Research Question Refinement Checklist

Initial Research Idea:	
Should the Question be Answered (FINER Framework)	**Refining the Research Question (PICOT Framework)**
1. Is the question *feasible* to study given your resources? Y □ N □	**1.** □ Who are the specific *participants/subjects* in this study?
2. Are you, as a researcher, personally *interested* in this question enough to devote the needed resources? Y □ N □	**2.** □ What is the *intervention* that is being studied?
3. Is this question sufficiently *novel* with regard to the established literature to be worth investigating? Y □ N □	**3.** □ To whom or what are we *comparing* the participant group in order to draw conclusions?
4. Is it *ethical* to address this issue in the proposed manner? Y □ N □	**4.** □ What *outcome* will be assessed to draw our conclusions?
5. If this study is completed, are the results *relevant* to current or future practice? Y □ N □	5. □ What is the appropriate follow-up *time* to assess outcome?
Refined Research Question:	

The FINER and PICOT Frameworks can serve as useful adjunctive tools toward determining and shaping a well-considered research question and have been outlined in the table above in a way that could be used as a checklist by a new researcher. The process of formulating a robust research question should include a literature review and consideration of the conceptual or theoretical framework that guides the hypothesis. A number of readily available resources exist that can assist in this process.

Resources:

1. Farrugia P, Petrisor BA, Farrokhyar F, Bhandari M. Research Questions, Hypotheses and Objectives. *Can J Surg.* 2010;53(4):278-281.
2. Brian Haynes R. Forming research questions. *J Clin Epidemiol.* 2006;59:881-6.
3. Hulley SB, Cummings SR, Browner WS, Grady D, Hearst N, Newman TB. *Designing Clinical Research.* 2 ed. Philadelphia: Lippincott Williams Wilkins, 2001.
4. Bordage G, Dawson B. Experimental Study Design and Grant Writing in Eight Steps and 28 questions. *Medical education* 2003;37:376-385.

For additional relevant literature, please see Calhoun et al. Empowering the Inexperienced Researcher: A Summary Report and Expert Recommendations; available on the Society for Simulation in Healthcare Research Portal (www.ssih.org).