**Domain 4: Scholarship for the Nursing Discipline**

• **Integrative Learning Strategies**

These strategies serve as examples of both clinical and didactic learning experiences that can be included in the curriculum for preparing graduates with the expected competencies and sub-competencies. Some strategies may cross more than one domain, which will be indicated. •

• **Resources**

Examples include case studies, simulations, webinars, websites, and online learning modules.

• **Recommended Content**

This includes recommended or suggested content for entry-level and advanced- level competencies that provides guidance for faculty in deciding what areas of content are recommended for each domain, competency, and sub-competency.

• **Assessment Strategies**

These strategies are recommended as options for faculty to assess students’ competencies in a particular area. All instruments may not be t valid, reliable standardized assessment tools, except where noted. Some of the recommended strategies, particularly if generalizable, may be featured in this section and in the curricular mapping tool included in the tool kit.

• **References**

This would include key articles and other sources recommended or pertaining to the individual domains.

From AACN:

***Domain 4:*** *Scholarship for Nursing Practice*

**Descriptor:** The generation, synthesis, translation, application, and dissemination of nursing knowledge to improve health and transform health care (AACN, 2018).

**Contextual Statement:** Nursing scholarship informs science, enhances clinical practice, influences policy, and impacts best practices for educating nurses as clinicians, scholars, and leaders. Scholarship is inclusive of discovery, application, integration, and teaching. While not all inclusive, the scholarship of discovery includes primary empirical research, analysis of large data sets, theory development, and methodological studies. The scholarship of practice interprets, draws together, applies, and brings new insight to original research (Boyer, 1990; AACN 2018).

Knowledge of the basic principles of the research process, including the ability to critique research and determine its applicability to nursing’s body of knowledge, is critical. Ethical comportment in the conduct and dissemination of research and advocacy for human subjects are essential components of nursing’s role in the process of improving health and health care. Whereas the research process is the generation of new knowledge, evidence-based practice (EBP) is the process for the application, translation, and implementation of best evidence into clinical decision-making. While evidence may emerge from research, EBP extends beyond just data to include patient preferences and values as well as clinical expertise. Nurses, as innovators and leaders within the interprofessional team, use the uniqueness of nursing in nurse-patient relationships to provide optimal care and address health inequities, structural racism, and systemic inequity.

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| **Entry-Level Professional Nursing Education**  |  |

 | **Advanced-Level Nursing Education** |
| **4.1 Advance the scholarship of nursing.**  |
| 4.1a Demonstrate an understanding of different approaches to scholarly practice.  | 4.1h Apply and critically evaluate advanced knowledge in a defined area of nursing practice.  |
| 4.1b Demonstrate application of different levels of evidence.  | 4.1i Engage in scholarship to advance health.  |
| 4.1c Apply theoretical framework(s)/models in practice.  | 4.1j Discern appropriate applications of quality improvement, research, and evaluation methodologies.  |
| 4.1d Demonstrate an understanding of basic elements of the research process.  | 4.1k Collaborate to advance one’s scholarship.  |
| 4.1e Participate in scholarly inquiry as a team member.  | 4.1l Disseminate one’s scholarship to diverse audiences using a variety of approaches or modalities. |
| 4.1f Evaluate research.  | 4.1m Advocate within the interprofessional team and with other stakeholders for the contributions of nursing scholarship.  |
| 4.1g Communicate scholarly findings.  |  |
| **4.2 Integrate best evidence into nursing practice.**  |
| 4.2a Evaluate clinical practice to generate questions to improve nursing care.  | 4.2f Use diverse sources of evidence to inform practice.  |
| 4.2b Evaluate appropriateness and strength of the evidence.  | 4.2g Lead the translation of evidence into practice.  |
| 4.2c Use best evidence in practice.  | 4.2h Address opportunities for innovation and changes in practice.  |
| 4.2d Participate in the implementation of a practice change to improve nursing care.  | 4.2i Collaborate in the development of new/revised policy or regulation in the light of new evidence.  |
| 4.2e Participate in the evaluation of outcomes and their implications for practice.  | 4.2 j Articulate inconsistencies between practice policies and best evidence.  |
|  | 4.2k Evaluate outcomes and impact of new practices based on the evidence.  |
| **4.3 Promote the ethical conduct of scholarly activities.**  |
| 4.3a Explain the rationale for ethical research guidelines, including Institutional Review Board (IRB) guidelines.  | 4.3e Identify and mitigate potential risks and areas of ethical concern in the conduct of scholarly activities.  |
| 4.3b Demonstrate ethical behaviors in scholarly projects including quality improvement and EBP initiatives.  | 4.3f Apply IRB guidelines throughout the scholarship process.  |
| 4.3c Advocate for the protection of participants in the conduct of scholarly initiatives.  | 4.3g Ensure the protection of participants in the conduct of scholarship.  |
| 4.3d Recognize the impact of equity issues in research.  | 4.3h Implement processes that support ethical conduct in practice and scholarship.  |
|  | 4.3i Apply ethical principles to the dissemination of nursing scholarship.  |

**Toolkit with AACN Essential Requirements. Domain 4: Scholarship for Nursing Practice**

|  |  |  |
| --- | --- | --- |
|  | **Entry Level Competency addressed: 4.1 Advance the Scholarship of Nursing.** **Sub-competencies addressed: 4.1a, 4.1b, 4.1c, 4.1d, 4.1e, 4.1f, and 4.1g** | **Advanced Level Competency addressed: 4.1 Advance the Scholarship of Nursing.** **Sub-competencies addressed: 4.1h, 4.1i, 4.1j, 4.1k, 4.1l, and 4.1m** |
| Integrative Learning Strategies | 4.1 a Demonstrate an understanding of different approaches to scholarly practiceAs a prelude to competency development in this domain, consider the following content:1. What is scholarship? Review definition of scholarship and discuss salient aspects.2. What is knowledge generation in nursing?History and present status3. Sources of Nursing Knowledge Patterns of Knowing4. Theory-Practice-Research connection5. Types of scholarship  Research Practice ScholarshipKaiser Permanente research series. 20 presentations that highlight all components of scholarship development.<http://kpscnursingresearch.org/nursing-research-series/>Essentials of Science: Methods, Appraisal and Utilization**Purpose**Nurses are developing the scientific body of knowledge relating to nursing practice. While not all nurses are interested in conducting a research project of their own, all nurses are expected to read, understand, and critically appraise research reports, as part of professional practice. In addition, nurses are expected to utilize the results of scientific studies to improve patient care. The purpose of this educational series is to assist nurses to be a consumer of nursing research, to evaluate the adequacy of research findings in terms of their scientific merit, and to consider their potential for utilization in evidence-based nursing practice.**Objective**By the completion of the series, the participant will be able to:1. Describe how research is different from other types of projects such as program evaluation and quality initiatives.
2. Describe each step in the research process.
3. Identify resources for further developing research skills at each step in the process.

