Diabetes: Interprofessional Management of A Public Health Crisis - A Collaborative Effort of Dentists, Physicians, and Diabetes Educators

Wanda Gonsalves, MD
Jerry Brown, DMD, CDE
Donna Jornsay, MS, BSN, CDE

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Jerry Brown, DMD, CDE
- Speakers’ Bureau: Colgate Oral Health Speakers Network (Oral Health/Systemic Disease)

Donna Jornsay, MS, BSN, CDE
- Advisory Board: Glooko (glucose pattern recognition software)
- Honorarium: BD (lipohypertrophy and healthy injection sites)
- Speakers’ Bureaus: Astra Zeneca (new diabetes medications)
- Stock/Bond Holdings: Medtronic (insulin pumps and glucose sensors)

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Wanda Gonsalves, MD

Professor/Vice Chair, Department of Family and Community Medicine, University of Kentucky (UK) College of Medicine, Lexington

Dr. Gonsalves has served in her current positions at the UK College of Medicine since November 2013. As Vice Chair, she is responsible for strengthening the entire spectrum of her department’s contributions to education, and she has developed and implemented a mentoring and faculty development program. From 2014 to the fall of 2016, Dr. Gonsalves was co-faculty for Faculty Development for Family Medicine Faculty: Developing Leaders in Residency Training and Scholars in Cultural Competency, a one-year fellowship at White Memorial Medical Center, Los Angeles, California. Currently, she is focused on improving the health care workforce and mitigating shortages of well-trained primary care physicians through learner recruitment and advancement of curriculum design and delivery. Other scholarly interests include service learning, interprofessional education, and oral health for primary care clinicians, and she has published on these topics. She has also lectured on oral health topics locally and nationally and is one of the co-authors of the award-winning Smiles for Life: A National Oral Health Curriculum. Dr. Gonsalves has served on the boards of numerous organizations, including the Pisacano Leadership Foundation, the Journal of the American Academy of Physician Assistants (JAAPA), and the National Commission on Certification of Physician Assistants. Prior to joining the UK College of Medicine faculty, Dr. Gonsalves was the Associate Dean for Resident Inclusion and Diversity Education at the Medical University of South Carolina, Charleston.
Jerry Brown, DMD, CDE

Health Learning Facilitator, Department of General Internal Medicine, University of South Florida (USF), Tampa

Dr. Brown graduated from Tufts University School of Dental Medicine in Boston, Massachusetts, and practiced clinical dentistry in Massachusetts and Florida. Recognizing the special oral and medical health considerations of his dental patients who had diabetes, he focused on how to provide the best care for this segment of his patient population. After retiring from clinical practice, he received 2,000 hours of intense training to become the first—and only—dentist in the country to achieve board certification as a diabetes educator. He practices in that capacity in USF’s Department of General Internal Medicine. Dr. Brown created a curriculum for group diabetes sessions at the university and has had articles published in several endocrine journals. He serves on the Advocacy Committee of the American Diabetes Association (ADA) and has also served on the ADA's Community Leadership Board. He is a consultant for the Polk County School Board in Florida and travels across the United States delivering presentations on diabetes and oral health. Recently, he was chosen to represent the Academy of General Dentistry (AGD) as part of its Diabetes Task Force, which is a collaborative effort of dentists, physicians, and diabetes educators engaged in tackling the public health crisis of diabetes as part of an integrated team of health care professionals.

Donna Jornsay, MS, BSN, CDE

Diabetes Program Manager/Clinical Specialist, Mills-Peninsula Medical Center, Burlingame, California

Jornsay has worked as a certified diabetes nurse educator and nurse practitioner for more than 30 years and is firmly committed to improving the health and education of all people living with diabetes. She has been the clinical coordinator of several diabetes and pregnancy programs and currently manages the Sweet Success program at Mills-Peninsula Medical Center. She also has experience as a pediatric nurse practitioner (PNP) for children who have chronic illnesses and a PNP supervisor, and she has worked in both private practice and university-based clinical programs in pediatrics, adult medicine, and high-risk obstetrics. Earlier in her career, Jornsay worked in the diabetes industry as a clinical scientific liaison for Abbott Diabetes Care and as a clinical nurse specialist for Medtronic Diabetes. In these roles, she gained experience in research and development and sales, as well as experience in the training and management of patients using continuous glucose monitoring and insulin pump therapy.

In her current position, Jornsay is responsible for a group of nine certified diabetes educators (CDEs) who provide inpatient and outpatient diabetes education, and she leads staff development and quality improvement in the care of patients who have diabetes. As an expert on diabetes education topics that include diabetes and pregnancy, continuous glucose monitoring, and insulin pump therapy, she lectures worldwide and has published extensively, authoring abstracts and articles for numerous diabetes journals and chapters on diabetes and pregnancy for several editions of the Diabetes Core Curriculum Workshop.
Learning Objectives

1. Identify the current impact of Diabetes.
2. Explain the bidirectional relationship between Diabetes and Oral Health.
3. Describe ways that dentists, physicians, and diabetes educators can help mitigate the problem.
4. Discuss ways to facilitate communication between the healthcare professions, and with people living with Diabetes.
5. Encourage and facilitate patient referrals between dentists, physicians, and diabetes educators.

