

Impact of Clinical Simulation on the Clinical Competence of Medical Students Clerkship Training

Adla Bakri Hassan, PhD (Sweden), PG RCP (UK), PgDip (Spain)* Abdelaziz Elamin, MRCP (UK), FRCP (London), FRCPC (UK), PhD (Sweden), FAACE (USA)**Ahmed Abdel Kareem Jaradat, BSc, MSc, PhD***

Background: Simulated Patient Case (SPC) software is a powerful educational tool used in several medical colleges to augment the clinical competence of students.

Objective: To evaluate the impact of this software on the clinical competence of medical students.

Design: A Prospective Pilot Study.

Setting: Arabian Gulf University, Bahrain.

Method: One hundred five fifth-year medical students attending internal medicine clerkship were divided into two groups: 43 (41%) students used the DXR software (group A) and 62 (59%) students did not use the software (group B). The grades obtained at the end of clerkship examination of the students who used the SPC software (DXR) (group A) was compared to the grades of the students who did not use the software (group B). In addition, we compared the performance of this cohort using DXR in year 4 with their grades at the end of clerkship examination. P-value of < 0.05 was considered statistically significant.

Result: Group A students performed better than group B at the end of the clerkship exam, which revealed that the differences in the mean scores were statistically significant (P-value < 0.030). A positive correlation between the students DXR scores in year 4 and their grades in clerkship exam (year 5) was found. The correlations between the DxR (SPC) scores and the student's scores of different exam components (SAQs, OSCE, mid-rotation, bed-side and clinical exams) was statistically significant (P-value=0.01).

Conclusion: The beneficial effect of the DXR SPC software on clinical competence was revealed. Therefore, we recommend it for students' clerkship training.