What is science and what are its essentials<https://kpnursing.org/_SCAL/research/selfstudyseries/Part%2001_Science%20and%20Essentials%20HTML5/presentation_html5.html>4.1 b Demonstrate application of different levels of evidence<https://rushu.libguides.com/c.php?g=217469&p=1436716>1. Review examples of levels of evidence including randomized control trials, cohort and observational studies, case reports and expert opinions
2. Discussion related to differences between research, quality improvement, and evidence-based practice
3. Compare articles showcasing various approaches to scholarship
4. Journal club reviewing specific examples

EBP tutorials<https://rushu.libguides.com/c.php?g=217469&p=3370563><https://guides.lib.unc.edu/nursing/EBN#s-lg-box-23871236>4.1c Apply theoretical frameworks/models in practice[https://kpnursing.org/\_SCAL/research/selfstudyseries/Part%2005\_%20Conceptual%20Frameworks,%20Models,%20and%20Theories%20HTML5/presentation\_html5.html](https://kpnursing.org/_SCAL/research/selfstudyseries/Part%2005_%20Conceptual%20Frameworks%2C%20Models%2C%20and%20Theories%20HTML5/presentation_html5.html)Translational research model<https://kpnursing.org/_SCAL/research/selfstudyseries/Part%2017_Translational%20Research%20HTML/presentation_html5.html>Outcome’s research<https://kpnursing.org/_SCAL/research/selfstudyseries/Part%2020_Outcomes%20Research%20and%20Evaluating%20Change%20HTML5/presentation_html5.html>4.1d Demonstrate an understanding of basic elements of the research process. Overview of the research process<https://kpnursing.org/_SCAL/research/selfstudyseries/Part%2002%20_Overview%20of%20the%20Research%20Process%20HTML5/presentation_html5.html>4.1e Participate in scholarly inquiry as a team member. How to do a literature search<https://kpnursing.org/_SCAL/research/selfstudyseries/Part%2003_Review%20of%20the%20Literature%20HTML5/presentation_html5.html>4.1f Evaluate research. Synthesizing the literature<https://kpnursing.org/_SCAL/research/selfstudyseries/Part%2003_Review%20of%20the%20Literature%20HTML5/presentation_html5.html>4.1g Communicate scholarly findings. Publication<https://kpnursing.org/_SCAL/research/selfstudyseries/Part%2019_%20Getting%20Published%20HTML5/presentation_html5.html> | 4.1h Apply and critically evaluate advanced knowledge in a defined area of nursing practice. 1. Theory practice gap

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6051530/>Mind the Gap1. Utilize mindfulness to consider phenomenon of interest

<http://www.youtube.com/watch?v=3YfkIIAihGU>1. Identify a specific phenomenon of interest and related problem identification

4.1i Engage in scholarship to advance health. 1. Literature review of the current evidence and gaps related to topic of interest
2. Organizational assessment and SWOT analysis

4.1j Discern appropriate applications of quality improvement, research, and evaluation methodologies. 1.Conceptualize project with appropriate design and methods2.Create aligned evaluation plan4.1k Collaborate to advance one’s scholarship. 1. Identify stakeholders
2. Lead project team development, implementation, and evaluation

4.1l Disseminate one’s scholarship to diverse audiences using a variety of approaches or modalities. 1. Disseminate within the organization  2. Peer reviewed presentations and manuscripts 3. Determine audience based on project4.1m Advocate within the interprofessional team and with other stakeholders for the contributions of nursing scholarship. 1. Incorporate within dissemination
2. Include sustainability of project
3. Utilize leadership skills to demonstrate contributions
 |
| Resources | <https://www.aacnnursing.org/News-Information/Position-Statements-White-Papers/Defining-Scholarship-Nursing>Harvey, M., Lloyd, K., McLachlan, K. Semple, A., Walkerden, G. (2020). Reflection for learning: A scholarly practice guide for educators. <https://www.advance-he.ac.uk/knowledge-hub/reflection-learning-scholarly-practice-guide-educators>  Diaz, S & Walsh, A. (2018). Promoting evidence-based practice and information literacy through an undergraduate nursing journal club. *Pennsylvania Libraries: Research & Practice; 6*(1).<https://www.palrap.org/ojs/index.php/palrap/rt/printerFriendly/171/0> DOI 10.5195/palrap.2018.171 23Framework for how to read and critique a research study<https://www.nursingworld.org/~4afdfd/globalassets/practiceandpolicy/innovation--evidence/framework-for-how-to-read-and-critique-a-research-study.pdf>Dang, D., & Dearholt, S.L. (2018). *Johns Hopkins nursing evidence-based practice: Model & guidelines* (3rd ed). Sigma Theta Tau International.PICO Resource Center<https://tools.ovid.com/ovidtools/pico.html>Virginia Commonwealth University – EBP resources<https://guides.library.vcu.edu/ebpsteps>Clinical Inquiry Processhttps://scholarscompass.vcu.edu/libraries\_pubs/62/ |  Reed, P., & Shearer, N. (2018). *Nursing knowledge and theory innovation: Advancing the science of practice. 2nd edition.* New York: Springer  Zaccagnini, M.E. & Pechacek, J.M. (2021). *The Doctor of Nursing Practice essentials: A new model for advanced practice nursing. 4th ed.* Jones and Bartlett.  Moran, K., Burson, R., Conrad, D. (2020). *The Doctor of Nursing Practice Scholarly Project: A Framework for Success. 3rd ed.* Jones & Barlett. Chinn, P., & Kramer, M. (2018). *Integrated theory and knowledge development in nursing.* (10th ed). Elsevier.  Chism, L.A. (2019). *The Doctor of Nursing Practice: A Guidebook for Role Development and Professional Issues. 4th ed.* Jones and Bartlett Utley, R., Henry, K., Smith, L. (2021). *Frameworks for Advanced Nursing Practice and Research Philosophies, Theories, Models, and Taxonomies.* Springer. **Mindfulness**Reed, P.G. & Crawford Shearer, N.B. (2018). Chapter 7 Mindfulness and Knowledge Development in Nursing Practice **Patterns of Knowing**Carper, B.A. (1978). Fundamental patterns of knowing in nursing. *Advances in Nursing Science 1:*1; 13-28.**Phenomenon**Moran, Burson, Conrad. (2020). Chapter5 The Phenomenon of Interest Pate, C.M. (2011). *Phenomenon development from practice to research.* Nursing Science Quarterly. 24(4); 331-336. **Foundational Tenets**Bunkers, S. (2000). *The nurse scholar of the 21st century.* Nursing Science Quarterly *13*(2); 116-123. [doi10.1177/089431840001300205](https://doi-org.ezproxy.libraries.udmercy.edu/10.1177/089431840001300205) |
| Recommended Content | 1. Review definition of scholarship and discuss salient aspects
2. Knowledge generation in nursing – history and present status
3. Reflection as a process for identifying phenomenon
4. Identify Patterns of knowing and relate to a specific phenomenon
5. Review above modules for formative understanding of scholarship
6. Journal Club to review identified types of scholarship
 | 1. Working knowledge of practice scholarship
2. In depth understanding of an issue by synthesizing literature, and review of data within the organization
3. Creation of project plan, utilizing input from stakeholder and team members
4. Writing skills to initiate a proposal through completion of the project implementation and evaluation
5. Consider appropriate dissemination based on project
 |
| Recommended Assessment Strategies |  | Academic review of project proposal, development, implementation, and evaluation at specific milestones with input from organizational expert.Utilize peer review at intervals for input.  |
|  | **Entry Level Competency addressed: 4.2 Integrate Best Evidence into Nursing Practice.** **Sub-competencies addressed: 4.2a, 4.2b, 4.2c, 4.2d, and 4.2e** | **Advanced Level Competency addressed: 4.2 Integrate Best Evidence into Nursing Practice.** **Sub-competencies addressed: 4.2f, 4.2g, 4.2h, 4.2i, 4.2j, and 4.2k** |
| Integrative Learning Strategies | **4.2a Evaluate clinical practice to generate questions to improve nursing care.**Learning strategies:1. Group or individual interviews with clinical staff
2. Attendance at or review minutes or EBP/quality committee
3. Review modules and return demonstration in group