A Collaborative Effort
The Pandemic of Diabetes

30 million people living with Diabetes in the US! (7 million unaware of their disease!)

84 million people classified with Prediabetes! (90%, or 76 million unaware!)

25% of all seniors (~12 million) living with Diabetes!

It is estimated, that on average 7-10 years elapses before T2DM is diagnosed!

For every 1,000 patients you see 350 of them are likely to be metabolically challenged!!!

National Diabetes Statistics Report, 2017

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$327 Billion in Medical Costs/ Year


$237 billion for direct medical costs.

$90 billion in reduced productivity.

32% of Medicare Dollars Go To Treat Diabetes.

Leading cause of: Kidney Failure, Blindness, Atraumatic Limb Amp

Diabetes is the seventh leading cause of death in the US.

Diabetes Task Force

• A joint effort by the:
  
  Academy of General Dentistry
  American Academy of Family Physicians
  American Association of Diabetes Educators

• Goal:
  To promote integrated management and communication of dentists, physicians, and diabetes educators in an effort to improve outcomes of people living with diabetes.

Diabetes Task Force Launched by 3 Leading Health Organizations

• Academy of General Dentistry (AGD)

• American Academy of Family Physicians (AAFP)

• American Association of Diabetes Educators (AADE)
Academy of General Dentistry

- Professional organization of over 40,000 dentists
- The AGD is a nonprofit international organization with 37,000 member dentists from the United States and Canada. It was founded in 1952.
- The AGD strives to provide the best possible patient care through its dedication to the continuing dental education of its members. In addition, it provides the public with information to help make informed choices about personal dental care and treatments.

American Academy of Family Physicians

- Represents 129,000 physicians and student members nationwide.
- The only medical society devoted solely to primary care.
- Founded 1969
- Family physicians conduct approximately one in five office visits
- 192 million visits annually
- 48 percent more than to the next most visited specialty.
- Unlike other specialties that are limited to a particular organ or disease, family medicine integrates care for patients of all genders and every age, and advocates for the patient in a complex health care system.
American Association of Diabetes Educators

- AADE is a multi-disciplinary professional membership organization dedicated to improving diabetes care through innovative education, management, and support.
- 14,000 professional members including nurses, dietitians, pharmacists, exercise specialists, and others
- AADE has a vast network of practitioners working with people who have, are affected by, or are at risk for diabetes.

Diabetes Task Force Presentations

- Academy of General Dentistry: June 8, 2018
  New Orleans, LA

- American Association of Diabetes Educators: Aug 18, 2018
  Baltimore, MD

- American Academy of Family Physicians: October, 13, 2018
  New Orleans, LA
So why form a Task Force?
The research shows:

<table>
<thead>
<tr>
<th>People with Diabetes (PWD)</th>
<th>Providers</th>
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<tr>
<td>• Don’t follow through on referral</td>
<td>• Know importance of Diabetes Education, but don’t necessarily prescribe – or don’t prescribe definitively enough</td>
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<tr>
<td>• Are emotional / shocked at diagnosis</td>
<td>• Sometimes forget to follow up with PWD to encourage attendance</td>
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<tr>
<td>• End up relying on family / friends</td>
<td></td>
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<tr>
<td>• Believe they know enough / can handle it on their own</td>
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Treating People With Diabetes

- Enabling PWD to help themselves
- Balancing priorities and goals

Demands on your practice are escalating
Strategies of the Task Force thus far:

1. Developed Forms used to exchange information between physicians and dentists
   a) Forms for dentist to use for referral to physicians
   b) Forms for physicians to use for referral to dentists
2. Developing a Shared Database and EMR to increase access to information
3. Creation of this presentation to educate the professions on how we can and should work together.

Diabetes Educator

Diabetes educators are healthcare professionals who focus on helping people, with and at risk for diabetes and related conditions, achieve behavior change goals which, in turn, lead to better clinical outcomes and improved health status. Diabetes educators apply in-depth knowledge and skills in biological and social sciences, communication, counseling and education to provide diabetes self-management training and support.
Who are Diabetes Educators?

- Registered Nurse
- Registered Dietitian
- Pharmacist
- Nurse Practitioner
- Podiatrist
- Exercise Physiologist
- Social Worker
- Physician
- Dentist
- Physical Therapist
- Health Educator

Role of the Diabetes Educator

- Helping to direct/refer patients for other health needs
  - Dental assessments
  - Ophthalmology referrals
  - Podiatry referrals
- Education and demonstration of the AADE7™ Self-Care Behaviors
How Do Diabetes Educators Help?

