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Interprofessional Education and Training in the United States –
Resurgence and Refocus

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Abstract

In the United States (U.S.), interprofessional education (IPE) and interprofessional collaborative practice (IPCP) using team-based approaches in health care have a forty or more year history. As major debates and reforms in health care have shifted, the popularity of IPE and IPCP has also experienced swings of interest over the years. Early in the past decade, the publication of two Institute of Medicine reports examining patient safety, cost, quality and access stimulated a new sense of urgency to re-examine and transform the U.S. healthcare system. As a result of this renewed interest, the role of health professions education as a potential contributor to silos in the health care system is receiving new scrutiny. As evidenced by several recent national seminal events and publications, the U.S. is experiencing a resurgence of interest in IPE across the learning continuum.

Background

On the practice side, the serious debate around IPCP began in primary care, with concerns about comprehensive care, primary care, and workforce shortages.[1] Then, nearly forty years ago, the publication of the breakthrough Institute of Medicine (IOM) report, *Educating for the Health Team*, described the urgent need to educate health professional students for team-based health care delivery in the U.S.[2] This concept became known as "interdisciplinary education" (IDE). In the 1970s, IDE was a nascent field. After peaks and valleys of interest and investments over the years, for the most part neither team-based care nor interdisciplinary, now called interprofessional, education (IPE), have been mainstreamed in the U.S. for a variety of reasons.[*] As a result, the 1972 IOM report reads like a contemporary document with clarion calls for action.

Historically, the United States played an important role in the development of interprofessional education (IPE) for health professionals even though nearly all U.S.-based IPE activities, beginning in the 1970s, were elective. Even this level of activity contributed to the recognition that the U.S. was taking leadership in IPE programming and scholarship internationally. For example, a systematic review of the IPE research literature conducted by the British Joint Evaluation Team (JET) revealed 54% of the "higher quality" studies evaluating the outcomes of IPE internationally were undertaken in the U.S. The next largest group--33%--were from the United Kingdom.[3] More recently, U.S. leadership in IPE has been eclipsed as international efforts and investments that were more organized and better funded gained

[*] Starting in geriatric care, the Veterans Affairs (VA, now called Veterans Health Administration) healthcare system has been an important exception in their early, sustained and expansive commitment to team-based care and interprofessional education.

strength. While U.S. interest and investment in IPE languished, key important initiatives outside the U.S. have had relevance to renewed and refocused IPE work in the U.S. These include:

- The international All Together Better Health (ATBH) IPE conferences launched in London in 1997, which included representatives from the U.S. Although U.S. attendance at these international meetings has been relatively low, individual U.S., U.K. and Canadian leaders have developed enduring global professional collaborative relationships that have informed U.S. efforts.
- Greater presence of U.S. representatives on the editorial board of the international *Journal of Interprofessional Care* and greater openness of this and other journals to publication of IPE and IPCP articles
- The creation of the Canadian Interprofessional Health Collaborative (CIHC) in 2005 as an integrative mechanism for national efforts, which has influenced developments in the U.S.
- Specific conversations at the 2004 and 2006 ATBH meetings, about intentional collaboration around the Canadian and U.S. IPE efforts, which resulted in the Collaborating Across Borders (CAB) conferences, described below.
- The Framework for Action around IPE and IPCP developed by a Task Force of the World Health Organization [4] the Canadian interprofessional competency framework, developed by a group from the CIHC[5]which have provided models for U.S. work, described below.
- The growing acceptance in the U.S. of the term "interprofessional" rather than "interdisciplinary" education, adding conceptual clarity to current efforts consistent with global conversation, as well as the growing acceptance of the WHO Task Force adaptation of the IPE definition long in use by the U.K. Centre for the Advancement of Interprofessional Education (CAIPE): "occasions when students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes" [4, p.7.].

