Internet Journal of Allied Health Sciences and Practice

Volume 15 | Number 3 Article 4

2017

Implementation of Competency Based Educational Strategies into a First-Year Seminar for InterProfessional Healthcare Science Majors

Melissa M. Snyder
Western Carolina University, mmsnyder@email.wcu.edu

Amy Murphy-Nugen
Western Carolina University, abmurphynugen@email.wcu.edu

Amy Rose
Western Carolina University, ajrose@email.wcu.edu

Gayle Wells
Western Carolina University, gwells@email.wcu.edu

Carol MacKusick
Western Carolina University, cmackusick@email.wcu.edu

Implementation of Competency Based Educational Strategies into a First-Year Seminar for InterProfessional Healthcare Science Majors

Abstract

ABSTRACT

Introduction: The Health Educators Academy at Western Carolina University was developed by the Dean of the College of Health and Human Sciences. Interdisciplinary fellows in the 2015 HEA focused on competency based education (CBE), which naturally incentivizes collaborative, interdisciplinary and interprofessional work. The 2015 Health Educator Academy Fellows researched healthcare competencies and designed curriculum changes that aligned within these parameters. This article discusses the creation of a first-year, interprofessional healthcare course that emphasizes CBE as well as interprofessional practice. Interprofessional Goals: The 2015 Academy Fellows believed that a collaborative course in the first-year curriculum that builds upon integral competencies would help introduce a structure that would support further IPE in later courses. Background of CBE: The recent expansion of CBE in higher education is a result of a number of factors, including changing demographics, the increase in student debt, declining state funding, and the need for accountability markers and improved learning outcomes. First- Year Experience: First-year seminars were first designed to ease the transition to college for students and to increase both retention and persistence to graduation. Proposed CBE Course: Three foundational interprofessional global health competencies domains were implemented into the first-year experience course: collaboration, partnering and communication; ethics; and sociocultural and political awareness. Reflection and Lessons Learned: In reflecting upon the process of designing a first-year interprofessional, competency-based course, the members of the Health Educator Academy organically implemented many educator and curricular best practices that facilitate collaboration in health care delivery. Future Plans: Rather than deal with complex health issues from a single, specialized approach, healthcare providers will need to work as a team to meet the needs of patients as well as the broader community. Courses such as a first-year seminar based on interprofessional competency-based curriculum can begin the process of teaching students to think collaboratively and critically. This type of course will provide some of the tools that students will need once they leave the university and enter the professional realm.

Author Bio(s)

Melissa M. Snyder, PhD, LAT, ATC, CSCS is an associate professor at Western Carolina University. She teaches in the athletic training program and is a certified athletic trainer and certified strength and conditioning specialist.

Amy Murphy-Nugen, PhD, MSW is an assistant professor at Western Carolina University. She teaches in the social work program at both the undergraduate and graduate level.

Amy Rose, PhD, CCC-SLP is an assistant professor at Western Carolina University. She teaches in the communications sciences and disorders program and her research interests include social skills and friendship development in individuals with disabilities.

Gayle Wells, PhD is an associate professor at Western Carolina University. She teaches in the health and physical education program and has served as Program Coordinator for Graduate and Undergraduate Health and PE and has worked with numerous academic success programs for the Office of the Provost.

Carol MacKusick, PhD, RN, CNE is an assistant professor at Western Carolina University. She teaches in the nursing program and specializes in nephrology, endocrinology, nursing education and NCLEX development

IJAHSP™
The Internet Journal of Allied Health Sciences and Practice
Dedicated to allied health professional practice and education
Vol. 15 No. 3 ISSN 1540-580X

Implementation of Competency Based Educational Strategies into a First-Year Seminar for Interprofessional Healthcare Science Majors

Melissa M. Snyder, PhD, LAT, ATC, CSCS.
Amy Murphy-Nugen, PhD, MSW
Amy Rose, PhD, CCC-SLP
Gayle Wells, PhD
Carol MacKusick, PhD, RN, CNE

Western Carolina University

United States

ABSTRACT

Introduction: The Health Educators Academy at Western Carolina University was developed by the Dean of the College of Health and Human Sciences. Interdisciplinary fellows in the 2015 HEA focused on competency based education (CBE), which naturally incentivizes collaborative, interdisciplinary and interprofessional work. The 2015 Health Educator Academy Fellows researched healthcare competencies and designed curriculum changes that aligned within these parameters. This article discusses the creation of a first-year, interprofessional healthcare course that emphasizes CBE as well as interprofessional practice. **Interprofessional Goals**: The 2015 Academy Fellows believed that a collaborative course in the first-year curriculum that builds upon integral competencies would help introduce a structure that would support further IPE in later courses. **Background of CBE**: The recent expansion of CBE in higher education is a result of a number of factors, including changing demographics, the increase in student debt, declining state funding, and the need for accountability markers and improved learning outcomes. **First- Year Experience**: First-year seminars were first designed to ease the transition to college for students and to increase both retention and persistence to graduation. **Proposed CBE Course**: Three foundational interprofessional global health competencies domains were implemented into the first-year experience course: collaboration, partnering and communication; ethics; and sociocultural and political awareness. **Reflection and Lessons Learned**: In reflecting upon the process of designing a first-year interprofessional, competency-based course, the members of the Health Educator Academy organically implemented many educator and curricular best practices that facilitate collaboration in health care delivery. **Future Plans**: Rather than deal with complex health issues from a single, specialized approach, healthcare providers will need to work as a team to meet the needs of patients as well as the broader community. Courses such as a first-year seminar based on interprofessional competency-based curriculum can begin the process of teaching students to think collaboratively and critically. This type of course will provide some of the tools that students will need once they leave the university and enter the professional realm.

