Guiding Pharmacy Students To Adopt A Patient-Centered Practice:

Exploring The Problem Of Medication Non-Adherence

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Outline

- **Background**
  - Pharmacy education
  - Adherence to bisphosphonate therapy
  - Research question

- **Method and Deliverables**
  - Using the PASSAction framework

- **Implications**

- **Discussion for the audience**
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Pharmacy Education
Pharmacy Education in Canada

- Science and therapeutics of drugs
  - Pathophysiology (what is this disease? how does it present?)
  - Therapeutics (how do you treat it? i.e., which drugs?)
  - Pharmacology (how does the drug work at a molecular level?)
  - Pharmacokinetics (how does the drug work at a kinetics level?)
  - Medicinal chemistry (what is the chemical structure of the drug?)
Pharmacy Education at UW

- Application of knowledge in patient care
  - Indication
  - Effectiveness
  - Safety
  - Adherence
What is Adherence?

- The extent to which a person’s behaviour, such as taking medications, following a diet and/or executing lifestyle changes, corresponds to agreed-upon recommendations from a health care provider.
How UW pharmacy students assess adherence in paper cases

- Does the patient prefer not to take the drug?
- Does the patient understand the directions for use?
- Does the patient forget to take the drug?
- Is the drug too expensive for the patient?
- Can the patient swallow/administer the drug?
- Is the drug available?
How UW pharmacy students assess adherence in paper cases

- Does the patient prefer not to take the drug?
- Does the patient understand the directions for use?
- Does the patient forget to take the drug?
- Is the drug too expensive for the patient?
- Can the patient swallow/administer the drug?
- Is the drug available?

No issues
Assessing adherence

- We should never assume

- “Drugs don’t work in patients who don’t take them” – C. Everett Koop, M.D.
Adherence to Bisphosphonates

- Bisphosphonates
  - chronic medications for treatment and prevention of osteoporosis

- Importance of adhering to bisphosphonates?
  - Osteoporosis poses a significant burden to health and health care costs
  - Adhering to medications is key to preventing osteoporosis and/or fragility fractures
Adherence to Bisphosphonates

- Bisphosphonate adherence is poor
  - 20-30% discontinue the drug as early as within 6 months

- Patients need to take bisphosphonates consistently for at least 6 months to derive benefit from therapy
Research Question

- How can adherence to bisphosphonates be improved in community pharmacy practice?
Using the PASSAction Framework
The PASSAction Framework

P
Problem or patient encounter

ACTION
Put your strategy to action

A
Adherence factors

SS
Set your strategy
P – Problem or Patient Encounter

P

Problem or patient encounter
P – Problem or Patient Encounter

Patients are not adhering to bisphosphonates
A – Adherence Factors

P  Problem or patient encounter

A  Adherence factors
Adherence Factors

- Complex administration instructions
- Lack of standardized medication information
- Asymptomatic nature of the disease
- Lack of belief in the purpose or benefits of taking the medication
- Lack of trusting and supportive patient-health care provider relationships
SS – **Set Your Strategy**

- **P** Problem or patient encounter
- **A** Adherence factors
- **SS** Set your strategy
How can bisphosphonate adherence be improved?

- Strategies to improve adherence:
  - Use a multifaceted approach
  - Present educational information in multiple forms (audio, visual, tactile)
How can bisphosphonate adherence be improved?

- Complex administration procedures
- Lack of standardized medication information
- Lack of belief in purpose of the medication
- Lack of trusting and supportive relationships with HCPs

- Patient education video
- Medication information leaflet
- Pharmacist follow-up phone call
Intervention 1:
Patient education video

- Describes purpose of the medication
- Demonstrates administration procedures
- Provides tips for establishing a medication-taking system

http://www.youtube.com/watch?v=jdUrTx3UkJw
Intervention 2: Medication Information Leaflet

- Common uses
- How to use the medication
- Possible side effects
Intervention 3: Pharmacist follow-up phone call

- Reinforce the purpose and benefits of taking the medication
- Reinforce proper administration procedures
- Encourage patients to address any questions or concerns about osteoporosis and/or bisphosphonate therapy
How do we measure adherence?

- **ADEOS Questionnaire**: Adherence Evaluation of Osteoporosis
  - Qualitative, patient-reported adherence
  - 12 questions with answer choices
  - Validated:
    - Postmenopausal women with osteoporosis
    - Taking bisphosphonate therapy
Action

P
Problem or patient encounter

ACTION
Put your strategy to action

A
Adherence factors

SS
Set your strategy
Study Design
Patient recruitment at selected pharmacy site

Patients answer ADEOS (pre-intervention)

Patients watch a 3-minute educational video clip and receive information leaflet

Patient receives a follow-up phone call from the pharmacist

Patients answer ADEOS (post-intervention)
Patient recruitment at selected pharmacy site

Patients answer ADEOS (pre-intervention)

Patients watch a 3-minute educational video clip and receive information leaflet 2-3 weeks

Patient receives a follow-up phone call from the pharmacist 2-3 weeks

Patients answer ADEOS (post-intervention) 2-3 weeks
Patient recruitment at selected pharmacy site

Patients answer ADEOS (pre-intervention)

Patients watch an educational video clip and receive information leaflet

Patient receives a follow-up phone call from the pharmacist

2-3 weeks

Patients answer ADEOS (post-intervention)

2-3 weeks
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Patient recruitment at selected pharmacy site

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Patient receives a follow-up phone call from the pharmacist

Patients answer ADEOS (post-intervention)

2-3 weeks
Implications
What can we learn from this?

- Look beyond the “paper case”
- Reflect on co-op experiences and connect the dots
- Students learn to develop a system such as PASSAction to identify and resolve adherence issues as they enter real-world practice
The PASSAction Framework

P
Patients do not adhere to bisphosphonates

ACTION
Play the video in your community pharmacy

A
Complex administration requirements

SS
Design a patient-education video
What can we learn from this?

- Understanding and addressing medication non-adherence is crucial in training pharmacy students to become patient-centered clinicians.
Discussion

- Do you take medications or know of anyone who does?
- How can you apply the PASSAction framework to identify and resolve any adherence issues?

- Additional examples:
  - Patient misunderstands instructions: “take with food”
  - Patient recently diagnosed with diabetes and prescribed 6 new medications
  - As a result of a shortage of a combination drug, a patient began receiving the medication as its 2 component parts
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