Current Situation

Since the publication of two IOM reports in 2000 and 2001, a re-examination of the U.S. health care system has contributed to a new sense of urgency to reconsider team-based care and IPCP. [6,7] The national efforts set in motion by these reports have focused heavily on the frequency and cost of adverse events resulting from medical errors, and the subsequent call for strategic quality improvement in the U.S. acute care system. Significant health system redesign, with emphasis on system improvement and team training, has been driven by health systems' accreditors and quality leaders, national and state health policy enactment, and corporate and insurance stakeholders, Team-based system-level approaches targeting safety and quality have been implemented in major health systems throughout the U.S. These efforts have built upon concepts and research from fields such as psychology, business, the military, and aviation science and have emphasized the creation of high-performing healthcare teams.[8]

In 2010, the Patient Protection and Affordable Care Act further defined new models of care through components related to accountability for patient populations, payment reform and coordinated care through approaches such as the health home and accountable care organizations.[9] As many grapple to understand the meaning and impact of this legislation, new incentives are driving innovative thinking about practice roles and relationships across professions and with patients to fill the gaps identified. Corporate stakeholders who provide health care as an employment benefit and want the best care for the least cost, are significant players in the national ferment. Spurred by early data related to outcomes of system changes, health care insurers are also moving to encourage system changes related to

teamwork through monetary incentives to affiliated providers. In short, the U.S. health care system, significantly driven by economics, is moving in the direction that no one provider profession or model can move the processes of care in a new direction or address the system issues independently.

The pattern of IPE resurgence in the U.S. contrasts with the centralized and government- based infusion of investments in IPE and IPCP in Canada, the UK, and elsewhere. Rather than a planned, strategically funded and well-coordinated approach by all stakeholders based upon collective thinking about IPE, unrelated and simultaneous efforts are stimulating pockets of IPE activity throughout the U.S. Old questions about IPE are new again:

> Can people who do not value interprofessional working, know little about each other, may never have communicated with each other, and have no shared clinical experience as students be expected to practice effectively together to improve systems of care?

Impact and Effect

No one convenient repository like the CIHC exists for tracking multiple IPE efforts in order to provide information or facilitate collaboration across sectors or levels. Based upon this reality, we offer our knowledge of notable simultaneous activities, milestones, and events contributing to the current resurgence of interest in IPE in the U.S.

The Institute for Healthcare Improvement. In the 1990's, The Institute for Healthcare Improvement (IHI), an organization dedicated to safe and effective health care, created a nationally focused collaborative of selected institutions focused on influencing medical education curricula, with the goal of improving safety and quality education. This work gradually became an interprofessional effort. [10,11] Recently, the IHI has altered its approach, reaching out more broadly by creating the IHI Open School to offer online courses and certificate programs targeted at the teamwork dimensions of patient safety and quality, and creating 340 national and international IHI chapters primarily in higher education institutions.[12]

The Association of Academic Health Centers. Also in the 1990's, the Association of Academic Health Centers (AAHC) was an important convener for those interested in interdisciplinary/ interprofessional education and team-based care models, with particular interest in the role of academic health centers. It served as a publisher of conference proceedings, occasional papers, and books focused on clinical teams and IDE/IPE. Around 2006, the organization identified other priorities and shifted away from its IPE activities.

IOM's Second IPE Report: *Health Professions Education: A Bridge to Quality*, In 2003, these report authors suggested that the silo approach to educating health professions in the U.S. significantly contributes to continuing problems in the health care system.[13] They identified five core competencies for all health professions students to master in their pre-professional educational programs to empower them to "bridge the health care quality chasm". The five competencies are: (1) provide patient-centered care; (2) employ evidence-based practice; (3) apply quality improvement, (4) utilize informatics and (5) work in interdisciplinary teams. Many health professions schools have used these competency areas to guide curriculum development. The team competency was recently recognized as the pivotal skill set in improving health care.[14]

Other Expert Reports. In addition to the three IOM reports already described, many other publications are playing an important role in supporting the need for IPE and IPCP. For example, the IOM report, *The Future of Nursing: Leading Change, Advancing Health,* released in October 2010, explores the role of nursing in response to health care reform and system redesign with recommendations including IPE and IPCP.[15]

The U.S. continuing education (CE) system for health care professionals has been described as being in "disarray" with a "dismal record" of impact on learning and patient outcomes.[16] In 2010, two reports, the IOM's *Redesigning Continuing Education in the Health Professions* and the Josiah Macy, Jr. Foundation-funded report *Lifelong Learning in Medicine and Nursing* recommended an overhaul of the CE system.[17,18] Both reports advocate for more inclusion of adult learning approaches, within a framework of continuing professional development and point-of-care learning. These publications have stimulated new conversations about the role of continuing interprofessional education in increasing the quality of interprofessional teamwork in synchrony with healthcare system redesign. There is a cooperative effort among medicine, nursing, and pharmacy CE organizations to certify CE organizations to offer CE for teams[19], Additionally one national medical CE organization has re-envisioned itself as a CE organization for the health professions more generally.[20]

