

## REVIEW

### Overview of Faculty Development Programs for Interprofessional Education

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**Objectives.** To describe characteristics of faculty development programs designed to facilitate interprofessional education, and to compile recommendations for development, delivery, and assessment of such faculty development programs.

**Methods.** MEDLINE, CINAHL, ERIC, and Web of Science databases were searched using three keywords: faculty development, interprofessional education, and health professions. Articles meeting inclusion criteria were analyzed for emergent themes, including program design, delivery, participants, resources, and assessment.

**Results.** Seventeen articles were identified for inclusion, yielding five characteristics of a successful program: institutional support; objectives and outcomes based on interprofessional competencies; focus on consensus-building and group facilitation skills; flexibility based on institution- and participant-specific characteristics; and incorporation of an assessment strategy.

**Conclusion.** The themes and characteristics identified in this literature overview may support development of faculty development programs for interprofessional education. An advanced evidence base for interprofessional education faculty development programs is needed.

**Keywords:** faculty development, interprofessional education, health professions, overview

## INTRODUCTION

Interprofessional collaborative practice is a key mechanism to improving the health care delivery system as measured by positive patient care outcomes, improved health of communities, and decreased per capita costs of health care. Health professionals must be prepared to participate in team-based health care upon licensure.

Definitions of interprofessional education and interprofessional collaborative practice were disseminated by the World Health Organization,<sup>1</sup> promoting engagement of students to learn about, from, and with each other to enable them to collaborate effectively in practice to improve health outcomes. Interprofessional collaboration occurs when practitioners develop and maintain interprofessional working relationships to provide optimal health outcomes.<sup>1,2</sup> Various models for organizing competencies for interprofessional collaborative practice have been developed to guide development of curricula aimed at student achievement of these competencies.<sup>3-5</sup> Furthermore, accrediting bodies have begun mandating interprofessional

education in health professions programs.<sup>6</sup> As accreditation mandates change, and this field continues to evolve, guidance for incorporation of interprofessional education into curricula is needed.

The Accreditation Council for Pharmacy Education (ACPE) has embraced interprofessional team-based care as a core of emerging pharmacy practice. Language in current accreditation standards and guidelines require that students graduating from accredited programs are “team ready” and prepared for interprofessional collaborative practice.<sup>7</sup> Of the 25 accreditation standards, 10 make specific mention of interprofessional collaboration, ranging from educational outcomes related to approach to practice and care (standard 3, key element 3.4), culture of the college or school (standard 9), curriculum design (key element 10.8), interprofessional education (standard 11, key elements 11.1, 11.2, and 11.3), introductory pharmacy practice experiences (key element 12.5), advanced pharmacy practice experiences (key element 13.3), sufficient faculty (key element 18.1), physical facilities (key element 21.1), assessment of student achievement and readiness (key element 24.3), and assessment of interprofessional preparedness (key element 25.6).<sup>7</sup>

It is expected that interprofessional education should prepare health care professionals for interprofessional

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collaborative practice.<sup>8</sup> This goal can be achieved only if educators have the knowledge and skills required to train health professions students for interprofessional collaborative practice. Key element 18.1 in the ACPE standards states that “[t]he college or school has a sufficient number of faculty members to effectively address the following programmatic needs: . . . intraprofessional and interprofessional collaboration.” The importance of adequately prepared faculty for interprofessional education has been recognized across the health professions.<sup>9-12</sup> Many literature reviews and guides provide valuable information on faculty development;<sup>13-16</sup> however, a literature gap exists related to faculty development specifically for interprofessional education. A review targeted specifically at this gap would help identify clear directions on how best to train faculty to facilitate interprofessional education initiatives and embed them successfully into curricula.

The intent of this overview was to identify practices in faculty development for interprofessional education at academic institutions educating health professionals. The narrow area of “faculty development” was selected over broader “professional development” to maintain focus on faculty training for interprofessional education to the exclusion of training as health care practitioners for interprofessional collaborative practice.

