations. The study suggests that interdisciplinary partnerships between academic institutions and community organizations are critical to the development of the science of substance abuse.

Nadel, H., et al., (1996). The Cycle of Violence and Victimization: A Study of the School-based Intervention of a Multidisciplinary Youth Violence-Prevention Program. American Journal of Preventive Medicine. 12(5):109-119.

With the intention of reducing and preventing youth violence in the East New York neighborhood of Brooklyn, the Safe Harbor, a school-based intervention component of a multidisciplinary program, was launched. This program is a victim-assistance and violence-prevention program which offers lessons in

violence prevention as well as counseling, parent involvement, teacher training, and school-change campaigns. It focuses on the importance of fostering community partnership and strong relationships with the school.

Pacheco, M., et al., (1991). Innovation, Peer Teaching, and Multidisciplinary Collaboration: Out Reach from a School-Based Clinic. Journal of School Health. 61:367-369.

This article describes how a traditional school-based clinic, which emphasized providing curative services, evolved with school community input into a multidisciplinary project emphasizing prevention through classroom teaching and self-esteem building activities. This model represents a framework for systematically approaching, implementing, and evaluating the classroom project intervention, while maintaining primary health care services for students.

Schroeder, C., (1994). Community Partnerships and Medical Models of Health? I Don't Think So... Public Health Nursing. 11(5):283-284.

The author argues that the ethic of advocacy will be useful for professionals who are interested in community-based care and community partnerships, for it directs them to renegotiate archaic and ancestral professional values which validate the old medical narratives of health. Furthermore, the author feels that unless this renegotiation is accomplished, the current attempt to implement a community-based system of care will prove to be just another expensive failure in public health.

Managed care

Chickadonz, G.H., et al., (February1982). Development of a Primary Care Setting For Nursing Education. Nursing and Health Care. 83-92.

For primary health care facilities to fulfill their potential for the teaching of nursing to baccalaureate students, new approaches must be introduced. The authors describe their experiences in the preparation of an HMO, the Georgetown University Community Health Plan (GUCHP), as a clinical teaching site for nursing students.

Osterweis, M., et al., (1980). HMO Development for Primary Care Team Teaching of Medical and Nursing Students. Journal of Medical Education. 55:743-750.

This article describes a three-year effort to facilitate the development of the Georgetown University Community Health Plan, Inc., a federally qualified HMO, into an effective clinical teaching site for the team practice of primary care. It also discusses a variety of objective and subjective methods which were employed to assess HMO team development and the effectiveness of the HMO as a primary care teaching site.

Veloski, J., et al., (1996). Medical Student Education in Managed Care Settings. Journal of the American Medical Association. 276(9):667-671.

Gathering data from MEDLINE searches, survey information, and site visits, the authors of this article describe the educational experiences of students in

managed care settings and compare them with recommendations for preparing physicians to practice in managed care. Measurements were taken of the extent to which schools use managed care settings for clinical education, the types of settings used, and the kinds of educational programs experienced.

Geriatrics

Bevil, D.A., et al., (1988). Toward a Core Curriculum for Interdisciplinary Geriatric Care. Gerontology and Geriatrics Education. 8:201-215.

Campion, E., (1995). The Value of Geriatric Interventions. The New England Journal of Medicine. 332(20):1376-1378.

The author describes two different strategies for achieving better results for hospitalized, high-risk elderly patients. The first is to admit older patients at risk to a specialized unit for acute or post-acute care. The second is to provide a consultation assessment, usually by an interdisciplinary team. In addition, the author describes both the costs and the benefits to both interventions.

Croen, L.G., (1984). Interdisciplinary Training for Medical and Nursing Students: Learning to Collaborate in the Care of Geriatric Patients. Journal of the American Geriatric Society. 32(1):56-61.

Gariola, G., (1997). Developing Rural Interdisciplinary Geriatrics Teams in a Changing Health Care Environment. Journal of Allied Health. 26(1):27-29.

Interdisciplinary team training has been suggested as playing an important role in managed care systems. This presentation focuses on the description of a project to provide rural interdisciplinary team training to students. The project has developed an innovative service delivery model for an elderly population in rural, northeastern Kentucky. Team members include physicians, nurses, pharmacists, physician assistants and social workers who serve as preceptors. Trainees for the interdisciplinary geriatrics rotation are selected from students at the University of Kentucky. Selected trainees work with rural professionals in their designated area who serve as role models and help to motivate students toward rural practice. Finally, the potential role of interdisciplinary team training in an evolving care system is explored.

Parlak, B.A., Klein, S., (1996-97). Geriatric Education Centers: Preparing the Health Workforce to Serve an Aging Nation. Generations. Winter 1996-97:78-81.