INTRODUCTION

The Health Educators Academy at Western Carolina University was developed by the Dean of the College of Health and Human Sciences in 2014 as a way to recognize and grow excellent educators at a regional university. The goal of the Health Educator Academy is to provide the opportunity for faculty from the College to participate in intensive professional development in the areas of curriculum and curriculum design, engaged teaching and learning, leadership, and the scholarship of teaching and learning. By design, fellows in the Health Educator Academy cross disciplines and come together in a collaborative manner to help enrich interprofessional education and practice throughout the College.

Five members representing several different disciplines across the health sciences are chosen annually in a competitive process that recognizes excellence in teaching, curriculum development, and the scholarship of teaching and learning. These individuals

attend an intensive, one-week workshop where innovative curriculum design issues are discussed. The focus of the 2015 workshop was competency based education (CBE) and design.

CBE naturally forces collaborative, interdisciplinary, and interprofessional work and exchange of ideas. While many different issues lend themselves to CBE, the increased demand for college accessibility and affordability, the need to have graduate employability, the desire to strengthen the workforce, and the drive to help students achieve success are major indicators and reasons for competency based education.[1] Certainly, education in the healthcare setting can be a primary focus for CBE.[2]

With these thoughts in mind, the 2015 Health Educator Academy Fellows began the journey of researching health care competencies and designing curriculum changes that aligned within these parameters. This article discusses the creation of a first-year, interprofessional health care course that emphasizes CBE as well as interprofessional practice.

INTERPROFESSIONAL GOALS

The need and desire for true interprofessional education (IPE) has been noted in the literature for numerous years, yet little has come to fruition.[3] Scholars have hypothesized that this may be in part due to an ingrained hierarchy that discusses collaboration as the optimal goal, but does little to actually support it.[3] With these thoughts in mind, and recognizing that an opportunity existed to build "from the ground up" a culture that supported both IPE and CBE, the 2015 Health Educator Academy Fellows proposed an introductory course for first-year traditional university students interested in the healthcare sciences.

One of the challenges noted with implantation of IPE has been one of time and space; the issue of "fitting it all in" to an already complex and detailed curriculum has stymied many educators. Yet, through the years, it has been noted that for truly successful and positive outcomes in the healthcare setting, true interprofessional collaboration must occur.[4,5] The 2015 Academy Fellows believed that introducing a collaborative course in the first-year that built upon integral competencies would help introduce a structure that would support further IPE in later courses. Socializing first-year students to the organizational culture (including benefits and challenges) associated with IPE should occur early in an educational experience and extend throughout one's professional career.[6] This approach aligned well with strategies and recommendations for designing effective IPE and practice.[7]

BACKGROUND OF COMPETENCY-BASED EDUCATION

While CBE has expanded nationally in higher education over the past several years, its history dates back to the 1940s.[8] CBE was initially rooted in behavioral psychology and was widely implemented from the 1940s until the 1970s when it underwent heavy criticism. Critics of CBE emphasized that it did not place enough significance on processes such as affective, social, cultural, aesthetic, or ethical learning.[9] CBE saw a revival in the 1980s as the importance of learning outcomes was being emphasized in undergraduate medical curricula. CBE provided a rational basis for the development of assessments of competence, particularly those that assessed observable behaviors.[10,11]

In June of 2015, the Council of Regional Accrediting Commissions provided a consensus definition for Competency-Based Education (CBE):[12(p 2)]

> In general, CBE is an outcomes-based approach to earning a college degree or other credential. Competencies are statements of what students can do as a result of their learning at an institution of higher education. While competencies can include knowledge or understanding, they primarily emphasize what students can do with their knowledge. Students' progress through degree or credential programs by demonstrating competencies specified at the course and/or program level. The curriculum is structured around these specific competencies, and satisfactory academic progress is expressed as the attainment or mastery of the identified competencies. Because competencies are often anchored to external expectations, such as those of employers, to pass a competency, students must generally perform at a level considered to be very good or excellent.

The recent expansion of CBE in higher education is a result of a number of factors, including changing demographics, the increase in student debt, declining state funding, and the need for accountability markers and improved learning outcomes.[11,13,14] A recent analysis of the market by Eduventures found that the number of schools offering CBE programs has grown from 50 colleges in the 1990s to as many as 150 that currently offer some form of CBE and 400 others in the process of program development.[15] Additionally, the number of students enrolled in CBE programs has grown fourfold, from no more than 50,000 students in the 1990s to nearly 200,000 in 2013.[15] Most enrollments are currently concentrated at Capella University, Empire State, Excelsior College, Thomas Edison, University of Maryland University College, and Western Governors University, which have large concentrations of CBE programs; however, enrollments have increased at several traditional colleges, universities

and community colleges.[11] Currently, most CBE programs focus on disciplines related to business, education, healthcare, engineering, science, and technology-related fields.

