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Evidence Based Practice for Nurses

Models for Evidence-Based Nursing Practice

Roger's Diffusion of Innovation Model

Roger's Diffusion of Innovation Theory (1995)

- Knowledge diffusion is an evolutionary process by which an innovation is communicated over time to members of a social system

Key Elements of Knowledge Diffusion

- Innovation
 - The new idea that if adopted results in changes
- Communication channels
 - Media through which the information regarding the innovation is transmitted
 - Most effective when there are shared beliefs & expectations of senders and receivers

- Time

- Process occurs over time:

- From creation of knowledge → dissemination of knowledge

- From knowledge awareness → decision to use or reject it

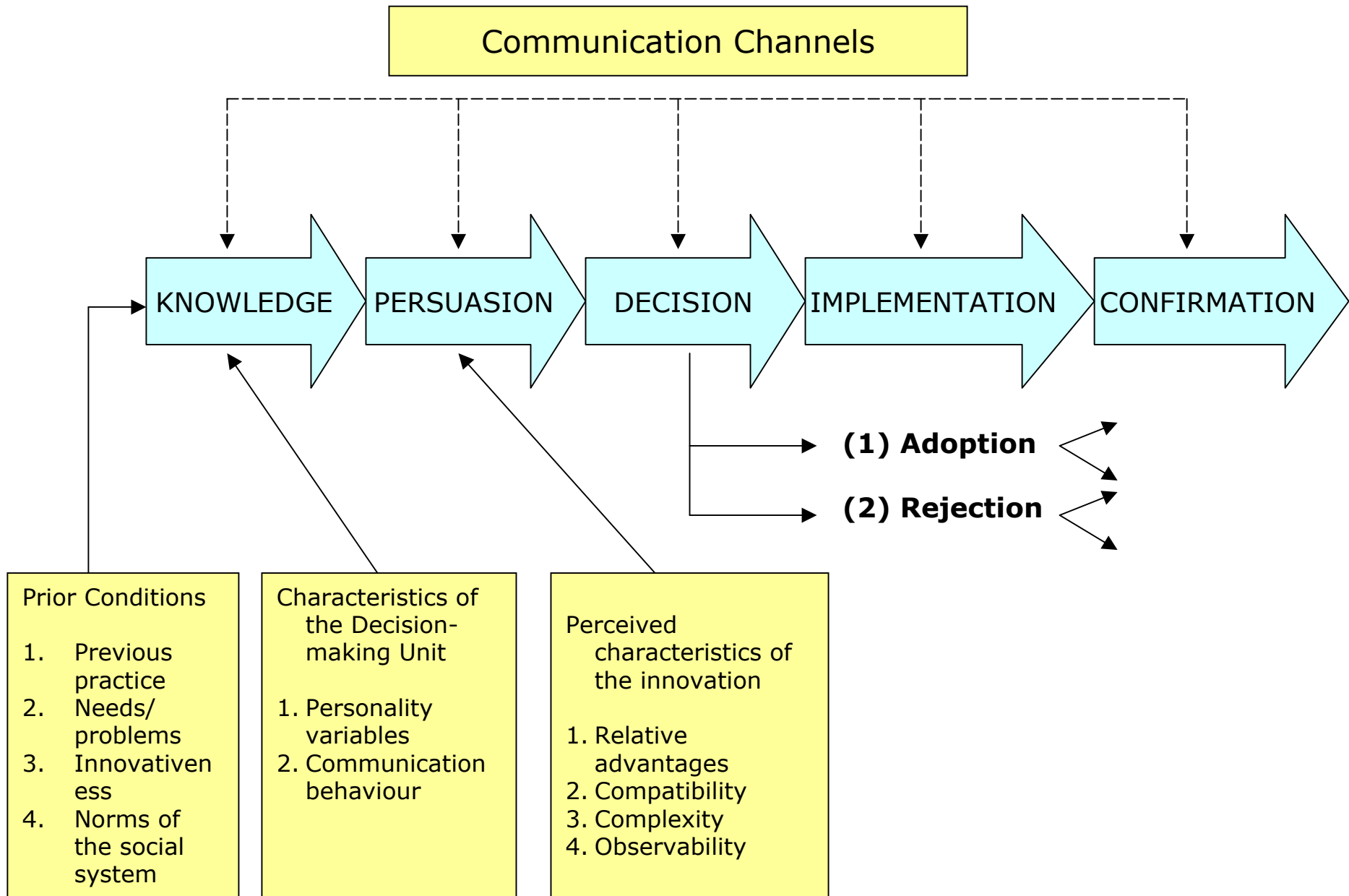
- Social system

- Interrelated units that seek to accomplish a common goal

- Diffusion occurs within social systems that vary in their norms and receptivity to innovations