Sommers, L.S., Marton, K.I., Barbaccia, J.C., Randolph, J. (2000) Physician, nurse, and social worker collaboration in primary care for chronically ill seniors. Archives of Internal Medicine. 160(12):1825-33.

This study examined the impact of an interdisciplinary collaborative practice intervention involving a primary care physician, a nurse, and a social worker. The model of primary care collaborative practice used in this study showed potential for reducing utilization and maintaining health status for senior with chronic illness.

Critical care/trauma

Cohen, I.L., et al., (1996). Critical Care Medicine: Opportunities and Strategies for Improvement. Joint Commission Journal on Quality Improvement. 22(2):85-103.

> Increasing amounts of pressure have been placed on critical care to improve its quality while reducing its cost. Drawn from the literature and the authors' experiences, this article targets ten process- or structure-related focus areas of improvement: (1) restructuring administrative lines to better suit key processes; (2) physician leadership in critical care units; (3) management training for critical care managers; (4) triage; (5) multidisciplinary critical care; (6) standardization of care; (7) developing alternatives to critical care units; (8) timeliness of care delivery; (9) appropriate use of critical care resources; and (10) tracking quality improvement. Abstract only.

Hutchens, G.C., (1994). Differentiated Interdisciplinary Practice. Journal of Nursing Administration. 24(6):52-58.

> Differentiated nursing practice (DNP) has demonstrated positive outcomes for patients, practitioners, and healthcare organizations. By expanding the principles of DNP to an interdisciplinary model, members of the oncology program of Indian University Medical Center found that these outcomes were magnified. Patients' access to healthcare services improved, as did their efficacy in self-care behaviors; practitioners reported improved role satisfaction and use of fellow team members; and length of hospitalization and premature readmission were reduced.

Ribby, K.J., Cox, K.R., (1997). Organization and Development of a Pediatric End Stage Renal Disease Teaching Protocol For Peritoneal Dialysis. Pediatric Nursing. 23(4):393-399.

> A considerable amount of expertise is required for peritoneal dialysis, one of the treatments for end stage renal disease. When neonates or children develop this disease, substantial education and training of both the patient and family members is paramount, especially as length of stay is limited with managed care. This article discusses the development of an organized interdisciplinary approach for this instruction and pediatric patient teaching protocol for management of home peritoneal dialysis therapy. Abstract only.

Perinatal

Bryson, S.R., et al., (1997). Primary Follow-up Care in a Multidisciplinary Setting Enhances Catch-up Growth of Very-Low-Birth-Weight Infants. Journal of the American Dietetic Association. 97(4):386-390.

> This article focuses on a study done to determine the impact of multidisciplinary primary care follow-up on growth outcomes of very-low-birth-weight infants. The growth rates and catch-up growth of infants receiving follow-up care on an as-needed basis from the general pediatric clinic were compared with those of infants receiving multidisciplinary follow-up care that included routine nutrition intervention from the comprehensive

care clinic. The two groups differed significantly in the number of infants exhibiting catch-up growth for length and head circumference, suggesting that multidisciplinary primary care follow-up that includes nutrition intervention can enhance the catch-up growth of VLBW infants.

Lowry, L.W., et al., (1997). Client Satisfaction With Prenatal Care and Pregnancy Outcomes. Outcomes Management for Nursing Practice. 1(1):29-35.

This article reports the results of a study comparing client satisfaction with prenatal care, continuity of care, and pregnancy outcomes of low-income women who received prenatal care from one of two types of clinics: a public health clinic, or a multidisciplinary clinic. Based on the Risser Patient Satisfaction Scale used in this study, clients from the multidisciplinary clinic were significantly more satisfied than clients cared for by the public health clinic. Infant birth weights, Apgar scores, and gestational ages did not differ significantly between the two groups as continuity of prenatal care was associated with healthy infants regardless of client satisfaction.

Mackey, M.C., Sobral, M., (1997). Staff Evaluation of a High-Risk Pregnancy Program. Public Health Nursing. 14(2):101-110.

As part of an effort to reduce perinatal morbidity and mortality, multidisciplinary health care programs have been offered to Medicaid eligible, medically high-risk pregnant women and their infants. This article describes a study of the staff's evaluation of these programs, including their opinions on the program strengths and limitations as well as possible barriers to its effectiveness.

Scheideberg, D., (1997). Improved Perinatal Outcomes with Perinatal Case Management. Journal of Nursing Care Quality. 12(1):36-45.

Perplexing to scientists and health care providers alike is the occurrence of poor perinatal outcomes despite technological and medical advances in that area. This article addresses one approach, community-based comprehensive perinatal case management, which provides for a patient-individualized continuity of care, and has decreased the incidence of low birthweight infants and prematurity rates of at-risk women to those rates similar for low-risk women.

