Pre-clinical Medical Students’ Perceptions of the Utility of High-Fidelity Simulation to Learn the Mechanisms and Presentations of Hypersensitivity Reactions

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Background

- Clinical recognition and mechanistic understanding of hypersensitivity reactions (HS) is challenging for clinicians, often resulting in underdiagnosis and undertreatment.
- High fidelity simulation-based learning is a novel curricular approach to integrate basic science immunology and clinical allergy/immunology.
- This innovative method can provide relevance, relate theory with practice, and consolidate knowledge for pre-clinical medical students.

Methods

- 2nd year medical students (N=102) participated in a high-fidelity simulation and debrief.
- Simulation scenario referenced acute anaphylaxis (type I HS), recent antibiotic exposure (type I vs. type III HS), family history of lupus (type III HS), and contact dermatitis (type IV HS).

Conclusions

- Utilization of simulation in an immunology curriculum is an innovative method of integrating basic science and clinical medicine for pre-clinical medical students.
- Pre-clinical medical students support the utility of simulation during an immunology course to enhance knowledge, comprehension, clinical correlates and overall learning of the mechanisms and presentation of hypersensitivity disorders.