Content1. Nursing committee structures and responsibilities (Quality Improvement, Practice and Research)
2. Sources of information and data about practice, quality, and patient outcomes within health care settings
3. Describing clinical problems.
4. Framing a PICO question from a clinical problem

Johns Hopkins Medicine Center for Evidence Based Practice: Johns Hopkins Evidence Based Practice Model and Tools. <https://www.hopkinsmedicine.org/evidence-based-practice/ijhn_2017_ebp.html>UC Davis Library: Finding Evidence-Based Answers to Clinical Questions–Quickly & Effectively<https://ucdavis.app.box.com/s/ak5wbt209zdzpgp5qrii4rhteqv09z21>Module: Evidence-Based Behavorial-Practice (EBBP): EBBP Process <https://ebbp.org/training/overview>[McMaster University Health Sciences Library:](http://hsl.mcmaster.ca/) Resources for Evidence-Based Practice: About EBP<https://hslmcmaster.libguides.com/c.php?g=306765&p=2044668>[McMaster University Health Sciences Library:](http://hsl.mcmaster.ca/)Some Studies That I Like to Quote by James McCormackViva La Evidence! by James McCormack**4.2b Evaluate appropriateness and strength of the evidence.**Learning strategies:1. Discuss individual and summary evidence using standardized questions in assigned group
2. Determine if evidence strength and fit should be recommended to address clinical issue
3. Complete individual rating and grading assignment
4. Review module and complete self-test

Content:1. Sources of practice evidence
2. Evidence strength, quality, and consistency
3. Evidence evaluation tools
4. Basic EBP competencies

The BMJ: How to read a paper<https://www.bmj.com/about-bmj/resources-readers/publications/how-read-paper>Module: Evidence-Based Behavorial-Practice (EBBP): Critical appraisal<https://ebbp.org/training/overview>Albarqouni L, Hoffmann T, Straus S, Olsen NR, Young T, Ilic D, Shaneyfelt T, Haynes RB, Guyatt G, Glasziou P. (2018). Core Competencies in Evidence-Based Practice for Health Professionals: Consensus Statement Based on a Systematic Review and Delphi Survey. JAMA Network Open, 1(2):e180281. doi: 10.1001/jamanetworkopen.**4.2c Use best evidence in practice.**Learning strategies:1. Summarize the quality, quantity, and consistency of evidence to address a clinical quality issue
2. Debate of pros and cons of evidence
3. Select the best evidence for implementation
4. Recommend the selected evidence and state your rationale

Content:1. Summarizing evidence
2. Conceptual and operational definitions of quality, quantity, and consistency
3. Debate
4. Deliberation of evidence and recommendation for practice

Johns Hopkins Medicine Center for Evidence Based Practice: Johns Hopkins Evidence Based Practice Model and Tools. <https://www.hopkinsmedicine.org/evidence-based-practice/ijhn_2017_ebp.html>Module: Evidence-Based Behavorial-Practice (EBBP): Shared Decision-Making with Individual Clients<https://ebbp.org/training/overview>**4.2d Participate in the implementation of a practice change to improve nursing care.**Learning strategies:1. Discuss implementation of evidence plan with clinical partners.
2. Mentor team and clinical partner implementation
3. Discuss implementation and clinical outcomes and debrief on process

Content:1. Evidence implementation in clinical practice
2. Mentored clinical experience
3. Introduction to implementation and clinical outcomes

Johns Hopkins Medicine Center for Evidence Based Practice: Johns Hopkins Evidence Based Practice Model and Tools. <https://www.hopkinsmedicine.org/evidence-based-practice/ijhn_2017_ebp.html> **4.2e Participate in the evaluation of outcomes and their implications for practice.**Learning strategies:1. Review implementation and clinical outcomes of implementation
2. Apply the evidence-based practice quality assessment to lessons learned in implementation

Content1. Introduction to quality assessment of implementation
2. Professional implications of evidence-based practice
3. Clinical excellence and evidence-based practice

Johns Hopkins Medicine Center for Evidence Based Practice: Johns Hopkins Evidence Based Practice Model and Tools. <https://www.hopkinsmedicine.org/evidence-based-practice/ijhn_2017_ebp.html>Lee, M.C., Johnson, K.L., Newhouse, R.P., Warren, J.I. (2013). Evidence-based Practice Process Quality Assessment: EPQA Guidelines. *Worldviews on Evidence-Based Nursing*, 10(3), 140-149. doi: 10.1111/j.1741-6787.2012.00264.x | **4.2a Evaluate clinical practice to generate questions to improve nursing care.**Learning strategies:1. Obtain clinical data from EMR or health system related to clinical practice and nurse or patient outcomes.
2. Analyze data and preparing a summary of results
3. Develop recommendations to address the clinical need including people/committees responsible to address needs.

Content1. Health system data, data systems and patient outcomes.
2. System organizational structure and reporting responsibilities
3. Data analysis and reporting

Johns Hopkins Medicine Center for Evidence Based Practice: Johns Hopkins Evidence Based Practice Model and Tools. <https://www.hopkinsmedicine.org/evidence-based-practice/ijhn_2017_ebp.html>UC Davis Library: Finding Evidence-Based Answers to Clinical Questions–Quickly & Effectively<https://ucdavis.app.box.com/s/ak5wbt209zdzpgp5qrii4rhteqv09z21>Evidence-Based Behavorial-Practice (EBBP): EBBP Process <https://ebbp.org/training/overview>[McMaster University Health Sciences Library:](http://hsl.mcmaster.ca/) Resources for Evidence-Based Practice: About EBP<https://hslmcmaster.libguides.com/c.php?g=306765&p=2044668>[McMaster University Health Sciences Library:](http://hsl.mcmaster.ca/)Some Studies That I Like to Quote by James McCormackViva La Evidence! by James McCormackModule: Evidence-Based Behavorial-Practice (EBBP): Critical appraisal<https://ebbp.org/training/overview>**4.2b Evaluate appropriateness and strength of the evidence.**Learning strategies:1. Evaluate individual and quality, quantity, and consistency of summary evidence
2. Recommend if evidence strength and fit should be applied to the clinical problem
3. Write a summary statement of the quality, quantity and consistency of evidence, the overall strength of evidence (High, Moderate, Low) and the rationale for the recommendation.