Initially, there were no common interprofessional competencies for healthcare, even though healthcare incorporates skills that lend themselves to CBE. From an educational perspective, most healthcare specific programs are guided by accreditation standards, and curricula outcomes are based and formulated around these standards. The 2015 Health Educator Academy Fellows felt it important to expand any competency definitions to meet the ever-expanding reach of healthcare and of interprofessional providers. When reviewing competencies necessary for all healthcare providers, the definition of global health was reviewed, and the working definition of global health was agreed upon as an acceptable springboard to base competencies and education. For purposes of course development and understanding, the following definition of global health proposed by Beaglehole and Bonita was utilized: collaborative trans-national research and promoting health for all.[16] This definition helped align competencies as well and also met current Western Carolina University goals of increasing diversity and understanding of different cultures in courses and while at the University.

In 2008, an inaugural meeting of the Consortium of Universities for Global Health discussed the rapid expansion of global health programs as well as the need for standardized competencies and curricula.[2] The Global Health Competency Subcommittee was appointed in 2013 in order to identify and propose a list of interprofessional global health competencies. Jogerst et al in their description of the subcommittee's work outlined levels of global health competency.[2] The subcommittee's proposed list of global health interprofessional competencies was intended to serve as a guide for program development.[2] Thus, the course developers covered three of the competencies in the course.

FIRST-YEAR EXPERIENCE

First-year seminars were initially designed to ease the transition to college for students and to increase both retention and persistence to graduation. The Freshmen Year Experience course (later termed First-Year Experience) has its early roots in the 1980s reform movement in higher education. During the 1980s, college and university campuses began taking a serious look at student success, especially in the early years of higher education. Since that time, the first-year experience has become a much higher priority for university leaders.[17] In 1986, the University of South Carolina established the National Resource Center for the First-Year Experience and Students in Transition. This center provided national leadership in policies and programs designed to enhance learning, academic success and retention.[18] Today, over 75% of colleges and universities across the United States have some form of first-year seminar on campus.[19]

First-year seminars have been identified as one of the high impact practices, and these courses have often been used to support other high impact practices, such as learning communities, common reads, and service learning.[20,21] Researchers have studied the impact of first-year seminars for over thirty years, and their effectiveness for increasing retention and persistence has been well-noted.[22-25] These types of courses have demonstrated effectiveness for the general first-year population for discipline-specific courses or even activity-based courses.[26-28]

This movement toward increasing student success in the first-year has been bolstered by research and scholarship on the first year experience, assessment strategies for first-year approaches, and the integration of technology into first-year initiatives.
Researchers have noted that the most effective courses are those that include academic rigor such as common writing experiences, research projects, and critical thinking skills.[29,30] The research has also indicated that freshmen who enrolled in strategy-based freshmen seminars were more likely to come back to the university as sophomores.[24,31] Western Carolina University began offering a first-year experience course in the 1990s. Since that time, the program has expanded to include professional staff who coordinate the courses through the Office of First-Year Experience as well as additional courses and programs to meet the needs of college students in the first year. One of the courses taught within the program is the University Experience Course that counts for one hour of academic credit.

PROPOSED COMPETENCY-BASED FIRST-YEAR EXPERIENCE COURSE

The first-year course at Western Carolina University was called USI 130: University Experience. The aim of the course was to help students transition to college and is part of the first-year experience. There were three main learning outcomes (see Table 1) and six units (see Table 2) that were taught through the course. The instructors had flexibility in the way that the course was delivered and additional content that was taught.

Table 1. Student Learning Outcomes	
1.	Identify aptitudes, abilities, and interests and articulate their future goals and aspirations
2.	Modify behaviors and values in response to knowledge and skills gained from their academic and co-curricular experiences
3.	Recognize the synthesis of their university experiences relative to their future education and career plans

Table 2. Learning Units	
1.	Discover College: Connect with College: Adapting to a New Environment
2.	Calibrate your Compass: Connect with Self: Finding your Place in the World
3.	Think First: Developing Skills for Life
4.	Connect the Dots: Seeing the Big Picture
5.	Exchange Ideas: Connect with Others; Telling Stories
6.	Be Involved: Why it Matters

The 2015 Health Educator Academy opted to create a competency based course that focused on global health competencies based on the current needs in healthcare and the increasing need for interprofessional collaboration. The flexibility of the USI 130 course allowed the Academy Fellows to implement CBE in this course. The Academy Fellows worked to align competencies to University and College concepts, emphasizing the need for interprofessional collaboration and global health needs. Additionally, the course allowed career exploration in the health sciences and also met the goal of supporting first year university students and helped them achieve success in the academic setting.