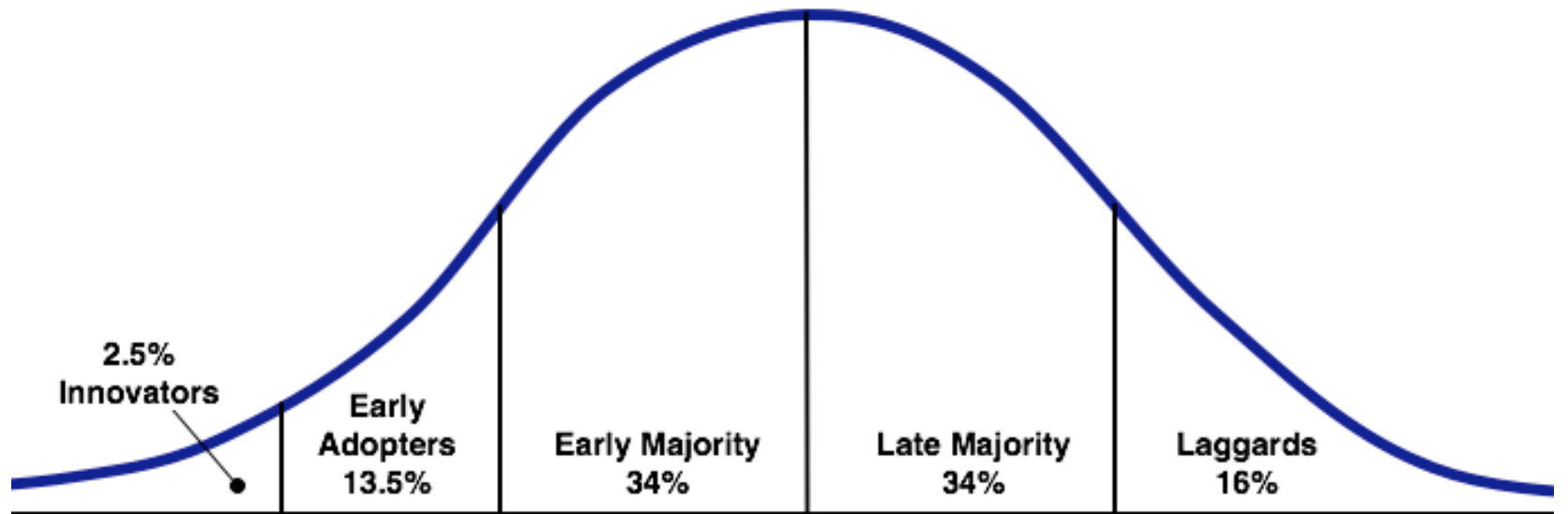
Stages of the Innovation-Adoption Process

- 5 stages:
 - Knowledge (awareness)
 - Persuasion (formation of positive attitude)
 - Decision (adopt or reject)
 - Implementation (put into practice)
 - Confirmation (effectiveness evaluated)



Roger's Categories of Adopters

- Innovators
- Early adopters
- Early majority
- Later majority
- Laggards



Source: Everett Rogers, *Diffusion of innovations* model

Nursing Research versus EBP

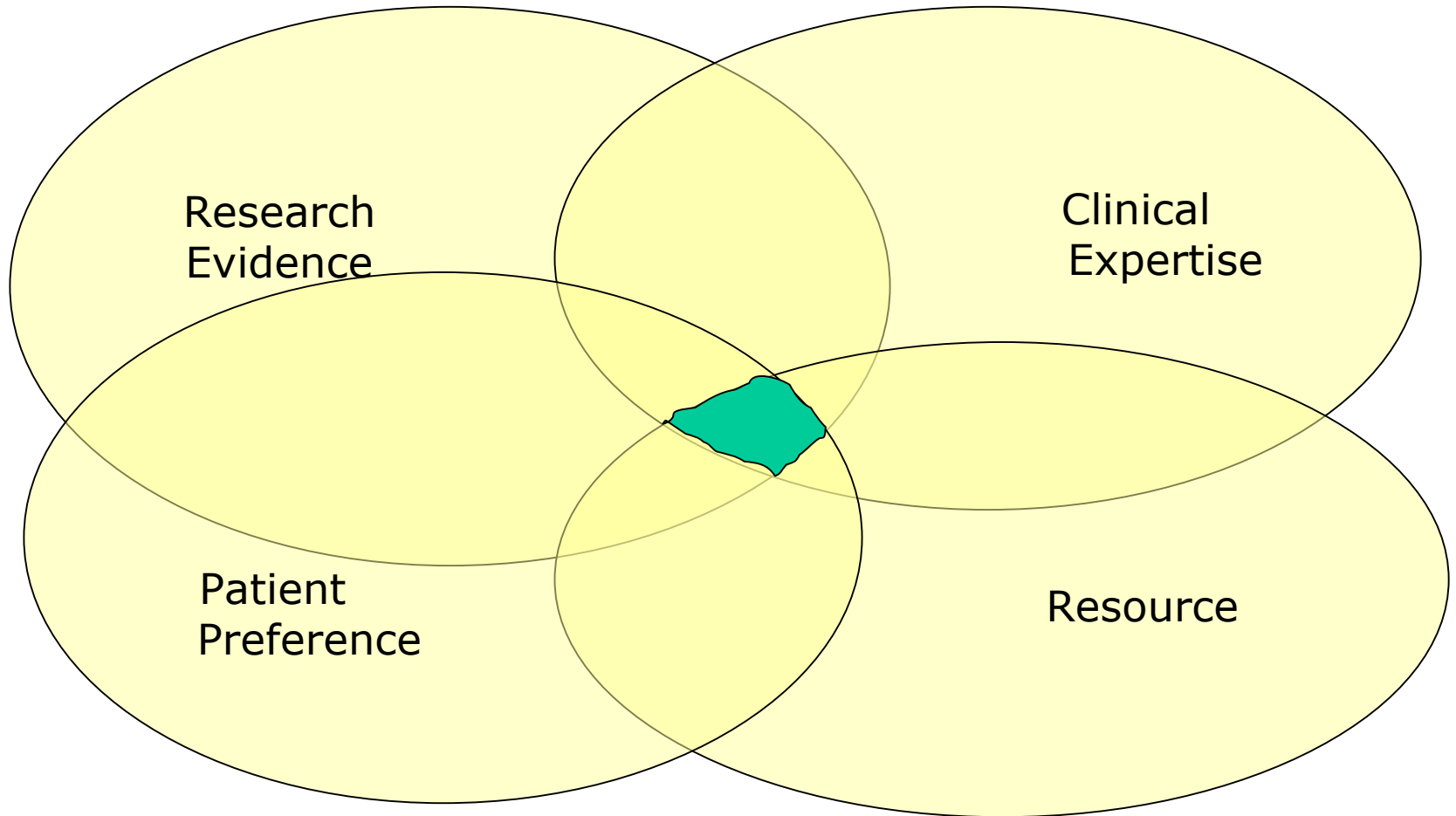
- Goal of nursing research
 - To develop, refine and expand nursing's body of knowledge
- Clinical nursing research
 - Research designed to generate knowledge to:
 - Guide practice
 - Improve health and quality of life of patients
- Evidence-Based Practice (EBP)
 - Use of the best clinical evidence in making patient care decisions

