



Introduction

- Clinical medicine does not come with an answer key.
- Medical educators are tasked to provide students with foundational knowledge and skills to identify, and then fill, learning gaps.
- As curricula continue their transformation to pass/fail and competency-based schemes, the work of reorienting students to embrace the complexity of medicine and its uncertainties remains a rich field to explore and revise.
- Physicians-in-training are expected to develop lifelong habits of self-directed learning and abilities to tolerate, and then navigate, uncertainty.
- At Wayne State University School of Medicine (WSUSOM), problem-based learning (PBL) establishes a productive educational space for responding to unknowns, practicing collaboration, honing communication, and fostering self-directed learning. Or else this is the intention.
- Beyond satisfaction surveys and individual evaluations of facilitators, there is a lack of qualitative data on student experiences of this approach.
- Within the field of uncertainty tolerance (UT) research in medical education, there are three broad domains that can assess learner experience – cognitive, emotional, and behavioral – with respect to curricular interventions, like PBL.
- Through soliciting narratives of student experiences, this study hopes to yield insight into PBL pedagogy as it pertains to the goal of cultivating UT. This study will adapt a previously developed framework for UT in the broader analysis of PBL experience.¹

Methods

- This study will conduct interviews, using a standard set of open-ended questions, with M1 and M2 students who have completed at least one PBL session at WSUSOM.
- Interviews will be recorded and transcribed.
- Responses will be broadly sorted into cognitive, emotional, and behavioral domains.

Analysis Plan

- Using a grounded theory approach,² this study will analyze the coded interview information in an iterative process.
- Coded interviews will help develop themes, from which concepts of student experience can be more broadly described.

Limitations

- Questionnaires have historically relied on Likert-style feedback, so the open-ended question set for these interviews is new.
- Sample should be considered for self-selection bias and recall-bias for students who completed PBL more distantly.
- PBL experience can often hinge on idiosyncrasies of the group dynamic and the facilitator, so these factors will need to be considered.
- This study attempts to describe the phenomenon of PBL as a curricular component at a single medical school campus.

Conclusion

- It is expected that students will report some discomfort with lack of knowledge that they have in the initial phases of a PBL.
- It is expected that students will report feeling cognitively challenged and rewarded during PBL.
- It is expected that students may not have explicitly considered the practice of working through ambiguity or uncertainty.

References

- 1Hillen MA, Gutheil CM, Strout TD, Smets EMA, Han PKJ. Tolerance of uncertainty: Conceptual analysis, integrative model, and implications for healthcare. Soc Sci Med. 2017;180:62-75. doi:10.1016/j.socscimed.2017.03.024
- 2 Watling CJ, Lingard L. Grounded theory in medical education research: AMEE Guide No. 70. Med Teach. 2012;34(10):850-861. doi:10.3109/0142159X.2012.704439

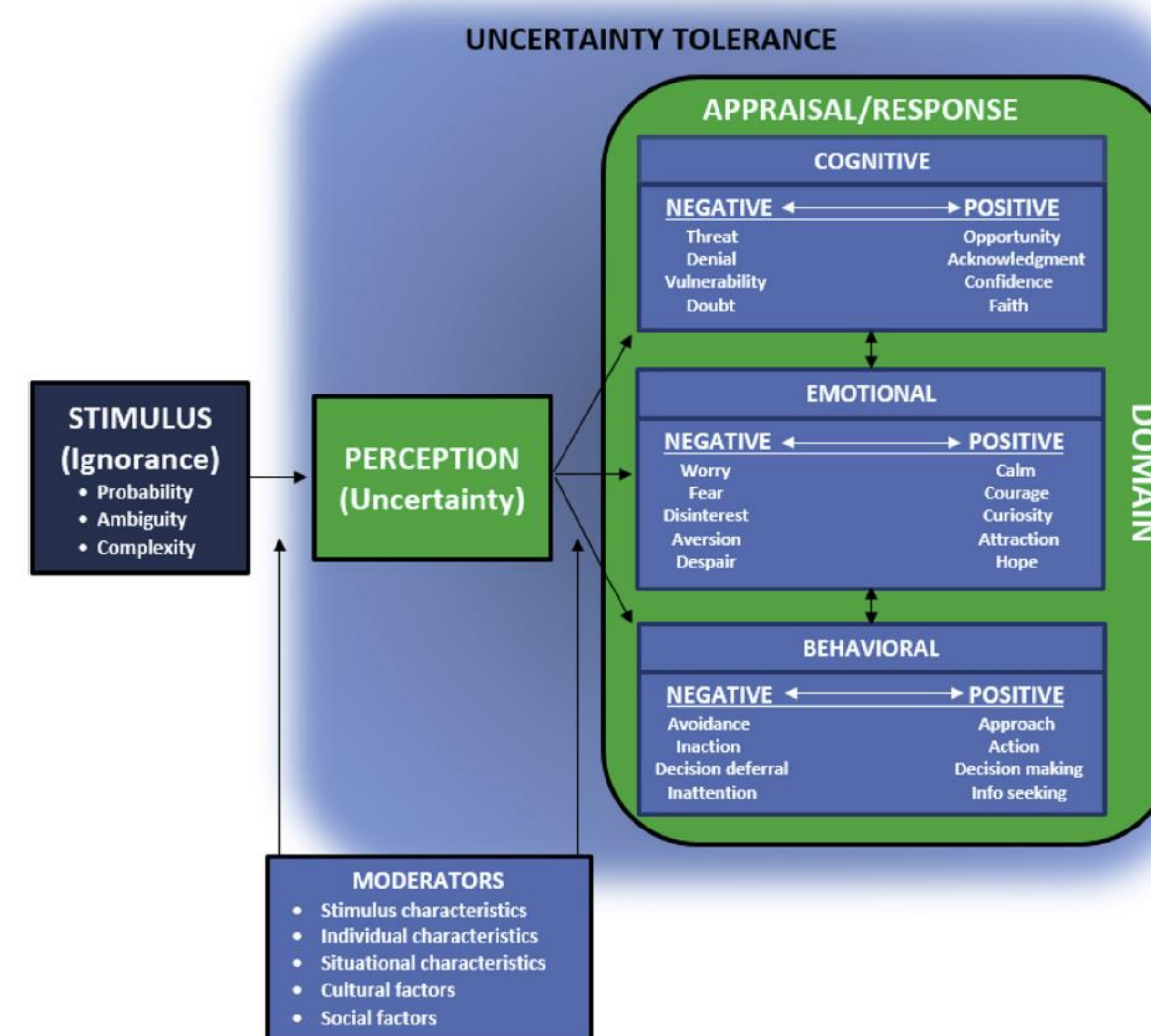


Fig.1. Integrative model of uncertainty tolerance, from Hillen et al (2017).