Patient satisfaction/TQM

Brita-Rossi, P., (1996). Improving the Process of Care: The Cost-Quality Value of Interdisciplinary Collaboration. Journal of Nursing Care Quality. 10(2):10-16.

A multidisciplinary group of clinicians and administrators was convened to find innovative ways to contain costs and improve the quality of care on an inpatient orthopedic unit. This group was charged with examining all phases of care and recommending changes. The team proved to be a model of effective, successful collaboration and has enabled ambitious goals to be realized on this unit. The article outlines changes related to preoperative, intraoperative, and postoperative care and discusses the dynamics of effective interdisciplinary professional collaboration.

Chapman, S.L., et al., (1996). Treatment Helpfulness Questionnaire: A Measure of Patient Satisfaction with Treatment Modalities Provided in Chronic Pain Management Programs. Pain. 68:349-361.

Measurements of patient satisfaction correlate directly with treatment compliance and outcome, and are therefore important in assessing health care. However, there is no standardized way by which patient satisfaction can be measured. This article introduces the Treatment Helpfulness Questionnaire (THQ) as a simple way of measuring a patient's perception of the helpfulness of treatment modalities offered at multidisciplinary pain centers and presents its reliability and validity data.

Chessman, A., et al., (1996). Institutionalizing Continuous Improvement in South Carolina: Taking It "Bird by Bird." Joint Commission Journal on Quality Improvement. 22(3):177-187.

The authors describe the South Carolina Local Interdisciplinary Team's (LIT) goal of interdisciplinary team learning and continuous improvement in health care, how the LIT has worked to achieve that goal, and lessons learned during this process. The LIT is sponsored by the Interdisciplinary Professional Education Collaborative (the Collaborative) which was formed by the Institute for Healthcare Improvement.

Frank, E., (1997). Enhancing Patient Outcomes: Treatment Adherence. Journal of Clinical Psychiatry. 58(suppl 1):11-14.

Adherence to antidepressant treatment is necessary for positive patient outcome. However, there exist many barriers to treatment adherence. This article presents several of these barriers and suggests the use of a multidisciplinary treatment team, adequate education of patients and their families regarding the disorder and its treatments, creation of an alliance among health care workers, patients, and patients' family members, and establishment of a clinic atmostphere to foster such an alliance as strategies to overcome these barriers.

Headrick, L.A., et al., (1996). Working From Upstream to Improve Health Care: The IHI Interdisciplinary Professional Education Collaborative. Joint Commission Journal on Quality Improvement. March 22(3):149-64.

This article describes the first year of the three-year project. This is work in progress. The Collaborative is inventing new interdisciplinary health professions education in continuous improvement that has not previously existed. In this report of the first year's work, we describe what we have learned in the initial, small trials of our first year and answer the question, "Can this be done at all?" We describe the needs and barriers encountered, as well as some of the strategies used to answer those challenges. Finally, we anticipate the challenges ahead as we move from small pilot tests to established educational programs available to a larger number of learners.

Headrick, L., et al., (1995). Interdisciplinary Professional Education in the Continuous Improvement of Health Care. HRSA Grant.

Hutchens, G.C., (1994). Differentiated Interdisciplinary Practice. Journal of Nursing Administration. 24(6):52-58.

> Differentiated nursing practice (DNP) has demonstrated positive outcomes for patients, practitioners, and healthcare organizations. By expanding the principles of DNP to an interdisciplinary model, members of the oncology program of Indian University Medical Center found that these outcomes were magnified. Patients' access to healthcare services improved, as did their efficacy in self-care behaviors; practitioners reported improved role satisfaction and use of fellow team members; and length of hospitalization and premature readmission were reduced.

Levin, A., et al., (1997). Multidisciplinary Predialysis Programs: Quantification and Limitations of Their Impact on Patient Outcomes in Two Canadian Settings. American Journal of Kidney Diseases. 29(4):533-540.

> In 1993, a National Institutes of Health consensus statement, issued on the topic of morbidity and mortality of dialysis, stressed the importance of early medical intervention in predialysis populations. As a result of that statement, the authors studied the outcomes of predialysis programs in two major Canadian cities. Data from two different studies is presented in this article: (1) a prospective, nonrandomized cohort study comparing patients who were or were not exposed to an ongoing multidisciplinary predialysis team, and (2) a retrospective review of outcomes before and after the institution of a predialysis program.

Lowry, L.W., et al., (1997). Client Satisfaction With Prenatal Care and Pregnancy Outcomes. Outcomes Management for Nursing Practice. 1(1):29-35.

