Coupling Science Communication Training with Immunology Content

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Undergraduate students learning about immunology are often instructed about applied concepts including vaccines. While they have knowledge of vaccines, few students are prepared to have deeper conversations about other issues influencing vaccine hesitancy. With an interest in equipping pre-professionals with more integrated skills to complement their scientific understanding, we sought to add current, evidence-based science communication skills near the end of an undergraduate immunology course, better allowing students to articulate their knowledge while adjusting to other people in their discussions. Using three 50-minute sessions coupled with active learning exercises, we worked towards the learning outcome of helping students have difficult holiday conversations about vaccines, specifically working to help them understand current science communication theories, the Health Belief Model and best practices for translating their immunology knowledge using evidence-based practices. Each session included some content delivered by short lecture followed by various activities, including case studies, role playing and reflections. Scholarly analyses of vaccine hesitancy and the backfire effect were also included. The culminating assignment was to respond to a difficult conversation scenario and submit a written form of the words they would use. Analyses of student products are ongoing. Student reflections indicated self-reported gains in the words for having challenging conversations, thus meeting one of the student learning outcomes. In summary, shifting this time normally designated for additional course content was impactful for the students. Combining communication training with science content is an effective fusion. Several noted that this helped them discuss vaccines during their Thanksgiving break conversations with family and friends.