Introduction to Patient Care in an Interprofessional Educational Model: My First Patient

- Travis White, Pharm.D., BCACP
- Louise T Veselicky, DDS, MDS, MEd

- HSC InterProfessional Education (IPE) Speaker Series
Objectives

- Describe the theory behind the “My First Patient” program.

- Discuss the evolution of “My First Patient” into the IPE format.

- Describe successes from the “My First Patient” expansion.

- Describe the IPE introduction to patient care utilizing the My First Patient model.
My First Patient Educational Goals

*Practice What You Preach*

Will understanding the process of behavioral change firsthand enable you to be a more empathetic provider?
My First Patient History

- Started with the School of Pharmacy in 2008

- Involved two groups of students
  - First Year pharmacy students: Served as “patients”
  - Third Year pharmacy students: Served as “providers”

- Spanned two semesters
  - Fall Semester: Initial health screening, creation of health goal
  - Spring Semester: Repeat health screening, evaluation of goal progress
Evolution of My First Patient

- Trialed expansion into other disciplines during summer Health Careers Opportunity Program (HCOP)
  - Small group of pre-professional students from Dentistry, Medicine, and Pharmacy
  - Received health screening and dental examination
  - Faculty from each school explained the results to the students
  - Presented a case that utilized expertise from each discipline
First Year Expansion

- Expanded MFP program to all Dentistry, Medicine, and Pharmacy students in August 2013
  - Increased from 10 HCOP students to 270 first year professional students
  - Upper level dental students provided dental examinations
  - Third year pharmacy and second year medical students provided health screenings
IPE Objectives for “Learners”

- Increase awareness of the roles of each health care provider

- Facilitate inter-professional relationships and collaboration

- Provide dental and health screenings to a large number of health professional students by their peers

- Develop a more empathetic group of graduates in a variety of disciplines
My First Patient Goals

- **First Year Students**
  - Gain awareness of personal health status and behaviors
  - Identify and implement plan to improve health
  - To see the healthcare process through the “patient’s” perspective
  - Engage in hands on work with students of multiple health professions

- **Upper Level Students**
  - Gain skills in basic health assessment tools
  - Practice in written and oral communication skills
  - Engage in hands on work with students of multiple health professions

**Practice What You Preach**
Will understanding the process of behavioral change firsthand enable you to be a more empathetic provider?
MFP- Student treats him/herself as their first patient

Fall Semester
- Health Behavior Survey (electronic, anonymous)
- Dental & Health Screening Visit
- Health goal setting talk (early in Sept)
- Set a goal and submit
- Attend at least 1 Health Topic talk

Spring Semester
- Health Behavior Survey
- Follow-up Health Screening Visit (dental +/-)
- Attend at least 1 Health Topic talk
- Reflective narrative of your challenges to fulfill your action plan
Health Behaviors Survey

- Anonymous questionnaire
- Asks a variety of health behavioral questions
  - Awareness of health values
  - Perceptions of health
  - Exercise/Physical activity
  - Stress levels
  - Sleep habits
  - Frequency of healthcare visits
  - Substance abuse
  - Family/Medical history
Health Behaviors Results

- Health Awareness
  - 92.4% had fasting blood glucose
  - 85.1% fasting lipid profile

- Health care visits within last 12 months
  - 84.2% saw general practice doctor
  - 63.7% of females visited OB/GYN
Dental Objectives

- Student is introduced to the concept of oral health assessment being a part of a comprehensive “health assessment”

- Student can describe the status of his/her own oral health

- Student is able to articulate the personal oral health behaviors needed to attain and maintain good oral health
Health Behaviors Survey

<table>
<thead>
<tr>
<th>Last dental visit</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 months or less</td>
<td>69%</td>
</tr>
<tr>
<td>6 months – 1 year</td>
<td>15.3%</td>
</tr>
<tr>
<td>1 – 2 years</td>
<td>8.8%</td>
</tr>
<tr>
<td>2 – 5 years</td>
<td>5.4%</td>
</tr>
<tr>
<td>More than 5 years</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

Only 10.9% of respondents reported having a dental condition
Dental Exam Findings:

- _____ Your teeth, gums, oral soft tissues appear to be healthy
- _____ We suggest that you continue to receive regular dental care which would include regular professional cleanings to remove plaque and other deposits.
- _____ We suggest that you follow up with an oral health care professional due to possible
  - Caries
  - Evidence of Gum Disease
  - Other (23 categories)

Note: Dental screenings were only done once in the Fall Semester. If additional dental work was needed, the students were encouraged to establish care at the dental clinic or elsewhere as desired.
Oral Screening Activities:
Oral Health Thread in the SOM Curriculum

MS I
- Oral Health lectures part of ENT series
- Mandatory Dental Shadowing

MS II
- Completion of MedEdPORTAL/Smiles for Life Module 7: Oral Examination part of ENT

MS III
- Oral Health Considerations in simulated patient exams

Medical, Pharmacy, and Dental First Year students receive a dental exam from 3rd and 4th year dental students with faculty supervision

Family Medicine – Smiles for Life: Relationship of Oral to Systemic Health and Acute Dental Problems
- Pediatric – Smiles for Life: Child Oral Health and Fluoride Varnish
- OB-GYN – Smiles for Life: Oral Health and the Pregnant Patient
- Internal Medicine – Smiles for Life: Adult Oral Health and Geriatric Oral Health