The objectives of this overview were to describe characteristics of faculty development programs designed to facilitate interprofessional education implementation, and to compile recommendations for development, delivery, and assessment of development activities for faculty engaged in interprofessional education.

## METHODS

In an attempt to survey the literature on faculty development for interprofessional education and describe program characteristics, an overview was selected as the most suitable type of review.<sup>17</sup> MEDLINE, CINAHL, ERIC, and Web of Science databases were searched using the following search terms: faculty development AND (interprofessional education OR IPE) AND (health profession OR health professions OR health occupation OR health occupations). No limit was put on year of publication. The search, performed in December 2015, yielded 89 results in MEDLINE, 19 in CINAHL, 11 in ERIC, and 22 in Web of Science. After removing duplicates, the total number of articles identified through the search strategy was 111. The abstracts of all 111 articles were reviewed for potential inclusion into the literature overview. Each of three coauthors performed an independent review of abstracts; differences in analysis were resolved by consensus. Papers with abstracts with a clear description or empirical component on a specific faculty development

program for interprofessional education in a health professions program were included in full text review. Twenty-four articles were selected using this abstract review process. Upon review of the full text of these articles, seven failed to meet inclusion criteria and were excluded. Seventeen articles were thus analyzed for emergent themes. Thematic analysis of papers was carried out by three coauthors to independently identify relevant themes that made meaningful contribution to specific aims of this paper. A template was developed to guide extraction of information across six categories: program design, delivery, participants, assessment, resources, and findings.

## RESULTS

The articles included in this overview were published between 2006 and 2015. In 35% of articles, faculty development initiatives were described as a component of a broader interprofessional education initiative. The reviewed articles represented programs from Australia (1), Canada (7), the United Kingdom (3), and the United States (6). Table 1 summarizes each program’s objectives, content, format, and assessment. The reviewed articles were descriptive in nature or included quantitative and/or qualitative assessment data. Results from this literature overview were organized in the following sections: design, participants, resources, assessment, and findings.

### Design

Programs differed in terms of objectives, content, formats, learning environments, and duration. However, most had the general goal of improving the knowledge, skills, and attitudes of the faculty participants about interprofessional collaborative practice to enable them to build and deliver interprofessional learning activities for students.

Several content areas emerged during thematic analysis: interprofessional education/interprofessional collaborative practice knowledge acquisition, interprofessional education-relevant pedagogy, assessment strategies, group dynamics and facilitation, collaboration, communication, scope of practice, and health care quality improvement. In one pilot project for clinical educators, a learning objective focused on the creation of a positive learning environment.<sup>18</sup> Other programs focused broadly on teamwork and most included explicit learning outcomes. Moreover, one program focused on extracurricular activities and role-modeling to advance interprofessional learning opportunities.<sup>19</sup>

Formats used to deliver the programs were diverse and included lectures, workshops, seminars, case studies, ‘just-in-time’ training sessions, standardized patients, group discussions, poster sessions, interactive plenary

Table 1. Characteristics of Faculty Development Programs for Interprofessional Education

