

Tracking Citations:

Information Literacy Skills of M1 Students

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Foundations of Clinical Medicine

- ❖ M 1 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

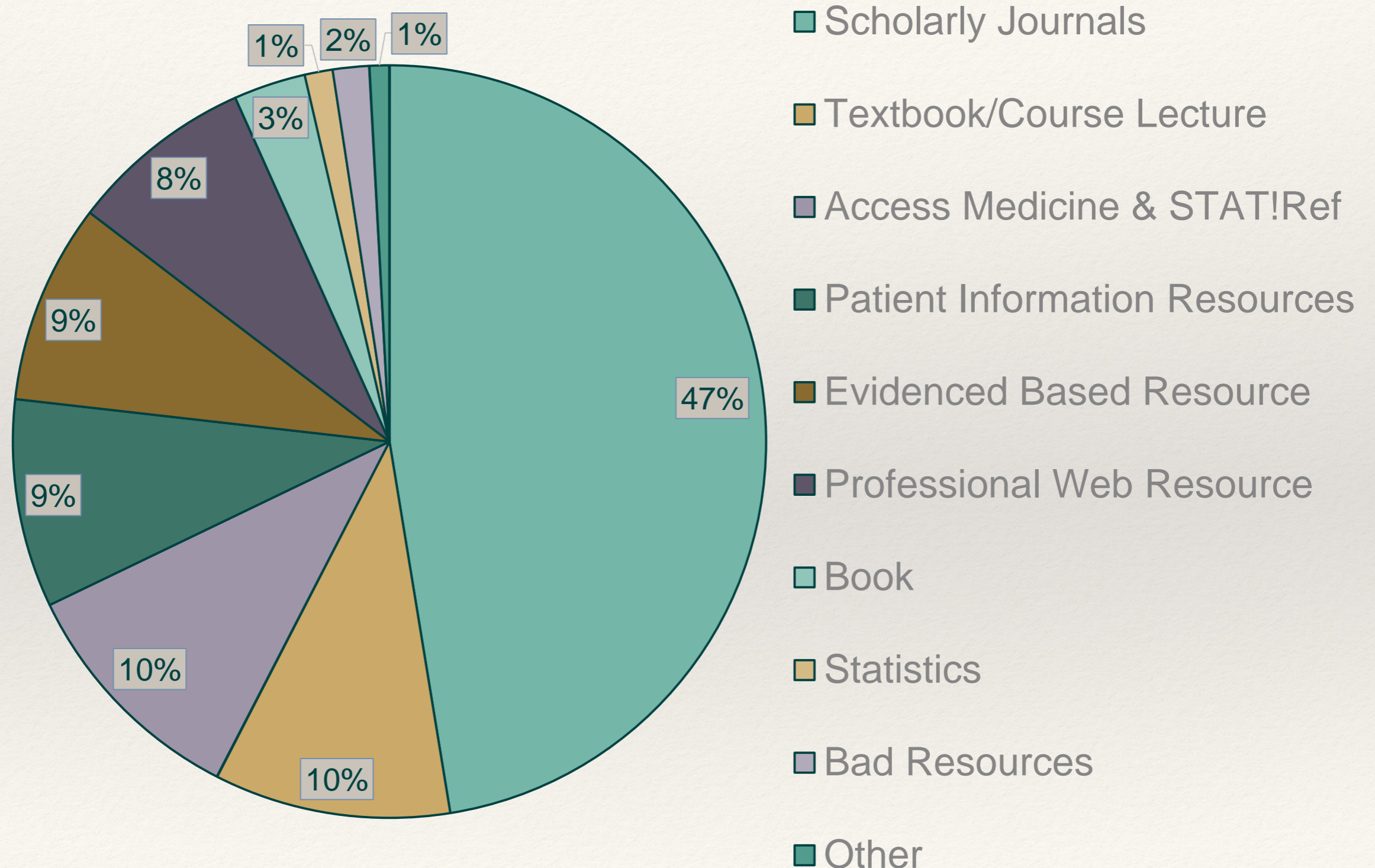
Library Instruction

- ❖ 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



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/>

- ❖ Always include URL if web resource: “Hemorrhoids” . 2005. American Society of Colon and Rectal Surgeons.
- ❖ But include more than URL:
[http:// emedicine.medscape.com/ article/ 295686-
clinical#b1](http://emedicine.medscape.com/article/295686-clinical#b1)
- ❖ Include access date: “Other Complications Of Spinal Cord Injury: Pain: Types of Pain” . (2009). The Louis Calder Memorial Library of the University of Miami/ Jackson Memorial Medical Center.
- ❖ Find a permanent URL: McGraw M. July 2012. Beer potomania: Drink in this atypical cause of hyponatremia. Nursing. 42(7): 24-30 (last accessed 17 February 2016 at [http:// ovidsp.tx.ovid.com.proxy.cc.uic.edu/ sp-
3.18.0b/ ovidweb.cgi?QS2=434f4e1a73d37e8c01e9bb09ab15
b392e98f6875704749b653b2128a8dbfb](http://ovidsp.tx.ovid.com.proxy.cc.uic.edu/sp-3.18.0b/ovidweb.cgi?QS2=434f4e1a73d37e8c01e9bb09ab15b392e98f6875704749b653b2128a8dbfb) (truncated)

- ❖ Include article volume/ issue/ pages: Sprague JE, Arbeláez AM. (2011). Glucose Counterregulatory Responses to Hypoglycemia. *Pediatric endocrinology reviews*.
- ❖ Is it a chapter or entire book? Sango, K., & Yamauchi, Y. (Eds.). (2014). *Schwann cell development and pathology*. Tokyo: Springer.
- ❖ What page(s) has the information? Boron, W. and Emile L. Boulpaep. "Medical Physiology." Saunders Elsevier. 2009.

