Clinical reasoning skills are essential to the practice of medicine, but difficult to assess in learners. After a curriculum overhaul in 2018, this program’s faculty hypothesized that the new clinical presentation-based approach would enhance acquisition of clinical reasoning skills. To assess learners’ clinical reasoning, script concordance testing (SCT) was utilized. SCT has been developed and validated in several studies and is based on the theory that clinical reasoning develops as pattern recognition (scripts) when learners are presented with clinical cases. The scripts are used to apply key features of a patient’s clinical presentation to confirm or rule out hypothesis in the differential diagnosis. The learner’s decision to increase or decrease the probability of a given diagnosis can then be quantified.

The following is a sample assessment from the SCT assessment tool. The case is followed by a matrix that asks the assessment taker to consider a specific diagnosis and consider how an additional piece of information influences the likelihood of the diagnosis from very likely (+2) to very unlikely (-2).

Case 3: A 79 year old male presents to the ED with confusion for 2 days duration. He was transferred by his assisted care facility for evaluation. He has a history of depression. He has had no previous episodes of confusion. He has had Type II diabetes for 2 years. And then you find:

- Acute psychoses
- Urinary tract infection
- Cerebral vascular accident
- Dementia
- Acute psychoses

If you were thinking: He has had Type II diabetes for 2 years. And then you find: He is afebrile. This diagnosis becomes:

- Cerebral vascular accident
- Urinary tract infection
- Dementia
- Acute psychoses

\[ t (73) = 0.23, \ p = 0.4 \text{ (1-tail) }, \ t_{\text{critical}} = 1.66 \]

The results of the SCT assessment of each cohort was analyzed using the University of Montreal Script Concordance Calculator to calculate a clinical reasoning score for each learner. There was not a significant difference in clinical reasoning abilities between the two cohorts. There was not a significant difference in clinical reasoning abilities between the two cohorts.

Conclusions

- This study demonstrates that differences in didactic physician assistant education may not enhance the clinical reasoning of learners.
- Other factors such as critical thinking skills, and supervised clinical experiences likely play a substantial role in clinical reasoning development.
- Limitations of this study include a small number of learners, and a larger sample size may detect differences.

References