Creative Approaches for Teaching Advanced Pharmacology Online to Family Nurse Practitioner Students

Traditional approaches to teaching advanced pharmacology to family nurse practitioner (FNP) students have included lectures, PowerPoint® presentations, use of textbook case studies, and an explanation of pharmokinetics and pharmodynamics of various medication classifications. Recommended course content also includes the legal aspects of prescriptive authority, medication and food reactions, alternative treatments, prescription writing, and medications used to treat a spectrum of common illnesses, such as those used in gastrointestinal conditions (Edmunds & Mayhew, 2009). In formulating the discussion questions for an online course in advanced pharmacology, faculty often search for prompts that will produce varied responses, while covering the necessary information in pharmacology textbooks. With the current focus on health promotion and disease management, a variety of approaches are needed when teaching advanced pharmacology (Burman et al., 2009). These discussion prompts need to stimulate critical thinking and prepare the students in the practical aspects of prescribing in outpatient practice.

Over-the-Counter Medications

An important item for FNPs to consider when treating patients with common health problems is the variety of over-the-counter (OTC) medications available at potentially lower costs to the patient. To stimulate learning in this area, the following prompt was given to students:

Please go to your favorite pharmacy section in your local store and look at what is available for OTC products for dermatitis, anti-itch preparations, anti-infective ointments, and allergy products. Pick a condition and describe what products are available and how much they cost. What are alternative prescription products for this condition?

Students reported enjoying this assignment and discovered many low-cost alternatives for treating conditions such as warts, lice, poison ivy, cerumen impaction, and seasonal allergies.

Writing Their Own Case Scenarios

Students were also encouraged to write their own case studies for conditions such as nausea and vomiting with diarrhea and to come up with alternative diagnoses and treatments. The following fill-in-the-blank prompt was given to stimulate learning:

Mr./Mrs. ______ came home from work and noticed some nausea, cramping in their stomach, and loose stools. For lunch they had ______ and enjoyed it, but noticed ______. Since they were feeling unwell, they went to the bathroom and noticed ______. In the morning, they told their spouse to run to the store and get them ______. Still not feeling well that afternoon, they called their NP who told them ______ and to call if ______. After a few days the nausea and diarrhea subsided, but they still noticed ______. They went to the clinic and their NP ordered ______ tests.

After the results came back, they were found to have ______ and the NP prescribed ______.

Their symptoms resolved in ______ days.

This prompt produced a variety of scenarios involving gastrointestinal illnesses and some creative naming of patients, as well as descriptions of meals eaten.

A case study was then asked to write a case study of a patient with gastrointestinal reflux disease, including presenting symptoms, risk factors, patient teaching on non-pharmacological treatment, OTC and prescription medications, and possible testing.

Practice Writing Prescriptions

A common complaint of preceptors of their new FNP students is that they do not know the correct way to write a prescription. To provide practice in this necessary skill, course prompts included having students write out prescriptions using fictionalized patient and provider names for various conditions. It is important to instruct students to include the diagnosis for which the medication is to be used. Many clinicians fail to include this diagnostic information on prescriptions, which is needed by pharmacists to conduct patient teaching. Practice prescriptions can be included for each classification of medications covered in the course.

Conclusion

Creative approaches are needed by nursing faculty to teach content-rich areas, such as advanced pharmacology, to train their FNP students in the art of prescribing. Effective online learning environments provide motivation and hands-on activities for students and create a real-life context in which students learn new material (Johnson, Aragon, Shaik, & Palma-Rivas, 2000). The incorporation of games into online learning can also be a motivator for learners and may help to provide some variety to the online format. These pedagogical approaches are supported by the need for FNP programs to emphasize disease management and health promotion in their curriculum, as well as the need to vary the type of assignments given in online courses to promote more active learning.

References


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The author has disclosed no potential conflicts of interest, financial or otherwise. doi:10.3928/01484834-20121227-11