Publication	Institution	Objective(s)	Content	Format	Assessment
Anderson et al., 2009	University of Leicester, UK	Align content with teaching methods and environment	IPE concepts; roles; active learning; facilitation; learning theory and styles; assessment, evaluation, education research; alignment of IPE context, teaching methods, environment	Two days; stand-alone or master's degree-embedded; presentations, individual and group work, discussions, reflective debates	Method(s): pre-/post-program survey of knowledge and satisfaction Results: enhanced appreciation of IPE; increased knowledge about teaching and assessment
Anderson et al., 2011	University of Leicester & University of Birmingham, UK	Improve knowledge and attitudes	IPE concepts; co-teaching; facilitation	Same as Anderson et al., 2009; co-teaching of novice and experienced educators	Method(s): pre-/post-program semi-structured interviews assessing readiness, reactions, attitudes Results: reduced negative attitudes
Bassendowski et al., 2009	University of Saskatchewan, Canada	Improve understanding of preceptor IPE roles	Adult education principles; ICP; skills transferable to profession-specific environments	Two three-hour sessions; workshops, discussions, reflections, scenarios, team building; preceptor orientation guide	Method(s): post-program survey Results: enhanced IPE knowledge, skills, attitudes
Bilodeau et al., 2010	Laval University, Canada	Develop primary care ICP program and supportive information technology and reference center	IPE concepts; ICP; roles; teamwork; communication; conflict resolution; facilitation; interprofessional intervention plans; CQI	Four half-day workshops and half-day seminars; patient-centered case discussions	Method(s): semi-structured interviews; post-program survey Results: enhanced knowledge
Blue et al., 2010	Medical University of South Carolina, US	Develop knowledge, skills, and values to support extracurricular activities; develop role models	IPE concepts; student perspectives; teamwork; team-building skills	“Brown bag” lunch sessions (ad hoc) and Interprofessional Education Faculty Institute (year-long)	Method(s): pre-/post-program administration of RIPLS, IEPS, locally developed Team Skills Self-Assessment Tool Results: NS
Egan-Lee et al., 2011	University of Toronto, Canada	Prepare participants to develop a practice site-specific IPE program	IPE and ICP concepts; strategies to achieve patient-centered collaboration	Three days; lectures, workshops, small group discussions, role play, multiple case study approach; four IPE programs	Method(s): pre-/post-program semi-structured interviews Results: NS

(Continued)

Table 1. (Continued)

Publication	Institution	Objective(s)	Content	Format	Assessment
Hall & Zierler, 2015	University of Missouri-Columbia, University of Washington US	Train faculty leaders for IPE	IPE principles; IPEC competencies; teamwork; team-based care	Initial 3.5-day conference; didactic presentations; small group activities; immersion experience in IPE	Method(s): reflection Results: NS
Kwan et al., 2006	University of British Columbia, Canada	Assess impact of training on knowledge, skills, and attitudes	Knowledge: IPE concepts, ICP, roles; Skills: challenges/benefits of IPE/ICP, facilitating groups, reflection and feedback; Attitudes: appreciation for ICP and teamwork	Three modules delivered once weekly over four weeks; built on previous week-long program consisting of didactic and experiential learning, video vignettes, case discussions, standardized patients	Method(s): surveys; post-program Team Integration Measure, Team Collaboration Index, modified Collaboration Satisfaction About Care Decisions instrument, Attitudes Toward Healthcare Teams Scale Results: NS
Margalit et al., 2009	University of Nebraska Medical Center US	Integrate IPE into health professions curricula	IPE concepts; teamwork; interactive learning/teaching strategies; health care quality principles; facilitation; problem-solving strategies	Traditional classroom; four-hour training session; faculty provided with access to students' web-based interactive modules and with facilitator guide	Method(s): post-program surveys to assess preparation and satisfaction Results: enhanced preparation for IPE, satisfaction with program
McKimm & Swanwick, 2010	London Deanery, UK	Develop clinical IPE teachers	Interactive teaching/learning strategies; learning objectives; teaching methods; assessment; small group teaching; diversity; career development; managing poor performance; supervision; appraisal	E-learning: 16 web-based, open-access modules followed by three workplace-based activities	Method(s): reflective journaling Results: NS
Moaveni et al., 2008	University of Toronto, Canada	Create templates for faculty development activities; develop pilot faculty development activities	Integration of new team members; trust and respect; conflict, roles, scope of practice, hierarchy and power; primary care	Video-based with trained standardized patients in real-life situations	Method(s): focus groups Results: NS

(Continued)

Table 1. (Continued)

