

# Diagnosing Werewolves, Vampires and Ghosts: Teaching Delusional Misidentification Syndromes through Medical Student Peer-to-Peer Education

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## Introduction

Delusional disorders are not uncommon for medical students and residents to encounter in clinical settings. However rarer subsets of delusional disorders not included in the Diagnostic and Statistical Manual 5 (DSM-5), like Delusional Misidentification Syndromes (DMS), are less likely to be experienced clinically or taught academically for test-taking purposes.

DMS disorders include pathological conditions in which a person has a belief involving misidentification of a person, place, or object.<sup>1</sup> These are considered bizarre and include Clinical Lycanthropy (belief that one has transformed into a non-human animal, usually a wolf), Renfield's syndrome (clinical vampirism), Fregoli syndrome (the belief that different people are the same person in disguise), Capgras syndrome (the delusion that a relative was replaced by an imposter), and Cotard syndrome (the delusion in which a person believes they are dead).

Formal didactics in medical education are often geared toward academic performance on an exam (e.g. NBME subject exam, PRITE, or board exams). Given the growing body of literature on peer teaching in medical education,<sup>2,3,4,5,6</sup> peer-to-peer education may be an effective method for educating medical students and residents on psychiatrically important but less common conditions, such as DMS disorders.

## Purpose

This quality improvement project was inspired by the Halloween season, using the timing as an opportunity for increased educational impact to discuss bizarre DMS disorders. A third-year medical student presented a didactic titled "Bizarre, Unusual, and Spooky Delusions in Psychiatry."

The aims of the presentation and project were to use a peer-to-peer didactic to educate all learners rotating through the Psychiatry Department (medical students, residents, attendings) on DMS disorders to increase knowledge of these less commonly tested syndromes

## Methods

A total of 44 individuals were invited to a noon didactic lecture via ZOOM teleconferencing, including medical students on Psychiatry rotations, psychiatric residents and attendings.