> This article reports the results of a study comparing client satisfaction with prenatal care, continuity of care, and pregnancy outcomes of low-income women who received prenatal care from one of two types of clinics: a public health clinic, or a multidisciplinary clinic. Based on the Risser Patient Satisfaction Scale used in this study, clients from the multidisciplinary clinic were significantly more satisfied than clients cared for by the public health clinic. Infant birth weights, Apgar scores, and gestational ages did not differ significantly between the two groups as continuity of prenatal care was associated with healthy infants regardless of client satisfaction.

Moore, S.M., et al., (1996). Interdisciplinary Learning in the Continuous Improvement of Health Care: Four Perspectives. Joint Commission Journal on Quality Improvement. 22(3):165-187.

> The Interdisciplinary Professional Education Collaborative was initiated in 1994 by the Institute for Healthcare Improvement for the purpose of promoting education in continuous improvement in the health professions. Proposals to design and test new educational experiences for this purpose in the context of interdisciplinary teams were accepted from four groups designated Local Interdisciplinary Teams (LITs). This article contains reports from each of the four LITs detailing their work to date.

Professionalism/Interprofessional relationships/Roles

Abramson, J.S., Mizrahi T., (1996). When Social Workers and Physicians Collaborate: Positive and Negative Interdisciplinary Experiences. Social Work. 41:270-281.

Interdisciplinary collaboration is becoming increasingly important as the current complexity and cost of health care require an efficient and well-coordinated service delivery system. This article presents a subset of data from a larger study that explores the nature of social worker-physician collaboration in hospital settings. The article focuses on positive and negative collaborative experiences between social workers and physicians, to identify factors that facilitate and impede successful collaboration.

Balassone, P. D., (1981). Territorial Issues in an Interdisciplinary Experience. Nursing Outlook. 29:229-232.

Bulger, R.J., Bulger, R.E., (1990). Obstacles to Collegiality in the Academic Health Center. Bulletin of the New York Academy of Medicine 68:303-307.

Explores the societal and cultural elements from which American educational institutions have emerged, particularly the American search for a sense of community. University-specific factors affecting collegiality include the physical and intellectual separation of health science centers from their parent universities, medical schools' role in technology transfer, and the growing importance of the social sciences and nontraditional biomedical sciences to medicine. The core challenge is to develop the basis for and mechanisms by which to effect a meaningful sense of community and shared core values, while building on the progress already made.

Challela, M., (1979). The Interdisciplinary Team: A Role Definition in Nursing. Image. 11(1):9-15.

Cooke, C., (1997). Reflections on the Health Care Team: My Experiences in an Interdisciplinary Program. Journal of the American Medical Association. 277:1091.

The author describes his experience in the University of New Mexico's Rural Interdisciplinary Program. He notes that while challenging, the program forced the realization that the future of medicine is one that includes a wide array of health care providers, and physicians must be willing to incorporate these other professionals into their midst, without condescension.

Cowan, D.L., (1992). Changing Relationships Between Pharmacists and Physicians. American Journal of Hospital Pharmacy. 49:2715-2721.

Fagin, C.M., (1992). Collaboration Between Nurses and Physicians: No Longer a Choice. Academic Medicine. 66:295-303.

This essay deals with the phenomenon of collaboration, why there are compelling reasons to promote it, the barriers that exist between nurses and physicians in achieving collaborative relationships, and strategies to promote change. Comments of experienced observers and summaries of the pertinent research literature are presented.

Hayward, L.M., DeMarco, R., Lynch, M.M. (2000). Interprofessional collaborative alliances: health care educators sharing and learning from each other. Journal of Allied Health. 29(4):220-6.

This article describes a new model synthesized from two established models: the five-stage model of collaboration and the interprofessional alliance model, which describes the stages and relationships that are established during the process of interprofessional collaboration. The authors illustrate this new model with a case example that describes the collaborative relationship that emerged among educators in physical therapy and nursing at a single university.

Koeske, G., et al., (1993). Perceptions of Professional Competence: Cross-Disciplinary Ratings of Psychologist, Social Workers, and Psychiatrists. American Journal of Orthopsychiatry. 63:45-54.

Psychiatrists, psychologists, social workers, and nurses rated members of the first three disciplines on effectiveness of intervention for six hypothetical clients representing a range of mental health problems. Results revealed within-group bias, with perceptions that professionals sharing raters' own professional affiliation would be more helpful, expert, and warm, as well as the preferred recipient of referrals. Clinical social workers were rated highest on warmth by all raters but lowest on referral intent by raters from other disciplines. Abstract only.

Laatsch, L.J., et al., (1986). Use of Interdisciplinary Education to Foster Familiarization Among Health Professionals. Journal of Allied Health. 15(1):33-42.

This paper describes a pilot interdisciplinary experience between the dental hygiene students, dental hygiene faculty, and medical technology faculty at Marquette University. The program was designed, in part, to familiarize dental hygiene students with the medical technology profession. A limited and controllable pilot project was designed for the sophomore preclinical dental hygiene students in hope that this experience would allow the faculty to later expand the project to include physical therapy and nursing students.