Initially, the 2015 Academy Fellows examined an article on identifying interprofessional global health competencies.[2] The article was published shortly after the summer workshop and aligned well with the goals for the USI course. Jogerst et al identified 39 competencies in 11 domains for the basic operational program-oriented level.[2] One Health Educator Academy Fellow reviewed the goals of the USI course, the 11 domains, and the basic needs of healthcare professionals and determined the three competencies that best fit. The 11 domains can be found in Table 3, ones that are focused on in the USI course are labeled with an asterisk (*). Full description of the competencies is outside the purview of this article, but is fully described in the Jogerst et al article.[2]

Table 3. Interprofessional Global Health Competencies[2]	
1.	Global burden of disease
2.	Globalization of health and health care
3.	Social and environmental determinants of health
4.	Capacity strengthening
5.	Collaboration, partnering and communication*
6.	Ethics*
7.	Professional practice
8.	Health equity and social justice
9.	Program management
10	Sociocultural and political awareness*
11.	Strategic analysis
*indicates competencies that were addressed in the USI course	

This curriculum design provided a low stakes way to implement CBE; one purpose was to show faculty how a course can be structured using CBE and educate them about the positives and challenges. The aim was to implement interprofessional competencies into a course for students enrolled in one of the majors in the College of Health and Human Sciences; undergraduate programs in the College can be found in Table 4. All of the students in this section of USI 130 had a goal to be

future healthcare professionals, so inclusion of interprofessional competencies was deemed beneficial. Implementing the competencies early in the curriculum may better prepare students to use the skills as a professional. Additionally, the campus was preparing for a visit from the Southern Association of Colleges and Schools Commission on Colleges. The Quality Enhancement Plan for the University is titled Courses to Careers: Building Psychosocial Competency, and aims to provide students with skills to become active citizens. The course aligns with the goals of the Quality Enhancement Plan and also aligns with the goals of the Quality Enhancement Plan and also aligns with the university's strategic plan, titled "2020 Vision: Focusing on our Future."

Table 4. Undergraduate Majors in the College of Health and Human Sciences	
1.	Athletic Training
2.	Communication Sciences and Disorders
3.	Emergency Medical Care
4.	Environmental Health
5.	Nursing
6.	Nutrition and Dietetics
7.	Recreational Therapy
8.	Social Work

The entire group met to work on the USI course and organized the proficiencies to align with six units required in the USI 130 course and the campus creed. Table 5 shows the alignment of proficiencies, course units, and campus creed.

Table 5. Alignment of Proficiencies and Campus Creed	
Domain 5: Collaboration, Partnering and Communication	
Proficiency	**Campus Creed**
Unit 1, Discover College Connect with College: Adapting to a New Environment	*I will celebrate & take pride in WCU*
Unit 2, Calibrate your compass Connect with Self: Finding your Place in the World	*I will respect the dignity & rights of all persons.*
Unit 3, Think First Developing Skills for Life	*I will practice personal and academic integrity*
Domain 6: Ethics	
Proficiency	**Campus Creed**
Unit 3, Think First *Developing Skills for Life*	*I will practice personal and academic integrity*
Unit 4, Connect the Dots: Integrate Information from a Variety of Contexts	*I will demonstrate concern for others and will live up to my community responsibilities*
Domain 10: Sociocultural and Political Awareness	
Proficiency	**Campus Creed**
Unit 4, Connect the Dots *Seeing the Big Picture*	*I will demonstrate concern for others and will live up to my community responsibilities*
Unit 5, Exchange Ideas *Connect with Others; Telling Stories*	*I will engage myself in the arts, culture and intellectual life of WCU*
Unit 6, Be Involved *Why it Matters*	*WCU Community Creed: Synthesis*

Connecting the Domains to the Coursework and Activities

The course contained activities related to each of the domains. The 2015 Health Educator Academy Fellows ensured that activities were at an appropriate level, but still fulfilled the goals of the course and the needs of future healthcare professionals. This section describes how the course activities were connected to the proficiencies. The three domains were chosen because they are basic concepts that are applicable for all of the majors and appropriate for a freshman level course.

Domain 5: Collaboration, Partnering and Communication

The initial three units aligned with Domain 5: collaboration, partnering, and communication. The first unit covered was Discover College: Connect with College. The goal for this unit was to promote successful student adaptation to new environments and responsibilities, and to allow students to discover and utilize the resources available to them, including academic gateways, social networks, and co-curricular and personal development opportunities. Outcomes for this unit included 1) Students will identify the purpose and function of the campus resources that serve as tools for success, and 2) Students will engage with the campus community. The second unit in the course was Calibrate your compass Connect with Self: Finding your Place in the World. Students examined the values that influence individual decision-making processes; take responsibility for their own learning and development in a manner consistent with academic integrity and their own goals and aspirations; intentionally use knowledge gained from learning experiences to make informed judgments about their future plans; and bring those plans into action. Outcomes for unit two were 1) Students will choose learning experiences consistent with their own values and goals and 2)Students will prioritize values that influence decision making. Unit three was Think First: Developing Skills for Life; it had the stated goals of allowing students to identify the dimensions of complex issues or problems; analyze and evaluate multiple sources of information/data; apply knowledge and decision-making processes to new questions or issues; and reflect on the implications of their solution/decision. Outcomes for unit 3 included 1) Students will select from available information and resources to solve issues in their collegiate lives and campus communities, and 2) Students will construct a plan to achieve an intended solution.