<b>Publication</b>	<b>Institution</b>	<b>Objective(s)</b>	<b>Content</b>	<b>Format</b>	<b>Assessment</b>
Poirier & Wilhelm, 2014	Southern Illinois University, US	Learn about IPE concepts, models, and core competencies; introduce the RIPLS assessment tool; showcase current IPE endeavors; share future IPE opportunities	IPE concepts, models, and core competencies; RIPLS as assessment tool; current IPE endeavors; future IPE opportunities	One-day event with seminar, poster showcase, and 10 thematic roundtables with active learning team-based exercises; resource shared through MedEdPortal	Method(s): pre- and post-questionnaire with open-ended questions Results: Significant improvement in pre- and post-knowledge scores; majority agreed or strongly agreed that program achieved its goals
Sargeant et al., 2010	Dalhousie University, Canada	Develop facilitators	Facilitation; ICP	Interactive, competency-based workshops	Method(s): post-program administration of Interprofessional Facilitation Skills (IPFS) scale Results: NS for workshop participants; validation of IPFS
Scarvel & Stone, 2010	University of Canberra, Australia	Provide clinical educators with teaching and learning support; engage clinical educators with content in learning environment; improve students' experience on clinical placements	Experiential learning; utilization of available learning resources	Professional Practice Project: workshops in variety of training settings; one of four program cycles, each consisting of four parts: plan, action, observation, and reflection; Cycle 3: two workshops – introductory and advanced; Cycle 4: seminar discussion at national conference	Method(s): post-program survey Results: NS
Silver & Leslie, 2009	University of Toronto, Canada	Prepare faculty development trainers	Conceptual framework for IPE	Six months; curriculum mapping approach; diverse teaching formats and resources	Method(s): presentation of capstone faculty development project Results: NS

(Continued)

Table 1. (Continued)

Publication	Institution	Objective(s)	Content	Format	Assessment
Shrader et al., 2015	Medical University of South Carolina, US	Acquire and apply knowledge and skills in specific areas of inter-professional collaboration	IPE principles; student perspectives; teamwork; team-building skills	Three comprehensive components: institute, fellowship, and teaching series.	Method(s): surveys; attitude scales; qualitative feedback Result(s): NS
Willgerodt et al., 2013	University of Washington, US	Train faculty leaders for IPE	IPE principles; facilitation skills; strategies to incorporate IPE competencies	Workshops; IPE Teaching Scholars program; 'just-in-time' training sessions; teaching guides	Method(s): NS

Abbreviations: ICP = interprofessional collaborative practice; IEPS = Interprofessional Education Perception Scale; IPE = Interprofessional Education; NS = not specified; RIPLS = Readiness for Interprofessional Learning Scale

sessions, role playing, video clips, and web-based modules. In the majority of articles (65%), programs deployed a combination of different learning formats. One multi-center program used an immersion experience in IPE facilitation.<sup>20</sup>

The majority of programs were delivered in learning environments outside practice sites and employed didactic learning. One didactic program required participants to incorporate newly acquired knowledge and skills into their clinical practices.<sup>21</sup> Another program augmented didactic education with practical training.<sup>22</sup>

Programs ranged in duration from a few hours to a full year, with the majority lasting one day or less. The short duration of programs was recognized as a challenge, as it limited opportunities for participants to interact and learn together.<sup>23</sup> In a self-guided online program, participants completed 16 20-minute modules.<sup>21</sup>

Most instructors for faculty development programs were faculty themselves. Faculty teams that attended the first Interprofessional Education Collaborative (IPEC) Institute conducted one training program.<sup>24</sup> Program organizers invited educational consultants or interprofessional education experts to provide advice on developing training materials.<sup>19,25,26</sup> One program successfully applied the concept of peer teaching, whereby faculty novices learned from and with their peers who were experienced interprofessional education facilitators.<sup>27</sup>

The majority of programs reported difficulties with finding common time for the faculty development event and long timeframes required for planning. For successful program delivery, adequate time and space for trainees to engage effectively in interprofessional education training was identified as critical.<sup>9</sup> Flexibility in programming was recommended to adapt to the needs of each specific learner group.<sup>22</sup> Others suggested that programs be offered on a continuous basis.<sup>18,26</sup> A web-based, self-directed interprofessional education faculty program was popular among clinical faculty.<sup>21</sup>