Content:1. Sources of practice evidence
2. Evidence strength, quality, and consistency
3. Evidence evaluation tools
4. Advanced EBP competencies

The BMJ: How to read a paper<https://www.bmj.com/about-bmj/resources-readers/publications/how-read-paper>Module: Evidence-Based Behavorial-Practice (EBBP): Critical appraisal<https://ebbp.org/training/overview>**4.2c Use best evidence in practice**.Learning strategies:1. Summarize the quality, quantity, and consistency of evidence to address a clinical quality issue
2. Debate of pros and cons of evidence
3. Select the best evidence for implementation
4. Summarize the quality, quantity, and consistency of evidence in one paragraph to document the decision

Content:1. Summarizing evidence
2. Conceptual and operational definitions of quality, quantity, and consistency
3. Debate
4. Deliberation of evidence and recommendation for practice

Johns Hopkins Medicine Center for Evidence Based Practice: Johns Hopkins Evidence Based Practice Model and Tools. <https://www.hopkinsmedicine.org/evidence-based-practice/ijhn_2017_ebp.html>Module: Evidence-Based Behavorial-Practice (EBBP): Shared Decision-Making with Individual Clients<https://ebbp.org/training/overview>**4.2d Participate in the implementation of a practice change to improve nursing care**.Learning strategies:1. Develop implementation of evidence plan with clinical partners.
2. Implement plan with clinical partner
3. Evaluate implementation and clinical outcomes
4. Reflect on lessons learned

Content:1. Evidence implementation in clinical practice
2. Mentored clinical experience
3. Introduction to implementation and clinical outcomes

Johns Hopkins Medicine Center for Evidence Based Practice: Johns Hopkins Evidence Based Practice Model and Tools. <https://www.hopkinsmedicine.org/evidence-based-practice/ijhn_2017_ebp.html> **4.2e Participate in the evaluation of outcomes and their implications for practice.**Learning strategies:1. Summarize data on implementation and clinical outcomes of implementation
2. Complete the evidence-based practice quality assessment the implementation process.
3. Summarize the quality of implementation in one paragraph

Content1. Discuss state of quality assessment of implementation in clinical practice
2. Apply the professional implications of evidence-based practice
3. Analyze the state clinical excellence and evidence-based practice

Lee, M.C., Johnson, K.L., Newhouse, R.P., Warren, J.I. (2013). Evidence-based Practice Process Quality Assessment: EPQA Guidelines. *Worldviews on Evidence-Based Nursing*, 10(3), 140-149. doi: 10.1111/j.1741-6787.2012.00264.x  |
| Resources | Dang, D., & Dearholt, S.L. (2018). *Johns Hopkins nursing evidence-based practice: Model & guidelines* (3rd ed). Sigma Theta Tau International.Johns Hopkins Medicine Center for Evidence Based Practice: Johns Hopkins Evidence Based Practice Model and Tools. <https://www.hopkinsmedicine.org/evidence-based-practice/ijhn_2017_ebp.html>Evidence-Based Behavorial-Practice (EBBP) Modules <https://ebbp.org/training/overview>Lee, M.C., Johnson, K.L., Newhouse, R.P., Warren, J.I. (2013). Evidence-based Practice Process Quality Assessment: EPQA Guidelines. *Worldviews on Evidence-Based Nursing*, 10(3), 140-149. doi: 10.1111/j.1741-6787.2012.00264.xMelnyk,, B.M. & Fineout-Overholt, E. (2019). Evidence-Based Practice in Nursing & Healthcare: A Guide to Best Practice 4th Edition, Wolters Kluwer, Philadelphia.Buccheri RK, Sharifi C. (2017). Critical Appraisal Tools and Reporting Guidelines for Evidence-Based Practice. Worldviews Evid Based Nurs. 2017 Dec;14(6):463-472. doi: 10.1111/wvn.12258. Albarqouni L, Hoffmann T, Straus S, Olsen NR, Young T, Ilic D, Shaneyfelt T, Haynes RB, Guyatt G, Glasziou P. (2018). Core Competencies in Evidence-Based Practice for Health Professionals: Consensus Statement Based on a Systematic Review and Delphi Survey. JAMA Netw Open, 1(2):e180281. doi: 10.1001/jamanetworkopen.Warren JI, McLaughlin M, Bardsley J, Eich J, Esche CA, Kropkowski L, Risch S. The Strengths and Challenges of Implementing EBP in Healthcare Systems. Worldviews Evid Based Nurs. 2016 Feb;13(1):15-24. doi: 10.1111/wvn.12149. |  Dang, D., & Dearholt, S.L. (2018). *Johns Hopkins nursing evidence-based practice: Model & guidelines* (3rd ed). Sigma Theta Tau International.Johns Hopkins Medicine Center for Evidence Based Practice: Johns Hopkins Evidence Based Practice Model and Tools. <https://www.hopkinsmedicine.org/evidence-based-practice/ijhn_2017_ebp.html>Evidence-Based Behavorial-Practice (EBBP) Modules <https://ebbp.org/training/overview>Lee, M.C., Johnson, K.L., Newhouse, R.P., Warren, J.I. (2013). Evidence-based Practice Process Quality Assessment: EPQA Guidelines. *Worldviews on Evidence-Based Nursing*, 10(3), 140-149. doi: 10.1111/j.1741-6787.2012.00264.xMelnyk,, B.M. & Fineout-Overholt, E. (2019). Evidence-Based Practice in Nursing & Healthcare: A Guide to Best Practice 4th Edition, Wolters Kluwer, Philadelphia. Buccheri RK, Sharifi C. (2017).Critical Appraisal Tools and Reporting Guidelines for Evidence-Based Practice. Worldviews Evid Based Nurs. 2017 Dec;14(6):463-472. doi: 10.1111/wvn.12258. Albarqouni L, Hoffmann T, Straus S, Olsen NR, Young T, Ilic D, Shaneyfelt T, Haynes RB, Guyatt G, Glasziou P. (2018). Core Competencies in Evidence-Based Practice for Health Professionals: Consensus Statement Based on a Systematic Review and Delphi Survey. JAMA Netw OpenWarren JI, McLaughlin M, Bardsley J, Eich J, Esche CA, Kropkowski L, Risch S. (2016). The Strengths and Challenges of Implementing EBP in Healthcare Systems. Worldviews Evid Based Nurs. 2016 Feb;13(1):15-24. doi: 10.1111/wvn.12149.  |
| Recommended Content | Content1. Nursing committee structures and responsibilities (Quality Improvement, Practice and Research)
2. Sources of information and data about practice, quality, and patient outcomes within health care settings
3. Describing clinical problems.
4. Framing a PICO question from a clinical problem
5. Sources of practice evidence
6. Evidence strength, quality, and consistency
7. Evidence evaluation tools
8. Basic EBP competencies
9. Summarizing evidence
10. Conceptual and operational definitions of quality, quantity, and consistency
11. Debate
12. Deliberation of evidence and recommendation for practice
13. Evidence implementation in clinical practice
14. Mentored clinical experience
15. Introduction to implementation and clinical outcomes
16. Introduction to quality assessment of implementation
17. Professional implications of evidence-based practice
18. Clinical excellence and evidence-based practice
 | Content1. Health system data, data systems and patient outcomes.
2. System organizational structure and reporting responsibilities
3. Data analysis and reporting
4. Sources of practice evidence
5. Evidence strength, quality, and consistency
6. Evidence evaluation tools
7. Advanced EBP competencies
8. Summarizing evidence
9. Conceptual and operational definitions of quality, quantity, and consistency
10. Debate
11. Deliberation of evidence and recommendation for practice
12. Evidence implementation in clinical practice
13. Mentored clinical experience
14. Introduction to implementation and clinical outcomes
15. Discuss state of quality assessment of implementation in clinical practice
16. Apply the professional implications of evidence-based practice
17. Analyze the state clinical excellence and evidence-based practice
18. Develop implementation of evidence plan with clinical partners.
19. Implement plan with clinical partner
20. Evaluate implementation and clinical outcomes
21. Reflect on lessons learned
22. Summarize data on implementation and clinical outcomes of implementation
23. Complete the evidence-based practice quality assessment the implementation process.
24. Summarize the quality of implementation in one paragraph
 |
| Recommended Assessment Strategies | 1. Report of engagement with clinical staff
2. Assess participation in clinical meetings
3. Review of modules/resources with return demonstration or seminar
4. Observation or testing of assessment of quality, quantity, and consistency of evidence
5. Self-assessments
6. Evaluate implementation and clinical outcomes
7. Evaluate application of the evidence-based practice quality assessment
 | 1. Obtain clinical data from EMR or health system related to clinical practice and nurse or patient outcomes.
2. Analyze data and preparing a summary of results
3. Develop recommendations to address the clinical need including people/committees responsible to address needs.
4. Evaluate individual and quality, quantity, and consistency of summary evidence
5. Recommend if evidence strength and fit should be applied to the clinical problem
6. Write a summary statement of the quality, quantity and consistency of evidence, the overall strength of evidence (High, Moderate, Low) and the rationale for the recommendation.
 |
|  | **Entry Level Competency addressed: 4.3 Promote the Ethical Conduct of Scholarly Activities.** **Sub-competencies addressed: 4.3a, 4.3b, 4.3c, and 4.3d** | **Advanced Level Competency addressed: 4.3 Promote the Ethical Conduct of Scholarly Activities.** **Sub-competencies addressed: 4.3e, 4.3f, 4.3g, 4.3h, and 4.3i** |
| Integrative Learning Strategies | **Sub-competency 4.3a** *Explain the rationale for ethical research guidelines, including Institutional Review Board (IRB) guidelines.* 1. **Health and Human Services – Online Lesson: What is Human Subjects Research** <https://www.hhs.gov/ohrp/education-and-outreach/online-education/human-research-protection-training/lesson-2-what-is-human-subjects-research/index.html>

