THE UNIVERSITY OF IOWA | College of Dentistry and Dental Clinics

Curriculum Committee
Minutes – April 3, 2019

Members Present: Drs. DC Holmes (Chair), David A. Jones, Natalia Restrepo-Kennedy, Brian J. Howe, Zeina Al-Salihi, Sandra Guzman-Armstrong, Tad Mabry, Michael Murrell, Cody Glass (D2), Tanner Brolsma (D3), Michelle Krupp, Sherry R. Timmons

Absent: Drs. Maged M.E. Abdelaal, Leonardo Marchini, Paula Weistroffer, Wayne Johnson, Kathleen Bohr (D4), John Schaeffer (D1), Lily T. Garcia, Nidhi Handoo

Meeting called to order 12:09 p.m.

I. **Approval of March 6, 2019 Minutes;** – Dr. DC Holmes
MOTION: to approve the March 6, 2019 minutes as submitted. Motion seconded. MOTION APPROVED.

II. **WG CoD Competencies & Domains** – Ms. Krupp
Oral Health Management and Collegiate Competencies work groups have combined to conceptualize curriculum renewal. The group is considering current trends and literature in healthcare models, education and patient care to determine how best to prepare our students for future practice. A Patient (Person)-Centered Care in an Integrated Oral Health Management Model is being discussed with broad components:

- Dynamics of Health Disease
  - Health/Well-being
  - Symptoms/Consequence
  - Status
- Practice & Profession
  - Self
  - Interpersonal
  - Society
  - Dental Practice
- Patient Personalized care
  - Clinical Skills
  - Patient outcomes

III. **WG Oral Health Management (Person-Centered Care); JDE; Walji et al., November 2017** – Dr. Guzman-Armstrong/Dr. Garcia (attachment)
Dr. Guzman-Armstrong summarized the main concepts of person-centered care (PCC) as outlined in Walji et al. article. PCC moves away from student-centered care (performing set number of procedures/requirements) towards focusing on patient needs. There is more emphasis on interdisciplinary patient care. An example of how this could look would be to vertically integrate patient care through D4 student teams to manage a patient. Each student would contribute with the most updated information from their year. The patient would feel they are being cared for by a team. Committee comments included:

- Important to keep the foundations and techniques. Add more peer learning and early exposure by working with a D4 student
- Catering only to the patient and not thinking about the provider can become negative. Needs to be a balance between patient, provider and the student.
- D1 student could follow a patient all 4 years, improving the perception of the patient and learning experience of the student. D1 would get more experience on how to present a patient to faculty and D4 would get more experience by explaining treatments to the D1.
- Create the message for the student early on for students to see the patient as more of a person instead of just a patient.

IV. **Round Table Comments** – Committee

- Dr. Jones would like more information on exam software.
- Dr. Restrepo-Kennedy mentioned ADEA presented information about exam software.
- Dr. Mabry believes the curriculum renewal would be very beneficial but challenging.

Next Meeting: Wednesday, May 1, 2019

Minutes recorded: Ms. Brenda Selck

Person-Centered Care: Opportunities and Challenges for Academic Dental Institutions and Programs

Muhammad F. Walji, PhD; Nadeem Y. Karimbux, DMD, MMSc; Andrew I. Spielman, DMD, MS, PhD

Abstract: Many readers may be familiar with *patient*-centered care, but they may not be familiar with the concept of *person*-centered care. Person-centered care implies knowing the patient as a person, not as just another patient or as a clinical requirement in dental school. Person-centered care gains the trust of the patient and is meaningful to the person because it respects his or her values, preferences, needs, and beliefs, emphasizing the individual's freedom of choice while promoting emotional and physical comfort. This article describes the concept of person-centered care, compares person-centered care with patient- and student-centered care, presents a vision of person-centered care in a clinic setting, discusses its opportunities and challenges in general, and outlines future topics of interest for the academic, research, and practicing dental communities, including opportunities for in-depth reviews and guidelines.