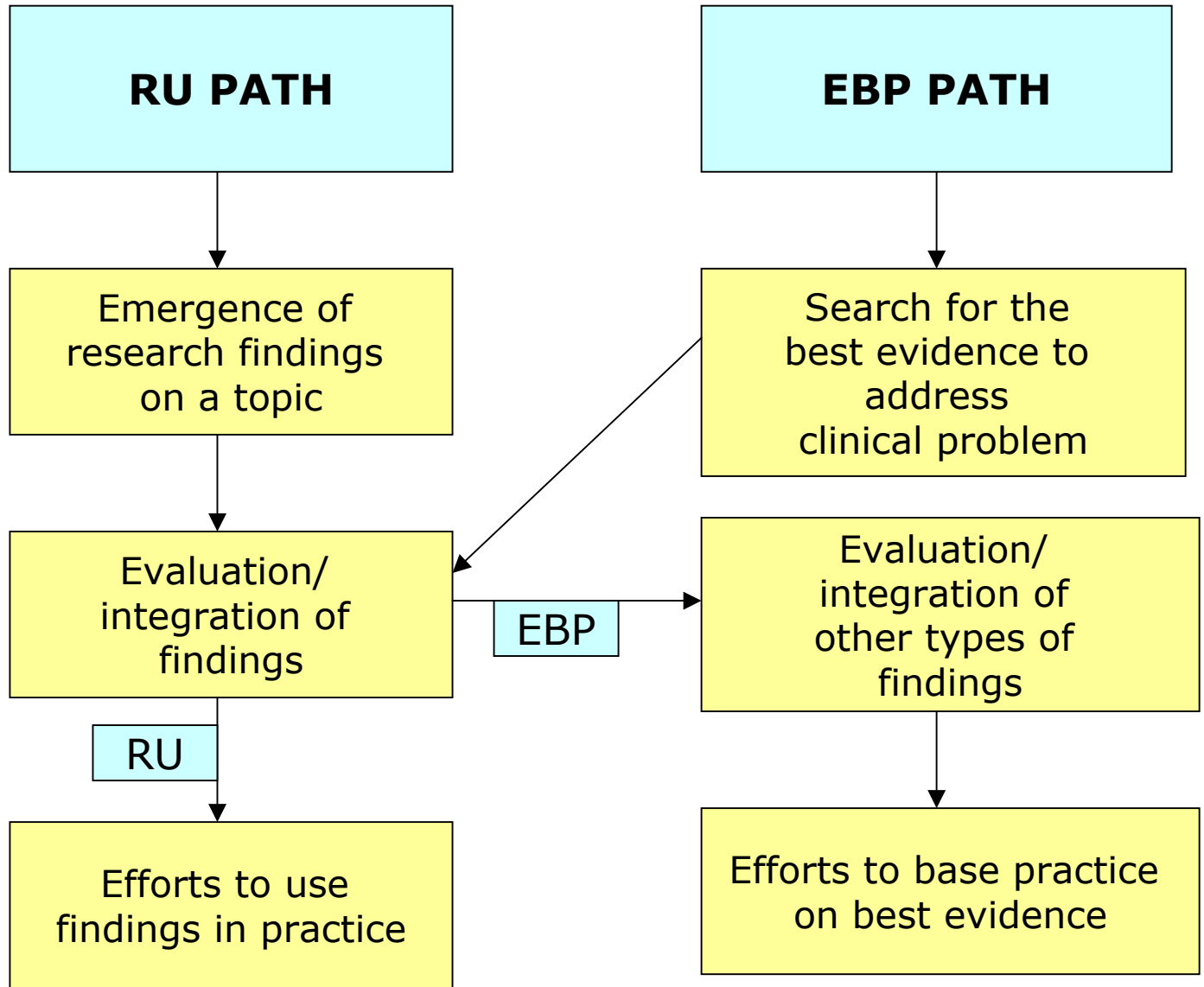
Evidence Based Nursing

“The process by which nurses make clinical decisions using the best available research evidence, their expertise and patient preferences, in the context of available resources.”

DiCenso et al., 1998.

Illustration of Evidence Based Nursing





Stetler's Model of Research Utilization (1994)

- Designed with the assumption that research utilization could be used not only by organizations but by individual clinicians and managers
- Designed to promote and facilitate critical thinking about the application of research findings in practice

- Stetler Model involves 5 sequential phases:
 - Preparation
 - Validation
 - Comparative evaluation & decision making
 - Translation/ application
 - Evaluation

- Preparation

- Define the purpose and outcomes of the project
- Search, sort & select sources of research evidence
- Consider external & internal factors that influence potential application
- Affirm priority of the perceived problem

- Validation

- Conduct a critique of each source of evidence focusing on its soundness for potential application in practice

- Comparative evaluation & decision making
 - Synthesize findings & determine the desirability and feasibility of applying findings from sources to clinical practice
 - Fit to setting
 - Feasibility
 - Current practice
 - Substantiating evidence

- Translation/ Application
 - Confirm how the findings will be used
 - Formulate the operational details of the project and implement them

