USE OF PEP IN THE TEACHING OF CLINICAL PHARMACOLOGY TO MEDICAL AND HEALTH SCIENCE STUDENTS - A THREE-STEP APPROACH TECHNIQUE

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INTRODUCTION

There is a global increase in the use of medication especially with the rapidly ageing populations. More than half of the admission to hospitals are often due to preventable pharmacological problems. Given the reported high rates of adverse events mostly related to medication errors, polypharmacy in the elderly patients, increase complexity of diseases and medications, there is an urgent need for teaching of clinical pharmacology to medical and health science students. The author presents the Pharmacology Education Project (PEP) and a THREE-STEP APPROACH technique in the teaching of clinical pharmacology.

METHODS

1. STEP 1: Activation of learners' prior knowledge. Students are encouraged to activate their prior knowledge of pharmacology with reference to PEP. The core topics for activation and preparation include adverse drug reactions, hypoglycemic agents, analgesics, antithrombotics, anticoagulants, drugs used in cardiovascular disorders and psychotropic drugs.
2. STEP 2: Contextualization of students' learning. Using common and clinically important case scenarios, the teachers, who have in-depth understanding of clinical pharmacology and geriatric patients, as well as the practical experience of prescribing, guide and assist the students to develop relevant conceptual frameworks in pharmacotherapy. The students will be able to comprehend and contextualize the learned pharmacological content and the application in the clinical and geriatric patients.
3. STEP 3: Metacognition. Students reflect on their learning in pharmacotherapy and pharmacokinetics of clinical and geriatric patients, and articulate how they would apply the contextualized knowledge in the future. This leads to students' in depth understanding of pharmacology, as well as to future applications to practice. This will support the notion of training students in self-directed and lifelong learning.

CONCLUSIONS

Using the PEP Web content together with educational principles of activation of learners' prior knowledge, contextualized learners' needs and nurturing metacognition in the teaching of clinical and geriatric pharmacology have been rewarding in the promoting of self-directed and lifelong learning of medical and health science students.