One activity related to Domain 5 is brainstorming health care providers. First-year students may have an idea of the profession they may want to pursue, but they may not have a solid understanding of other professions that fall under the healthcare provider umbrella. First, the students brainstormed the variety of professionals that they may become and also professionals that they will work with in the future. A discussion of their education and roles followed. Additionally, students discussed settings in which these providers were employed. Finally, field trips were planned to visit a few of the community partners. The purpose of this activity was to expose students to diverse healthcare professions, explore backgrounds of future collaborators and examine community partners.

Domain 6: Ethics

Domain 6 aligned with unit 3 (discussed previously) and unit 4. Unit 4 is *Connect the Dots: Integrate information from a variety of contexts*. The goals for this unit were that students would make connections between personal interest and abilities, general education, programs of study, general electives, experiential learning opportunities, and other co-curricular activities; and relate the implications/value of these connections to “real world” scenarios. Outcomes for this unit were 1) Students will identify connections between personal experiences and closely related academic knowledge (i.e., facts, ideas, concepts, experiences), and 2) Students will articulate their own strengths and challenges as learners in dealing with a specific task, performance, event, etc.

One activity related to Domain 6 was ethical scenarios and role playing. Students were split into small groups and given a scenario that they might encounter as a professional. The scenarios were general enough that they were applicable to any of the health professions the students were pursuing, and were not so complex that an entry level, first year student would be unable to reason through them. Examples of the scenarios can be found in Table 6. The students acted out the scenario, led a discussion using guided questions, and debriefed issues that came up during their discussions. Another activity related to Domain 6 was a discussion of different cultures and how different cultures view ethics. Connections were then made to their own ethical beliefs and students reflected on how this could affect them in their future careers.

Table 6: Ethical Scenarios
1. You are working with a patient/client. This person has a "flirty" nature and has always been very nice to you in the past. On this occasion, he/she pats you on the behind as you pass by. a. Is this appropriate? b. What would be your immediate reaction? c. Who would you report this to? d. Is there a time when this is appropriate?
2. You are working with an athlete that is well known in the community. A few of your coworkers are fans and ask you questions while you are eating lunch. a. What would be your response? b. What if they try and say that you can discuss it with them because they are also healthcare professionals? c. What if they promise they won't tell? d. Might there be consequences to sharing this information? If so, what are they? e. Is it appropriate to ask for a picture or autograph?
3. You observe a co-worker interact with a patient/client. The patient/client has an accent and appears to be from the Middle-East. The coworker comes back to the work room and complains how he/she has to work with (racist slur) and they are all terrorists. a. Is this appropriate? b. What would be your immediate reaction? c. Who would you report this to? d. Is there a time when this is appropriate? e. When would you go beyond the borders of your workplace?

Domain 10: Sociocultural and Political Awareness

Domain 10 aligned with units 4 (discussed previously), 5, and 6. Unit 5 is *Exchange Ideas: Communicate Effectively and Responsibly*. The goals for this unit were that students would convey complex information in a variety of formats and contexts, identify intended audience, and communicate appropriately and respectfully. The outcome for unit 5 was that students would communicate as appropriate to the context and audience in order to articulate needs or share information. Unit 6 is *Be Involved: Practice Civic Engagement*. The goals for this unit were that students would identify their roles and responsibilities as engaged citizens by considering the public policies that affect their choices and actions by recognizing commonalities and interdependence of diverse views/ values and by acting responsibly to positively affect public policy. The outcome was that the students would practice and abide by the Western Carolina University Community Creed.

The first activity related to Domain 10 was an examination of examples of local, regional, national, and international influences on global health through a lecture and discussion. The students were assigned an influence and reflected on how that will affect various practitioners. Another assignment was a newspaper assignment. The instructions for the assignment follow:

> As a member of this class, you will be required to read a national newspaper. We will be using these papers in our class all semester in our discussion of current events related to healthcare. Each week you will select at least two articles from the paper related to a healthcare topic and write a reflection on the articles. Your reflections are due in Blackboard each week. Your reflection should be YOUR reaction to the story, not a summary. Give a brief statement about the subject of the article, and then critically reflect on your thoughts about the topic as they relate to social, cultural and/or political implications associated with healthcare.

Both of these activities allowed the students to critically think about how various sociocultural and political issues can directly and indirectly affect health and healthcare.

REFLECTION/LESSONS LEARNED

In reflecting upon the process of implementing a first-year interprofessional, competency-based course, the members of the 2015 Health Educator Academy organically implemented many best practices, including development of appropriate competencies, designing of inter-active and engaging student activities, and designing the course to meet the active engagement learning style of students. According to the foundational framework for interprofessional education and collaborative practice developed by the World Health Organization (WHO), strategies can be implemented to facilitate

collaborative practices. The intent of the first-year seminar course was to embed both educator and curricular strategies that facilitated collaborative practices in health care delivery.[32] The framework acknowledges the complexity of designing and implementing interprofessional education.[32] Consequently, to provide the time, space, and other resources needed to sustain this type of educational endeavor and subsequent, health-delivery improvement system, these strategies should be present. Educator strategies focused on cultivating an organizational culture for interprofessional collaboration. Curricular strategies emphasized effective pedagogical methods, which also compliment principles of competency-based education.