Leathard, A., (1994). Going Interprofessional: Working Together for Health and Welfare. London: Routledge.

Liedtka, J.M., Whitten, E. (1998) Enhancing care delivery through cross-disciplinary collaboration: a case study. Journal of Healthcare Management. 43(2):185-203.

This study examined the factors contributing to and detracting from collaboration across professional groups that are working within an academic medical center. The study uses both objective performance data and perceptual data obtained from physicians, nurses, and administrators.

Makadon, M.D., Gibbons, M.P., (1985). Nurses and Physicians: Prospects for Collaboration. Annals of Internal Medicine. 103:134-136.

The authors argue that specific issues such as how age, experience, gender, specialty, and practice settings affect nurse-physician relations must be

examined. What we learn can then help us look dispassionately at how the two disciplines can and should collaborate.

McKenna, P.M., (1981). Role Negotiation: A Strategy for Facilitating the Inter-Professional Health Care Team. Nursing Leadership. 4:23-28.

Parker, A.W., (1972). The Team Approach to Primary Health Care. Berkeley: University of California.

Popovich, N., et al., (1995). Health Professions Team Building Through Pharmacy, Dentistry, Optometry, and Podiatry: The 1992-93 AACP Argus Commission Report. Optometric Education. 20(3):84-88.

This article examines the interfaces between academic pharmacy and the educational programs in dentistry, optometry, and podiatric medicine: professions that, in addition to medicine, use medication in the treatment and/or diagnosis of illnesses in their patients. Specifically with regard to the following considerations: the perceptions and misconceptions/barriers to communications and future opportunities; how dentistry, optometry, and podiatric medicine, and academic pharmacy can work together for the mutual benefit of society and each other; and how to further and nurture a strong liaison between organizations representing academic pharmacy and academic dentistry, optometry, and podiatry.

Sands, R., et al., (1990). 'I Beg to Differ': Conflict in the Interdisciplinary Team. Social Work in Health Care. 14(3):55-72.

Three cases in which interdisciplinary teams experienced conflict were examined in depth. Disagreement within the team was expressed covertly and overtly. In the face of conflicting perceptions, team members attempted to influence others to agree with them, changed their own recommendations, or tried to find an area of compromise. Team members did not fully address differences across disciplines. Interactions during these cases suggest that team members see themselves primarily as representatives of their own discipline rather than as members of a team. Different values and theoretical perspectives seem to influence divergence of opinion. A need for a common value base, language, and conceptual framework was evident.

Sicotte, C., et al., (1993). Medical Team Interdependence as a Determinant of Use of Clinical Resources. Health Services Research. 28(5):599-621.

The author's objective, based on organization theory, was to examine whether interdependence among physicians leads to coordination problems that in turn may explain variations observed in the use of clinical resources. Results suggest that team practice does not entirely overcome coordination problems inherent to task (morbidity) interdependence. In considering the individual (especially the attending) physician as that main factor responsible for resource utilization, other factors related to team practice may too readily be overlooked.

Specht, H., (1985). Managing Professional Interpersonal Interactions. Social Work. 30:225-230.

Tanner, L., et al., (1972). An Interdisciplinary Student Health Team Project in Comprehensive Family Health Care. Journal of Medical Education. 47:656-658.

> To develop interdisciplinary teamwork, the University of Miami's Department of Family Medicine and the School of Nursing jointly planned and demonstrated a one-year pilot project. Ten student health teams, each composed of a medical student, a nursing student, and a social work student, and supervised closely by a faculty preceptor team from these three disciplines, provided comprehensive health care for one family per team from October 1970 to May 1971. The primary objectives of the project were (a) to instill and maintain positive attitudes in students of health sciences toward the use of interdisciplinary teamwork in the delivery of comprehensive family health care, and (b) to increase mutual understanding of the differing orientations and skills of these professions.

Teamwork

Carlton, B., (1984). The Role of the Health Educator in Interdisciplinary Health Team Development: An Organizational Development Strategy. Health Educator. 15 (6):13-15.

Chase, S., et al., (1981). Decision Making in an Interdisciplinary Team. Behavioral Science. 26:206-15.

> A university-affiliated psychiatric service in a private general hospital is studied. Here the following forces meet, complement, compete, and collide: the community, university, hospital administration, private practitioners, insurance companies, consultation and liaison psychiatrists, university staff psychiatrists and residents, nurses, aides, social workers, activities personnel, patients and their families, the patient group, and the ward milieu. Considering these factors, the authors describe: (1) the flow of information and feedback loops into, within, and out of the psychiatric service; (2) the location of decision nodes; (3) decision-making echelons. The general systems theory concepts utilized in this analysis are proposed as pragmatic tools for improving interdisciplinary team function. Abstract only.

