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About Us

The ICTCR facilitates patient-centered research through the combined strengths of its founders: Mercy Medical Center, and Des Moines University along with its partners Drake University College of Pharmacy and Health Sciences and Mercy College of Health Sciences and welcomes inquiries from interested clinicians and scientists.

For more information, please call
(515) 247-4435.
www.iowatranslationalresearch.org

ICTCR Website Goes Public www.iowatranslationalresearch.org

The whole world can now have instant access to information about the Iowa Center for Translational and Clinical Research as the long-awaited rollout of the web presence of the center became reality early in February 2009.

The home page provides easy navigation for anyone who finds the page, whether intentionally or not. The page is meant to be as welcoming to the general public as it is to professionals. A navigation tab provides information to patients that will help them understand the benefit they provide to society through volunteering as participants in clinical research, and provides reassurance about our concern for the welfare of those individuals who participate in research studies.



The website has a tab to access information of relevance to potential study sponsors. While the purpose of the ICTCR is to enhance the ability of physicians and scientists to engage in investigator-initiated research, the ICTCR is eager to support the advance of sponsored clinical investigations as well.

The website will also provide links to affiliated clinics and encourage referrals to research projects underway at Mercy Medical Center or clinics.

This new communication medium will bring value to our partners not only by providing continuously updated ICTCR information, but new linkages will undoubtedly result from advancing publicity for our research efforts.

Assistance of the Mercy Public Relations Department is gratefully acknowledged for helping make this website a reality.

Understanding and Appreciating Qualitative Research

Table 1. Quantitative and Qualitative Research Contrasts

Quantitative Viewpoint:

Reality is definable, and measurable
Action leads to consistent results (cause-effect)
Theory leads to testable hypothesis
Random sampling aims to decrease bias
Data are usually numerical and hypotheses tested statistically
Control is rigid to enhance objectivity to minimize extraneous effects

Qualitative Viewpoint:

Reality is not fixed and is unique to persons/groups
Actions are not studied as potential causes
Theory is derived from research
Sampling is purposeful, using respondents who have relevant stories to tell
Data are usually narratives regarding thoughts, feelings
Controls may not be relevant because samples are “convenience” samples and cause-effect relations are not sought

Literature Citations

Burns, N., & Grove, S. (2009). *The practice of nursing research: Appraisal, synthesis, and generation of evidence* (6th ed.). St. Louis, MO: Saunders Elsevier.

Fain, J. A. (2009). *Reading, understanding, and applying nursing research* (3rd ed.). Philadelphia: F. A. Davis

Quantitative and qualitative research methods look at an issue from two different perspectives, representing opposing paradigms. While this may suggest a need to choose which system represents reality, these two research methods are both valuable and necessary to generate knowledge about the complex world in which we live. As these methods complement one another in this endeavor, both should be embraced by researchers as valuable and worthy of respect.

Because quantitative research is more familiar, some of the significant features of qualitative research are presented here. Qualitative research assumes reality is not fixed and is unique to each person/group that experiences it (Burns & Grove, 2009). The lived experience of childbirth might be explained differently by each mother interviewed.

Hypotheses are not proposed because variables are not expected to “cause” other variables. Data are usually narrative (words) consisting of descriptions of subjects’ thoughts, feelings, or experiences about a concept or situation gathered mostly through interview, focus groups, and/or observation, but may also be observations and artifacts from a subculture, e.g. diaries, journals, or protocols, such as those guiding behavior in a micro-culture such as an intensive care unit (Fain, 2009).

Theory provides a framework for qualitative research, but a major type of qualitative research is research completed to *develop* theory. In Grounded Theory research, concepts of a theory are induced from qualitative data obtained during the study. For example, narrative from patients who are part of an eICU might lead to a theory on the effects of observation and continual presence of another human being.

Qualitative studies, use purposeful (not random) sampling. Participants who will best represent the topic of exploration are purposefully chosen. One or two subjects may be asked to identify others who fit the sample qualifications. This is called snowball or network sampling (Burns). Purposeful sampling is appropriate when understanding of a phenomenon, rather than broad generalization of findings is the goal (Fain).

Despite differences between these types of research, similarities abound. Research reports for both quantitative and qualitative studies identify the problem and the purpose of the study, review the literature of prior related studies, identify the design methodology, including sampling and data collection, and present results and conclusions, though qualitative studies are longer due to narrative data in paragraph and tables identifying patterns and themes (Burns).

New technology such as the N-Vivo software may be used to analyze large amounts of narrative data. The software is programmed to identify recurring themes and categories.

Ethical principles of beneficence, human dignity, and justice are required in both kinds of research and risks and benefits must be appraised and the study approval by an Institutional Review Board documented. Each research type also has established guidelines for design, ensuring rigor, integrity, and trustworthiness.

This article contributed by MCHS Professor, Connie L. Clark, PhD, RN
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Vassilios Vardaxis, PhD



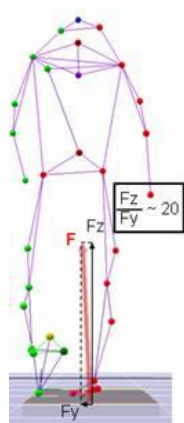
Craig Mahoney, MD



John Nettrour, MD



Iowa Orthopedic Center Physicians and DMU Human Performance Laboratory Team Up to Make an International Impact on Rehabilitation of Total Knee Replacements.



An ongoing study in one of region's most sophisticated motion analysis laboratory is being pursued under the direction of Dr. Vassilios Vardaxis (DMU) to evaluate gait and balance of postsurgical and healthy controls over time to determine if functional differences occur based on surgical approach (medial parapatellar vs. mid-vastus).

Dr. Craig Mahoney is the surgeon/investigator who, with the research team, studies the antalgic characteristics in terms of gait used by the patients and the changes towards normal gait after the surgery. The gait antalgic characteristics tend to be related to movement limitation at the osteoarthritic knee that becomes a habit over the prolonged period leaving with a painful knee. This knee joint motion limitation is of concern because it overloads the adjacent joints with potential faster deterioration of the hip and ankle cartilage. Faster rehabilitation post surgery offers better prognosis for these joints.

The inset shows the output from the motion analysis system with angles, forces and marker locations identified.

Already, the early findings of the study have led to presentations at international and national meetings. A total of three abstracts have been presented and the research has offered an opportunity for osteopathic medical students (Dane Hansen, Becca Meier, and Robert Freed) and physical therapy students (Dave McEowen and Jacob Stotts who graduated in 2008) to be a part of the project.

The success of this project led to plans to compare two surgical approaches to hip replacement (study of include the recruitment of additional post surgical patients for the present study and Dr. John Nettrour will join the research team for a new study of different surgical approaches (direct anterior versus small incision posterior) in hip replacements. The new study is slated to begin this summer.



Robert Freed



Jacob Stotts



Dave McEowen



Dane Hansen



Becca Meier

Statement of Purpose: The ICTCR is a research enterprise that facilitates productive research collaboration between its partners by sharing intellectual and infrastructure resources for the purpose of advancing patient-centered research that seeks better health for our communities and education and research opportunities for our faculty, staff, students and trainees. We believe the comprehensive training of medical students, residents and other health care professionals must be accompanied by a working knowledge of clinical research methods and best practices and that the best way to accomplish this is through active research endeavors. The ICTCR is dedicated to ethical and compassionate care for all individuals who participate in clinical research studies and actively supports the principles of autonomy, beneficence and justice in clinical research programs.