- Evaluation

- Evaluate the application from a multitude of perspectives

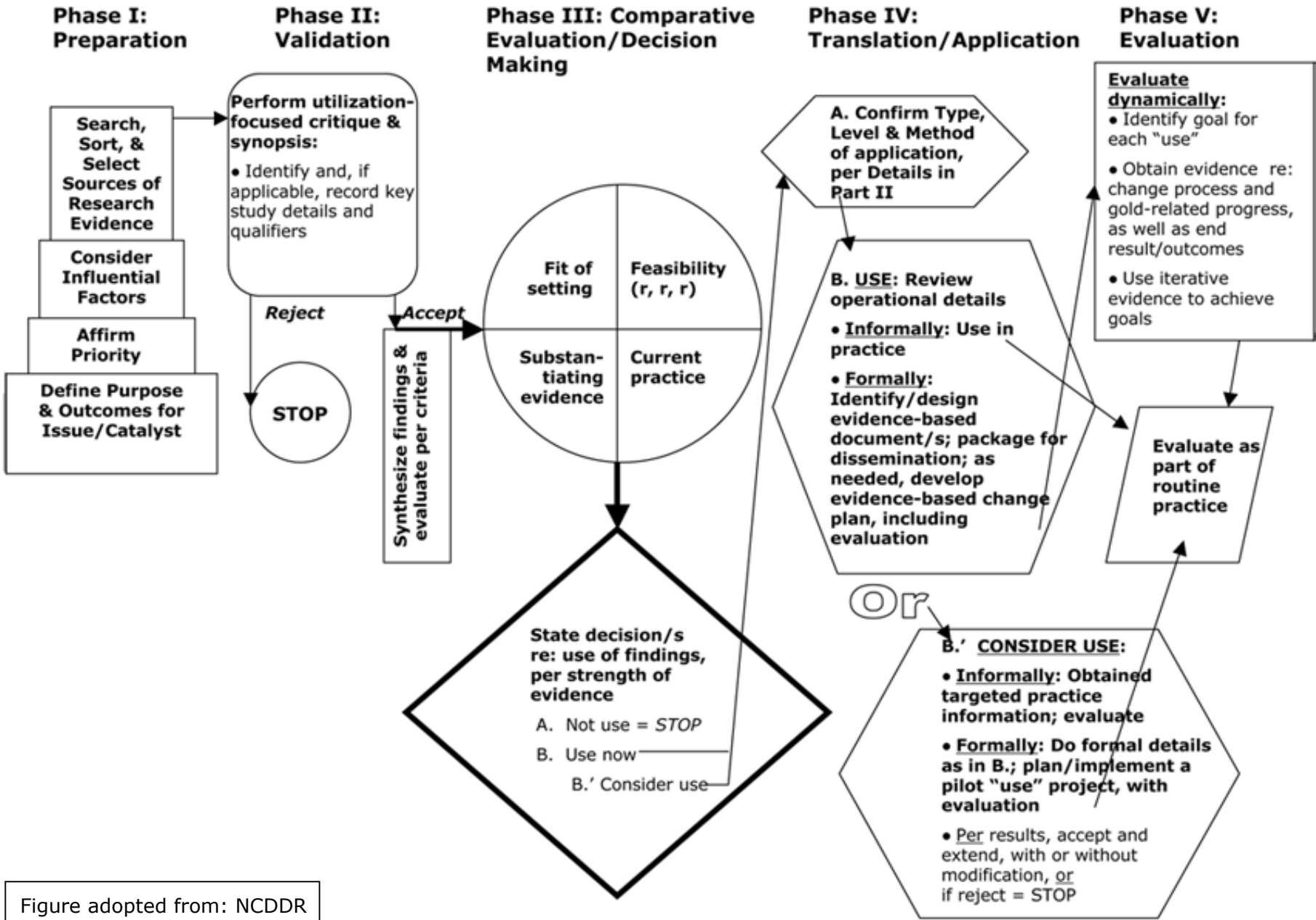


Figure adopted from: NCDDR

Stetler's Model: Comparative Evaluation Phase

- Fit to setting
 - Similarity of sample population & your patients
 - Similarity of study's environment to your own setting
- Feasibility
 - Potential risks of implementation to patients/ staff/ organization
 - Readiness to change among all stakeholders
- Current practice
 - Congruency of the study with the theory your practice behaviour
- Substantiating evidence
 - Availability of confirming evidence from other studies/ meta-analysis/ integrative review

Iowa Model of EBP to
Promote Quality Care (Tilger et
al, 2001)

- Indicates a formal EBP project begins with a trigger to explore possible changes to practice
 - Knowledge-focused trigger
 - Emerges from awareness of innovative research findings
 - E.g. new research, new guideline published
 - Problem-focused trigger
 - Rooted in a clinical or organizational problem
 - E.g. risk management data, financial data, QI data

- 1st of 3 critical decision points:
 - Deciding whether the problem is a sufficient priority for the organization
 - If YES:
 - Form a team
 - Usually multidisciplinary (makeup driven by topic)
 - Consider role, expertise & interest
 - Always involve key stakeholders in early stage
 - If NO: consider other triggers (EBP topics/ areas)