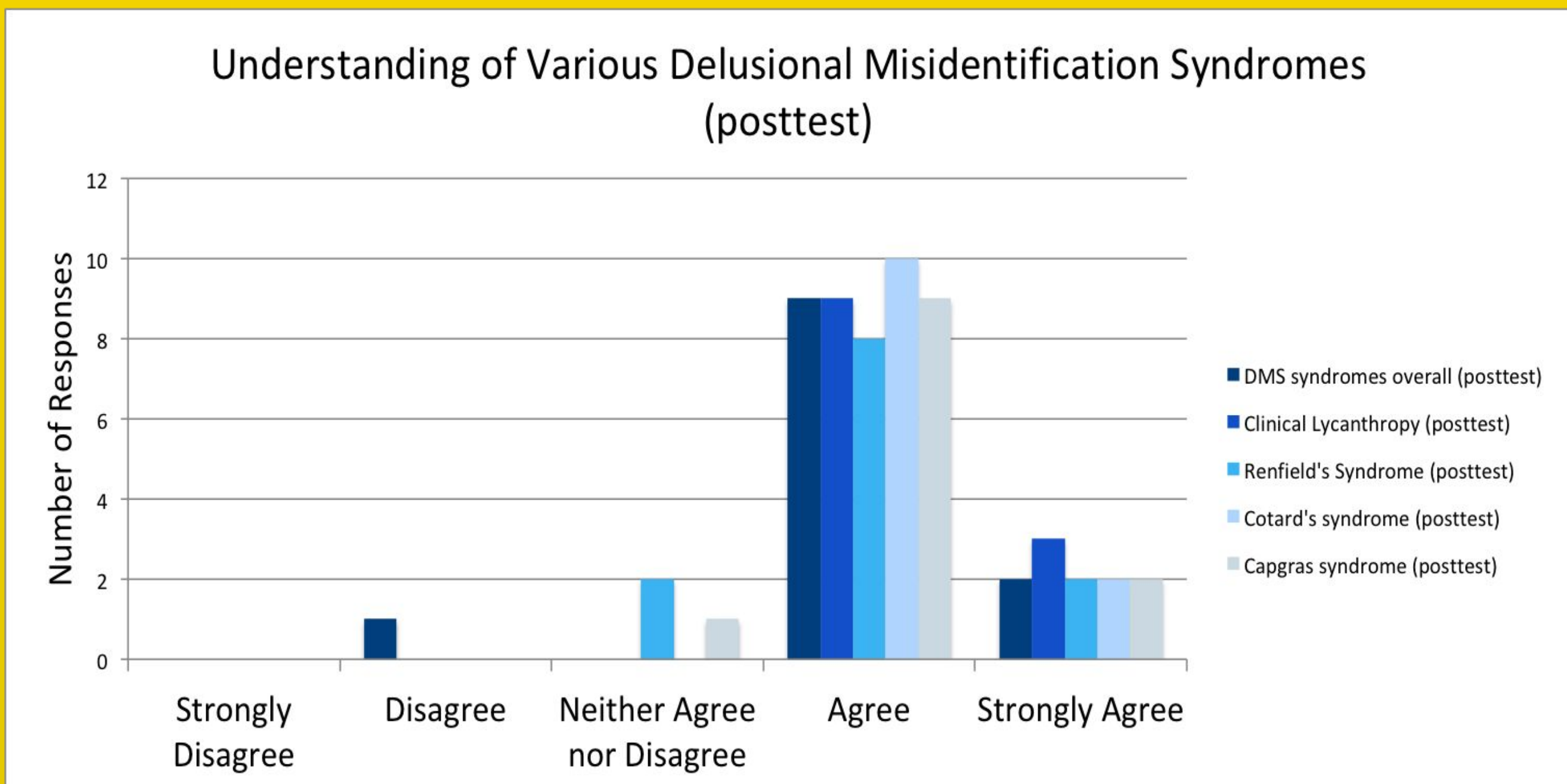
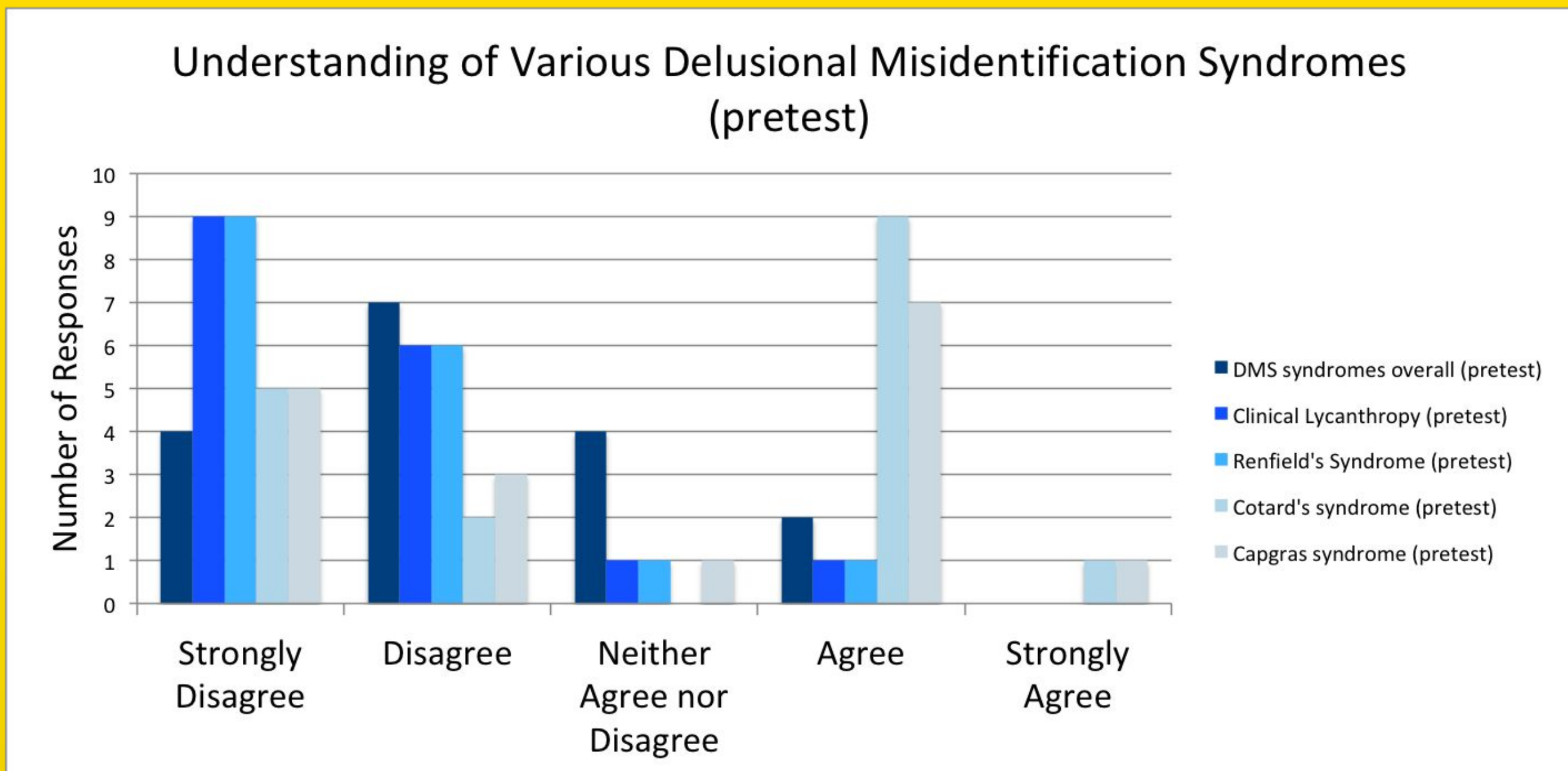
