NURS 4292 ~ Nursing Capstone ~ January 2018
Tips for your Capstone Project
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1. Always start at the library website 😊
   - http://lib.uconn.edu/

2. Use ILLiad to request journal articles not available at UCONN
   - Click Interlibrary Services then select My ILLiad
   - Our Interlibrary Services department will get the articles from another library and email the scanned articles to you via your UCONN email.
   - When searching within a database, click UCONN Full Text UCONN Full Text to get to ILLiad

3. Use RefWorks (Legacy) to keep track of your research and create bibliographies in APA format
   - Click Research Support then RefWorks or http://refworks.uconn.edu
   - See RefWorks handout in Research Guide – Citation Guides and Management Tools

4. Use Research Guides for help
   - Click Research Guides from the library webpage
   - Select Nursing; select Health Subject Guide; select Learn about Evidence Based Practice

5. Find the best evidence for your project
   - Click Databases on library website, select NURSING, then select database
   - You are required to use four databases for your evidence based project. CINAHL, PubMed, Cochrane, and the fourth database is either DynaMed or TRIP database!
     - CINAHL Plus with Full Text - general literature database (use filters to find the best evidence)
     - PubMed - general literature database (use filters to find the best evidence)
     - Cochrane Library - filtered database
     - DynaMed - discipline specific filtered database
     - TRIP – a search engine that finds evidence based research https://www.tripdatabase.com/
6. Evidence Based Practice (EBP)

- EBP is a process that involves finding the most current evidence based literature (usually a Randomized Controlled Trial), using your clinical expertise, and combining it with the needs of your patient(s) to make treatment or diagnostic decisions, or to change policies.

- EBP is the integration of:
  - Best clinical research evidence
  - Clinical expertise
  - Patient values


- EBM is usually a specific question about:
  - Diagnostic test(s)
    - Find articles that are prospective, blind comparison to a gold standard
  - Therapy
    - Find articles that are Randomized Controlled Trials (RCTs), meta-analysis, systematic reviews
  - Prognosis
    - Find articles that are cohort studies, case control, or case series
  - Harm or Etiology
    - Find articles that are RCTs, cohort studies, case control, or case series
  - Prevention
    - Find articles that are RCTs, cohort studies, case control, meta-analysis, systematic reviews
  - Cost Analysis
    - Find articles that discuss economic analysis
  - Qualitative
    - Find qualitative studies
The Steps in the EBP Process

| ASSESS the patient | 1. Start with the patient -- a clinical problem or question arises from the care of the patient |
| ASK the question | 2. Construct a well built clinical question derived from the case |
| ACQUIRE the evidence | 3. Select the appropriate resource(s) and conduct a search |
| APPRAISE the evidence | 4. Appraise that evidence for its validity (closeness to the truth) and applicability (usefulness in clinical practice) |
| APPLY: talk with the patient | 5. Return to the patient -- integrate that evidence with clinical expertise, patient preferences and apply it to practice |
| Self-evaluation | 6. Evaluate your performance with this patient |

From Duke University

Step 1  Identify the patient(s) or the problem

Step 2  Frame your clinical question using PICO

  • PICO(T) is an acronym to help you formulate your specific patient question:
    o Patient or Problem or Population—describe the population
    o Intervention--describe the intervention/treatment, diagnostic study, or drug interventions
    o Comparison (optional)--(i.e. CT scan vs. MRI, or oral dose vs. IV, statins or no statins)
    o Outcome—describe what you want to accomplish, to measure, to improve, or to affect
    o Time element (optional)—evaluate results after a specific period of time

  • Why use PICO?
    o Helps you form a focused question
    o Assists you in brainstorming keywords for your research

  • When do you use PICO?
    o When you are looking for evidence to support best practice
      o Patient centered outcome measures (e.g. pressure ulcers, falls, VAP)
    o Nurse Centered Intervention Measures (e.g. smoking cessation counseling)
    o System Centered Measures (e.g. Ventilator/Sepsis bundles developed by the Institute for Healthcare Improvement or IHI and are evidence based and have shown to improve patient outcomes.)
    o When you have a question about patient care
Scenario:

During your clinical experience, you often hear patients complaining that their health care providers are “interrupted” by their smartphones, or they are “using” their laptops/iPads during a physical examination, a medical test, or a patient appointment. One disgruntled patient noted that her OB/GYN provider answered a phone call during her exam and did not wash her hands after using her cell phone. You begin to observe this behavior and wonder if cellphones, like stethoscopes, can transmit infections to patients (or to others), and if so, should clinicians be educated in proper infection control measures when using cellphones during patient care. Since cellphones are ubiquitous, should everyone visiting or working in a clinical area or hospital be made aware of these issues?