Educator Strategies

Two of the WHO's educational strategies involve efforts that were pursued by the administrative leadership at WCU: 1) supportive institutional policies and management commitment, and 2) a champion.[32] For any new endeavor to succeed, a champion is needed who can clearly communicate the benefits and inspire individuals to take on associated challenges.[3] The Dean and other administrators promoted and implemented the idea of a Health Educator Academy at WCU. As stated previously, the goal of the WCU Health Educator Academy is to provide the opportunity for faculty from the CHHS to participate in intensive professional development in the areas of curriculum/design, engaged teaching and learning, leadership, and the scholarship of teaching and learning. Health Educator Academy members are considered master teachers and use knowledge gained through academy activities and interprofessional collaboration to further the strategic goals of the College related to student success and providing patient-centered care. The 2015 Health Educator Academy focused specifically on learning about and implementing elements of competency-based education. Further, the Dean is open to exploring collaboration not only across disciplines that are housed within the College, but also with potential IPE and CBE partners throughout the University. The Dean and the College are invested in creating an organizational culture that breaks down disciplinary silos, encourages collaboration, and uses a sustainable interprofessional approach to education.[6]

The collegial environment cultured in the Health Educator Academy by the Dean laid the foundation for the 2015-16 cohort to develop effective and open communication; enthusiasm for its scope of work; and subordination of personal agendas in favor of embracing a collaborative, shared identify and vision. These characteristics complete the educational strategies recommended by the WHO.[32] Siloed professional identities and agendas are acknowledged as a significant barrier to interprofessional education and collaboration.[3] The Health Educator Academy provided the space and place for its individual members to develop a collective identity, which has been identified as a key characteristic for effective and sustainable interprofessional education and collaboration.[3,33]

The 2015 Health Educator Academy cohort co-created a comprehensive five-year strategy, including collaborative scholarship focused on IPE and CBE. The commitment to this collaborative scope of work is evident in the cohort's regular bi-monthly meetings and frequent communication. Further, the cohort embraced the fundamental approach of IPE as being "with, from, and about." [32 (p13)] As part of the cohort's shared research agenda, it was democratically decided that each member of the cohort would act as principal investigator on at least one research project and order of authorship would be determined by tenure review. This approach reflects the deep and meaningful levels of collegiality embraced by the cohort. Meleis asserts that collaborative teams "depend on educating and training members together, who are willing to be respectful of each other's professions, who are voiced, and [who] are able to function up to their individual capacities that are aligned with their education."[3(p.111)] The 2015 Fellows reflects these principles, and in parallel practice, should be able to more effectively instruct students on embracing and implementing these characteristics in their interprofessional interactions.

Curricular Strategies

According to the WHO's interprofessional and collaborative framework, curricular strategies are more effective when implementing andragogical, experiential, and engagement methods.[32] Further, emphasis is on connecting "learning activities, expected outcomes, and an assessment of what has been learned."[32(pp24-25)] This strategy compliments the goal-directed, competency-based educational approach being implemented in the first-year, health-based seminar experience. At its core, IPE is concerned with providing an instructional method that results in a collaborative, practice-ready health workforce for the purpose of maximizing optimal health services.[32] Similarly, the purpose of CBE is to connect curricula to competency outcomes, emphasize abilities, engage learners and contextualize learning.[8]

Admittedly, early in the process of learning about CBE, like other educators and practitioners, the 2015 Health Educator Academy cohort struggled with some of the common challenges associated with this educational approach, including a concern of oversimplifying competencies, implied message of privileging milestones over excellence, logistical challenges of implementing a competency-based approach into a time-based system, loss of discipline-specific language, utilitarian training as opposed to holistic educational approach, need for educational technology, and need for investments in teaching, infrastructure, and

assessment.[8] Many, but not all, of these challenges intersect both IPE and CBE. Consequently, any collaboration endeavoring on a similar effort should be aware of these challenges and reflect on the previously discussed educator strategies. There are several strategies that would be recommended prior to developing a first-year, interprofessional, competency-based, health-focused seminar. These strategies include having a champion supportive of these efforts, a process for open communication and dialogue, and an understanding of professional roles and disciplinary strengths. Finally, the ability to subordinate individual agendas for a shared vision and an overall appreciation for the time and commitment required to realize the benefits of an interprofessional, collaborative endeavor are required and necessary for success.[3,32,33,34]

Students enrolled in the USI course remarked on end of semester evaluations that they believed the course helped them adjust to college life well, opened their eyes to different options for work within a health care setting, and provided them a safe space for reflection on the initial challenges of college and university life. All students enrolled returned to the university the following semester. While it is too early to tell if the overarching goal of helping students align with a health care discipline has been accomplished, or if participation in this USI course improved retention rates in new college freshman, initial findings are positive. Further research is necessary to help determine if a CBE USI course helped to develop a feeling of camaraderie and desire to continue to pursue an interprofessional health care degree and how that may later impact practice. It would also be of value to quantify how many of these students finish a baccalaureate degree in four to five years and how that compares to the overall University body of their entering class.