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Keywords: dental education, dentistry, patient care management, patients, patient-centered care, dentist-patient relations, person-centered care, oral health provider, faculty development

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In a guest editorial in the *Journal of Dental Education*, Feldman and Valachovic discussed the changes that have occurred over the past decade within and outside of dental and allied dental education, as well as changes impacting a broad spectrum of health care systems, health professionals, and higher education.[1] Palatta et al. further framed the forces that will shape the future of dental education in an article titled "Change Is Here: ADEA CCI 2.0—A Learning Community for the Advancement of Dental Education."[2] Five domains that could impact the future were presented in that article: technology, education, demographics, health care, and environment. The authors go on to state that three major goals will guide the community's efforts: "1) *Person-centered health care* will become the dominant model in health systems. 2) *Future-ready graduates* from health professions education programs will deliver the health care. 3) Graduates will be educated in a *transformative learning environment*" (p. 642). This article describes the concept of person-centered care, compares person-centered care with patient- and student-centered care, presents a vision of person-centered care in a clinic setting, discusses the opportunities and challenges in general, and outlines future topics of interest for the academic, research, and practicing dental communities, including opportunities for in-depth reviews and guidelines.

Concept of Person-Centered Care

The National Academies of Medicine, at the time known as the Institute of Medicine, defined care that is patient-centered (also known as "patient-focused") as "respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions."[3] Many readers may be familiar with *patient*-centered care, but they may not be familiar with the concept of *person*-centered care. The two terms are abbreviated

the same way (PCC), but in this article the abbreviation is reserved only for person-centered care. The professional literature mentions patient-centered care as early as 1952,[4] but its widespread use does not take root until the early 1990s. Similarly, person-centered care is found in the literature for the first time in 1968,[5] but does not appear to have been used frequently until the last decade. Even today, PCC appears in the title of only 122 articles on PubMed. The two terms are frequently used interchangeably, which can create confusion. What are the similarities and differences between the two?

Patient-centered care focuses on the disease rather than on the person, while *person*-centered care means an approach that focuses on the elements of care, support, and treatment that matter most to the patient and his or her family and career. A more complete definition is the following: "Person-centered care is a way of thinking and doing things that sees the people using health and social services as equal partners in planning, developing, and monitoring care to make sure it meets their needs. This means putting people and their families at the center of decisions and seeing them as experts, working alongside professionals to get the best outcome."[6] It is care given *with* the patient and his or her family, rather than care given *to* the patient.

Before we contrast patient-centered with person-centered care, a further distinction needs to be drawn regarding an additional model—student-centered care—which is the prevailing model used in most academic dental institutions and programs today. In student-centered care, dental students complete a set number of discipline requirements or show independent mastery of procedure-based dental competencies. The resulting outcome shifts away from patients' needs to what the students need to complete their programs.

The transition from the student-centered care model toward person-centered care will be fraught with a number of challenges, addressed later in this article. Although many academic dental institutions and programs may already have partially transitioned to patient-centered care, the shift to person-centered care will present dental educators with a new set of opportunities and challenges. To address this transition, the next sections of this article focus on the differences between and the transition from student-centered care models to patient- and person-centered care models. Table 1 presents the similarities and differences among the three models.

The difference between patient-centered and person-centered care is subtle but quite fundamental. *Patient-centered* care relies on information and wis-