The Professional Associations. National health professions' education organizations as well as others have identified IPE as a significant theme in their recent national meetings and supported targeted IPE efforts. Examples include the Association of American Medical Colleges Leadership Forum, the American Dental Education Association, the American Association of Colleges of Pharmacy, the American Association of Colleges of Osteopathic Medicine, the Association of Prevention Teaching and Research,, the American Physical Therapy Association, the Association of Schools of Allied Health Professions, The Association of Behavioral Sciences and Medical Education, the National Academies of Practice, and the Society for Simulation in Healthcare.

Developing IPE Metrics. The reliability and validity of many current IPE and IPCP assessment tools are problematic. There is a particular need for further development of individual level competency assessment instruments related to IPE.[21] In response to this need, several U.S. efforts are focused on using rigorous evaluation and assessment methodologies to develop performance measures and instruments in IPE and IPCP. The Interprofessional Professionalism Collaborative is comprised of 11 organizations who have developed a consensus definition of interprofessional professionalism, identified 43 interprofessional professionalism behaviors, and is working on a tool to assess the behaviors.[22] The American Board of Internal Medicine has piloted a self-assessment method for evaluating teamwork competency of physicians in inpatient settings.[23]

Government and Foundation Investments in IPE and IPCP. The Health Resources and Services Administration [HRSA], an agency of the U.S. Department of Health and Human Services, has been a key funder of IPE programs through the U.S. Public Health Service Title VII and VIII programs focused on providing access to primary care for uninsured and underinsured, attending to health disparities and promoting diversity in the health workforce. More recently, government agency support has increased around team-based training to improve safety in acute care. The development of the TeamSTEPPS curriculum by the Agency for Healthcare Research and Quality in cooperation with the Department of Defense, through the American Institute for Research, is intended to provide a national curriculum for practitioner training to improve safety in health care.[24] Another example is a recent major investment by the VA in five IPE primary care demonstration projects; and, there are several new HRSA efforts.[25]

Robert Wood Johnson Foundation made a large investment in the QSEN program of quality and safety education for nurses, which identifies teamwork and collaboration competencies as a key component.[26]

Currently, the Josiah Macy, Jr. Foundation supports numerous academic health centers to implement sustainable and replicable IPE. The Foundation has convened and supported numerous conferences on topics related to IPE with resultant publications.[27] Other foundations with a focus related to health have funded IPE-related projects over the years; for example, The Kellogg Foundation, the Robert Wood Johnson Foundation, John A. Hartford Foundation, and more recently, the Gordon and Betty Moore Foundation. All of these investments funded a variety of IPE programs with different outcomes. A common issue has been long-term sustainability by the organizations who received the funds. For the most part, these programs have function[ed] in isolation from each other.

Institutional Level Developments. Many academic health centers have significant IPE efforts underway, some with funding from the above foundations. Current efforts in higher education institutions range from longitudinal curriculum mapping and redesign involving multiple health professions schools to co-curricular, non-credit activities to team-training events focused on such areas as patient safety, quality efforts and emergency preparedness. Some have created institutional organizational structures to foster growth of IPE, and a few have committed their Quality Enhancement Plans for regional institution reaccreditation to this focus. Other IPE efforts in and across higher education institutions are being led by faculty "grassroots" effort.

Future Trends

Several groups have emerged recently that cut across boundaries of various kinds in an effort in integrate the diverse and uncoordinated efforts fueling the resurgence.