This lesson will explain how the Common Rule regulations define “research” and “human subjects” and explain what it means to be exempt from the regulations. **Lesson Overview**This lesson contains four parts:* Part 1: Background of Human Subjects Research
* Part 2: Is the Activity Research?
* Part 3: Does the Research Involve Human Subjects?
* Part 4: Is the Human Subjects Research Exempt?

**Learning Objectives**After completing this lesson, you will be able to:* Identify if a certain activity meets the regulatory definition of research.
* Identify if research involves human subjects based on the regulatory definition.
* Determine whether a particular project is non-exempt human subjects research under the Common Rule.

**What Is Ethics in Research & Why Is It Important?** <https://www.niehs.nih.gov/research/resources/bioethics/whatis/index.cfm>The author, David B. Resnik, J.D., Ph.D.Bioethicist, discusses standards of conduct, why it is important to adhere to ethical norms in research, and ethical principles. Three case studies in ethical decision making in research are included.**NIH Guiding Principles for Ethical Research** <https://www.nih.gov/health-information/nih-clinical-research-trials-you/guiding-principles-ethical-research> This resource provides an overview of the seven main principles to guide the conduct of ethical research.**Essential Elements of Ethics** <https://globalhealthtrainingcentre.tghn.org/essential-elements-ethics/> This free and open access e-Learning resource has been adapted from the Multi-Regional Clinical Trials Center at Brigham and Women’s Hospital and Harvard (MRCT Center) [Ethics Tool Kit](https://globalhealthtrainingcentre.tghn.org/site_media/media/medialibrary/2014/10/EssentialElementsofEthics.pdf). The Ethics Tool Kit was created to encourage protocol authors to address ethical issues in the design of studies and document their rationale in a section of the protocol that will be easily understood by review boards and investigators. This e-Learning resource will guide the development of a dedicated “Ethics section” of the protocol in which these Essential Elements are addressed or cross-referenced to other sections of the protocol. This tool will enable a quality and efficient review of a protocol’s ethical considerations by ethics committees.1. **Reflective Practice Paper: Exploring Ethical Research**

**4.3b** *Demonstrate ethical behaviors in scholarly projects including quality improvement and EBP initiatives.** 1. **Develop understanding/awareness of systematic bias in research**
* Malone, Nicholl & Tracey (2014) highlight the need for ongoing awareness of the potential presence of systematic bias in research practice, to explore commonly reported types of systematic bias and to report some methods that can be applied to minimize systematic bias in research. <https://doi.org/10.12968/bjon.2014.23.5.279>
	1. **Review Squire guidelines 2.0** <http://squire-statement.org/index.cfm?fuseaction=Page.ViewPage&PageID=471>
* The SQUIRE guidelines provide a framework for reporting new knowledge about how to improve healthcare.
* The SQUIRE guidelines are intended for reports that describe system level work to improve the quality, safety, and value of healthcare, and used methods to establish that observed outcomes were due to the intervention(s). A range of approaches exists for improving healthcare. SQUIRE may be adapted for reporting any of these. Authors should consider every SQUIRE item, but it may be inappropriate or unnecessary to include every SQUIRE element in a particular manuscript.
	1. **Plan, implement, and evaluate a meaningful/needed quality improvement project** in a clinical setting using SQUIRE guidelines.

**4.3c** *Advocate for the protection of participants in the conduct of scholarly initiatives.*1. How IRBs Protect Human Research Participants – Video <https://www.youtube.com/watch?v=U8fme1boEbE>

**4.3d** *Recognize the impact of equity issues in research.*1. Overview of Diversity, Inclusion, and Equity in Clinical Research <https://mrctcenter.org/diversity-in-clinical-research/guidance/guidance-document/>
2. Review Diversity, Inclusion, and Equity in Clinical Research ToolKit <https://mrctcenter.org/diversity-in-clinical-research/tools/toolkit/>
3. **Reflection:** Diversity, equity, and inclusion experience in entry level nursing clinical/practicum
 | **Sub-competency 4.3e** *Identify and mitigate potential risks and areas of ethical concern in the conduct of scholarly activities.** 1. **NIH Research Misconduct**

According to federal regulations, research misconduct is defined as: fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results and does not include honest error or differences of opinion. You can find more information about misconduct polices and processes in the [Investigation of Allegations of Research Misconduct section](https://oir.nih.gov/sourcebook/ethical-conduct/research-ethics/nih-policies/investigation-allegations-research-misconduct) of the NIH Sourcebook.* 1. **Framework for the ethics of research with human subjects - Christine Grady, RN PhD Chief, Department of Bioethics NIH Clinical Center** (PowerPoint presentation) <https://www.bioethics.nih.gov/sites/nihbioethics/files/bioethics-files/courses/pdf/2020/session1_grady.pdf>
	2. **Voluntary participation** - Marshall, P.A., Adebamowo, C.A., Adeyemo, A.A. et al. (2014). Voluntary participation and comprehension of informed consent in a genetic epidemiological study of breast cancer in Nigeria. BMC Med Ethics 15, 38. <https://doi.org/10.1186/1472-6939-15-38>
	3. **Informed Consent** - Christine Grady, RN PhD Chief, Department of Bioethics NIH Clinical Center (PowerPoint presentation) <https://www.bioethics.nih.gov/sites/nihbioethics/files/bioethics-files/courses/pdf/2020/session2_grady.pdf>
	4. **Privacy and Confidentiality** - Holly Taylor, PhD, MPH, Department of Bioethics, NIH Clinical Center (PowerPoint presentation) <https://www.bioethics.nih.gov/sites/nihbioethics/files/bioethics-files/courses/pdf/2020/session2_taylor.pdf>
	5. **Risk-Benefit Assessment in Clinical Research -** David Wendler, Ph.D. Department of Bioethics NIH Clinical Center (PowerPoint presentation)