Table 1. Comparing student-, patient-, and person-centered care

Student-Centered Care	Patient-Centered Care	Person-Centered Care*
Focuses on the student provider and which patients may be suitable for gaining sufficient experiences.	Focuses on patient during individual visits.	Focuses on the person and his or her interrelationships with the provider over time.
Focuses on completing treatments based on the patient's ability to pay.	Focuses on management of the disease.	Focuses on disease management in the context of personal, social, religious, ethnic, and other factors.
Views patients as a means to performing specific dental procedures based on student's training needs.	Generally views body systems as separate from each other and separate from the psychosocial domain.	Generally views patient in a holistic fashion with all systems interrelated.
Sequences treatments based on difficulty and/or availability of supervising faculty.	Uses coding systems based on professionally defined conditions.	Uses professionally defined conditions but allows modifications using people's health concerns and social determinants.
Selects treatment based on supervising faculty recommendation and/or student needs.	Bases diagnosis and treatment on large cohort studies in which individual information is "homogenized."	Modifies diagnosis and treatment from large cohort studies, taking into consideration individual information and desire for care.
Bases treatment outcomes on completion of procedures and the treatment plan.	Bases outcomes of treatment on general population outcomes.	Bases outcomes on improvement of the person's overall health and well-being, taking into consideration multiple factors.

*Also known as patient-focused care. Definitions are based on Starfield B. Is patient-centered care the same as person-focused care? Perm J 2011;15(2):63-9.

dom obtained from large cohort studies, in use since 1935.[7] Such studies glean population-wide generalizable information that can be applied to all patients. Because important individual differences are not taken into treatment considerations, side effects may develop as a consequence. Successful treatment may also depend on individual determinants of disease, such as environmental, personal, ethnic, cultural, nutritional, religious, social, financial, educational, philosophical, moral, legal, or tribal factors. This range of potential influences is precisely the reason why advocates of person-centered care argue for a more individualized approach.

In line with these tenets, *person-centered* care respects people's values, preferences, and needs; coordinates their care with the desire of family members; ensures good communication among all stakeholders in the patient's health outcomes, continuity among service providers, and patient and family comfort with all decisions; and provides good physical, moral, and emotional support to the patient. In essence, person-centered care places the person in the center of the care rather than the disease. Clearly, patients should have a say in the treatment they receive, but it has to be in the context of the best options and best evidence. It should consider the individual differences that the patient's lifestyle and environment demand.

Person-centered care implies knowing the patient as a person, not as just another patient or a "clinical requirement." Person-centered care gains the trust of the patient and is meaningful to the person because it respects his or her values, preferences, needs, and beliefs and emphasizes the individual's freedom of choice while promoting emotional and physical comfort. Finally, a true relationship with the patient as a person implies the involvement of family, friends, and others from the patient's social network in the appropriate decision making.[8]

Providers need to fully empathize with the patient and to show compassion, civility, and decency when considering treatment solutions with, and not for, the patient. Person-centered care is a holistic approach, with empowerment and self-management as likely positive outcomes on recovery and wellness.[9,10]

Academic health professions institutions that are fully entrenched in student-centered care may grapple with the transition toward patient-centered care. The transition to person-centered care, or person-focused care, is likely to be even more challenging. Such a change would require not only a behavioral shift in the way providers approach care, but potentially modifications to institutional services, mission statements, goals, and outcomes, and, above all, a change in the educational philosophies of health professions institutions, including those training oral health care providers.

Is person-centered care applicable for oral health care providers? In fact, much of what oral health care strives to achieve is recovery and a long-term trusting relationship with the patient. A great deal of the success relies on the patient. For example, take two of the most fundamental oral conditions defining dentistry: periodontal disease and dental caries. The success or failure of treatment for these conditions is almost entirely dependent on patients' subscribing to prevention through rigorous oral hygiene: brushing, flossing, regular checkups, proper diet and exercise, etc. The benefits should be obvious. A happy and motivated patient leads a healthier life with less need to see a health care provider and an overall savings in health care costs. In the following section, we outline a scenario of what an academic dental institution's teaching clinic might look like in a PCC model.

PCC Teaching Clinic of the Future

This section describes a hypothetical scenario involving a patient (Antonio Díaz) who presents to a future person-centered oral health care clinic. All the names used are fictional.