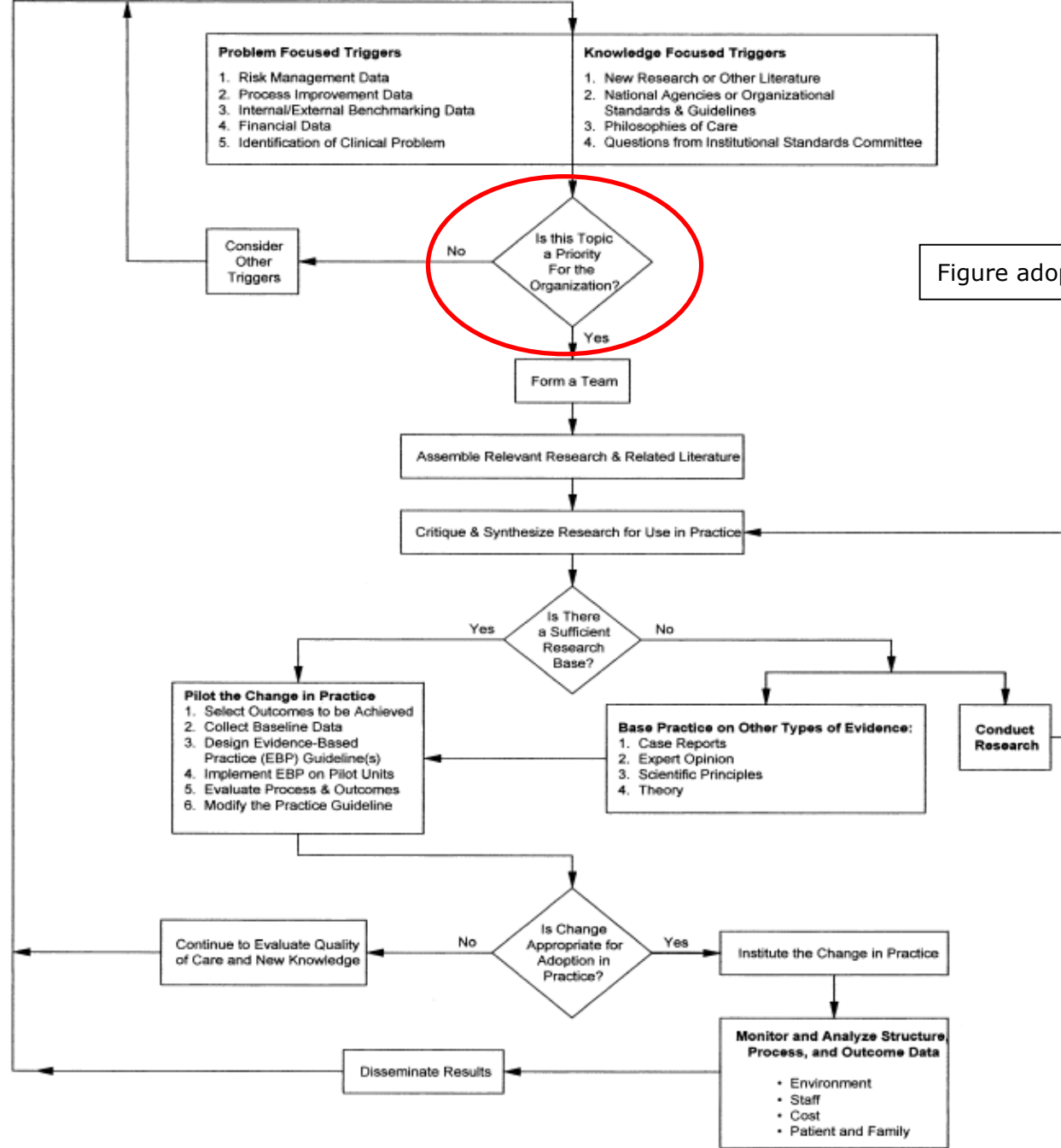
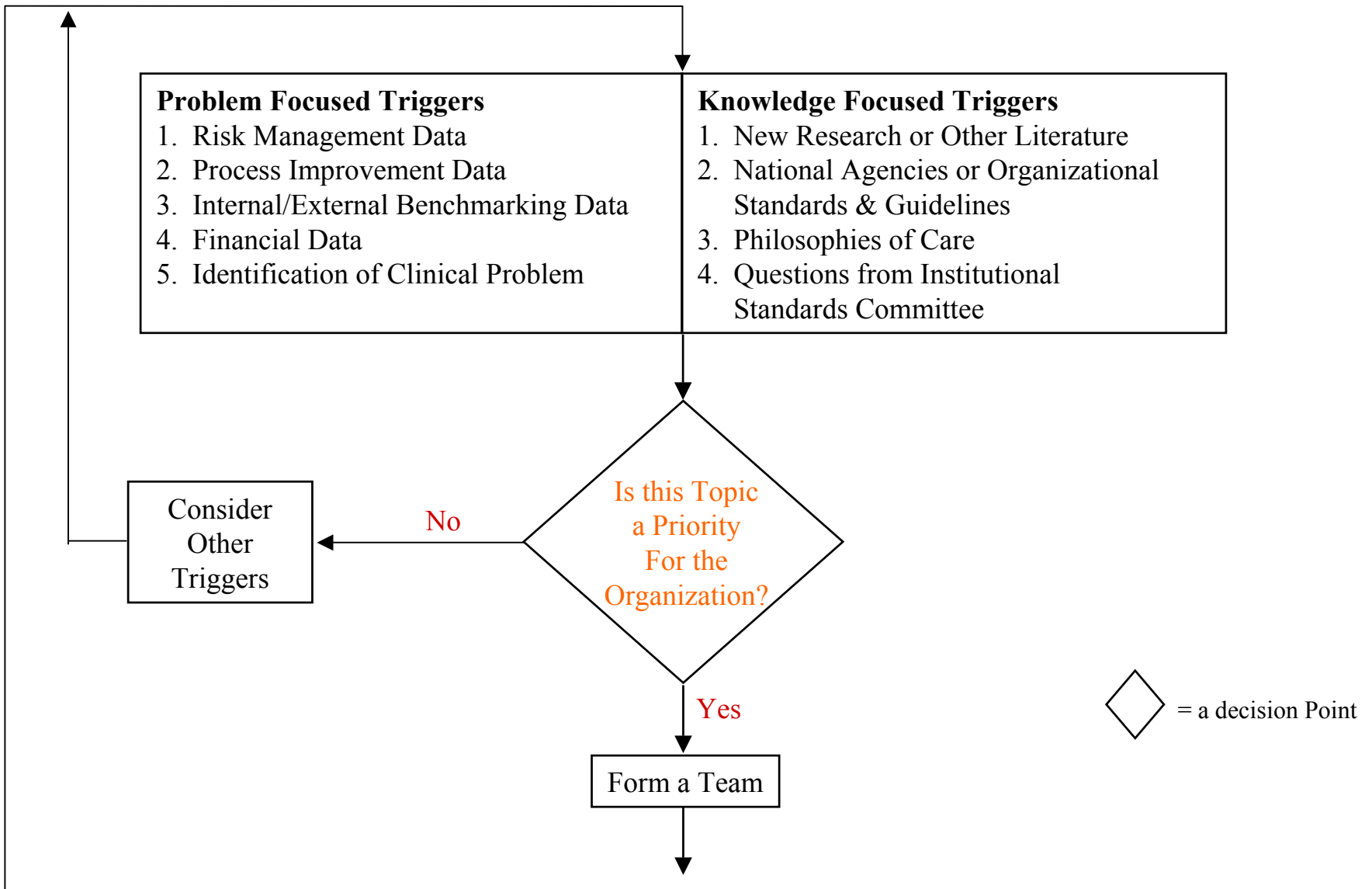


Figure adopted from: Medscape

◊ = a decision point



- Perform a literature search to assemble relevant research & related literature
 - Seek help from librarians
 - Work as a team
 - Share findings in journal club
- Critically evaluate the quality of evidence
- Synthesize data from research for use in practice

