## **RESEARCH 101**



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## TAKING THE MYSTERY OUT OF RESEARCH

**Author:** Barbara A. Dellinger, MA, CHID, FIIDA, EDAC, MdCID **Co-Author:** Teri Lura Bennett, RN, CHID, CID, EDAC, NIHD **Co-Author/Designer:** Sarah K. Harvey, CHID, CID, EDAC, NCIDQ

What exactly is "research" and how can it help us, as healthcare interior designers, plan and design projects to help solve our clients' issues and provide better outcomes because of our design?

The Center for Health Design (CHD) notes that research "is Identifying the evidence and impact that facility design makes for patients, staff, families and the bottom line." (Center for Health Design, website, Mission statement)

Further, to quote Jaynelle Stichler,

"The purpose of research, regardless of the field or discipline, is to generate new knowledge and to investigate problems or research questions in a systematic and rigorous process."

(HERD: Health Environments Research and Design Journal, "Research, Research-Informed Design, Evidence-based Design: What is the Difference, and Does it Matter?" Sept 19,2016).

As the interest in research results has grown in the last two decades, we are fortunate that we do not have to reinvent the wheel, every time we are designing a healthcare environment. We no longer rely on the cringe-worthy adage that "we have always done it this way". (Who has not heard that?) Research, conducted early in the project development phase, helps us solve problems, both large and small, with the unified goal of providing better outcomes for our end-users.

Whether the issues are placement of patient room bathrooms, (Inboard, outboard,) or the room design (universal, mirrored, stacked) or nurse station placement and type, or a myriad of other research topics, the goal is to investigate the issue through the findings from previous research projects, analyze the data (results) and make more informed decisions based upon the review of the evidence. Thus, Evidence-based design. Our decisions are made based upon the best and most credible research results available. And hopefully, we will all be able to do our own research or participate in research projects with others.

A research problem does not have to be overwhelming; it can be as focused as the best placement of a light source in new patient rooms to allow for accurate charting at 3 AM so as not to awaken the patient. Or it can be as big (expansive? Costly?) and somewhat overwhelming as a quantitative study tracking the distance nurses walk in a Cancer unit in several different hospitals to study the ideal placement of the medication room(s).

There are many different types of research, which generally fall into several categories: all generating new knowledge.

- Qualitative research is usually done when little is known about a topic or when the researcher
  prefers to look at the topic in a different way. There are typically a small number of subjects
  with steps to assure trustworthiness and authenticity. According to Stichler, there are many
  forms of qualitative research including historical research, phenomenology, epistemology and
  grounded theory (Stichler...)
- Quantitative, as its name implies, measures existing data, or surveys using statistical processes to analyze the significance of the findings. There are various forms of quantitative research including exploratory descriptive studies, correlational studies, comparative studies, quasi-experimental and experimental studies.
- Case Studies usually involve a specific location and are considered the lowest form of research but still provide significant information and insight.
- White papers, while not structured research, may serve to present certain issues or problems that the author(s) feel are important and can lead to a research project.

It should be noted that while searching for new material on the internet or in a catalogue may provide the person with information that is new to them, it is not considered research.

Examples of topics that interior designers research can include:

- Infection prevention issues related to carpeting.
- Sound deadening effects of various types of resilient flooring.
- Foot fatigue because of certain types of flooring
- Patient recovery times while viewing art of various subjects.
- Patient recovery times while viewing nature scenes vs. buildings (Roger Ulrich)
- The effects of certain types of cleaning projects and/or disinfectants on various surfaces
- Patient satisfaction with lighting types or placement of lighting fixtures in a patient room, such
  as the best location for a small light for nurses to evaluate patient in the middle of the night
  (while trying not to awaken the patient).
- Centralized nurses' stations vs. decentralized vs. combination.
- Behavior outcomes in Long Term Care such as agitation, aggression, or wandering.
- Fall prevention issues in a residential setting (transition to bathroom flooring)

The list could fill many pages. The reader is encouraged to start small and select a research project that helps to provide answers to a design issue with which they have been struggling.

Research isn't meant to be intimidating or mystifying. If it's approached as a process to solve a problem, it can be quite exciting. There is always something new to learn about the topic, no matter what it is. The best part about research is that it's ongoing; it's ever-evolving as new information is discovered and shared. It's a tool for designers to use in creating solutions that are best for their client's needs.