New to the city, Antonio Díaz asks the virtual assistant on his phone to suggest a dentist because he is experiencing a lot of bleeding when brushing. The very first result is for the University Dental Clinic (UDC), which rates highly on patient experiences, clinical quality, timeliness, and costs. Antonio likes what he sees and schedules an appointment through his phone by completing a virtual telehealth assessment and, with a tap of the screen, gives permission to UDC to access his medical and dental information since birth. He then engages in a virtual video assessment visit with the intraprofessional oral health team consisting of Sylvia Smith, a third-year dental student who is rotating in the UDC telehealth clinic; Arjun Patel, a second-year allied dental hygiene student; and Drake Hill, a third-year advanced education periodontics resident. Antonio explains his chief complaint and shows his inflamed gums using the

high-resolution camera on his phone. The intraprofessional team suspects chronic moderate periodontitis and recommends that Antonio come to the clinic for a more detailed and definitive examination. Sylvia and Arjun also send a copy of their preliminary diagnosis via the University Health Sciences app to the medical interprofessional team at the University Medical Clinic (UMC). Antonio selects an appointment for the next day and schedules a self-driving car to pick him up.

Antonio arrives on time and, upon entering the lobby, is greeted by Sylvia, who was notified by her phone of her patient's impending arrival. Drake reviews the assessment from the UMC team and requests that Arjun set up the operatory. After Antonio is seated, Sylvia talks with him to understand his background, family, occupation, and expectations of the visit. Antonio then describes his symptoms, undergoes a painless digital scan of the mouth, and receives an intraoral examination from Arjun. The exam and digital imaging reveal a high degree of plaque and moderate chronic periodontitis.

After first checking with the supervising faculty member, Sylvia updates Antonio with her findings. Antonio also mentions that he has experienced some blurry vision and sudden weight loss in the last few months. Sylvia looks carefully at Antonio's medical history and suggests a rapid diabetes screening test. In coordination with the UMC team, Arjun collects some saliva, and within seconds he determines that Antonio's blood sugar is elevated. Additionally, Antonio's oral microbiome analysis reveals an unusual shift toward a preponderance of gram negative anaerobic population, so a probiotic treatment is recommended to reestablish a microbiome that resembles a healthier population.

As Antonio does not yet have a primary care doctor, Sylvia makes an electronic referral to the UMC primary care team located one floor above the academic dental clinic. In addition, the computer suggests a set of additional interprofessional health care providers, such as a nutritionist, an endocrinologist, a physical therapist, and a nurse practitioner to evaluate and help Antonio improve his quality of life. Antonio's virtual assistant checks the appointment availabilities among interprofessional team members, then crosschecks with his calendar and suggests a few dates that Antonio and Sylvia can agree upon. Once the interprofessional members are selected, an automatic referral letter is written and sent to the appropriate provider.

Next, Arjun discusses with Antonio the link between diabetes and periodontal disease and talks about appropriate preventive recommendations, including the importance of exercise and nutrition and how to brush and floss effectively. Sylvia double-checks with the UDC electronic health record (EHR) "Patients Like Mine" evidence-based decision support tool that compares treatment outcomes for millions of patients like Antonio. The system confirms her recommendation that scaling and root planing would likely be an effective option to treat Antonio's periodontal condition.

After reviewing the care alternatives with Drake, including the risks and benefits, Antonio and the intraprofessional team all agree on the way forward. Arjun completes the treatment in the same visit and sends Antonio a personalized visit summary that lists the preventive recommendations, aftercare instructions, and agreed-upon follow-up visits. Three days later, Antonio receives an after-visit email from Sylvia. Antonio reports that the bleeding has subsided and he is doing well. The outcomes of Antonio's case are added to a machine learning engine in the EHR.

Antonio's scenario presents dental educators with several opportunities and challenges, which are addressed in the following sections. Table 2 compares how care may differ in the future scenario from the way it is currently delivered in academic dental institution clinics. Table 3 contains questions for dental educators, which also reflect the challenges of shifting toward a person-centered care model.

