Shot Clinic: Engaging Student Pharmacists Through an Educational Immunization Poster Competition

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Background

Opportunity exists for Student Pharmacists to promote comprehensive and appropriate immunizations for all ages and life stages. Studies have shown that up to 94% of people respond to a pharmacist's recommendation to be vaccinated and are 74% more likely to be vaccinated if prompted by their pharmacist than if not prompted.* No other health care professional is as accessible, especially in rural and other underserved areas.

Following an APhA Pharmacy-Based Immunization Delivery course, an Operation Immunization (OI) led student competition was designed to develop public health posters promoting immunizations.

*Grabenstein JD. Pharmacists as vaccine advocates: roles in community pharmacies, nursing homes, and hospitals. Vaccine. 1998; 16(18): 1705-1710.

Objectives

- Engage Student Pharmacists in expanding public health awareness.
- Produce immunization-promoting resources for use in local communities.
- Promote Student Pharmacist experience developing patient information materials.
- Provide Student Pharmacists with a tangible example of their work for resumes and portfolios.
- Encourage participation in APhA-ASP and facilitate contribution to OI goals.

Methods

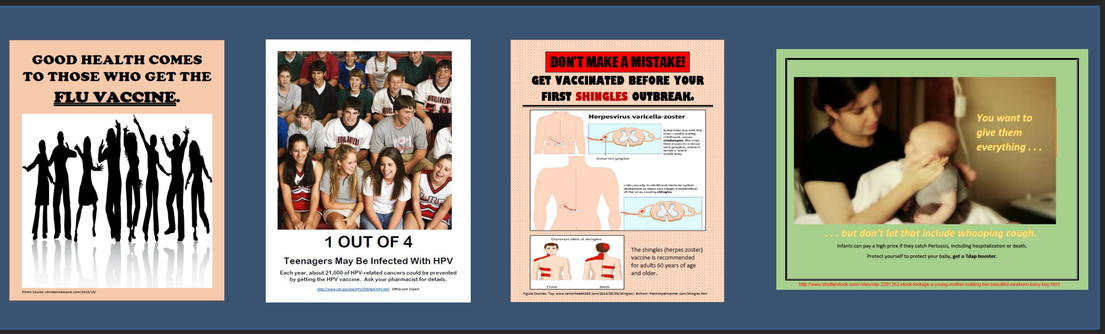
Several adult immunizations were considered for inclusion in the competition, based on the need to increase awareness of and education about key vaccine preventable diseases.

A committee comprised of two OI students and two faculty mentors chose to promote influenza, HPV, shingles, and Tdap due to the relatively low vaccination rates identified for these diseases.

During summer, 2014, first through fourth year pharmacy students were invited via email to participate in an immunization poster competition. Students were allowed to submit an unlimited number of posters in any/all of the targeted immunization categories. Creighton University's APhA-ASP chapter offered points towards attainment of a graduation 'honor cord' for participating in this competition, and a gift card was awarded to the winner of each category.

Two Operation Immunization faculty advisors and four student Operation Immunization leaders comprised the judging committee. Student participants were given the opportunity to obtain initial feedback from faculty prior to the competition deadline, and were allowed to revise and resubmit their posters. A minimum rubric scoring threshold (15 out of 20 score) was established for posters to ensure that only accurate, high-quality posters were released. The six rubric scores provided by the judges were summed to yield a total score for each poster submission (maximum possible being 120 points). Winning submissions were based on the highest total score, with minimum category score requirements also being met.

Winning Posters



Results

Twenty-seven posters were submitted in 4 categories: Influenza, HPV, Shingles, and Tdap.

- Influenza – All 4 posters had a mean score above 15.
- HPV - All 8 posters had a mean score above 15 (1/8 had one missing score, which was excluded).
- Shingles – 7 of 8 posters had a mean score above 15.
- Tdap – 6 of 8 posters had a mean score above 15.

Variability in Total Scores awarded by Six Judges:

- Shingles had a ≤ 3 point variation in total score for 38% of 8 submissions.
- Influenza had a ≤ 3 point variation in total score for 50% of 4 submissions.
- HPV had a ≤ 3 point variation in total score for 57% of 8 submissions.
- Tdap had a ≤ 3 point variation in total score for 88% of 8 submissions.