- 2nd of 3 critical decision points:
 - Deciding whether there is a sufficient research base
 - If YES:
 - Formulate the EBP guideline
 - Collect baseline data
 - Conduct a pilot test in pilot unit/ population
 - Evaluate the process & outcomes
 - Modify plan as indicated
 - If NO:
 - Base practice change on other types of evidences
 - Conduct own research

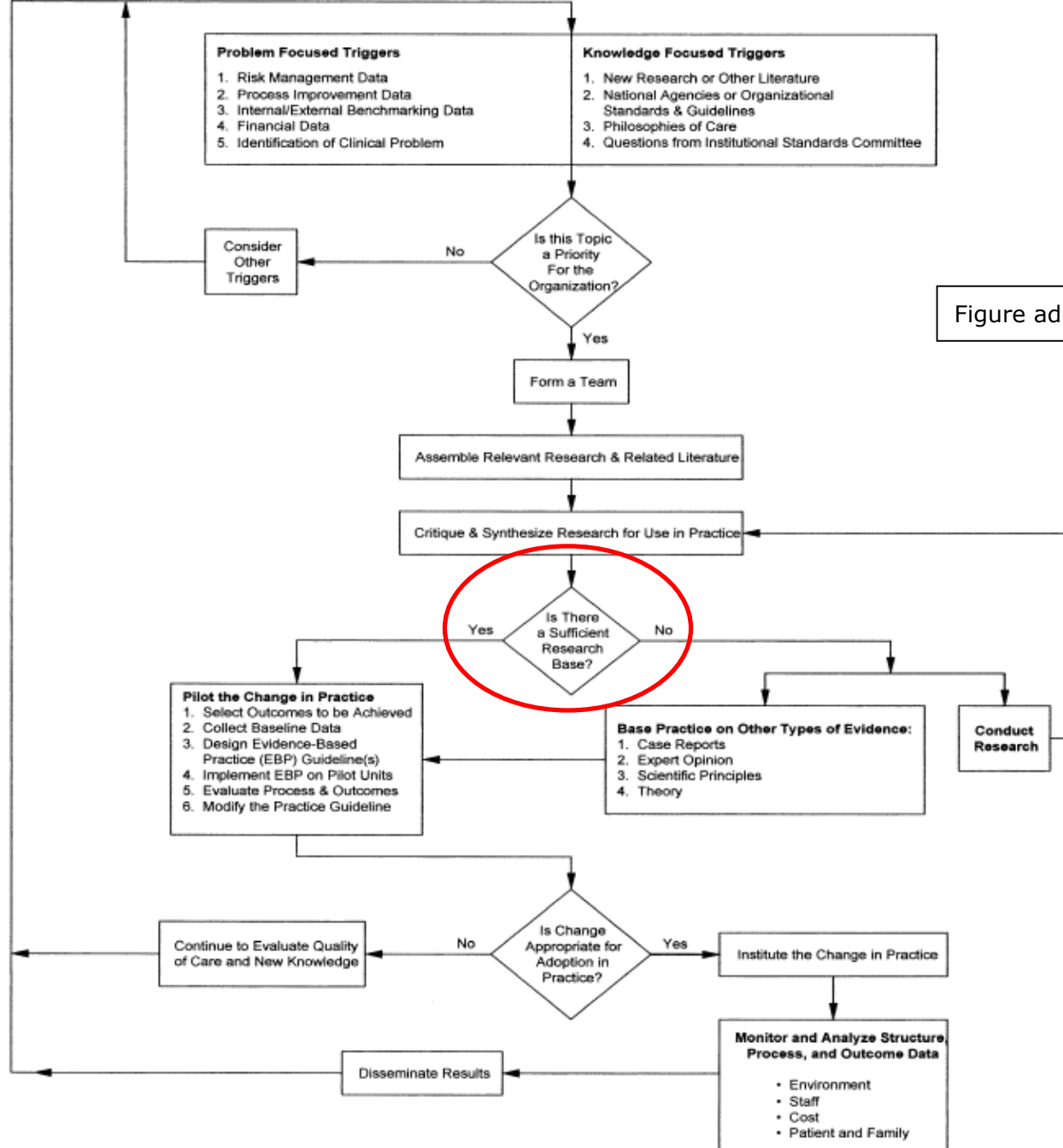
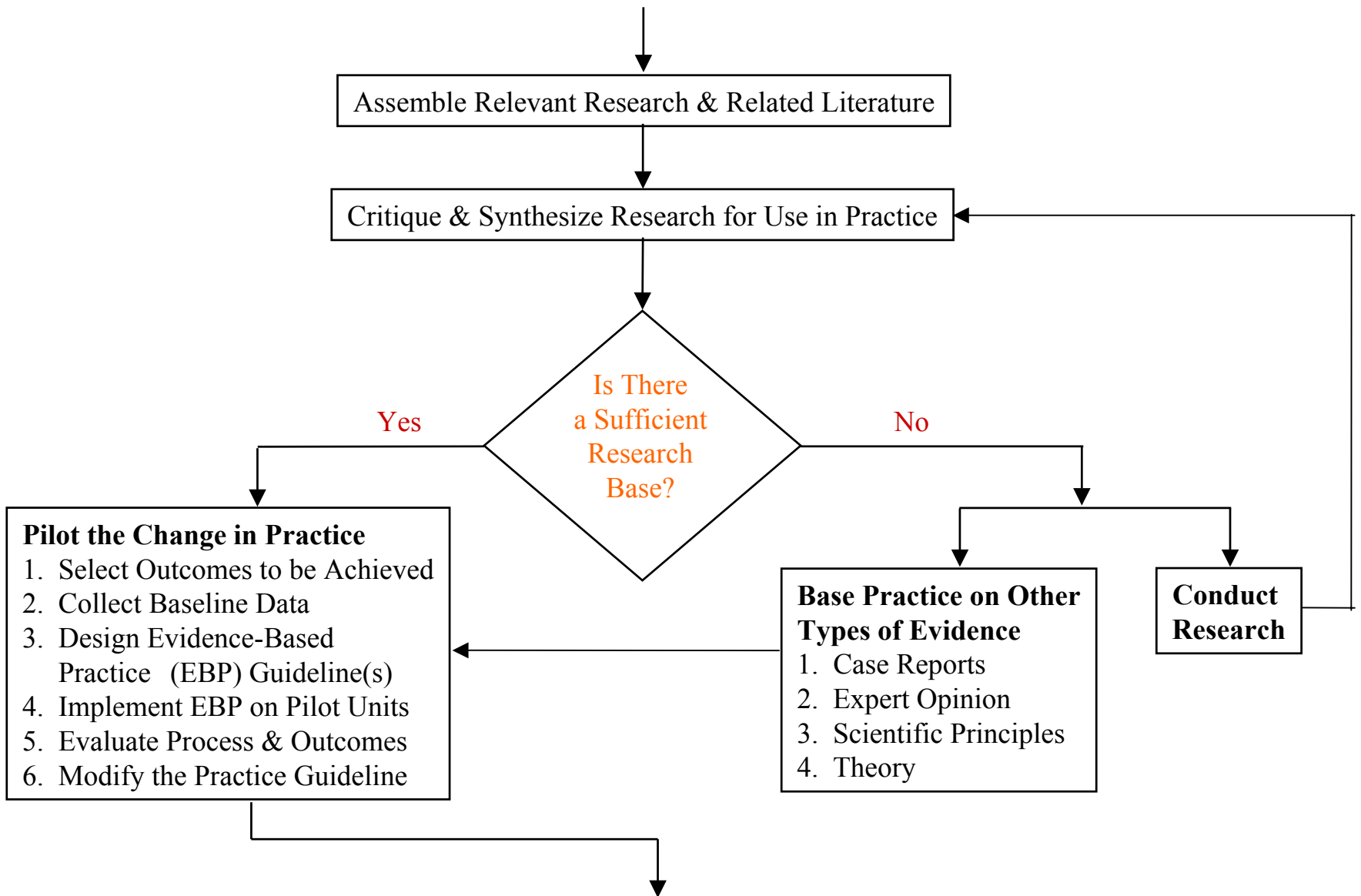