### Participants

The number of health professions represented in any one learning group ranged from 2 to 10. Social workers, health policy analysts, and patient interpreters were also included in some programs in addition to clinicians such as nurses, physicians, and pharmacists.<sup>18,23,26</sup> Faculty member participants included basic scientists, preceptors, and clinical educators with practice responsibilities. Most trainees had teaching responsibilities focused within their own profession with limited or no prior interprofessional education experience. Program participants were mostly volunteers, but, in one program, an application process was employed,<sup>28</sup> and in another, participants were invited

by supervisors.<sup>18</sup> A small group of IPE expert faculty was engaged to guide and support program participants.<sup>16</sup>

### Resources

Detailed descriptions of resources used to deliver programs were lacking. Although not explicitly described, programs relied heavily on human resources (eg, curriculum design experts). In-kind time devoted by faculty participants and time off from clinical responsibilities were also required for program completion.<sup>26,29,30</sup> Six articles (35%) reported utilization of non-human resources. Financial resources included modest stipends, cost of travel, supplies, consultation services, and payments for expert staff. Programs received funding from local or regional health education authorities,<sup>9,21,29</sup> academic institutions,<sup>19,31</sup> private organizations,<sup>16</sup> and federal agencies.<sup>16,18</sup>

Investigators identified institutional support as critical to expand from a uniprofessional to an interprofessional model.<sup>27</sup> Support from key administrators was identified as a critical element for program success.<sup>19</sup> Importantly, faculty development programs were identified as a potential mechanism to assist institutional leaders in efforts to advance interprofessional collaborative practice, recognizing interprofessional education as a critical pathway to improving health care. Consolidation of local initiatives into one regional program resulted in operational cost reduction.<sup>29</sup>

Access to IPE information, curricular materials, and evaluation tools was identified as an important resource to promote training efficiency.<sup>20</sup>

### Assessment

Assessment strategies were described in 59% of the reviewed articles and programmatic assessment strategies varied. When faculty development programs were evaluated, qualitative or quantitative assessments were utilized by 41% of the studies; only a few employed mixed methods and metrics.<sup>32</sup> Qualitative data were obtained from participant interviews and reflections.<sup>21,22</sup> Reflections were reported as important by Shrader and colleagues.<sup>32</sup> Quantitative data were generated from a variety of measurement instruments, including the Readiness for Interprofessional Learning Scale, the Interdisciplinary Education Perception Scale, the Team Skills Self-Assessment Tool, and the Interprofessional Facilitation Skills Scale. Sargeant and colleagues<sup>23</sup> developed and tested the Interprofessional Facilitation Skills Scale and demonstrated it to be a useful tool to evaluate performance of program facilitators and participants.

Assessment tended to target knowledge, skills, attitudes, perceptions, satisfaction, and readiness. One program employed continuous improvement processes to

track participants' knowledge, skills, and attitudes.<sup>31</sup> In 39% of articles, assessment was performed before and after the faculty training. One program acknowledged that pre- and post-program evaluation of participants provided valuable information for further program refinement.<sup>9</sup>

Some programs reported participants' lack of readiness, hesitancy to engage, and negative baseline attitudes toward interprofessional education and/or interprofessional collaborative practice. The latter was addressed by Anderson and colleagues,<sup>27</sup> who reported that skeptical participants expressed fear of losing their profession-specific focus, yet such skepticism was diminished following program completion.<sup>28</sup>

Difficulty with knowledge retention by participants was reported.<sup>25</sup> Participants who received training on group facilitation admitted to subsequently missing many "teachable moments" when they were asked to facilitate workshops on their own. These facilitators reported feeling underprepared and that they would have benefited from additional programming prior to teaching their workshops.