Population: clinicians using cellphones in the clinical area
Intervention: proper infection control measures before and after cellphone use (hand hygiene and device decontamination)
Comparison: no infection control measures
Outcome: decreased transmission of bacterial infections

PICO Question(s):
Do cell phones harbor infections that could contribute to hospital associated infections? Does following infection control guidelines before and after using cell phones among healthcare workers reduce hospital acquired infections?

Step 3. Find the evidence in databases – combine simple KEYWORDS and use an asterisk * as a truncation:

Cellphones: mobile phone* OR smart phone* OR smartphone* OR tablet* OR cell phone* OR cellphone* OR cellular phone* OR hand-held* OR iPad* OR handheld device* OR droid* OR mobile device* OR keypad* OR touch-screen OR iPhone*
Clinicians: healthcare worker* OR health personnel OR physician* OR clinician* OR nursing student* OR nurse* OR surgeon*
Infection: infection* OR contaminat* OR pathogen* OR nosocomial OR hospital acquired OR communicable diseases OR equipment contamination OR cross infection OR fomites OR fungi

[Note Fomites is a MeSH term meaning inanimate objects that carry pathogenic microorganisms and thus can serve as the source of infection. Microorganisms typically survive on fomites for minutes or hours. Common fomites include clothing, tissue paper, hairbrushes, and cooking and eating utensils].

Infection control:
Disinfectants OR disinfection OR infection control OR hand washing OR handwashing OR hand hygiene OR alcohol swipes

Combine the “best” keywords for your search in each database and keep track of successful strategies for your poster!!!
(contamination OR cross infection) AND (smartphone* OR cell phone* OR cellphone* OR cellular phone* OR iPad* OR droid*)
Check limits that may pertain to your search: __Age __English Language __Year of Publication __Peer Reviewed Journal

[Note: You can also limit your search terms to the title and/or abstract of an article]

Type of study you want to include in your search:
- Systematic review
- Clinical Practice Guidelines
- Randomized Controlled Trials

Type of study you want to include in your search:
- Qualitative Studies
- Quantitative Studies
- Clinical Trials
- Multicenter study
- Meta-analysis
- Comparative study

Tips:
- OR – Use OR between synonymous words
- AND- Use AND to link different concepts that must be included in the search
- NOT- Use NOT to exclude irrelevant terms

Capitalization - AND, OR, NOT work best when capitalized
Quotation marks- Use quotation marks to find exact phrases, use with caution.
Parentheses- Use parentheses to group together your synonyms

Search CINAHL Plus with Full Text
- Enter key terms in search box and click Search button

- Click Show More under Refine Results (left side) to restrict to publication date, English language, Peer Reviewed journal, Research Article, etc. Do not limit to full text!
• Find more **precise** terms—click the article title and view the **CINAHL Subject Terms** (Major/Minor)

Surveillance study of bacterial contamination of the parent’s cell phone in the NICU and the effectiveness of an anti-microbial gel in reducing transmission to the hands.

- **Authors:** Backstrom, A.C.; Cianci, P.; Casas-Ghavami, F.; Kamitsuka, M.D.
- **Affiliation:** [Division of Neonatology, Swedish Medical Center, Seattle, WA, USA] [The Madigan Center for Research, Education and Quality, Sunrise, FL, USA]
- **Division of Neonatology, Swedish Medical Center, Seattle, WA, USA.**
- **Department of Pediatrics, Division of Pediatric Infectious Disease, Swedish Medical Center, Seattle, WA, USA.**
- **Source:** Journal of Neonatology (PERIATOL); 2015 Dec; 33(3):963-3.
- **Publication Type:** Journal article - research, balsam charts
- **Language:** English
- **Major Subjects:** Wireless Communications
  - Bacterial Contamination
  - Intensive Care Units, Neonatal
  - Disease Transmission—Prevention and Control
  - Gels
  - Antibiotics
  - Parents
- **Minor Subjects:** Human; Funding Source; Cross Sectional Studies; Microbial Culture and Sensitivity Tests; Tea; Female; Questionnaires

**Abstract:** Objective To determine the bacterial contamination rate of the parents’ cell phone and the effectiveness of anti-microbial gel in reducing transmission of bacteria from cell phone to hands.Methods Cross-sectional study of cultures from the cell phone and hands before and after applying anti-microbial gel (=10). Results Cell phones demonstrated bacterial contamination. Ninety percent had the same bacteria on the cell phone and their cleaned hands. Twenty-two percent had no growth on their hands after applying anti-microbial gel after they had the same bacteria on the cell phone and hands. Ninety-two percent of parents were aware that cell phones carried bacteria, but only 33% cleaned their cell phones at least weekly. Conclusion Bacterial contamination of cell phones may serve as vectors for nosocomial infection in the neonatal intensive care unit. Bacteria transmitted from cell phone to hands may not be eradicated using anti-microbial gel.