Ducanis A., Golin, A., (1979). The Interdisciplinary Health Care Team: A Handbook. Germantown, MD. Aspen Systems.

Kane, R.A., (1975). Interprofessional Teamwork. Manpower Monograph 8, Division of Continuing Education and Manpower Development, Syracuse University School of Social Work, Syracuse, NY.

Lengacher, C.A., (1995). Team-Building Process in Launching a Practice Model. Nursing Connections. 8(2):51-59.

> This article presents an analysis of the interdisciplinary team process and the levels of team building and processes needed at each level to test a new nursing practice model. The team processes included not only those within the medical center but included the collaborative process established between the college of nursing and medical center. Both of these were crucial to a successful change in nursing practice. Abstract only.

Lister, L., (1982). Role Training for Interdisciplinary Health Teams. Health and Social Work. 7(1):19-25.

Margolis, H., Fiorelli, J.S., (1984). An Applied Approach to Facilitating Interdisciplinary Teamwork. Journal of Rehabilitation. January-March:13-17.

> One challenge of interdisciplinary teamwork is gaining the cooperation of those professionals from various disciplines who are directly involved with implementing shared rehabilitation goals. This article focuses on four constructs that can be of immediate use to secure interdisciplinary cooperation. The ideas presented focus on: (a) understanding the unique perceptual field of each discipline; (b) reducing interdisciplinary defensiveness; (c) collaboratively developing ideas; and (d) encouraging two-way rather than one-way communication. In addition, the inevitability and desirability of conflict are discussed, along with suggestions for using disagreement to enhance cooperation.

Mazur, H., (1979). Clinical Interdisciplinary Health Team Care: An Educational Experiment. Journal of Medical Education. 54(9):703-713.

> With increasing concern for teamwork in clinical practice in health care settings, the need to identify the concepts, methods, and learning processes for improving interdisciplinary team skills is apparent. This paper describes patient-centered, clinical-research-demonstration programs for teams of students, preceptors, and faculty members from six disciplines who provided patient care in a long-term rehabilitation setting. The teams were involved in the theory and practice of team-building, including weekly sessions on leadership styles, communication, group decision-making, and team effectiveness assessment.

McClelland, M., (1993). The Missing Voice in Interdisciplinary Communication. Qualitative Health Research. 3(1):74-90.

> The research problem investigated in this article emerged from a year-long ethnographic study of the interdisciplinary process of teams evaluating children for mental retardation/developmental disabilities. The researchers noticed that when a discipline was not present at team meetings, others attempted to speak for it. This article examines the team process and case consequences of such a "missing voice." Abstract only.

McEwen, M., (1994). Promoting Interdisciplinary Collaboration. Nursing and Health Care. 15(6):304-307.

Morrow, N.C., Hargie, O.D.W., (1996). Influencing and Persuading Skills at the Interprofessional Interface: Training for Action. Journal of Continuing Education in the Health Professions. 16(2):94-102.

Øvretveit, J., (1996). Five Ways to Describe a Multidisciplinary Team. Journal of Interprofessional Care. 10(2):163-171.

> 'Multidisciplinary team' is a term used to describe a variety of different interprofessional working arrangements. A problem in designing and improving teams is that people often use the same word to mean something

different. This makes it difficult to discuss which type of team is best for a particular purpose and setting. This paper presents five ways to describe a multidisciplinary team: in terms of degree of integration; extent of collective responsibility; membership; client pathway and decision-making; and management structures. Using these concepts practitioners and managers can clarify their working arrangements and make improvements. These concepts service planning and research.

Sandmire, D.A., Vroman, K.G., Sanders, R. The influence of learning styles on collaborative performances of allied health students in a clinical exercise. Journal of Allied Health. 29(3):143-9.

The influence of individual learning style preference on collaborative performance was examined in occupational and physical therapy students in an effort to recognize the factors that promote effective interdisciplinary teams.

Program development

Connelly T., (1978). Basic Organizational Considerations for Interdisciplinary Education Development in Health Sciences. Journal of Allied Health. 7:274-280.

In this paper, the author reviews the organizational problems associated with developing an interdisciplinary educational experience for health science students. Within the paper, then basic issues are reviewed and commented upon. The paper also attempts to highlight some philosophical issues related to the interdisciplinary approach to education as well.

Harris, J.L., (1978). Interdisciplinary Health Education: A Case Study of Fact and Fancy. Journal of Community Health. 3(4):357-368.

A pilot program to provide the interdisciplinary experiences necessary to train students in the health professional schools at the Medical college of Virginia, Virginia Commonwealth University (VCU), was initiated in September 1974. This paper describes the method employed and the problems in implementation.