### Findings

Findings from reviewed programs can be used to guide future work on interprofessional education faculty development program design, delivery, and assessment. One finding that emerged is that these programs should be based on consensus-derived theoretical frameworks. Silver and Leslie<sup>29</sup> suggested embedding the principles of interprofessional education into every aspect of the program. Moreover, it is important to recognize interprofessional education training as a distinct area in addition to faculty preparation in other teaching and learning contexts.<sup>9</sup> Willgredot and colleagues stressed the importance of offering a systematic faculty development program and support in parallel to implementation of an IPE curriculum.<sup>16</sup> Moreover, it is essential to provide ongoing support of faculty development.<sup>20</sup> It was demonstrated that faculty training activities with a longitudinal support structure can evolve over time into a comprehensive faculty development program.<sup>19,31</sup>

The authors of one article focused on program effectiveness and identified the following key components of an interprofessional education faculty development program: knowledge frameworks for planning, role understanding, group facilitation skills, skills for providing effective feedback, and an appreciation of the importance of interprofessional education/interprofessional collaborative practice and teamwork.<sup>30</sup> Moreover, a variety of authors recognized consensus building, attitudes, and communication as critical program topics for development of faculty for interprofessional education.<sup>10,22,30</sup>

To increase efficiency and sustainability of faculty development for IPE, it is essential to train faculty on various instructional technologies as these skills can also help with implementation of IPE competencies.<sup>16</sup>

Attitudes can impede or facilitate interprofessional education. Participants' attitudes about interprofessional education improved as demonstrated by the results from semi-structured pre- and post-program interviews.<sup>26</sup> To sustain faculty engagement, peer reflections, periodic group conference calls, and mentoring during the program were identified as valuable and effective.<sup>20</sup>

One study suggested that faculty development programs should include pedagogical practices appropriate to achieve interprofessional competencies.<sup>9</sup> A need for more teaching tools and strategies specific for preparation of faculty for interprofessional education was identified.<sup>10,25,29,30</sup>

## DISCUSSION

This literature overview summarizes articles on faculty development programs intended to prepare faculty for implementation of interprofessional education initiatives. Several themes emerged and were used to identify characteristics of faculty development for interprofessional education.

It is critical for the interprofessional faculty development program to have institutional support. A clear signal from administrative leaders that interprofessional education is important and worthy of faculty members' participation may challenge negative baseline attitudes toward interprofessional education reported in some articles. Successful interprofessional education faculty development programs require a large investment of human capital and financial resources, most notably in the form of in-kind and administrative support. Adequate human and financial resources are essential to support development, implementation, and sustainability of interprofessional education faculty development programs.

Once institutional support is obtained, faculty development program designers should ensure that objectives and outcomes are based on competencies for interprofessional collaborative practice and principles for interprofessional education. In order to succeed, faculty development for interprofessional education must be based on the same interprofessional education principles taught to students.<sup>30</sup> A critical initial component in preparing faculty to serve as interprofessional education facilitators is to ensure they have a basic understanding of the field. A competency framework can serve as a basic primer, ranging from definitions to ultimate expectations of learners.

We recommend against a standardized approach to program development as the results of this overview underscore the variability among health profession programs

and institutions. Instructional strategies should be tailored to the needs of the institution and its unique circumstances, as well as to the needs of program participants, and ideally, should be based on instructional technology. Consensus building and effective group facilitation skills need to be emphasized in interprofessional education faculty development programs. Successful programs utilized an array of approaches, including didactic, experiential, in-person, online, and blended methods. A co-teaching strategy that paired novices with experienced interprofessional education facilitators was utilized and helped develop novice facilitators.<sup>11</sup> Inclusion of a required capstone project at the end of this faculty development program allowed participants to integrate new knowledge into a practice initiative.

Theoretical articles on interprofessional education emphasized the importance of initiation of faculty development before implementation of interprofessional education initiatives and recommended inclusion of both individual and organizational development.<sup>33,34</sup> It is important to continue IPE faculty development and support during implementation of IPE programs.<sup>16</sup>

This overview also showed that it is essential for program designers to incorporate a formal assessment strategy into their programs. Continuous evaluation of the effectiveness and quality of interprofessional education faculty development programs can generate valuable data needed to further advance faculty preparation for interprofessional education. A dearth of measurement instruments designed to assess interprofessional education faculty development was identified as a barrier to assessment.<sup>10,11</sup> For assessment purposes, the Canadian Interprofessional Health Collaborative (CIHC) inventory of 128 measurement instruments can be used as a reference point. The National Center for Interprofessional Practice and Education in the US systematically evaluated the evidence base for the CIHC instruments and produced a smaller compilation of measurement instruments capable of assessing constructs identified in this review, such as knowledge, attitudes, and skills.