Winning Scores:

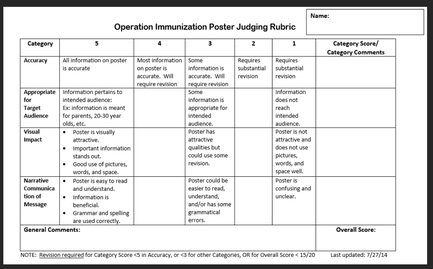
- The mean score for the winning influenza submission was 18 with a range in scores from 17 to 19 (range for faculty judges 19; range for student judges 17-19).
- The mean score for the winning HPV submission was 19 with a range in scores from 17 to 20 (range for faculty judges 19; range for student judges 17-20).
- The mean score for the winning Shingles submission was 19 with a range in scores from 17 to 20 (range for faculty judges 19 to 20; range for student judges 17-20).
- The mean score for the winning Tdap submission was 20 with a range in scores from 19 to 20 (range for faculty judges 20; range for student judges 19-20).

One winner was chosen in each immunization category based on the highest total score collated from the rubrics. Feedback was given to the participants, which addressed requisite edits before allowing poster distribution to community settings.

- 20 of 27 posters did require some revision to be ready for further distribution, with accuracy being the category most commonly needing correction (19/27 posters had at least 1 accuracy score < 5 required).

Poster Type	Range of Total Scores Awarded by 6 Judges for all Submissions within Type				
	19-20	17-18	15-16	11-14	<10
HPV (7 submissions, 42 scores)	10 (24%)	21 (50%)	9 (21%)	1 (2%)	1 (2%)
Influenza (4 submissions, 24 scores)	5 (21%)	6 (25%)	9 (38%)	4 (17%)	0 (0%)
Shingles (8 submissions, 48 scores)	15 (31%)	13 (27%)	13 (27%)	7 (15%)	0 (0%)
Tdap (8 submissions, 48 scores)	18 (38%)	18 (38%)	4 (8%)	8 (17%)	0 (0%)

Scoring Rubric



Operation Immunization Poster Judging Rubric — Name:

Category	5	4	3	2	1	Category Score/ Category Comments
Accuracy	All information on poster is accurate	Most information on poster is accurate. Will require revision	Some information is accurate. Will require revision	Requires substantial revision	Requires substantial revision	
Appropriate for Target Audience	Information pertains to intended audience: Ex: information is meant for parents, 20-30 year olds, etc.		Some information is appropriate for intended audience.		Information does not reach intended audience.	
Visual Impact	• Poster is visually attractive. • Important information stands out. • Good use of pictures, words, and space.		Poster has attractive qualities but could use some revision.		Poster is not attractive and does not use pictures, words, and space well.	
Narrative Communication of Message	• Poster is easy to read and understand. • Information is beneficial. • Grammar and spelling are used correctly.		Poster could be easier to read, understand, and/or has some grammatical errors.		Poster is confusing and unclear.	
General Comments:						Overall Score:

NOTE: Revision required for Category Score <5 in Accuracy, or <3 for other Categories, OR for Overall Score < 15/20 Last updated: 7/27/14

Demographics of Participants

Class Year	# of Participants	% of 27 total posters submitted	Campus pathway	Distance Pathway
P1	4	15%	4	0
P2	7	41%	0	7
P3	2	33%	1	1
P4	3	11%	2	1

Discussion/Implications

- Rate of discrepancy (within 3 out of 20 points) for scores awarded by the six judges within the four poster types varied from 38% to 88%.
- Judges agreed that the scoring rubric was effective but additional training for poster judges will be developed to further ensure consistent scoring.
- Accuracy is a critical criteria which must be met in final posters before further dissemination. The rubric appeared to work well in detecting these issues.
- Work will also be needed to further clarify guidelines for handling of copyrighted images.
- The competition's framework allowed student pharmacists to create educational immunization-related posters, available for distribution in practice settings. This provides students experience in development of community outreach and education media.
- This project will be an ongoing program in which students can engage repeatedly, thereby continuing to improve their skills throughout their academic tenure.
- OI leaders, along with their Immunization Task Force partner, are exploring opportunities for these materials to be disseminated to public and private immunization providers.
- In the future, the competition may be expanded to include other public health topics in areas such as exercise, nutrition, and healthy lifestyle modifications.