<https://www.bioethics.nih.gov/sites/nihbioethics/files/bioethics-files/courses/pdf/2020/session1_wendler.pdf>* 1. **NIH Ethics Case #1 – Data Access, Analysis and Reporting within a Research Group and Ethics Case #2 – Postdoc Leaving NIH Lab** <https://oir.nih.gov/sites/default/files/uploads/sourcebook/documents/ethical_conduct/case_studies-2020.pdf>
	2. **Ethical and Regulatory Aspects of Clinical Research**

<https://www.bioethics.nih.gov/courses/ethical-regulatory-aspects.shtml>* This course is offered to anyone interested or involved in the ethics of clinical research with human subjects. Participants represent multiple disciplines including research teams, IRB members, physicians, psychologists, nurses, social workers, administrative staff, students, and others. No cost. Watch on your own time once the recording is posted on the [NIH VideoCast archive](https://videocast.nih.gov/PastEvents?c=22) or [Department of Bioethics website](https://www.bioethics.nih.gov/courses/ethical-regulatory-aspects.shtml). Recordings are posted within 48 hours after each class session. Lessons include syllabus, slides, course materials, and videocasts.

**4.3f** *Apply IRB guidelines throughout the scholarship process.***Article review:** Doody, O. & Noonan, M. (2016). Nursing research ethics, guidance, and application in practice. *British Journal of Nursing, 25*(15). <https://doi.org/10.12968/bjon.2016.25.14.803>**Article review**: Greaney, A. M., Sheehy, A., Heffernan, C., Murphy, J., Ni Mhaolrúnaigh, S., Heffernan, E. & Brown, G. (2013). Research ethics application: a guide for the novice researcher. British Journal of Nursing, 21(1). <https://doi.org/10.12968/bjon.2012.21.1.38>1. **Article review:** Pannucci, C. J., & Wilkins, E. G. (2010). Identifying and avoiding bias in research. *Plastic and reconstructive surgery*, *126*(2), 619–625. <https://doi.org/10.1097/PRS.0b013e3181de24bc>
2. **Human Subject Regulations Decision Charts: 2018 Requirements** <https://www.hhs.gov/ohrp/sites/default/files/human-subject-regulations-decision-charts-2018-requirements.pdf>

**4.3g** *Ensure the protection of participants in the conduct of scholarship.*1. Review historical cases related to conduct of research
* The Belmont Report <https://www.hhs.gov/ohrp/sites/default/files/the-belmont-report-508c_FINAL.pdf>
* Nazi Medical Experiments <https://encyclopedia.ushmm.org/content/en/article/nazi-medical-experiments>
* Nuremberg Code <https://encyclopedia.ushmm.org/content/en/article/the-nuremberg-code>
* Declaration of Helsinki

<https://www.wma.net/policies-post/wma-declaration-of-helsinki-ethical-principles-for-medical-research-involving-human-subjects/>1. **Simplifying Informed Consent** – Video <https://www.hhs.gov/ohrp/education-and-outreach/online-education/videos/index.html>
2. **Informed Consent Checklist** <https://www.hhs.gov/ohrp/regulations-and-policy/guidance/checklists/index.html>
3. **Case Study: Lead Based Paint** <https://www.bioethics.nih.gov/sites/nihbioethics/files/bioethics-files/courses/pdf/2020/session3_taylor_wendler.pdf>

**4.3h** *Implement processes that support ethical conduct in practice and scholarship.*1. **Processes that support ethical conduct in practice and scholarship**
* **Article review**: Ingham-Broomfield, R. (2017). A nurses’ guide to ethical considerations and the process for ethical approval of nursing research. The Australian Journal of Advanced Nursing, 35(1), 40–47. <https://search.informit.org/doi/10.3316/ielapa.509772218688556>
* **Article review**: Agunloye, O. O. (2019). Ethics in academic research and scholarship: An elucidation of the principles and applications. Journal of Global Education and Research, 3(2), 168-180. <https://www.doi.org/10.5038/2577-509X.3.2.1036>

**4.3i** *Apply ethical principles to the dissemination of nursing scholarship.*1. **Review examples of ethical dilemmas experienced in clinical practice and APRN role**
	* Greenwood, H.L., Edwards, N., Hoogbruin, A. *et al.* A review of equity issues in quantitative studies on health inequalities: the case of asthma in adults. *BMC Med Res Methodol* 11, 104 (2011). https://doi.org/10.1186/1471-2288-11-104
2. **Emerging studies related to ethical issues in research**
	* Weinbaum, C., Landree, E., Blumenthal, M. S., Piquado, T. Gutierrez Gaviria, C. I. (2019). Ethics in scientific research: An examination of ethical principles and emerging topics. Santa Monica, CA: RAND Corporation. <https://www.rand.org/content/dam/rand/pubs/research_reports/RR2900/RR2912/RAND_RR2912.pdf>

3. **PowerPoint Presentation:** Fulton, J. S. (n.d.) Clinical Scholarship, Dissemination, Peer Review and Public Critique – <https://www.northbay.org/upload/16_Symposium_Endnote_Clinical-Scholarship-Dissemination-Peer-Review-and-Public-Critique.pdf> |
| Resources | American Nurses Association: Guide to the Code of Ethics for Nurses with Interpretive Statements: Development, Interpretation, and Application, 2nd Edition<https://www.nursingworld.org/nurses-books/guide-to-the-code-of-ethics-for-nurses-with-interpretive-statements-develo/>* An essential resource for nursing classrooms, in-service training, workshops and conferences, self-study, and wherever nursing professionals use ANA’s “Code of Ethics for Nurses with Interpretive Statements” in their daily practice

Agency for Healthcare Research and Quality (AHRQ) <http://www.ahrq.gov>* AHRQ is the US premier evidence-based practice agency established by US Congress. AHRQ sponsors and conducts research that provides evidence-based information on healthcare outcomes. The site includes full text documents and evidence reports and clinical practice guidelines.

Mackey, A. & Bassendowski, S. (2017). The History of Evidence-Based Practice in Nursing Education and Practice. Journal of Professional Nursing, 33 (1), pp. 51-55. <https://doi.org/10.1016/j.profnurs.2016.05.009>. Hoskins, K., Grady, C., Ulrich, C.M., (January 31, 2018) "Ethics Education in Nursing: Instruction for Future Generations of Nurses" *OJIN: The Online Journal of Issues in Nursing* Vol. 23, No. 1, Manuscript 3. | The Hastings Center <https://www.thehastingscenter.org/>* The Hastings Center and its scholars produce publications on ethical issues in health, science, and technology that inform policy, practice, and public understanding of bioethics.

