

Become a Researcher

Compliments of CORE Faculty Development

I. What is research?

Research is a process that combines formal, structured inquiry with acceptable scientific methodology with the intent to answer questions, solve problems, and to contribute to generalizable knowledge.

Conducting research is a lot like solving a puzzle. It requires:

- A strategy or plan
- Critical thinking
- Motivation
- Diligence
- A good environment
- Organizational skills
- Permission
- Monetary support
- Common sense!

II. Why do research?

- Clinical research drives evidence-based medicine, which in turn, impacts clinical practice.
- Professional development and growth depends on having adequate skills to:
 - Critically read and evaluate journal articles
 - Understand and engage in conference workshops and presentations.
 - Faculty positions require evidence of competency in research methods. Tenure criteria usually include research productivity.
- By mastering basic research skills, physicians will be better prepared to critically assess the veracity and integrity of published medical literature.
- The osteopathic voice needs to be present in the research arena.
- Research provides an active learning environment in which to obtain such experiences and to practice newly acquired skills.

III. How is research done?

- Register in the CORE Research Database, so that CORE Research can properly track your project and adequately assist you in your research. Follow the Step-By-Step Checklist in the CORE Research webpage. This will lead you through the initial steps of the research process, the critical protocol development stage of your study, and on through to research dissemination.
- Research process:
 - Grow your idea into a research question.
 - Research question can come from: your own clinical experiences, from the literature, your own

interests/inquisitiveness, from conversations with colleagues, from medical presentations, or from cases. Consider the 5 characteristics of a good research question: **feasible, interesting, novel, ethical, relevant** (Cummings, et al, 1988).

- Review of literature: This is where you provide a background of your study. This section is very important because it prevents you from re-inventing the wheel and it helps to identify evidence of support or non-support of your hypothesis.
- Methodology: This is where you outline the road map on how the research is going to be conducted.
- Note: The **IRB** of your CORE hospital will stand as your **IRB** of record. **Institutional Review Boards** for research on human subjects monitor and review all research that involve human participants:
 - Beneficence (To do 'good')
 - Justice (To be 'fair')
 - Autonomy (To have control over one's self)
- **No subject/participant recruitment or data collection can take place before final IRB approval is obtained.**
- Budget: Consider all costs that might be incurred (e.g. payment to subjects, payment to those assisting in gathering data, analyzing data, payment for clerical assistance, mailing/postage, equipment purchases, printing/copying, travel, etc.).
- Results: This is where you report the findings of your study.
- Conclusions: This is where you report agreement or disagreement with previous studies, provide recommendations regarding the use of your findings, and provide recommendations regarding future research.
- References: This is where you list your sources/literature.

IV. Resources: Support and Funding

- CORE Research Support
 - Methodological and statistical support
 - Statistical software packages with support manuals are currently available on 2 computers per CORE site. The software is titled SPSS®.
- External Funding
 - Professional organizations, government agencies, private foundations.

V. Final Reminder!

- Make a note of your timeline.
- Remember that all scholarly work needs to go through CORE Research.