FUTURE PLANS

Today's health science graduates face many challenges when they enter the workforce. Healthcare is rapidly evolving and legislation such as the Patient Protection and Affordable Care Act have necessitated improved quality, efficiency and accountability.[35] To meet these challenges, Health and Science programs in higher education are seeking creative ways to prepare students for careers in healthcare. Today's health science graduates need to have requisite knowledge of their field, yet they also need to be able to work as a team, communicate effectively, and practice in an ethical manner.

For over four decades, health policy makers and educators have worked to design interprofessional education to increase collaboration among healthcare providers, to reduce errors, and to control health care costs.[32] Students need to be trained to work in collaborative environments on day one of a professional job, and learning the concepts of working with a healthcare team can be invaluable for students as they prepare for the workforce.

University faculty can work toward these goals for their students by creating an interprofessional competency-based seminar for health science students early in their academic career. This type of course is designed to bring students in a variety of health- related majors during the first year of college. The course can be a stand-alone class, or it can be part of a learning community cohort of students who take 2 to 3 classes together during the first year of college.

The College invested in this course as part of the 2015 Health Educator Academy, an initiative designed to provide interprofessional development among faculty on campus. The implementation process of an interprofessional educational initiative must be flexible, tailored to the institution's unique qualities, and supportive of faculty development and time commitment.[36] The Health Educator Academy helps to achieve the goals of IPE. Every member of our Health Educator Academy was part of the proposed first-year interprofessional course. Two members of the academy co-taught the course as instructors of record, and additional Academy Fellows presented content related to designated competencies. For example, one member on the team presented communication skills to the class. During another class, another member of the academy presented on the social and environmental determinants of health. Because the Health Educator Academy is composed of representatives from several areas of health science, the team approach to teaching the class allowed students to explore several professional avenues, and allowed the students to begin the process of team-building with other health professionals. This group of faculty worked with the students on group projects designed to introduce them to the concept of interprofessional healthcare. In addition, students worked on individual assignments to help them reflect on their own professional goals within the framework of a healthcare team.

As healthcare in the United States and internationally continues to evolve, providers will continue to face complex health issues. Complex issues such as obesity, stress, and substance abuse require complex solutions. Rather than deal with these issues from a single, specialized approach, healthcare providers must work collaboratively as a team to meet the needs of patients as well as the broader community. Courses such as a first-year seminar based on interprofessional competency-based curriculum can begin the process of teaching students to think collaboratively and critically. This type of course provides an introduction to the tools students need once they leave the university and enter the professional realm.