The American Interprofessional Health Collaborative and the Collaborating Across Borders Conferences. Conversations at the 2006 ATBH meeting in London about the gap in a U.S. national forum for IPE and what could be learned from the Canadian initiative led to an inaugural Collaborating Across Borders (CAB) Conference in Minneapolis, Minnesota in the Fall of 2007. It was jointly planned by IPE leaders in the U.S. and Canada, with a local organizing committee at the University of Minnesota.[28] Biennial CAB conferences are hosted in collaboration with various universities and rotate between the U.S. and Canada, with CAB II taking place in Halifax, Nova Scotia in May 2009 hosted by Dalhousie University and CAB III, to be held in Tucson, Arizona in November 2011 hosted by University of Arizona and supported by the University of Minnesota. An outgrowth of CAB is the American Interprofessional Health Collaborative (AIHC) to function as an interprofessional umbrella collaborative partnered with the CIHC to advance the field of IPE linked to IPCP.[29]

IPEC: Developing National Core Competencies for IPCP and Team-based Care. A key IPE unifying effort is the development and release of the Interprofessional Education Collaborative (IPEC) report, *Core Competencies for Interprofessional Collaborative Practice: Report of an Expert Panel* in May 2011.[14] This report culminated one year of work sponsored by the American Association of Colleges of Nursing, American Association of Colleges of Osteopathic Medicine, American Association of Colleges of Pharmacy, American Dental Education Association, Association of American Medical Colleges, and Association of Schools of Public Health. Each IPEC organization appointed two representatives to the expert panel to work with a facilitator. They identified four competency areas - values and ethics, roles and responsibilities, interprofessional communication, and teamwork and team-based care and learning

experiences and educational strategies to achieve them. This work built upon the 2003 IOM report's core competency of "working in interdisciplinary teams" and prior international efforts.

Interprofessional Partners in Action [IPPIA]. Another indication that diverse stakeholders are coalescing their interests in and commitment to IPE is the February 2011, Health Resources and Services Administration (HRSA) , Josiah Macy Jr. Foundation, American Board of Internal Medicine Foundation, and the Robert Wood Johnson Foundation sponsored invitational workshop on Team Based Competencies: Building a Shared Foundation for Education and Clinical Practice.[30] Meeting participants included practitioners, educators, health systems leaders, policy makers, professional organizations' members, and staff of several foundations. The IPEC expert panel presented the four core competencies, which were subsequently endorsed by the group. Support for a national IPE agenda emerged.

New efforts are underway as a result of the February, 2011 meeting. Four task forces were established comprised of participants in the February 2011 conference, each with a particular IPE focus area. These include (1) communication and dissemination of the IPEC competencies, (2) faculty development, (3) metrics and (4) practice collaboration, which is linked to representatives of eight major U.S. health systems present at the Conference. Each task force has generated bold proposals for moving forward. A need to coordinate and prioritize the work of these four task forces has led to the creation of a steering committee representing the partnership of diverse stakeholders, called Interprofessional Partners in Action (IPPIA). During the summer of 2011, IPPIA crafted a mission, values and goals statement that notably sets significant targets for integrating IPE into the curricula of health professions schools, developing rigorous metrics and evaluation strategies, and fostering new accreditation requirements for IPE.[31]

Major funders have joined together with IPPIA to help guide investments in a national IPE agenda that will target faculty development as a critical first initiative. The vision is to develop a national center for faculty development in interprofessional education to educate and support faculty throughout the U.S. to implement effective teaching and learning methodologies in IPE. A primary driver for the funders work together is the belief that, by pooling funding for targeted investments, greater IPE impact will be the result, which will ultimately support health system redesign, and improved patient-centered care and outcomes. An emerging principle is that new efforts in IPE must incorporate rigorous evaluation methodologies to create evidence that IPE is linked to practice with impacts on valued outcomes.

Conclusion: Can the U.S. Refocus?

The resurgence of U.S. interest in IPE is creating largely uncoordinated, but significant activity across the U.S. higher education institutions, health systems, government agencies, professional associations, and health professions education associations. One question is, given various strands of IPE activities rooted in different philosophies and histories, can the U.S. refocus its IPE efforts to achieve its potential for major impact? Only time will tell whether IPE will refocus or whether it will, once more, simply be a trend or fad in health professions education that will fade over time. What is promising about the current developments is that, perhaps for the first time in IPE history in the U.S., there is broad interest and activity that is essential for building collaboration among diverse stakeholders, the development of explicit competencies, recognition of the importance of IPE in health care transformation, and the potential for pooling significant funding for IPE to initiate strategic priorities for IPE development. These ingredients may create clear incentives targeted to achieve emerging national goals. At this very

early stage, those involved with IPPIA and other integrating efforts are beginning to convene and work together to further develop that national agenda and the incentives to achieve it.

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