Guidelines and Policies for the Conduct of Research in the Intramural Research Program at NIH <https://oir.nih.gov/sites/default/files/uploads/sourcebook/documents/ethical_conduct/guidelines-conduct_research.pdf>* Scientists in the Intramural Research Program of the National Institutes of Health (NIH) are responsible for conducting original research consonant with the goals of their individual Institutes and Centers. These Guidelines and Policies were developed to promote high ethical standards in the conduct and management of research by NIH intramural scientists.

A Guide to the HANDLING OF RESEARCH MISCONDUCT ALLEGATIONS <https://oir.nih.gov/sites/default/files/uploads/sourcebook/documents/ethical_conduct/guide-handling_research_misconduct_allegations.pdf>* The NIH intramural research program (IRP) has robust policies and practices that guide how they examine research results that are suspected to be contaminated with data falsification, fabrication, or plagiarism. A peer process is used for performing inquiries and investigations of possible research misconduct, and this process delves deeply into the questioned research and the research record, to verify that the research has integrity, while also ensuring confidentiality, fairness, and prompt attention.

The CONSORT Statement: <http://www.consort-statement.org/>* The main product of CONSORT is the [CONSORT Statement](http://www.consort-statement.org/consort-2010), which is an evidence-based, minimum set of recommendations for reporting randomized trials. It offers a standard way for authors to prepare reports of trial findings, facilitating their complete and transparent reporting, and aiding their critical appraisal and interpretation.
* The CONSORT Statement comprises a 25-item [checklist](http://www.consort-statement.org/consort-statement/checklist) and a [flow diagram](http://www.consort-statement.org/consort-statement/flow-diagram). The checklist items focus on reporting how the trial was designed, analyzed, and interpreted; the flow diagram displays the progress of all participants through the trial. The [CONSORT “Explanation and Elaboration” document](http://www.consort-statement.org/Media/Default/Downloads/CONSORT%202010%20Explanation%20and%20Elaboration/CONSORT%202010%20Explanation%20and%20Elaboration%20-%20BMJ.pdf) explains and illustrates the principles underlying the CONSORT Statement. We strongly recommend that it is used in conjunction with the CONSORT Statement. In addition, [extensions of the CONSORT Statement](http://www.consort-statement.org/extensions) have been developed to give additional guidance for RCTs with specific designs, data, and interventions.

AGREE Enterprise: <https://www.agreetrust.org/> * The Appraisal of Guidelines for Research and Evaluation (AGREE) Instrument evaluates the process of practice guideline development and the quality of reporting.
* The original AGREE Instrument has been updated and methodologically refined.  The AGREE II is now the new international tool for the assessment of practice guidelines. The AGREE II is both valid and reliable and comprises 23 items organized into the original 6 quality domains.

STROBE Checklists: <http://www.strobe-statement.org/checklists/>* Strengthening the reporting of observational studies in epidemiology

Campbell Systematic Reviews: <https://onlinelibrary.wiley.com/journal/18911803> Common Rule:<https://www.hhs.gov/ohrp/regulations-and-policy/regulations/45-cfr-46/index.html>Humbles, P. & Jones, S. (2019). Faculty and students find a niche in scholarship: Teaching strategies to disseminate scholarly evidence-based practice projects. *ABNF Journal, 30*(4), 109-112. Retrieved from http://search.proquest.com.ezproxy.gvsu.edu/scholarly-journals/faculty-students-find-niche-scholarship-teaching/docview/2336263321/se-2?accountid=39473 |
| Recommended Content | –Understanding Ethical Research (see Integrative Learning Strategies)–Essential ethics elements (see Integrative Learning Strategies)–History of Evidence-Based Practice in Nursing Education and Practice (see Resources).–Squire Guidelines (see Integrative Learning Strategies)–Understand how IRBs protect participants (see Integrative Learning Strategies)–Diversity, inclusion, and equity considerations (see Integrative Learning Strategies) | –Identify Ethic Risks (see Integrative Learning Strategies)–Human Research Considerations (see Integrative Learning Strategies)–History of Human Subjects Research (see Integrative Learning Strategies)–Informed Consent Considerations (see Integrative Learning Strategies)–Research Ethics Essential Elements |
| Recommended Assessment Strategies | 1. **Reflective Practice Paper** - Exploring Ethical Research

1. **Plan, implement, and evaluate a meaningful/needed quality improvement project** in a clinical setting using SQUIRE guidelines. <http://squire-statement.org/index.cfm?fuseaction=document.viewDocument&documentid=1&documentFormatId=1&vDocLinkOrigin=1&CFID=23151954&CFTOKEN=6654bec58015b47d-918F25BD-1C23-C8EB-804D5EE87812E7A4>

1. **Reflective Practice Paper:** Diversity, equity, and inclusion experience in entry level nursing clinical/practicum (see above for reflection rubric)
 | 1. **Successfully complete the school's human subjects research training.** Example: <https://www.hhs.gov/ohrp/education-and-outreach/online-education/human-research-protection-training/index.html>
2. **Submit scholarly project IRB proposal to institutional review board for determination**
 |

**References**

Albarqouni L, Hoffmann T, Straus S, Olsen NR, Young T, Ilic D, Shaneyfelt T, Haynes RB, Guyatt G, Glasziou P. (2018). Core Competencies in Evidence-Based Practice for Health Professionals: Consensus Statement Based on a Systematic Review and Delphi Survey. JAMA Netw Open, 1(2):e180281. doi: 10.1001/jamanetworkopen.

Agunloye, O. O. (2019). Ethics in academic research and scholarship: An elucidation of the principles and applications. Journal of Global Education and Research, 3(2), 168-180. <https://www.doi.org/10.5038/2577-509X.3.2.1036>

Buccheri RK, Sharifi C. (2017). Critical Appraisal Tools and Reporting Guidelines for Evidence-Based Practice. Worldviews Evid Based Nurs. 2017 Dec;14(6):463-472. doi: 10.1111/wvn.12258.

Fulton, J. S. (n.d.) Clinical Scholarship, Dissemination, Peer Review and Public Critique – <https://www.northbay.org/upload/16_Symposium_Endnote_Clinical-Scholarship-Dissemination-Peer-Review-and-Public-Critique.pdf>

Dang, D., & Dearholt, S.L. (2018). *Johns Hopkins nursing evidence-based practice: Model & guidelines* (3rd ed). Sigma Theta Tau International.

Doody, O. & Noonan, M. (2016). Nursing research ethics, guidance, and application in practice. *British Journal of Nursing, 25*(15). <https://doi.org/10.12968/bjon.2016.25.14.803>

Fulton, J. S. (n.d.) Clinical scholarship, dissemination, peer review and public critique (presentation). <https://www.northbay.org/upload/16_Symposium_Endnote_Clinical-Scholarship-Dissemination-Peer-Review-and-Public-Critique.pdf>

Grady, C. (2020). Framework for the ethics of research with human subjects. <https://www.bioethics.nih.gov/sites/nihbioethics/files/bioethics-files/courses/pdf/2020/session1_grady.pdf>

Grady, C. (2020). Informed consent. <https://www.bioethics.nih.gov/sites/nihbioethics/files/bioethics-files/courses/pdf/2020/session2_grady.pdf>

Greaney, A. M., Sheehy, A., Heffernan, C., Murphy, J., Ni Mhaolrúnaigh, S., Heffernan, E. & Brown, G. (2013). Research ethics application: a guide for the novice researcher. British Journal of Nursing, 21(1). <https://doi.org/10.12968/bjon.2012.21.1.38>

Greenwood, H.L., Edwards, N., Hoogbruin, A. *et al.* (2011). A review of equity issues in quantitative studies on health inequalities: the case of asthma in adults. *BMC Medical Research Methodology* 11, 104. <https://doi.org/10.1186/1471-2288-11-104>

Hoskins, K., Grady, C., Ulrich, C.M., (January 31, 2018) "Ethics Education in Nursing: Instruction for Future Generations of Nurses" *OJIN: The Online Journal of Issues in Nursing* Vol. 23, No. 1, Manuscript 3.