References

1. Berrett D. New graduates test the promise of competency-based education. Chron Higher Ed. 2015;61(37):18.
2. Jogerst K, Callender B, Adams V, et al. Identifying interprofessional global health competencies for 21st-century health professionals. Ann Glob Health. 2015;81(2):239-47. [PMID: 26088089]
3. Meleis A. Interprofessional education: A summary of reports and barriers to recommendations. J Nurs Sch. 2015;48(1):106-12. [PMID: 26642299]
4. Institute of Medicine. To err is human: Building a safer health system. https://www.nationalacademies.org/hmd/~/media/Files/Report%20Files/1999/To-Err-is-Human/To%20Err%20is%20Human%201999%20%20report%20brief.pdf. Published November 1999. Accessed June 27, 2016.
5. Institute of Medicine. Improving diagnosis in health care. http://www.nationalacademies.org/hmd/~/media/Files/Report%20Files/2015/Improving-Diagnosis/DiagnosticError_ReportBrief.pdf. Published September 2015. Accessed June 27, 2016.
6. Reeves S, Perrier L, Goldman J, Freeth D, Zwarenstein M. Interprofessional education: Effects on professional practice and healthcare outcomes (update). Cochrane Database of Syst Rev. 2013 Mar 28;(3):CD002213. doi: 10.1002/14651858.CD002213.pub3. [PMID: 23543515]
7. Brashers V, Owen J, Haizlip J. Interprofessional education and practice guide no. 2: Developing and implementing a center for interprofessional education. J Interprof Care. 2015;29(2):95-9. [PMID: 25264813]
8. Frank J, Snell L, Cate O, et al. Competency-based medical education: Theory to practice. Med Teach. 2010;32(8):638-45.
9. Chappell C, Gonczi A, Hager P. Competency-based education. In: Foley G, ed. Understanding Adult Education and Training. St. Leonards, N.S.W.: Allen & Unwin; 2000.
10. Ford K. Competency-based education history, opportunities, and challenges. UMUC. http://www.umuc.edu/innovatelearning/upload/cbe-lit-review-ford.pdf. Published October 24, 2014, Accessed June 27, 2016.
11. Kelchen R. The landscape of competency-based education: Enrollments, demographics, and affordability. Home. https://library.educause.edu/resources/2015/1/the-landscape-of-competencybased-education-enrollments-demographics-and-affordability. Published January 2015. Accessed June 27, 2016.
12. Council of Regional Accrediting Commissions. Regional Accreditors Announce Common Framework for Defining and Approving Competency-Based Education Programs. https://www.hlcommission.org/Monitoring/competency-based-education-programs.html. Published 2015. Accessed June 27, 2016.
13. Johnstone S, Soares L. Principles for developing competency-based education programs. Change: Mag Higher Learn. 2014;46(2):12-9.
14. The White House. Fact Sheet on the president's plan to make college more affordable: A better bargain for the middle class. http://www.whitehouse.gov/the-press-office/2013/08/22/fact-sheet-president-s-plan-make-college-more-affordable-better- bargain-. Published 2013. Accessed June 27, 2016.
15. Fleming B. Mapping the competency-based education universe - Eduventures. Eduventures RSS2. http://www.eduventures.com/2015/02/mapping-the-competency-based-education-universe/. Published 2015. Accessed June 27, 2016.
16. Beaglehole R, Bonita R. What is global health? Glob Health Action. 2010 Apr 6;3:5142. doi: 10.3402/gha.v3i0.5142. [PMID: 20386617]
17. Upcraft M, Gardner J, Barefoot B. Challenging and Supporting the First-Year Student: A Handbook for Improving the First Year of College. San Francisco: Jossey-Bass, 2005.
18. About the Center. National Resource Center for The First-Year Experience and Students in Transition. Columbia, SC: National Resource Center. http://sc.edu/fye/center/index.html. Accessed March 3, 2017.
19. Hunter M, Linder C. First-year seminars. In: Upcraft M, Gardner J, Barefoot B. Challenging and supporting the first-year student: A handbook for improving the first year of college. San Francisco: Jossey-Bass; 2005
20. Kuh G. High impact educational practices: What they are, who has access to them, and why they matter. Washington, DC: Association of American Colleges and Universities; 2010
21. Tukibayeva M, Gonyea R. High-impact practices and the first-year student. New Dir Inst Res. 2014;2013(160):19-35.
22. Vaughan A, Parra J, Lalonde T. First-generation college student achievement and the first-year seminar: A quasi-experimental design. J First-Year Exp Stud Transit. 2014;26(2):51-67.
23. Young D, Hopp J. 2012-2013 national survey of first-year seminars: exploring high-impact practices in the first college year. Research reports on college transitions no. 4. National Resource Center for the First-Year Experience and Students in Transition; 2014.

24. Goodman K, Pascarella E. First-year seminars increase persistence and retention: A summary of the evidence from how college affects students. Peer Rev, 2006;8(3):26-8.
25. Pascarella E, Terenzini P. A third decade of research, Vol 2 of how college affects students. San Francisco: Jossey-Bass; 2005.
26. Permzadian V, Credé M. Do first-year seminars improve college grades and retention? A quantitative review of their overall effectiveness and an examination of moderators of effectiveness. Rev Educ Res. 2016;86(1):277-316.
27. Belcher L. Freshman integration and retention in the business school: The long term effectiveness of a dedicated first year business freshman experience. Bus Educat Innov J, 2010;2(1):27-34.
28. Bell B. Assessing the effectiveness of an adventure-based first-year experience class. J Coll Student Dev. 2012;53(2):347-55.
29. Zerr R, Bjerke E. Using multiple sources of data to gauge outcome differences between academic-themed and transition-themed first-year seminars. J Colleg Stud Retent: Res Theory Pract. 2016;18(1):68-82.
30. Greenfield G, Keup J, Garner J. Developing and sustaining successful first-year programs: A guide for practitioners. San Francisco: Jossey-Bass; 2013.
31. Ryan M, Glenn P. What do first-year students need most: Learning strategies instruction or academic socialization? J Coll Reading Learning. 2004; 34(2):4-28.
32. World Health Organization. Framework for action on interprofessional education and collaborative practice. http://www.who.int/hrh/resources/framework_action/en/. Published 2010. Accessed June 27, 2016.
33. Kitto S, Nordquist J, Peller J, Grant R, Reeves S. The disconnections between space, place and learning in interprofessional education: an overview of key issues. J Interprof Care. 2013;27(sup2):5-8
34. Thistlethwaite J. Interprofessional education: A review of context, learning and the research agenda. Med Educ. 2012 Jan;46(1):58-70. doi: 10.1111/j.1365-2923.2011.04143.x. [PMID: 22150197]
35. Gastmyer CL, Pruitt BE. The impact of the affordable care act on health education: Perceptions of leading health educators. Health Promot Pract. 2014 May;15(3):349-55. doi: 10.1177/1524839913499348. [PMID: 24013465]
36. Uden-Holman TM, Curry SJ, Benz L, Aquilino ML. Public health as a catalyst for interprofessional education on a health sciences campus. Am J Pub Health. 2015 Mar;105(Suppl 1):S104-5. doi: 10.2105/AJPH.2014.302501. [PMID: 25706001]