Many of the characteristics of faculty development programs for interprofessional education described in this overview reflect general strategies recommended for faculty development with the goal to enhance educational knowledge and skills. Wilkerson and Irby, for example, proposed a comprehensive approach to faculty development based on professional, instructional, leadership, and organizational development.<sup>35</sup>

Findings from this overview align with results from systematic reviews of faculty development programs in medical schools that highlighted the importance of experiential learning, feedback, peer and colleague relationship



building, interventions based on principles of teaching and learning, and utilizing a diversity of educational methods.<sup>14,36</sup> These reviews, however, like many other reports in the literature about faculty development initiatives focused on teaching and instructional development, did not address interprofessional participants or an interprofessional training environment. A comprehensive review of faculty development literature published between 1990 and 2003 did not identify a single program focused on interprofessional education.<sup>12</sup> As our overview indicates, progress is underway. A published guide based on experiences from a year-long interprofessional education faculty development pilot project involving eight collaborating academic health centers described lessons learned.<sup>20</sup> Many of these lessons match emergent themes identified in this literature overview; for example, the importance of administrative support, adherence to interprofessional education principles, development of competence-driven goals and objectives, and implementation of an assessment plan. Furthermore, Hall and Zierler suggested combining experiential learning with reflective practices, sharing curricular elements and resource centers among institutions, and advancing clinical interprofessional education through partnerships with health systems.<sup>20</sup>

Ongoing developments in evidence-based interprofessional education inform and lead the advancements in approaches to faculty development programs. An evolving trend for faculty development programs is to provide training that is customized to a specific context (eg, for teams that deliver care to specific patient populations, such as pediatrics or mental health).<sup>11</sup>

The fact that this literature overview yielded only 17 articles published between 2006 and 2015 inherently limits the generalizability of the identified themes. However, the diversity of articles included, in terms of health professions involved and country of origin, may guard against bias. It was encouraging that the emergent themes identified in this overview aligned with recommendations for faculty development more generally, as well as with key findings from a recent multi-institutional interprofessional education faculty development program.

As progress is being made in faculty development for interprofessional education and interprofessional collaborative practice, more rigorous and systematic research in this area is needed. There is a need to develop and validate standardized quantitative and qualitative measures and comprehensive evaluation tools to assess the short- and long-term impact of these programs on participants and institutions. Steinert suggested that information gathered from multiple sources of data such as literature review, focus groups, and faculty surveys can generate

valuable recommendations for approaches and strategies to improve faculty teaching effectiveness in interprofessional education and interprofessional collaboration.<sup>12</sup> Future research may compare different interprofessional education faculty development initiatives and assess their effectiveness. Moreover, studies are needed on program impact on participants, outcomes, and on quality of interprofessional education and interprofessional care. Evidence-based data is crucial for the development of more advanced faculty development programs.

## CONCLUSION

Faculty development programs with a focus on interprofessional education can contribute to the progression and success of interprofessional education mandated by accreditation standards for health professions programs. Adequately prepared faculty members are required to teach and model interprofessional teamwork for future health care professionals to prepare them for collaborative practice. Based on this literature overview, five characteristics of an effective interprofessional education faculty development program emerged: institutional support, objectives and outcomes based on interprofessional core principles, focus on consensus-building and group facilitation skills, flexibility based on institution- and participant-specific characteristics, and incorporation of an assessment strategy. The dissemination of programmatic evaluations is important. Since interprofessional education is an integral educational pathway to interprofessional care and optimal health outcomes, there is a critical need to advance the evidence-base for interprofessional education faculty development programs to foster more widespread interprofessional teaching and learning to prepare interprofessional care-ready practitioners.

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