Figure adopted from: Medscape

◊ = a decision point



- 3rd of 3 critical decision points:
 - Deciding whether the change is appropriate for adoption in practice
 - If YES:
 - Implement the change
 - Evaluate process & outcomes
 - Disseminate results to other settings
 - If NO:
 - Proceed to seek another trigger
 - Evaluate service quality

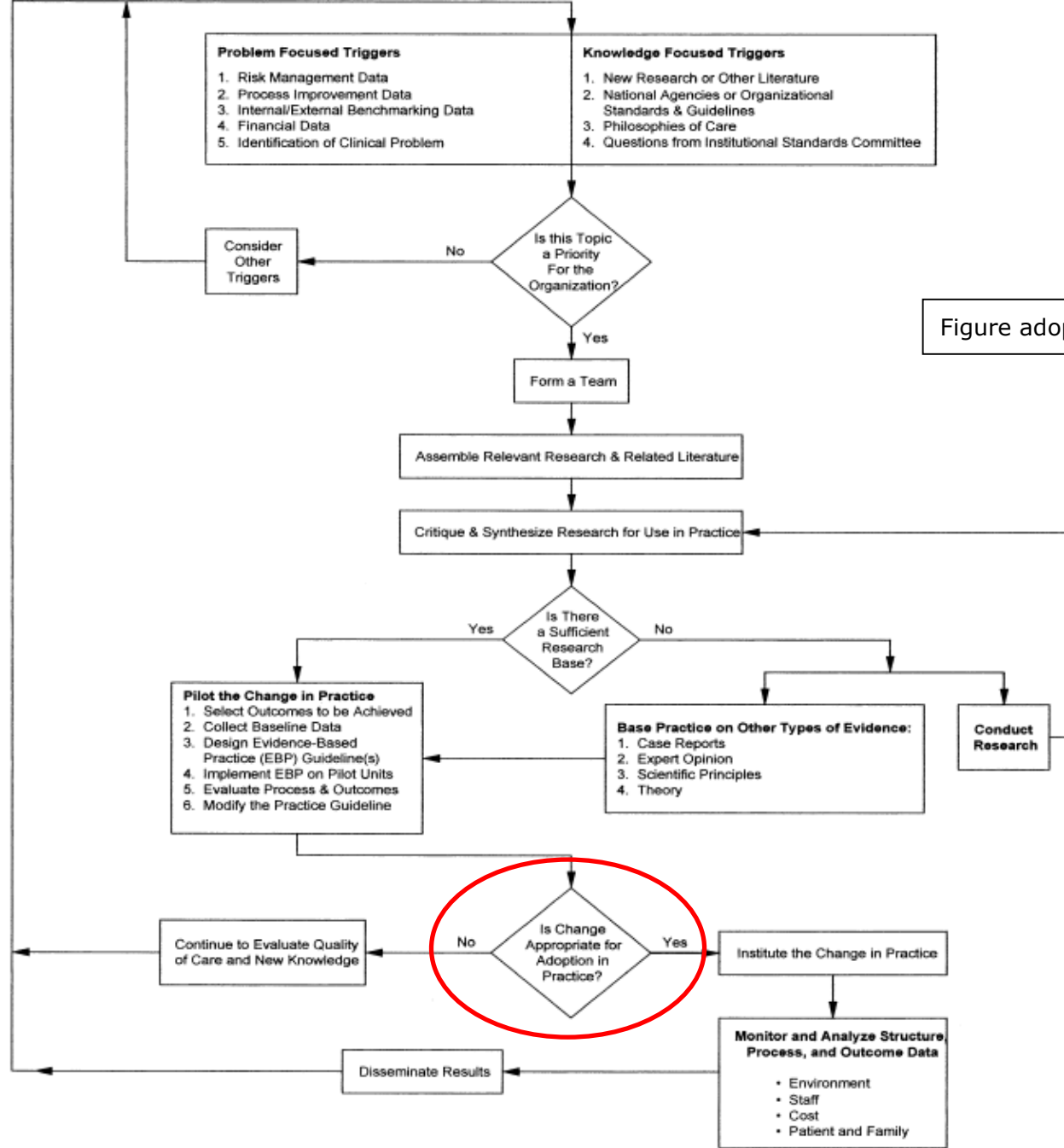
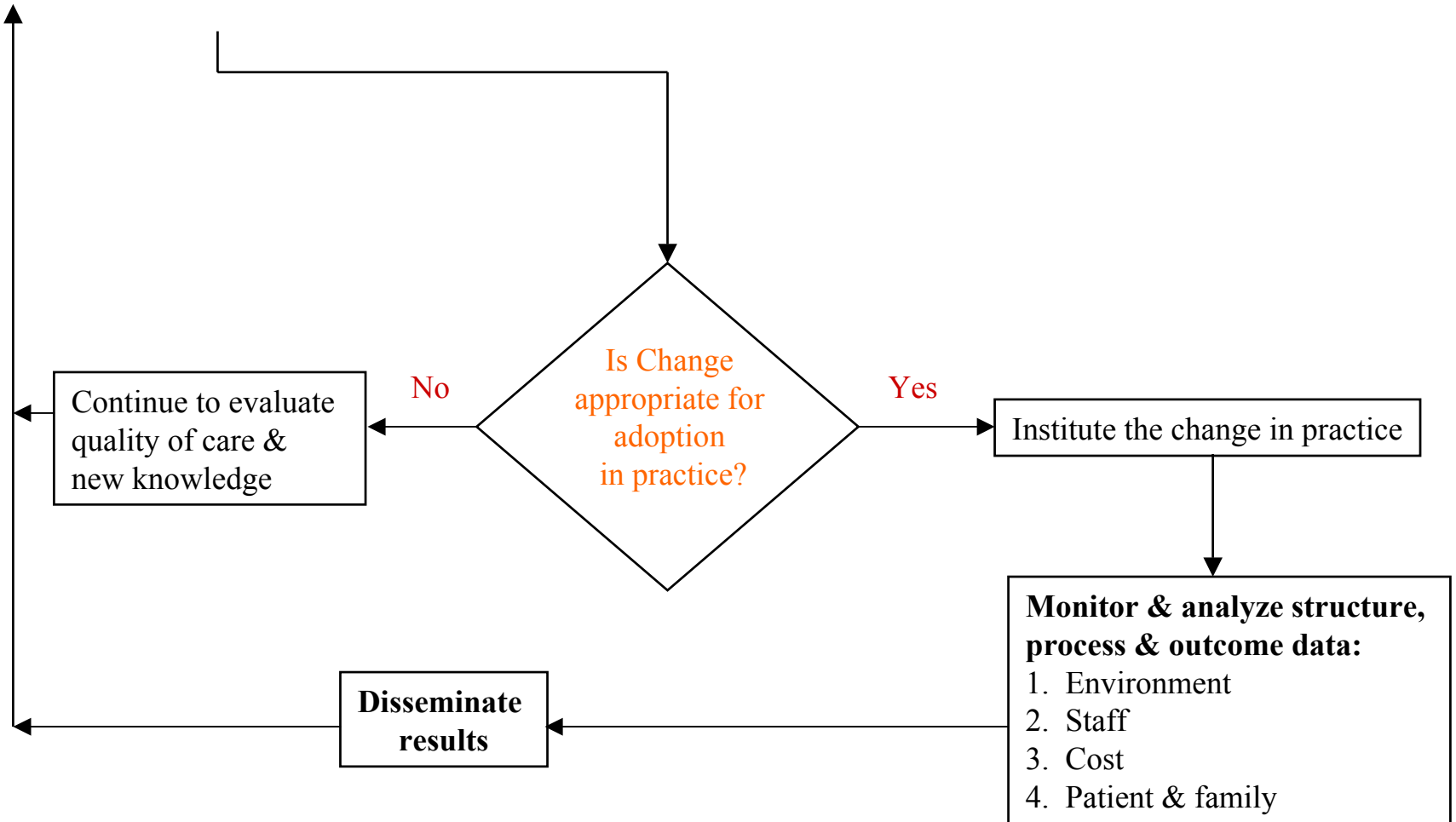


Figure adopted from: Medscape

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References

- Estabrooks , C. A., Floyd, J. A., Scott-Findlay, S., O'Leary, K. A. & Gushta, M. (2003). Individual determinants of research utilization: A systematic review. *Journal of Advanced Nursing*, 43(5), 506-520.
- MacGuire, J. M. (1990). Putting nursing research findings into practice: Research utilization as an aspect of the management of change. *Journal of Advanced Nursing*, 15, 614-620.