Opportunities for PCC

In its Triple Aim framework, the Institute of Healthcare Improvement (IHI) has proposed that our health care system, as a whole, should strive to ameliorate the patient experience, enhance the care for populations, and reduce costs of care delivered.[11] As described in the future patient scenario, the experiences of individuals seeking oral health care in our academic dental clinics will need to be transformed if we are to meet these ambitious goals. Our main challenge will be to move from a predominantly student-centered model, in which we provide care based on the educational needs of students as well as the care needs of their patients, to the person-centered care approach, in which we focus on the needs of the individuals and families entrusting their care to our clinics. The following factors may be considered as we strive to move toward person-centered care.

Table 2. Characteristics of student-centered care compared with person-centered care

Current Student-Centered Care Scenario	Future Person-Centered Care Scenario
Little information is available about the quality and timeliness of, and patient satisfaction with, the academic dental clinic.	Quality, timeliness, and patient satisfaction data are publicly available to help patients choose oral health care providers.
Making appointments involves long hold times on the phone, and access to care may take weeks.	Mobile apps are used to make immediate appointments.
Lengthy dental treatments take multiple visits.	Telehealth, home care, and efficient care workflows are used to minimize clinic visits and waiting times.
New patients need to complete a lengthy past medical and dental history information. Health information from the medical record is not available to the oral health care provider.	Complete and interoperable medical and dental records are available to oral health care providers. Individuals control and provide access to their information.
Oral health care providers focus only on dental treatments involving oral cavity.	Oral health care providers are trained to provide health care intraprofessionally and interprofessionally and can screen for chronic medical conditions.
Treatment is selected based on supervising faculty recommendation and/or student needs.	Data-driven clinic decision support tools are used to ensure that evidence-based treatment options are discussed with patients.
Limited discussions occur with patients on prevention and home care.	Focus is on prevention and home care after dental treatment to improve health outcomes.
Follow-up occurs at next scheduled dental visit.	Timely follow-up with patients after treatment is provided.
Oral diagnostics is in its infancy at this stage.	The oral microbiome is determined from salivary sample and is used to diagnose and predict treatment options.
Interprofessional team members are scattered and rarely on each other's health care provider radar.	Interprofessional team members are suggested; upon their selection, appointments and letters of referral are instantly dispatched.
Data are often available within the institution but rarely across multiple health care providers and institutions.	All health care data across members of the interprofessional team are integrated and visible to both provider and patient.

Table 3. Reflection questions for dental educators

Questions for Reflection and Discussion
1. Referring to Table 1: a) How would you classify your current academic dental institution's clinic: student-, patient-, or -person-centered, or a hybrid? b) Identify two or three reasons why you believe the student-centered care and/or patient-centered care models are prevalent in many of our academic dental institutions and programs.
2. In the person-centered care teaching clinic of the future scenario: a) Identify elements that support the person-centered care model. b) Of the elements you identified, which could be changed readily in your current clinic model that would move your institution's clinic closer to a person-centered model? c) How is the dental intraprofessional team nurtured in your current clinic model? d) How could the dental intraprofessional team function differently in a person-centered care clinic model?
3. Referring to Table 2: how would the following aspects of dental education need to change, if at all, to fulfill the promise of a person-centered care model? a) Academic dental institutions' and programs' missions b) Admissions processes c) Curriculum d) Faculty development programming e) Accreditation standards f) Licensure
4. How can oral health research help support the person-centered care model?

Social determinants of health. Understanding an individual's social, cultural, economic, employment, and other determinants is key to providing person-centered care.[12,13] While normally not discussed during a dental visit, the environment in which individuals live, their literacy level, or their religion may impact treatment recommendations, adherence, and likelihood of success. In person-centered care, the relationship moves from being transactional and episodic to one that is longer lasting and one in which the person feels valued.

