UTK College of Nursing Research Model

MODEL

The University of Tennessee, Knoxville, College of Nursing faculty developed and refined a research model based on Academic scholarship is based on Boyer’s model espousing that original research is centered on discovery, teaching, knowledge, and integration (Boyer 1990). The American Association of Colleges of Nursing adopted Boyer’s model defining nursing research as: “…those activities that systematically advance the teaching, research, and practice of nursing through rigorous inquiry that 1) is significant to the profession, 2) is creative, 3) can be documented, 4) can be replicated or elaborated, and 5) can be peer-reviewed through various methods” (2006). The model (Figure 1) considers faculty expertise and interests, current and previous research endeavors, and future funding opportunities.

The model, reviewed and commented on by faculty and leadership, offers opportunities for participation by all faculty members. The inner ring suggests that the central focus of the model are outcomes related not only to individuals but to the greater population health. The outer ring suggests that the fundamental results of nursing research may have significant impact on healthcare policy.

The inner rings offer themes that incorporate various levels and sources of research. These rings may exist in isolation but also interface with other research areas. This interface provides the ability for collaborations and a team science approach.

TECHNOLOGY

The focus is on the use of technology to improve outcomes. Technology is a broad science area with the ability to be used as the underlying mechanism of or to enhance research. The following list suggests some methods of utilizing technology in nursing research.

- Use of electronic health records to improve or enhance practice
- Mobile health (mHealth) as an intervention to improve health or prevent illness
- Technological inquiry and simulation to enhance education
- Mining of large data sets to better understand patient-centered issues or produce predictive models used for health promotion and disease prevention

Figure 1. UTK CON Research Model
• Use of simulation to enhance research when alternate methods are not available
• The use of genetics and epigenetics in health and illness; understanding the microbiome

**SYMPTOM SCIENCE**

Chronic illness is becoming the norm as the population ages. Symptom science research focuses on patients’ experience of physical and psychological symptoms as well as the impact of symptoms throughout the chronic disease trajectory. Symptoms can occur singularly or in clusters; they can overlap illness masking diagnosis. Management of symptoms is an essential aspect of clinical nursing practice and an emphasis within nursing science. Some types of symptom-related research may be research in:

• Aging
• Women’s health
• Neurology – especially dementias and mental illness
• Multiple chronic conditions
• Biomarkers of inflammation in (e.g., cancer, heart disease, arthritis, CTE/TBI, sepsis)
• Patients' experience of symptoms (e.g., chronic pain, fatigue)
• Nursing management of symptoms

**CAREGIVING**

Caregiving can be associated with providing care or the stress of caregiving. Caregiving can be individuals, family, or community. Some types of caregiving research are:

• Palliative and end of life care
• Chronic illnesses
• Aging
• Stress related to caregiving; caring for the caregiver
• Quality of life

**TRANSLATIONAL SCIENCE**

It has been said that we as a society have done a great deal of research; then comes the question of what we did with it. Nursing, by virtue of their practice, has been at the forefront of dissemination and implementation (D&I) of practice issues. D&I puts into practice what research has shown to be efficacious. D&I research can be considered as understanding or considering the:

• Complexity of health interventions
• Use and complexity of educational methodologies (e.g., interprofessional education)
• Characteristics of the context on the environment, community, family, individual
• Incorporation of community members into the design and implementation of other research findings
SUMMARY

The research model was developed to provide insight and form to the research proposed and conducted at the UTK CON. It is an inclusive model incorporating the depth and breadth of the CON faculty. It allows an overlap not only in science but in faculty taking into consideration science, practice and knowledge.