- Thompson, G. N., Estabrooks, C. A., Degner, L. F. (2006). Clarifying the concepts in knowledge transfer: A literature review. *Journal of Advanced Nursing*, 53(6), 691-701.
- Dobbins, M., Ciliska, D., Estabrooks, C., & Hayward, S. (2005). Changing nursing practice in an organization. In A. DiCenso, G. Guyatt & D. Ciliska (Eds.) *Evidence-based nursing: A guide to clinical practice*. St Louis: Mosby.

Ciliska, D. (2005). Educating for evidence-based practice. *Journal of Professional Nursing*, 21(6), 345.

Titler, M.G., Kleiber, C. Steelma, V. Rakel, B., Bufreau G., Everett, L.Q., Buckwalter, K.C., Tripp-Reimer, T. & Goode, C. (2001). The Iowa Model of Evidence -Based Practice to Promote Quality Care. *Critical Care Nursing Clinics of North America*, 13(4), 497-509.

Melnyk, B.M., & Fineout-Overholt, E. (2005). *Evidence-Based Practice in Nursing & Healthcare. A guide to Best Practice*. Philadelphia: Lippincott Williams & Wilkins.

Polit, D., & Hungler, B.P. (2004). *Nursing Research: Principles and Methods*. Philadelphia: Lippincott Williams & Wilkins.