Humbles, P. & Jones, S. (2019). Faculty and students find a niche in scholarship: Teaching strategies to disseminate scholarly evidence-based practice projects. *ABNF Journal, 30*(4), 109-112. Retrieved from <http://search.proquest.com.ezproxy.gvsu.edu/scholarly-journals/faculty-students-find-niche-scholarship-teaching/docview/2336263321/se-2?accountid=39473>

Ingham-Broomfield, R. (2017). A nurses’ guide to ethical considerations and the process for ethical approval of nursing research. The Australian Journal of Advanced Nursing, 35(1), 40–47. <https://search.informit.org/doi/10.3316/ielapa.509772218688556>

Lee, M.C., Johnson, K.L., Newhouse, R.P., Warren, J.I. (2013). Evidence-based Practice Process Quality Assessment: EPQA Guidelines. *Worldviews on Evidence-Based Nursing*, 10(3), 140-149. doi: 10.1111/j.1741-6787.2012.00264.x

Malone, H., Nicholl, H. & Tracey, C. (2014). Awareness and minimisation of systematic bias in research. British Journal of Nursing, 23(5), 279-282. <https://doi.org/10.12968/bjon.2014.23.5.279>

Marshall, P.A., Adebamowo, C.A., Adeyemo, A.A. et al. (2014). Voluntary participation and comprehension of informed consent in a genetic epidemiological study of breast cancer in Nigeria. BMC Med Ethics 15, 38. <https://doi.org/10.1186/1472-6939-15-38>

## MRCT Center of Brigham and Women’s Hospital and Harvard (2020). Diversity, inclusion, and equity in clinical research: Guidance document. <https://mrctcenter.org/diversity-in-clinical-research/guidance/guidance-document/>

## MRCT Center of Brigham and Women’s Hospital and Harvard (2022). Diversity, inclusion, and equity in clinical research: Toolkit. <https://mrctcenter.org/diversity-in-clinical-research/tools/toolkit/>

#

# National Institute of Health (n.d.). Case: Lead-based paint. <https://www.bioethics.nih.gov/sites/nihbioethics/files/bioethics-files/courses/pdf/2020/session3_taylor_wendler.pdf>

# National Institute of Health (2016). NIH guiding principles for ethical research. <https://www.nih.gov/health-information/nih-clinical-research-trials-you/guiding-principles-ethical-research>

# National Institute of Health (2019). Investigation of allegations of research misconduct. <https://oir.nih.gov/sourcebook/ethical-conduct/research-ethics/nih-policies/investigation-allegations-research-misconduct>

National Institute of Health (2020). NIH ethics case #1 – Data access, analysis and reporting within a research group and ethics case #2 – Postdoc leaving NIH Lab <https://oir.nih.gov/sites/default/files/uploads/sourcebook/documents/ethical_conduct/case_studies-2020.pdf>

# National Institute of Health (2021). Ethical and regulatory aspects of clinical research. <https://www.bioethics.nih.gov/courses/ethical-regulatory-aspects.shtml>

Office for Human Research Protection (n.d.). How IRBs protect human research participants. <https://www.youtube.com/watch?app=desktop&v=U8fme1boEbE>

Pannucci, C. J., & Wilkins, E. G. (2010). Identifying and avoiding bias in research. *Plastic and reconstructive surgery*, *126*(2), 619–625. <https://doi.org/10.1097/PRS.0b013e3181de24bc>

Resnick, D. B. (2020). What is ethics in research and why is it important? National Institute of Environmental Health. <https://www.niehs.nih.gov/research/resources/bioethics/whatis/index.cfm>

SQUIRE (2020). Revised standards for quality improvement reporting excellence SQUIRE 2.0 <http://squire-statement.org/index.cfm?fuseaction=Page.ViewPage&PageID=471>

Taylor, H. (2020). Privacy and confidentiality. <https://www.bioethics.nih.gov/sites/nihbioethics/files/bioethics-files/courses/pdf/2020/session2_taylor.pdf>

The Global Health Network (2022). Essential elements of ethics. <https://globalhealthtrainingcentre.tghn.org/essential-elements-ethics/>

The National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research (1979). The Belmont report. <https://www.hhs.gov/ohrp/sites/default/files/the-belmont-report-508c_FINAL.pdf>

U.S. Department of Health & Human Services (2021). What is human subjects research? Retrieved from <https://www.hhs.gov/ohrp/education-and-outreach/online-education/human-research-protection-training/lesson-2-what-is-human-subjects-research/index.html>

U.S. Department of Health & Human Services (2020). Simplifying informed consent (video). <https://www.hhs.gov/ohrp/education-and-outreach/online-education/videos/index.html>

U.S. Department of Health & Human Services (2018). Human subject regulations decision charts: 2018 requirements<https://www.hhs.gov/ohrp/sites/default/files/human-subject-regulations-decision-charts-2018-requirements.pdf>

U.S. Department of Health & Human Services (1998). Informed consent checklist. <https://www.hhs.gov/ohrp/regulations-and-policy/guidance/checklists/index.html>

U.S. Holocaust Memorial Museum (n.d.). Nazi medical experiments. <https://encyclopedia.ushmm.org/content/en/article/nazi-medical-experiments>

U.S. Holocaust Memorial Museum (n.d.). The Nuremberg code. https://encyclopedia.ushmm.org/content/en/article/the-nuremberg-code

Warren JI, McLaughlin M, Bardsley J, Eich J, Esche CA, Kropkowski L, Risch S. The Strengths and Challenges of Implementing EBP in Healthcare Systems. Worldviews Evid Based Nurs. 2016 Feb;13(1):15-24. doi: 10.1111/wvn.12149.

Weinbaum, C., Landree, E., Blumenthal, M. S., Piquado, T. Gutierrez Gaviria, C. I. (2019). Ethics in scientific research: An examination of ethical principles and emerging topics. Santa Monica, CA: RAND Corporation. https://www.rand.org/pubs/research\_reports/RR2912.html.

Wendler, D. (2020). Risk-benefit assessment in clinical research. <https://www.bioethics.nih.gov/sites/nihbioethics/files/bioethics-files/courses/pdf/2020/session1_wendler.pdf>

World Medical Association (2022). WMA declaration of Helsinki – Ethical principles for medical research involving human subjects. <https://www.wma.net/policies-post/wma-declaration-of-helsinki-ethical-principles-for-medical-research-involving-human-subjects/>

Authors:

Robin Newhouse, PhD, RN, NEA-BC, FAAN, Dean and Distinguished Professor, Indiana University

Rosanne Burson, DNP, RN, ACNS-BC, CNE, CDE, FAADE, Associate Professor, University of Detroit Mercy

Katherine Moran, DNP, RN, CDE, FAADE, Associate Dean, Grand Valley State University