- ❖ Lectures need information: Lectures from Dr. Polk and Dr. Williams
- ❖ Personal Communication: Kaushik Patel, MD. Christie Clinic-University, Pulmonology.
- ❖ Bad Citations have bad sources: Hole, James M. “Poliovirus Cell Entry: Common Structural Themes in Viral Cell Entry Pathways.” Review. Annual Review of Microbiology (2002)

- ❖ "Angina (Chest Pain)"; Angina (Chest Pain). N.p., n.d. Web. 10 Nov. 2015.
- ❖ Nhs.uk,. N.p., 2016. Web. 18 Feb. 2016.
- ❖ Lund-Tønnesen, S., Berstad, A., Schreiner, A., & Midtvedt, T. (1998). [Clostridium difficile-associated diarrhea treated with homologous feces]. Tidsskrift for den Norske lægeforening: tidsskrift for praktisk medicin, ny række, 118(7), 1027-1030.

<http://www.austincc.edu/microbio/2421d/tp1.htm>

- ❖ “Syphilis.” National Institute of Allergies and Infectious Diseases, December 17, 2010. <http://www.niaid.nih.gov/topics/syphilis/understanding/Pages/cause.aspx> May 02, 2012
- ❖ “Syphilis.” Brian Euerle, MD, FACEP Associate Professor, Department of Emergency Medicine, Director of Emergency Ultrasound Program, University of Maryland School of Medicine. <http://emedicine.medscape.com/article/229461-overview#a0101> May 02, 2012.
- ❖ Stuart M. Berman. “Maternal Syphilis: Pathophysiology and treatment.” Bulletin of the world health organization, June 2004. <http://www.who.int/bulletin/volumes/82/6/433.pdf> May 04, 2012
- ❖ “Syphilis” Infectious Diseases Epidemiology and Surveillance. 2009. <http://ideas.health.vic.gov.au/bluebook/syphilis.asp> May 04, 2012.
- ❖ “Rapid Tests for Syphilis.” RDT Info: Current Information on Rapid Diagnostic Tests, 2008. <http://www.rapid-diagnostics.org/rti-syphilis-treponemal.htm> May 06, 2012.

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