Shared decision making. Shared decision making is the antithesis of a paternalistic model of health care in which the individual relies solely on the recommendation and expertise of an omnipotent health care provider. Instead, shared decision making "involves, at minimum, a clinician and the patient, although other members of the health care team or friends and family members may be invited to participate. In shared decision making, both parties share information: the clinician offers options and describes their risks and benefits, and the patient expresses his or her preferences and values."[14] Together, they make decisions and formulate a path forward. We are now beginning to understand the benefits of shared decision making in increasing knowledge and improving health outcomes.[15,16]

Collaborative practice. In person-centered care, oral health care providers can no longer practice in isolation and focus only on the oral cavity. The World Health Organization has stated that multiprofessional learning leads to better interprofessional collaboration and working together.[17] Interprofessional collaboration is thought to reduce medical errors, enhance communication, and improve the health care system—all of which translate into better care for patients. Oral health provides a window on overall health, with rich opportunities for interprofessional practice. We are beginning to see the development of fully integrated health care practices often focused on primary care with medicine, nursing, dentistry, pharmacy, and optometry co-located and working together for the betterment of the patient. As we move toward team-based, intraprofessional, and interprofessional care, there is need for a common understanding among health care professionals regarding a patient's health status and care needs.

Preventive care. Rather than just treating disease, in person-centered care, the goal is to work with an individual and his or her family to maintain optimal health. While dentistry has a strong evidence base for preventing oral diseases such as dental caries and periodontal disease, the focus in our current dental school clinics is mainly on treatment. Much less emphasis is placed on identifying individual risk factors, providing preventive treatment approaches, and enabling patients to follow them.

Precision care. The National Institutes of Health (NIH) defines precision medicine as "an emerging approach for disease treatment and prevention that takes into account individual variability in genes, environment, and lifestyle for each person."[18] Precision medicine is an expansion of personalized care, which is "the science of individualized prevention and therapy."[19] The "All of Us" research program seeks to capture biological, environmental, and lifestyle data from over a million patients to help in understanding how these factors impact diseases and treatments.[20] While in its infancy, precision medicine is very much in line with the tenets of person-centered care and will likely have a significant impact on the practice of dentistry.

Value-based payment. Health care providers are currently reimbursed based on a fee-for-service model: the more procedures performed, the greater the reimbursement received. This payment model, coupled with the lack of a national health care system, is a major reason why the U.S. health care system is the costliest in the world.[21] In the U.S., we spend $9,000 per individual on health care, accounting for nearly 17% of our gross domestic product. Such a high rate is unsustainable. Further, despite the massive spending in health care, the return in terms of quality is questionable. Value-based care is a more person-centered approach that refocuses the provider's reimbursement based on the value created for the patient. The value may be tied to the quality of care delivered and the success of the services in preventing or alleviating the condition.[22] While dentistry is currently firmly situated in the fee-for-service model, it is likely that payment reform in medicine, if successful, will also spread to dentistry. In anticipation of that likelihood, the American Dental Association (ADA) formed the Dental Quality Alliance to develop measures that can be used to assess the quality of oral health care.

Internet of things and connected devices. The increased connectivity of people and their everyday devices to the Internet also facilitates the practice of person-centered care. Consumers already use a plethora of technologies like smartphones, watches, home automation systems, and electrical meters. Patients have access to smart toothbrushes, weighing scales, glucose monitors, and pill bottles that

meticulously track and report on their findings. These devices are equipped with sensors that transmit data across the Internet to better manage individual health. In the future, tiny sensors might be embedded into people to continuously monitor their physiological data. As more and more patients use connected and implanted devices, we can learn more about their behaviors, biology, and preferences. Armed with these data, health care providers can engage in shared decision making, either face-to-face or from a distance (telehealth), with the ultimate goal of providing person-centered care.

Challenges of PCC

In person-centered academic dental clinics and dental practices, our patients would receive high-quality and high-value care based on their individual characteristics. In addition to the interactions in our facilities, we would work with patients in their homes and communities. We would be part of an intra- and interprofessional team striving to maintain excellent general health. However, academic dental institutions and programs face challenges in transitioning to a person-centered care model.

