The Quality of **INTEGRATED ILLNESS SCRIPTS** Developed by Senior Students in A Medical Pharmacology Elective

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BACKGROUND & PURPOSE

Cognitive integration (CI) is a process that occurs in the minds of learners and experts who engage in clinical reasoning. Cognitive integration has been defined in the medical education context as the *integration* of basic, social and behavioral sciences with clinical practice, or within the process of clinical reasoning. CI is increasingly recognized as an essential component of optimal learning and clinical decision-making.

An *Integrated illness script* is a practical cognitive integration tool that has recently been developed.

Traditional illness scripts include the clinical presentation, risk factors, and/or pathophysiological insult associated with a given condition.

Integrated illness scripts expand traditional scripts by adding a *basic science causal explanation* for the most common clinical features associated with the condition.

This study evaluated the quality of integrated illness scripts developed by senior students as part of a medical pharmacology elective.

METHODS

Unedited integrated illness scripts developed by 14 senior students were scored using an institution-specific rubric.

Four questions were scored using a 1-5 scale with 5 being the best score. A fifth question assessed the level detail of the descriptions and was scored as "Just the right amount of details," "Too much details," or "To little details."

sample integrated illness script template

Condition Name:

--Definition:
--Epidemiology:
--Associated basic science concepts:
--Summary of pathophysiologic insult:

Clinical feature #1

--Explanation of basic science mechanism for feature #1
--Reference(s) for mechanism of clinical feature #1

Clinical feature #2

--Explanation of basic science mechanism for feature #2
--Reference(s) for mechanism of clinical feature #2

Clinical feature #...

--Explanation of basic science mechanism for feature #..
--Reference(s) for mechanism of clinical feature #...

REFERENCES

-Kulasegaram KM et al. Cognition Before Curriculum: Rethinking the Integration of Basic Science and Clinical Learning. Acad Med. 2013;88:1578–1585.
-Bandiera et al. Back from basics: integration of science and practice in medical education. Medical Education 2018: 52: 78–85.
-https://aquifer.org/courses/integrated-illness-scripts/

RESULTS

Scoring Rubric Question	Mean score (N=14)
"Was the integrated illness script easy to understand?"	**3/5**
"Did the description of each clinical feature adequately explain the feature from a basic science perspective?"	**2.9/5**
"When appropriate, did the clinical features include a definition of the feature?"	**1.9/5**
"Was the definition and conceptual overview statement clear and easy to understand?"	**3.4/5**
"Assess the level of detail of the descriptions."	**Most scripts scored as "too little details"**

CONCLUSIONS

Opportunities exist for improving the quality of integrated illness scripts developed by senior students.

Early practice in the creation and use of integrated illness script should be considered to promote the development of cognitive integration during pre-clerkship and clerkship undergraduate medical training.

Iterative feedback from basic science and clinical faculty to students on the development and application of integrated illness scripts is essential in fostering enduring cognitive integration.