Tracking Citations:

Information Literacy Skills of M1 Students

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Foundations of Clinical Medicine

- M1 course to give early clinical experiences
- Hands-on, covering topics such as history taking, social determinants of health, health literacy, professionalism
- Only required library session outside of orientation
- New format started fall, 2015
Expert Session Presentation

- All students shadow a preceptor
- Required to write up an interesting case observed during their clinic visit and present it to their facilitation group
  - Short (1-2 page) handout to classmates & presentation
- Handout ties case back to the basic sciences they are learning in class
- Required to cite library resources
Library Instruction

- Taught ~45 minute library session, plus optional session
- LibGuide at http://researchguides.uic.edu/fcm1
- Students came to optional sessions with questions
- Focus on key reference resources, analyzing information found online, and citing; emphasize that they’re the expert and what they cite reflects that
Citation Analysis

- Graduate Assistants and Librarians looked at case handouts to see how students used resources
- Goal was to improve library session in the future and see where students need additional help with scholarly research
- Looked at what types of materials were cited, where they got the source (when applicable), and how it was cited
- Two years worth of data
- 269 papers
Results by Citation Type

- 47% Scholarly Journals
- 10% Textbook/Course Lecture
- 10% Access Medicine & STAT!Ref
- 9% Patient Information Resources
- 9% Evidenced Based Resource
- 8% Professional Web Resource
- 9% Book
- 10% Statistics
- 10% Other
- 1% Bad Resources
- 2% Other
Citation Type Summary

- Patient Information includes WebMD, MayoClinic, Hospital Websites, NIH/ CDC sites, Organizations, NHS, MedlinePlus, Veritas Health, Vertical Health
- Evidenced Based Resources are UpToDate, Clinical Key, Dynamed
- Professional Web Resources include MedScape, Cleveland Clinic, Healio, Merck Manual Online, Dr/ Professor sites
Citation Type Summary

- 1 in 4 citations are missing information
- 15 did not cite
- Most images are not cited, most from Google Images
- Cite patient information
- 1 copy/pasted citations from Wikipedia; several used it extensively
- 4 solely used patient information
- 1 plagiarism case
Examples

- http://www.cerebralpalsy.org/
- http://adhd-institute.com/

But include more than URL: 
http://emedicine.medscape.com/article/295686-clinical#b1


Lectures need information: Lectures from Dr. Polk and Dr. Williams

Personal Communication: Kaushik Patel, M.D. Christie Clinic-University, Pulmonology.


Interviews

❖ Interviewed 8 students, 7 had completed handout
❖ 4 subjects handouts well cited; 2 did not cite
❖ No undergraduate library instruction; 3 had some professional literature searching experience
❖ Results:
  ❖ Want to learn more about good information to cite, found library session very useful
  ❖ Want more guidance as to when they should use what resource
  ❖ Want library further integrated into coursework
Interviews

- What they learn from faculty, they take seriously
- Students still turn to Google to search for information. Determine relevancy by looking at multiple sources, linking to scholarly articles
- Have attitude they do not have a lot of knowledge, so using Google ok
- But once they learned what was in Access Medicine, that became go-to source
- Students who were most confident of skills did not cite
Summary

❖ Ideally, get scholarly information seeking/ information literacy integrated into entire curriculum

❖ M1 instruction on reference materials, evaluating information, distinguishing professional vs patient information, multimedia

❖ 2nd Year on PubMed

❖ Clerkship Years on EBP tools