Lowry, L.W., Burns, C.M., Smith, A.A., Jacobson, H. (2000). Compete or complement? An interdisciplinary approach to training health professionals. Nursing and Health Care Perspectives. 21(2):76-80.

Responding to the challenge to move beyond traditional discipline-bound educational models to future-oriented interdisciplinary teaching/learning models, educators from the University of South Florida formed a team to develop a model to guide the education of students from hour health professions. This article describes the first phase of the process and four critical steps.

McElmurry, B., et al., (1995). Leadership for Primary Health Care. N&HC: Perspectives on Community. 16(4):229-231.

The three-year Kellogg Foundation funded "Leadership For Primary Health Care" project, begun in 1990, was crafted to start building a broader, more multi-disciplinary constituency for the primary health care approach. It was based on the premise that a primary health care approach is an appropriate strategy for addressing the health status of underserved communities, where conventional health care services are in short supply and typically fail to address the most significant morbidities. It was also conceived as a leadership development initiative to disseminate primary health care approaches.

McPherson, C., et al., (1984). An Interdisciplinary Team Approach to Development of Health Professions Education. Journal of Allied Health. 13(2):94-103.

The authors provide a practical approach to developing interdisciplinary educational programs for health professions students from different colleges. A three-stage model that enables interdisciplinary teams of faculty members to collaborate during planning and implementing programs is described. These three stages are identifying interdependence, exploring roles and sources of influence, and developing work methods. Common problems occurring during each stage and suggested solution alternatives are cited. The value of this model is the translation of philosophical perspectives into workable methods.

Mechanic, D., Aiken, L.H., (1982). A Cooperative Agenda for Medicine and Nursing. New England Journal of Medicine. 307(12):747-750.

The authors argue that although the interests of medicine and nursing diverge in some areas, there is a considerable mutual interest in the central aspects of patient care. Reimbursement of nurses is not in direct competition with physicians' incomes, and the interests of medicine and patient care would be served by a differentiated nursing career structure that properly recognized the value of accumulated skill and experience. Medical schools and nursing schools should develop closer academic ties to improve the education of both doctors and nurses and to set the stage for more effective collaboration in the future.

Ruebling I., Lavin, M.A., Banks, R., Block, L., Counte, M., Furman, G., Miller, P., Reese, C., Viehmann, V. Facilitating factors for, barrier to, and outcomes of interdisciplinary education projects in the health sciences. Journal of Allied Health. 29(3):165-70.

The purpose of this article is to identify factors commonly cited as facilitating and inhibiting interdisciplinary education, to provide insight for the development of successful interdisciplinary education projects.

Research outcomes/ Program evaluation

Abdel Rahim, I.M., et al., (1992). Performance Evaluation of Graduates From a Community-Based Curriculum: The Housemanship Period at Gezira. Medical Education. 26(3):233-240.

Dienst, E.R., (1981). Evaluation of an Educational Program in Health Care Teams. Journal of Community Health. 6(4):282-298.

In July 1975, the Division of Ambulatory and Community Medicine at the University of California, San Francisco, initiated an interdisciplinary team education program as part of a required core medical clerkship in primary care. Significant emphasis was placed on evaluation of student and patient service outcomes. Although no significant differences were found between student teams and individual providers, those teams with consistent membership from all three participating disciplines (medicine, pharmacy, and nursing) delivered more comprehensive care.

Drinka, T.J.K., et al., (1996). Characterizing Motivational Styles of Professionals Who Work on Interdisciplinary Healthcare Teams. Journal of Interprofessional Care. 10(1):51-61.

The authors administered the Strength Deployment Inventory (SDI) over a ten year period to 516 health professionals and advanced level trainees who worked or trained on interdisciplinary healthcare teams. Individual motivation styles were analyzed by discipline, and formal leadership role. The motivational patterns of an interdisciplinary team changed over time. Also, team members exhibited more diversity under normal conditions than they did when they were in conflict.

Edinberg, M.A., (1978). A Preliminary Study of Student Learning in Interdisciplinary Health Teams. Journal of Medical Education. 53(8):667-671.

Self-reported learning in a 12-week interdisciplinary health team training experience at the University of Nevada, Reno, was measured. Fourteen students from seven disciplines participated on health teams in three settings. All students were in early stages of their professional training. A self-report inventory with four general areas was administered before and after the experience. There was significant learning in the areas of team skills and processes and in knowledge of and abilities in client communication but not in physical assessment.

Gelmon, S.B., et al. Health Professions Schools In Service To the Nation: 1996-1997 Evaluation Report. Portland State University, August 1997.