• To find a subject heading, enter a term in the search box and check **Suggest Subject Terms** box, click Search
  - Search one concept at a time

Searching: **CINAHL Plus with Full Text** | Choose Databases

- **Suggest Subject Terms**
- **wireless communications**
  - Select a Field (optional)
  - Search
- Check box next to **Wireless Communications** from the CINAHL Headings Results page
- A middle column for **Subheadings** appears which allows you to zero in on a specific aspect of wireless communication. We will not select a subheading.
- Scroll down to bottom of page and click **Browse Additional Terms**
- Enter *Contamination*, click **BROWSE**, select the broadest term *Microbial Contamination* (clicking the Scope note gives you the definition and suggestions)
- Change the radio button from **OR** to **AND** before you click **Search Database** (both concepts have to be in the article)
- Click **Search Database** which will run the search and return to the main page

- You will see this on the main page:
  - (MH "Wireless Communications") AND (MH "Microbial Contamination+")
- You can expand your search with other CINAHL Subject Headings to be broader:
  - (MH "Cellular Phone+" OR MH "Smartphone+" OR MH "Computers, Hand-Held+" OR MH "Wireless Communications") AND (MH "Microbial Contamination+" OR "Equipment Contamination")

**Get full text articles** from your result list:
- To find all UConn full text articles, NEVER limit to full text!!
- **Look for**:
  - PDF symbol which will automatically give you the PDF article
  - HTML symbol which will give you the article in HTML format
  - **UCONN Links** if PDF symbol is not given, click **UCONN Links**

- **UCONN Full Text** may provide a link to the article, journal website (from there you can search for the article), or a link to order the article from Interlibrary loan
Search PubMed

- Enter a term(s) or phrase(s) in search box, then click Search button (you can also copy & paste CINAHL search)
  - This example will find the terms anywhere in the record:
    (contamination OR cross infection) AND (smart phone* OR smartphones OR cell phones)

- Use [tiab] to find terms in the title or abstract, use [ti] to find terms in the title:
  contamination[tiab] AND (smartphones[tiab] OR cell phones[tiab])

- Reminders:
  - Click Advanced under search box to review search history
  - Keep track of the best search terms for the Methodology Section in your poster!
  - To limit results, click “Show Additional Filters” on left side
    - Select Languages box, click SHOW Additional filters, and then select English
    - Select Publication dates, if needed
- Select **Customize** under **Article Types**; then select your preferences, Review, Randomized Controlled Trial, Systematic Reviews, Guidelines, Practice Guidelines, etc.; click **SHOW**
- Then select your limits (again!)
- **DO NOT LIMIT** to full text or free full text!

- Click **title of article** to find **UCONN Links** and the full text

- When viewing your results check the **citation box** to select article; send to **Clipboard** under **Send to** dropdown; then select **Add to Clipboard**
When done with search, select **Clipboard** icon to:
- Print your saved results
- Export saved results to RefWorks
- email saved results
- Save in My Bibliography

- **Advanced search using MeSH Terms for precision (MeSH defines the content of the article.)**
  - Many citations are indexed with MeSH Terms, just click **MeSH Terms** link below the abstract or PMID number to view
• Select MeSH Database on main PubMed page or from the drop down box
  ▪ Enter cell phones; click Search
  ▪ Select MeSH term Cell phones; and click “ADD to Search Builder” to populate PubMed Search Builder box
  ▪ Clear screen and enter cross infection; click Search
  ▪ Select MeSH term Cross Infection; click “ADD to Search Builder”
  ▪ Click Search PubMed to return to PubMed; then limit your results

Cochrane Library Database
• An evidence-based database, includes systematic reviews, trials, quality improvement interventions, and other resources
• Cochrane was not helpful for the cellphone search because current EB research does not exist, but it may be helpful for your search.
• Search your topic in the “Title, Abstract, Keywords” using keywords
  o View All Results on left side and navigate to the type or result (protocols, trials, methods, etc.)
  o Login or Registration is not needed
• See sample search from Cochrane:
DynaMed Plus

- A clinical reference tool for health care professionals at the point-of-care.
  - Clinically-organized evidence based summaries for more than 3,400 disease or diagnostic topics
  - Links to full text articles in EBSCO
- DynaMed was not very specific on “cellphones”; this may also happen with your search
- Below is a screen shot of a successful search, *Sports Related Concussion* with current summaries and overview
TRIP database

- Type search term(s) and click
- Select PICO template, Systematic Reviews, or Guidelines.

7. Click or if you have a question

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