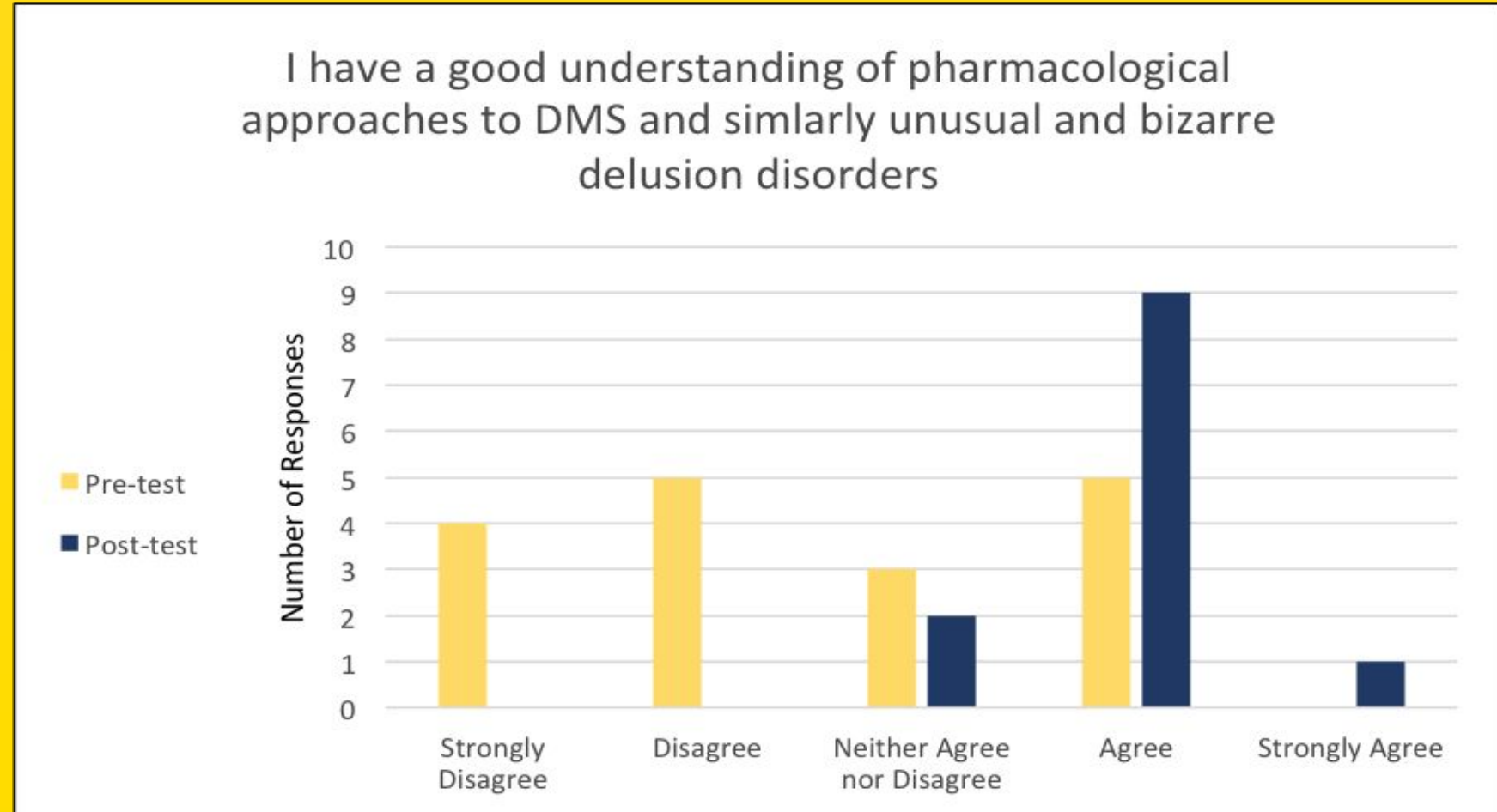
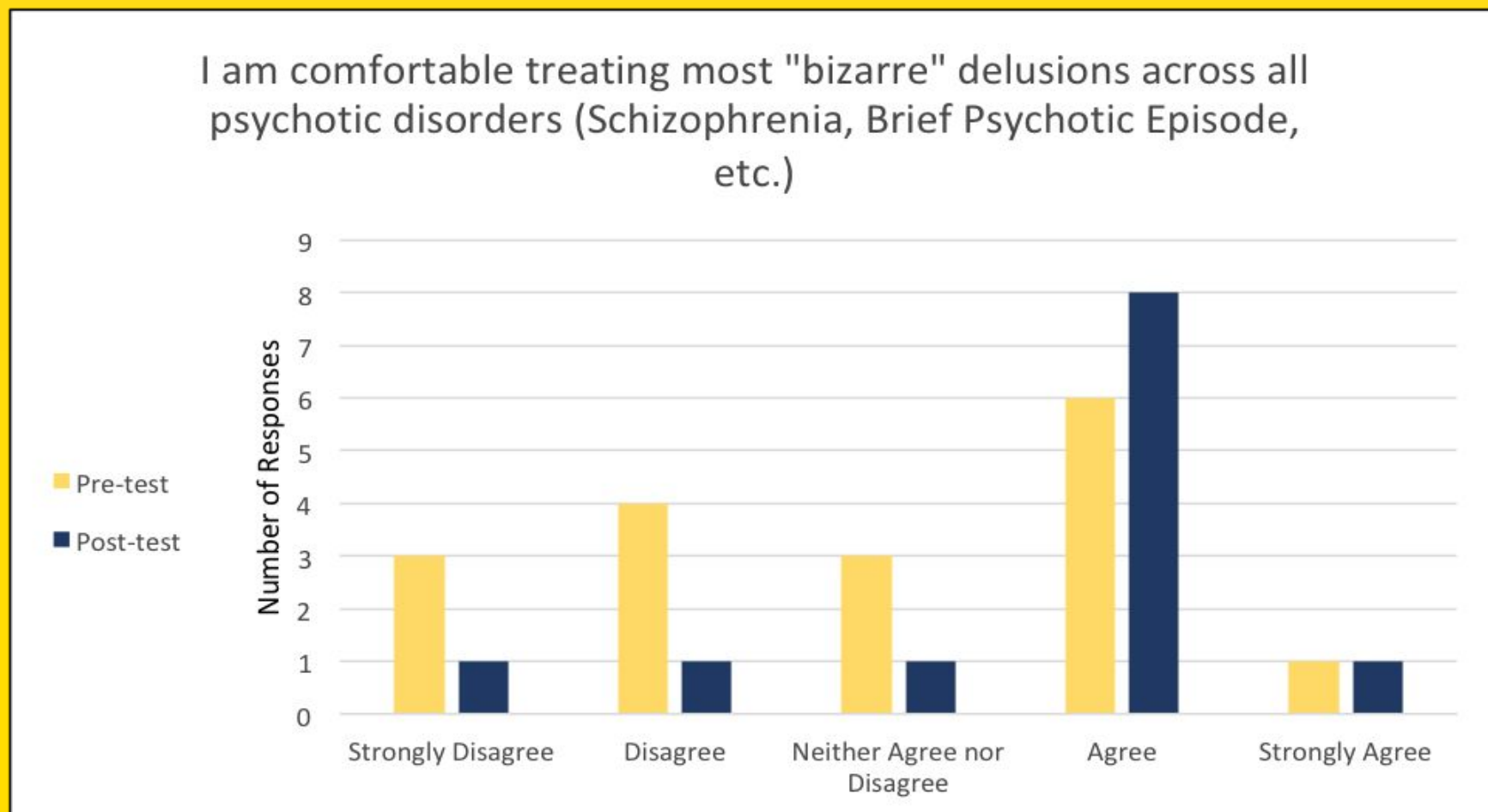