The Health Professions Schools in Service to the Nation (HPSISN) program was created as a challenge to health professions educational institutions to integrate service learning into professional programs of study for entry into the health professions. This report discusses an evaluation plan that was designed to consider the effectiveness of this program. It presents the 1996-1997 evaluation activities, the resulting findings, and plans for the 1997-1998 evaluation of this program. This report is also available at http://futurehealth.ucsf.edu/ccph/exsumm.html

Gordon, P.R., et al., (1996). A Multisite Collaborative for the Development of Interdisciplinary Education in Continuous Improvement for Health Professions Students. Academic Medicine. 71(9):973-978.

In 1994, The Institute for Healthcare Improvement, in Boston, Massachusetts, formed the Interdisciplinary Professional Education Collaborative (the Collaborative). The paper describes the overall goals of the Collaborative,

presents reports from the four local interdisciplinary teams (LITs), and discusses common lessons learned.

Harris, D.L., et al., (1998). Multidisciplinary Education Outcomes of the W. K. Kellogg Community Partnerships and Health Professions Education Initiative. Academic Medicine. 73(10):S13-S15.

In 1991, the W. K. Kellogg Foundation Community Partnerships and Health Professions Education (CPHPE) initiative was developed to increase the number of health care professionals practicing primary care. One way the initiative proposed to accomplish this goal was to increase student participation in multidisciplinary education. Although multidisciplinary opportunities are not new, there has been a lack of evaluation of effectiveness and long-term outcomes of these programs. This paper provides evaluation results of the multidisciplinary educational component of the CPHPE initiative.

Holt, L., Bray, K., Mayberry, B., Overman, P. (2000). Assessing interdisciplinary education in U.S. dental hygiene programs. Journal of Allied Health. 29(4):235-40.

This study examined the role of interdisciplinary education in dental hygiene curricula. The study also identified factors associated with the implementation of interdisciplinary education, and also explored the perceptions of dental hygiene educators related to interdisciplinary education and barriers to its implementation.

Lavigne, S.E. (1999). Dental hygienists in multidisciplinary health care. Probe. 33(3):11-4.

This paper describes a study involving collaboration between dental hygienists, physicians assistants, and physical therapists. Multidisciplinary teams comprised of representatives from each of the three professions participated in both a simulated problem-based case assessment and a real life patient assessment. Results showed favorable learning experiences by each profession.

Mackey, M.C., Sobral, M., (1997). Staff Evaluation of a High-Risk Pregnancy Program. Public Health Nursing. 14(2):101-110.

As part of an effort to reduce perinatal morbidity and mortality, multidisciplinary health care programs have been offered to Medicaid eligible, medically high-risk pregnant women and their infants. This article describes a study of the staff's evaluation of these programs, including their opinions on the program strengths and limitations as well as possible barriers to its effectiveness.

McPherson, C., Sachs, L.A., (1982). Health Care Team Training in U.S. and Canadian Medical Schools. Journal of Medical Education. 57(4):282-287.

This paper reports the results of a survey to determine the extent to which interdisciplinary health team concepts are being taught as part of the undergraduate curriculum in U.S. and Canadian medical schools. Three overall categories of content taught within the programs included group process skills, role and function of the team and its members, and content

related to the health care context. Although the team approach is a process orientation, fewer than half of the programs reported using direct application of the process, that is, building groups of students into teams.

Schultz, P., McGlone, F., (1977). Primary Health Care Provided to the Elderly by a Nurse Practitioner/Physician Team: Analysis of Cost Effectiveness. Journal of the American Geriatrics Society. 25(10):443-446.

After conducting a study on the cost effectiveness of Physician Only (PO) versus the Adult Health Nurse Practitioner/Physician (NP/P) care provided to the elderly, the authors concluded that the traditional (PO) pattern of primary care is cost-effective for the chronically ill elderly who have no trouble coming to the clinic for their care. For Homebound and Nursing Home patients, however, the NP/P team is more cost-effective.

Seignemartin, R.K., (1997). Multidisciplinary Outcome Indicators. Journal of Intravenous Nursing. 20(1):29-40.

Due to demands from an educated public, managed care reimbursement sources, and the need to constantly improve patient care, health care has been pressured to measure the quality of the outcomes of care. Since no one health care professional is the main contributor to the outcome of a patient, indicators of these outcomes must be multidisciplinary. This article discusses how a multidisciplinary clinical pathway can be used as a tool to assist with the gathering of outcome data.

Starfield, B., et al., (1994). Costs Vs Quality in Different Types of Primary Care Settings. Journal of the American Medical Association. 272(24):1903-1908.

Since costs and quality of care are often posed as competing considerations in reform of the health care system, the nature of their association is of considerable interest from both a clinical and policy perspective. This article discusses a study designed to assess the extent to which differences in costs of care are associated with differences in quality of care provided. The study was conducted on both adult and child patients with various common conditions under different types of practice settings.