MS III-IV
Oral Screening Examination Results

2013-2014  preliminary, unpublished data

- 63.2% of the 250 first year students screened had some sort of oral health issue such as:
  - Evidence of gum disease  12.8%
  - Wisdom teeth concerns  17.5%
  - Other 32.9%
    - need for sealants, incipient lesions, fractures, root resorption, developmental defects, broken fillings, cavities (38% of the other had caries), grinding & need for mouth guard, cyst, ulcers, etc.
Health Screening

- Vitals (blood pressure, heart rate, respiratory rate)
- Body composition (weight, BMI, body fat percentage)
- Point of care blood testing (fasting lipid profile, fasting blood glucose, hemoglobin A1C, hemoglobin/hematocrit)

Health screening was performed for all students each semester (but was limited to what students needed repeated in the Spring)
Biometrical Data Results
2013-2014 preliminary unpublished data

- 33% all MFP Overweight or Obese
  - 22% overweight (BMI = 25-30)
  - 11% obese (BMI ≥ 30)
  - 26% W, 41% M
- 9% all MFP High Blood Pressure (S ≥140 or D ≥90)
  - 6.5% W, 12% M

US stats: 55% W, 61% M are overweight or obese
20-34 yo 4%W, 7% M have HTN
Lab Data Results
2013-2014 preliminary unpublished data

- 2% all MFP had **high Total Cholesterol** (nl ≥ 240)
  - 1.5% F, 1.7% M)
- HDL (good cholesterol, nl ≥ 40) ranged 23-130
- LDL (bad cholesterol, nl ≤ 130) ranged 21-213
- Triglycerides (fats, nl ≤ 150) ranged 45-505
- Fasting Glucose (nl 60-100) ranged 64-124
- HbA1C (indicator of DM, nl < 7.5) ranged 3.4-11.9

US stats: 7% F, 8.5%M Cholesterol ≥ 240)
20-34 yo
## Results Improving?

<table>
<thead>
<tr>
<th>Variable</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systolic Blood Pressure</td>
<td>118.7</td>
<td>121.2</td>
</tr>
<tr>
<td>Diastolic Blood Pressure</td>
<td>76.3</td>
<td>77.0</td>
</tr>
<tr>
<td>Body Mass Index</td>
<td>24.2</td>
<td>25.4</td>
</tr>
<tr>
<td>Total Cholesterol</td>
<td>168.4</td>
<td>182.2</td>
</tr>
<tr>
<td>Fasting Glucose</td>
<td>88.2</td>
<td>94.8</td>
</tr>
</tbody>
</table>
Follow Up Appointment
First Year Experience

- Medical and Pharmacy students assigned “patients”
  - Most students have 3-4 patients
    - At least one from each discipline (dentistry, medicine, pharmacy)
- Students scheduled times to meet with their patient
  - Each interaction was planned to be 10-15 minutes
- Meetings were recorded in order to provide review and evaluation
Follow Up Appointment
Results Discussion and Goal Setting (New Format)

- Group interaction in a classroom setting
  - Review of health screening results as interdisciplinary group
  - Education about values and normal ranges
- Facilitate setting of a SMART health goal
Results Discussion and Goal Setting
Goals Summary

- Weight
- BP
- Cholesterol
- Glucose
- Oral Health
- Stress Mgmt
- Sleep Habits
- Tobacco Cessation
- Healthy Eating
- Physical Activity
Health Topic Presentations

- **Fall Semester**
  - Nutrition and Meal Planning
    - Melissa D. Olfert, DrPH, MS, RDN, LD
  - Stress Management
    - Kimberly P. Foley, PhD
  - Starting an Exercise Program
    - Emidio Pistilli, PhD

- **Spring Semester**
  - Oral Health
    - Louise Veselicky, DDS, MDS, MEd
MFP IPE Successes

“My First Patient allowed me to receive exams that I hadn’t had before and be reassured by normal results. Interacting with other health fields was also a positive experience. The dental screening allowed me to meet D4’s before I began classes; they offered helpful advice and were very encouraging. It was also my first experience in the dental clinic and exemplified what I will be doing in the future. The exams done by pharmacy students provided the most insight into my health. I was surprised to find pharmacy students administering these tests; I had expected nursing or medical students to be taking our vitals and blood tests. It was enlightening to know that pharmacy students are trained for these procedures. The follow-up appointment with the medical student was also a new interaction with another field and her advice was thoughtful and helpful.”
“This program also helps to expand students’ knowledge of what the other professional students are learning and how the schools are integrated with one another. A health screening is performed by the School of Pharmacy and then followed up by medical students, while the School of Dentistry performs an oral exam on the student. This also allows the new students to get to know others in the upper classes and learn about their previous experiences in professional school.”
Branching Out

MFP

SOD
SOM
SOP

HCOP
HSTA
Future Discussions

- Expansion to other schools in HSC and beyond
  - More students screened
  - Utilizing the expertise of various programs

- Increase ownership within each school

- Identify new ways for students to interact

- Evaluate impact on inter-professional attitudes and relationships
Questions