• **AADE7™ Self-Care Behaviors:**
  - Healthy eating
  - Being active
  - Monitoring
  - Taking medication
  - Problem-solving
  - Healthy coping
  - Reducing risks

Healthcare Professionals Providing Empowerment To Self-Manage A Chronic Disease

**Oral Healthcare Professionals:**
- Physical assessment of health/disease.
- Share information about oral health maintenance behaviors.
- Prescribe/suggest therapeutic agents to improve disease mgmt.
- Supervise/instruct proper self-management modalities (oral hygiene, appliances).
- Rely on patient’s self-mgmt. for positive outcomes.

**Diabetes Educators:**
- Physical assessment of health/disease.
- Share information about health maintenance behaviors.
- Prescribe/suggest therapeutic agents to improve disease mgmt.
- Supervise/instruct proper self-management modalities (inject, insulin pumps, Continuous Glucose Monitor).
- Rely on patient’s self-mgmt. for positive outcomes.
Partner With a Diabetes Educator

**We help you:**

- Help PWD improve outcomes
- Help delay onset of diabetes
- Track and monitor progress
- Increase efficiency
- Meet pay-for-performance and QI goals

Partner With a Diabetes Educator

**We help:**

- Develop self-management skills
- Achieve better metabolic control
- Improve lipid levels
- Reduce blood pressure
Role of the Family Physician and team in treating the PWD

- Comprehensive care of the whole person.
- Prevention and chronic illness care
- Anticipatory guidance and preventive counseling
- Review history, medications
- Physical exam
- Lab work for diagnosis and/or follow up

- Assure annual retinal exam
- Assess systems high risk for co-morbidity: oral, cardiovascular, renal, ophtho
- Assess lifestyle and counsel regarding needed changes
- Assess and administer appropriate immunizations
- Assure proper patient education

When physicians should refer PWD to dentists.

- Right after the initial diagnosis of Diabetes Mellitus.
- When the gums, tongue, cheeks, or floor of mouth appear red.
- When spontaneous bleeding/pus is noticed around gums.
- After determining that more than 3-4 months has elapsed since last dental maintenance visit.
- When there are loose, or missing teeth.
- When there are complaints of pain, burning, or swelling.
- When you are able to see the root surfaces of many teeth.
- When the biting surfaces/sides of teeth appear broken, brown, or black.
When physicians should refer to the diabetes educator

The DSMES Position Statement describes when, what and how to best provide DSMES. Ensure nutrition, education and emotional health needs are met.

There are 4 critical times to assess, adjust, provide and refer for DSMES.
When dentists should refer to physicians

When patients tell you:
• They have not had a physician’s visit in the past 3-4 months.
• They have classic symptoms of Diabetes.
• They don’t remember when their most recent HbA1C was taken.
• Their self-monitoring test results are usually elevated.
• They have stopped taking some/all of their medications.
• They no longer self-monitor their BG.
• They have not had a dilated eye exam in the past year.
• They have not had a foot examination in the past year.

When patients have:
• Elevated blood pressure.
• Elevated BMI.
• Elevated HbA1C after screening.
• A positive biopsy of a suspicious oral lesion.
Rationale for including specific fields of information in both forms.

- Facilitate communication between the professions.
- Provide for the sharing of critical information to avoid errors and omissions.
- Provide a quick way to alert the dentist of the reason for making a referral.
- Makes the referral process fast and convenient which can only help to improve outcomes.
Advantages of the exchange of information by professionals with patients.

- Consistent messaging from all healthcare professionals can reinforce behavior change.
- Knowledge empowers patients to self-manage their chronic diseases.
- We can no longer afford to assume that everybody fully understands what may, or may not impact their health.
- Patients that are fully involved in their healthcare are more likely to be part of a successful outcome.

When we work together…

[Diagrams showing the impact of treating gum disease on medical costs and hospital admissions]
Dental & Medical Screens

- Dentists willing to screen for:
  - Hypertension (85.8%)
  - CVD (76.8%)
  - DM (76.6%)
  - Hepatitis (71.5%)
  - HIV (68.8%)

- Respondents willing to refer for consultation with physicians (96.4%)


Medical Acceptance

- Dentists should screen:
  - CAD, HTN DM, HIV (61-77%)

- Willing to discuss results with dentist (76%)

- Accept patient referrals (89%)

J Pub Health Dent 2015; 75(3):225-233
Patients Acceptance

- 55-90% approve screening by dentist for:
  - Heart disease
  - Diabetes
  - Hypertension
  - HIV
  - Hepatitis

- 48-77% of respondents opinion of the dentist would improve regarding:
  - Professionalism
  - Knowledge
  - Competence
  - Compassion


Figure 6.1: Referral workflow from a primary care practice to a dental practice

Hummel et al. Organized, Evidence-based Care Supplement: Oral Health Integration, Qualis Health 2016
The Ultimate Goal

Physicians → Dentists → Diabetes Educators → Electronic Medical Records

The Sharing of Information to Benefit Patients
Questions

Contact Information

Jerry Brown, DMD, CDE
brow1jer@gmail.com

Wanda C. Gonsalves, MD
wanda.gonsalves@uky.edu

Donna Jornsay, MS, BSN, CDE
djornsay@gmail.com