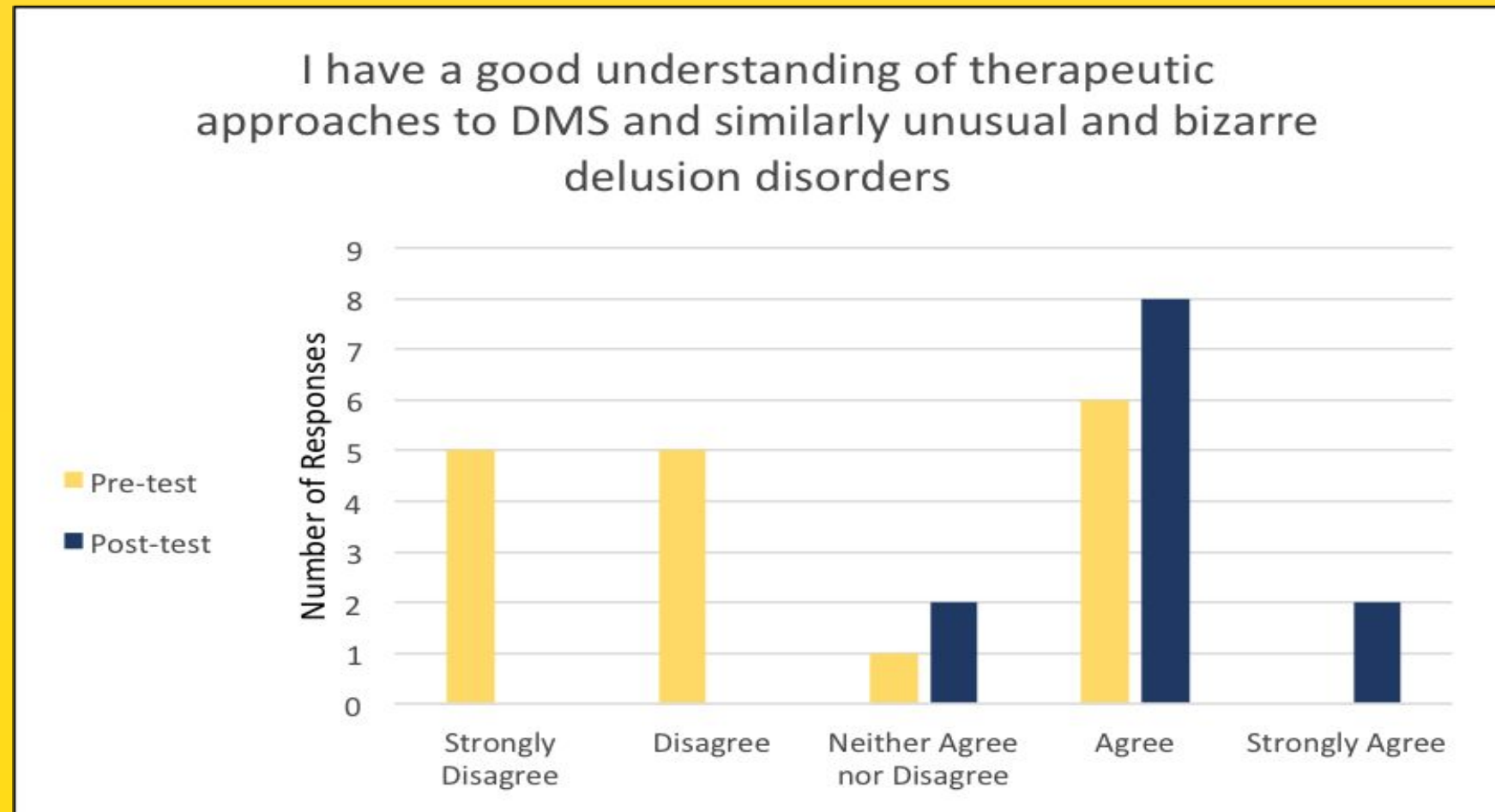
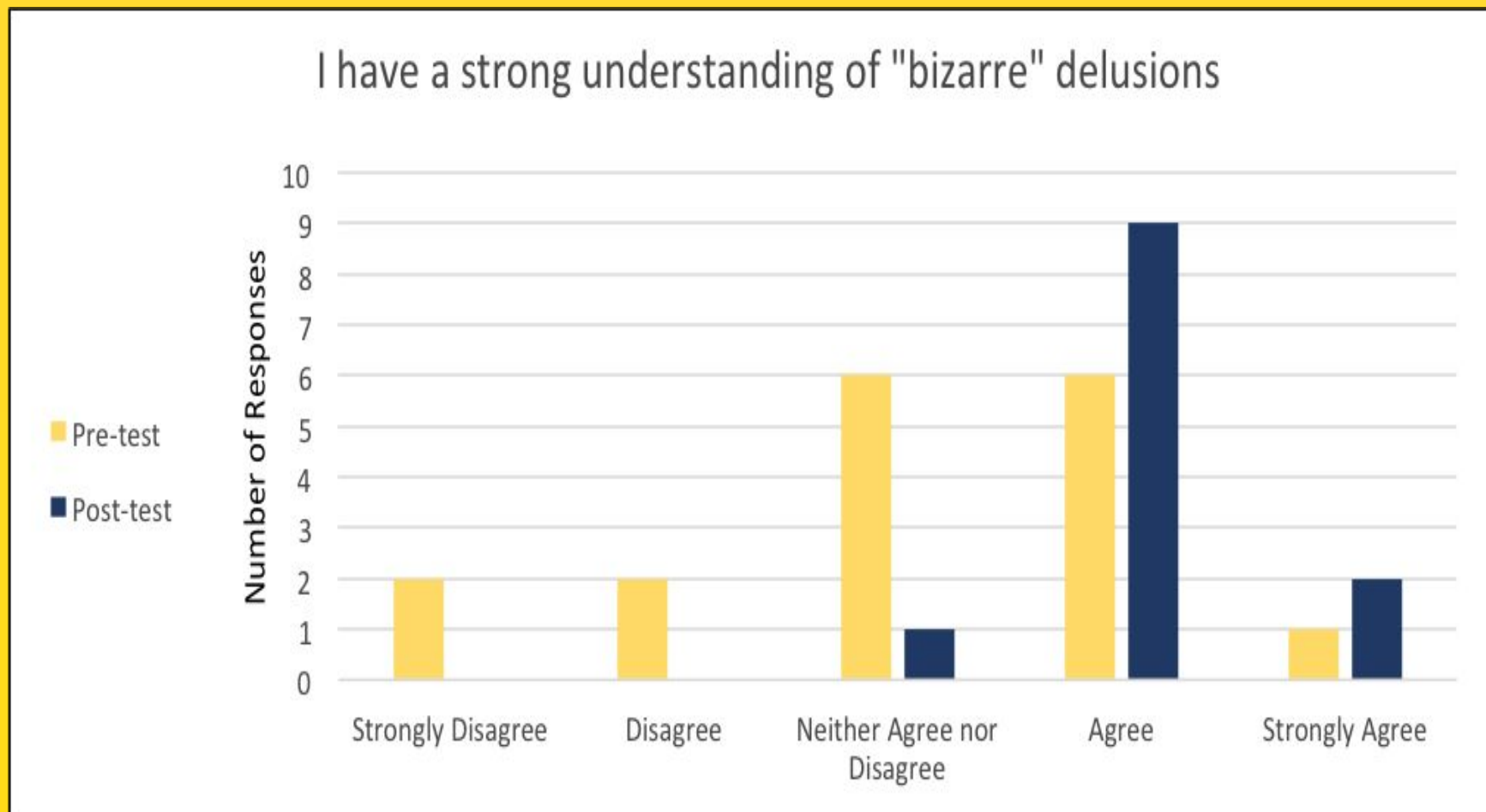
