



## Teaching pharmacology using small groups

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I read with great interest the article by Jalgaonkar and others describing the use of role plays and cases in learning pharmacology among medical students (1). Small group learning methods are widely recommended in medical education.

I have been using various small group teaching-learning strategies in pharmacology and other areas for over ten years. I first started using these techniques at the Manipal College of Medical Sciences, Pokhara, Nepal where personal drug selection (2), communication skills (3) and counseling patients were among the exercises carried out. Student feedback about these initiatives was positive.

I had been involved in developing a learning module using predominantly small group learning strategies in pharmacology at KIST

Medical College (KISTMC) in Lalitpur, Nepal. Personal (P) drug selection process, understanding and responding to pharmaceutical promotion, analyzing rationality of prescriptions, evaluating prescribing using simple indicators, communicating drug and non-drug information to simulated patients were among the areas covered (4).

Case-based learning can be used to address a variety of topics in pharmacology. Cases can also be used to integrate pharmacology with other basic science and clinical disciplines. However, assessment methods may have to be modified in line with the learning methods adopted. Assessment drives learning and if the new subject areas and learning methods are not reflected in the assessment then students may not concentrate on these. At KISTMC we were able to modify our practical assessment to adequately

address these areas and assess competencies expected to be developed by students (5). A major problem may be the fact that medical schools in India and many other countries have little freedom in formulating their methods of assessment. We had the same situation in Nepal but luckily had more freedom with regard to practical assessments.

Small group teaching-learning strategies are more resource intensive especially in terms of trained facilitators. Recently many innovations have tried to reduce the number of facilitators required. One or two facilitators moving among the different small groups and involving students more in group dynamics and processes have been tried. In KISTMC we have two or three facilitators for a batch of 50 students who work in five small groups of ten students each. Students assign themselves roles of group leader, time keeper, recorder and presenter which are rotated during different sessions.

I do agree that if we only look at the time required for the activity it is greater than that required for lectures. However, active learning strategies have significant benefits in terms of retention of information, its application and preparing students for self-directed learning which have been mentioned by the authors. Students in South Asia and other developing countries may initially face more challenges with active learning methods as school education mainly concentrates on the memorizing and recall of facts.

At present I have started small group learning in pharmacology at the Xavier University School of Medicine (XUSOM) in Aruba, Dutch Caribbean. XUSOM has the advantage that the class sizes are small (25 to 30 students) and the student body mainly from the United States and Canada has been exposed to more active learning during their earlier education. Problem-based learning in pharmacotherapy using national essential medicine lists and standard treatment guidelines has been recommended as a key intervention to improve the use of medicines (6). The authors deserve praise for their initiative and should now work towards greater use of small group learning

strategies in pharmacology and other areas in their medical school

## Reference

1. Jalgaonkar SV, Sarkate PV, Tripathi RK. Students' perception about small group teaching techniques: role play method and case based learning in pharmacology. *Education in Medicine Journal* 2012; 4(2): e13-e18.
2. Shankar PR, Subish P, Gyawali S, Mishra P, Mohan L. Personal drug selection: Problem based learning in pharmacology: experience from a medical school in Nepal. *PLoS One*. 2007;2:e524.
3. Ravi P Shankar, Arun K Dubey, Pranaya Mishra, Vibhavri Y Deshpande, Chandrasekhar TS, Shivananda PG. Student attitudes towards communication skills learning in a medical college in western Nepal. *Educ Health*. 2006;19:71-84.
4. Shankar PR, Jha N, Bajracharya O, Shrestha R, Thapa HS. Teaching Pharmacology at a Nepalese Medical School: The Student Perspective. *AMJ*. 2010;1:14-22.
5. Shankar PR, Gurung SB, Jha N, Bajracharya O, Ansari SR, Thapa HS. Practical assessment in Pharmacology at a new Nepalese medical school. *J Clin Diagn Res*. 2010;4:3314-3316.
6. Laing R, Hogerzeil H, Ross-Degnan D. Ten recommendations to improve use of medicines in developing countries. *Health Policy Plan*. 2001;16(1):13-20.