First, they should review their mission and value statements. The core mission of most academic dental institutions and programs is to educate future practitioners. However, aiming for person-centered care and educating future practitioners should not be mutually exclusive. The core principles of person-centered care should be put into practice, so our future oral health care providers will model this care after graduation.

Can we still focus on training future practitioners using the same competencies if we become person-centered? One of the driving forces behind student-centered patient care is our competency system, which all academic dental institutions and programs must use as mandated by Commission on Dental Accreditation (CODA) standards.[23] A second driving force is discipline-based minimum requirements to which many academic dental institutions and programs still adhere. A typical competency, such as "A student will be able to manage restorative procedures," would clearly entice students to see patients as sets of procedures and requirements. In this situation, the competency emphasizes the need of the oral health care provider (the student) rather than that of the patient. Consequently, transitioning from student-centered care to person-centered care will require rethinking our institutions' competencies and requirements.

As treatment moves away from what is best for the student to what is best for the patient, there are clearly huge challenges as far as academic, faculty, and student adjustments are concerned. Would such a model ensure experience and competence in basic treatment modalities? There is no clear answer, and details would have to be worked out. But there are examples from other health professions—medicine, surgery, and nursing among them—in which competence is attained while providing comprehensive care, with the patient's benefit as the primary outcome. A recent addition to the CODA standards is interprofessional education, a requirement that will make the transition from student-centered to patient- and person-centered care easier.[23] There would, of course, also need to be changes to external assessments that drive our curricula, such as CODA accreditation and national board and licensure exams.

Investments in infrastructure will undoubtedly be needed to support the new model. How will our clinics need to be revamped to improve the patient experience? What kind of IT system will be required to coordinate the large amounts of data needed to drive such a system? Would such a model be financially viable for academic institutions? Our answer is yes, provided that insurance reimbursement is based on patient satisfaction and health outcomes. Some insurance companies and Accountable Care Organizations are starting to shift toward this reimbursement model (Kaiser Permanente of California among them).[24]

To deliver evidence-based person-centered care, there is a still a great deal to learn about how individual determinants at the biological, social, and environmental levels impact health. In addition, a whole new avenue of health care delivery systems research may open for academic dental institutions and programs, which can become living laboratories for experiments in change and innovation in how to effectively deliver person-centered care.

Conclusion

Person-centered care requires academic dental institutions and programs to focus on supporting the overall health needs of individuals and their families. In a PCC dental clinic, oral health care providers get to know their patients, rather than focusing solely on their immediate ailments and treatment needs. We expect to engage in shared decision making and

work in dynamic intra- and interprofessional teams to provide high-quality care within and outside the clinic walls. Academic dental institutions and programs have strong tailwinds to help speed up the transition to PCC. Our patients will demand such a change. Rapid advances in technology provide individuals with an unprecedented ability to access information and services that were once restricted to professionals. Individuals already use connected health tools to facilitate self-care or interact with health care providers. Demographic shifts require us to be more culturally competent and understand how individual factors impact health. Scientific advances and use of "big data" will fuel advances in precision dental care. Additionally, an unsustainable fee-for-service health care system will drive innovation to value-based payment models. However, persistent headwinds threaten to impede progress toward PCC, including our student-centered clinics, competency-based curricula, and resource requirements. Through the ADEA CCI 2.0 Liaisons' Learning Community, academic dental institutions and programs are well positioned to explore, test, and adopt new models of person-centered care in our teaching clinics.

Disclosure

This article is one in a series of invited contributions by members of the dental and dental education community as commissioned by the ADEA Commission on Change and Innovation in Dental Education 2.0 (ADEA CCI 2.0) to focus on how changes and trends in several domains of interest external to dentistry are having a global impact on the content and delivery of health care, health professions education and research, and, ultimately, how health care can benefit patients. This article is by invited authors who are members of the ADEA CCI 2.0, but it does not necessarily reflect the views of ADEA, individual members of the ADEA CCI 2.0, or the *Journal of Dental Education*. The manuscript was reviewed by the ADEA CCI 2.0 directors and Steering Committee.

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