Using Audience Polling Data from Clinician STD Courses to Guide Educational Initiatives for Generalists and Specialists

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Background

- The Sylvie Ratelle STD/HIV Prevention Training Center (PTC) is a Centers for Disease Control and Prevention (CDC)-funded national training center which targets New England clinicians who diagnose and treat sexually transmitted diseases (STDs)
- In 2010, Turning Technologies polling software and audience response system (ARS) was integrated into educational lectures
- Data collected from the ARS may provide useful information about audience demographics, knowledge and practice
- ARS might not only be useful for real-time audience engagement, but also it may be useful as a needs assessment tool for determining training topics for future audiences

CDC 2010 STD Treatment Guidelines

- CDC provides scientific, current, evidence-based information on the diagnosis, management and treatment of STDs in the form of treatment guidelines, updated every four years
- Ratelle PTC trains clinicians according to these guidelines

Objective

- To analyze audience response system data to identify hypotheses to inform future training efforts of the Ratelle PTC

Methods

- Turning Technologies TurningPoint Audience Response System was used to examine knowledge and practice of clinicians attending educational lectures, from 2010-2012
- Two lecture topics were selected for analysis:
  - "Highlights from the 2010 STD Treatment Guidelines" given to generalists: General Pediatricians, Family Practice Programs, Advanced Practice Nurses and Emergency Medicine Doctors
  - "Management of Sexually Transmitted Infections in HIV-Infected and At-Risk Patients" given to audiences of Infectious Disease Specialists
- Responses from these lectures were analyzed for general themes by looking at the responses from the entire audience as well as divided by provider specialty
- Microsoft® Office Excel 2003 was used for all analyses

Results:
Highlights from the 2010 STD Treatment Guidelines

HYPOTHESIS 1:

- *Background: A young woman presents with a positive Herpes test with no prior symptoms and only one uninfected sex partner. This table presents proportions of generalists that wanted to know her race/ethnicity.*

Total (n=86)	*General Pediatricians (n=22)*	*Family Practice Programs (n=33)*	*APRN-NP (n=17)*	*Emergency Doctors (n=14)*
9%	5%	15%	6%	7%

- **A small proportion of generalists take race/ethnicity into account when interpreting results of a disease that disproportionately affects non-white patients.**

HYPOTHESIS 2:

- *Background: Generalists were asked the cause of the positive test result (above). This table presents the proportions of generalists that correctly attributed it to a FALSE POSITIVE*

Total (n=72)	*General Pediatricians (n=22)*	*Family Practice Programs (n=33)*	*APRN-NP (n=17)*
7%	5%	9%	6%

- **A small proportion of generalists consider the possibility of a test result being a false positive.**

HYPOTHESIS 3:

- *Background: Generalists were asked about their use of Expedited Partner Therapy (EPT) when treating partners of patients infected with chlamydia. This table presents the proportions of generalists that either give a patient medication or a prescription for a partner.*

Total (n=132)	*General Pediatricians (n=97)*	*Emergency Doctors (n=35)*
22%	26%	12%

- **A small proportion of generalists use Expedited Partner Therapy.**

Conclusions

- Use of Audience Response System data can be a valuable tool in assessing real time audience training needs
- Faculty can tailor educational lectures based on information learned at the time of presentation
- Hypotheses described above can identify trends, practice limitations (e.g. lack of access to certain tests and implications for clinical practice), and knowledge gaps, and can inform future training efforts of the PTC
- This project was the first opportunity for review and analysis of a large volume of stored ARS data from past presentations
- Demographic variables (e.g. practice setting and years in practice) can be collected in the future from audiences, for more in-depth analysis

Results:
Management of Sexually Transmitted Infections in HIV-Infected and At-Risk Patients

HYPOTHESIS 1:

- *Background: From 2008-2009, only 19% of infectious disease specialists saw 6+ infectious syphilis cases/year. From 2010-2011, this increased to 45%.*
- **The proportion of infectious disease specialists seeing 6+ infectious syphilis cases/year will increase.**

HYPOTHESIS 2:

- *Background: In 2011, only 12% of infectious disease specialists used a Syphilis EIA test (a newer blood test that looks for antibodies to syphilis-causing bacteria). In 2012, 23% reported using an EIA test.*
- **The proportion of infectious disease specialists using a newer blood test to screen for syphilis will increase.**

HYPOTHESIS 3:

- *Background: In 2011, only 24% of infectious disease specialists had access to a rectal/pharyngeal NAAT (a more sensitive screening test) for gonorrhea/chlamydia. In 2012, 34% reported having access.*
- **The proportion of infectious disease specialists with access to a more sensitive screening test for gonorrhea/chlamydia will increase.**

HYPOTHESIS 4:

- *Background: In 2012, 36% of infectious disease specialists reported counseling the patient on the need to self-refer their partner as a way of treating partners of chlamydia patients.*
- **Counseling patients to self-refer partners is the most common way infectious disease specialists treat partners of chlamydia patients.**

Limitations

- The primary purpose of using ARS technology is to engage the audience, so the information was not collected initially for analysis
- Therefore, interpretation of these results was limited due to the differences of questions across topics and small sample sizes
- The results reported are for hypothesis generation purposes only

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