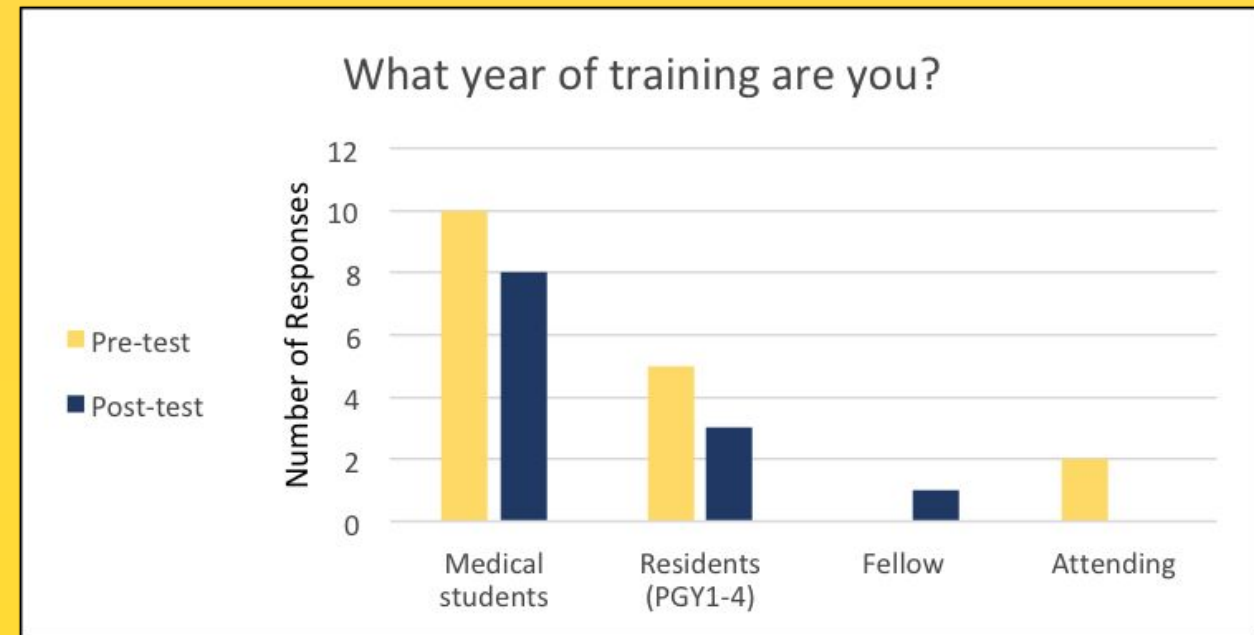
A third-year medical student presented for one hour on delusional disorders and DMS disorders, including Halloween-themed ones such as clinical lycanthropy and vampirism. Audience participation was encouraged.

