ASSOCIATIONS BETWEEN PHARMACY PREREQUISITES AND OSCEs AT THE UNIVERSITY OF SASKATCHEWAN

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Objective: To identify academic prerequisites associated with interactive and non-interactive Objective Structured Clinical Examinations (OSCE) performance in the undergraduate pharmacy program at the University of Saskatchewan (U of S).

Design: Retrospective data consisted of the final grades of prerequisite courses and OSCE scores of 1183 students admitted to the undergraduate pharmacy program of the U of S from 2003 to 2017. Interactive and non-interactive OSCE scores from four sets of OSCEs in years 3 and 4 of the pharmacy program (Phar 465 and Phar 565) were calculated. Associations between OSCE scores and prerequisites were analysed using Pearson correlation and stepwise linear regression.

Results: Few significant correlations seen between the BSP prerequisites and OSCE scores. A large number of statistically significant correlations found with the Pharm D prerequisites; however, these correlations were uniformly weak (0.10 to 0.20). Courses in Biochemistry, Math, Microbiology, Nutrition, and Physiology showed the strongest association with interactive OSCEs. The strongest associations with non-interactive OSCEs seen with Math, Microbiology, and Statistics.

Conclusions: OSCEs assess a range of clinical skills including verbal communication, professional judgement, application of knowledge, and problem solving ability; thus, OSCEs might serve as an important proxy for measuring future clinical success (McLaughlin et al, 2015). Our previous research identified strong associations between persistent academic success in the pharmacy program and prerequisites seen to require higher-level learning skills such as knowledge organization, skill mastery and knowledge synthesis and application (Krol, Dobson & Adesina, 2019). The weakness of the associations between the prerequisites and OSCEs, while consistent with other findings in the literature, suggests limits to the scope of clinical and problem-solving skills currently assessed at the U of S (and possibly other training centres) as they relate to higher-level learning.

References