Science-Practice Integration with Team Based Learning (TBL)

Authors: Jason Hall, Harsha Parmar, Alain Pluen and Sally Freeman. Manchester Pharmacy School, The University of Manchester

Background: Future healthcare professionals must be able to integrate their learning and apply it to patient care. Avoiding compartmentalisation of learning in modular programmes has challenged educators for many years. It is important to support students as they make the links between different parts of the curriculum and work towards becoming independent, critical thinkers.

Method: The units in the 1st year of the programme are assessed via a single integrated examination at the end of each semester. The programme started with an induction comprising of two TBL sessions on asthma and drug stability designed to set out the expectation of integrating science and practice and preparing students for the integrated examination. The pre-reading for the TBL sessions included relevant articles from the professional literature, pharmacy reference sources and patient information. Students (n=156) were asked to comment of the introduction of TBL in induction week using an online anonymous survey.

Results: All students prepared well, with very good sets of marks in the individual and team Readiness Assurance Tests (iRAT and tRAT). The iRAT means were 72% and 80% whilst the tRAT means were 96% and 97%. The TBL sessions involved case studies drawing on team discussions involving pharmaceutical chemistry, formulation science, metabolism, dispensing and drug-drug interactions. The discussions were facilitated by both science and practice staff, which promoted the importance of integration. 64 (41%) students completed the online survey. 80% of those students who responded felt it was useful to hear others opinions during the TBL discussions and 79% felt the application exercises were applicable to real life.

Conclusion: A majority of pharmacy students, who responded to the survey, thought TBL in the first year induction was a positive learning experience. The TBL sessions have set the expectation of pre-learning/preparation for all teaching sessions and science-practice integration throughout the programme.