Both before and after this presentation, attendees were asked to answer questions via SurveyMonkey to measure pre- and post-seminar impressions of educational gains.



## Results

- 44 individuals with various levels of training were invited
- 17 individuals completed the pre-test survey
- 12 of those individuals returned to complete the post-test survey
- Medical students made up the majority of pre-test and post-test survey data.
- Results demonstrate enhanced understanding of presented topics, especially among medical students



## Discussion

Results demonstrate the seminar enhanced understanding of bizarre and unusual delusional disorders. In both the pre-test and post-test data sets, medical students constituted most respondents and, therefore, it is clearest to see that shift in understanding within this population. The largest improvements in understanding were seen in the specific disorders of Renfield's Syndrome and Clinical Lycanthropy.

These findings support previous literature that peer-to-peer education is effective in a medical curriculum.<sup>2,3,4,5,6</sup> Peers may feel more comfortable with peer teachers because there is a smaller distance in training between teacher and learner.<sup>2</sup> Furthermore, peer-teaching has been shown to be comparable to conventional teaching in select contexts and there are learning benefits for both the "students" and "student-teachers."<sup>3, 4, 5</sup> Empowering and delegating some level of teaching to medical students for peer-to-peer education may be ideal and equally effective to faculty teaching in certain circumstances.

Teaching is itself a skill and current literature suggests benefits of training programs among health professions to enhance teaching among peers and juniors in healthcare.<sup>7,8</sup> This presentation utilized case reports to enhance audience participation, which may have contributed to the improvement in knowledge. In addition, the pairing of supernatural topics within the context of Halloween may have also contributed to the level of meaningfulness.

Finally, it is significant that this presentation including discussions of neuropsychiatric disease. In a multi-stakeholder survey of 133 psychiatry departments in the US, researchers found widespread enthusiasm for teaching more neuroscience in psychiatry while only a small proportion of psychiatrists endorsed a strong knowledge base in neuroscience.<sup>9</sup> Peer teaching could assist with teaching on neuropsychiatric topics in the future. In one study of 12 reasons for peer teaching, one was "alleviating faculty teaching burden".<sup>5</sup> The delusional disorders discussed in this presentation required teaching on the neuropathology behind these clinical syndromes. Demonstrably, medical students may be able to assist with filling in those current gaps in education.

## Conclusion

Enhanced understanding of bizarre delusional disorders and DMS disorders was demonstrated among survey participants, the majority of which were medical students.

Peer-to-peer education was an effective tool for teaching these rare psychiatric cases. Consider the timing and context of didactic sessions to increase interest and buy-in regarding less-commonly tested materials.

Future studies may consider utilizing students as peer leaders, especially in areas with current knowledge gaps like neuropsychiatry.

## References

1. Feinberg TE, Roane DM: Delusional misidentification. *Psychiatr Clin North Am* 2005; 28:665-683, 678-679
2. Ten Cate O, Durning S. Dimensions and psychology of peer teaching in medical education. *Medical Teacher*. 2007;29:6. 546-552. DOI: 10.1080/01421590701583816
3. Yu TC, Wilson NC, Singh PP, Lennan DP, Hawken SJ, Hill AG. Medical students-as-teachers: a systematic review of peer-assisted teaching during medical school. *Adv Med Educ Pract*. 2011;2:157-172. Published 2011 Jun 23. doi:10.2147/AMEP.S14383.
4. Cottlieb Z, Epstein S, Richards J. Near-peer teaching programme for medical students. *Clin Teach*. 2017;14(3):164-169. doi:10.1111/tct.12540
5. Fujiwara T, Nishimura M, Honda R, et al. Comparison of peer-led versus professional-led training in basic life support for medical students. *Adv Med Educ Pract*. 2011;2:187-191. Published 2011 Jul 26. doi:10.2147/AMEP.S22948
6. Ten Cate O, Durning S. Peer teaching in medical education: twelve reasons to move from theory to practice. *Medical Teacher*. 2007;29:6. 591-599. DOI: 10.1080/01421590701606799
7. Burgess A, McGregor D. Peer teacher training for health professional students: a systematic review of formal programs. *BMC Med Educ*. 2018;18:263. doi:10.1186/s12909-018-1356-2.
8. Haber RJ, Bardach NS, Vedanthan R, Gillum LA, Haber LA, Dhaliwal GS. Preparing fourth-year medical students to teach during internship. *J Gen Intern Med*. 2006;21(5):518-520. doi:10.1111/j.1525-1497.2006.00441.x.
9. Fung LK, Akl M, Widge A, Roberts LW, Elkin A. Attitudes toward neuroscience education in psychiatry: a national multi-stakeholder survey. *Acad Psychiatry*. 2015;39(2):139-146. doi:10.1007/s40596-014-0183-y.



