Chapter 17

Case Study:
Research Matchmaker, an Advanced Nursing Practice Informatics Application

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ABSTRACT

Research Matchmaker is a public health innovation that will lead to community centered research focused on social determinants of health. Research Matchmaker has been developed to bring communities, practitioners and researchers together to focus on community determined health needs. The rationale and development process is discussed.

INTRODUCTION

Research Matchmaker (RM) is a developing, flexible, American informatics system designed to facilitate the exploration of diverse health, social determinants of health, and disparity questions, and evolution of community-centered research. Nonprofit, civic, and faith-based organizations often lead grassroots efforts to address urgent community needs, drawing support and volunteers from their local area. In communities with profound problems and disparities, local volunteers are more likely to be poor, less educated, and less technologically sophisticated. These volunteers may lack essential professional, strategic planning, resource development, and program evaluation competencies. RM will be an on-line search engine that utilizes, applies, and leverages current informatics tools - the Internet, standard query language (SQL) databases, and open source technologies - to empower communities. RM will help them recruit essential, but often locally unavailable, strategic planning and professional

consultants to help define urgent local problems and develop community-appropriate solutions.

Research Matchmaker will enable communities to recruit interested consultants and resources from the academic, nonprofit, corporate, and government sectors. These volunteers will join grassroots 'communities of practice' to help community leaders:

- Design, fund, and implement locally-appropriate services
- Assess impacts on outcomes and costs (to satisfy funders' requirements)
- Explore how these issues affect and contribute to disparities

These services will target a broad spectrum of grassroots needs from health promotion and traditional medical concerns (tobacco use, obesity, asthma, depression) to 'social determinants of health' (poverty, crime, illiteracy, discrimination). Research Matchmaker will be an informatics system that incorporates and applies the basic nursing process and a wide range of advanced nursing practice's core competencies, to improve outcomes and decrease disparities at community, state, national, and international levels. The pilot RM program has been designed for implementation in Georgia with the goal of expanding to other interested states and nations.

REVIEW OF THE LITERATURE

This review briefly describes the evolution of society's understanding of what factors compromise or support good health, within the distinct but highly inter-related paradigms of 'medicine' and 'public health.' It will explore the growing interest in 'social determinants of health' and the debate over where interventions to improve health outcomes should be targeted for greatest effect.

An overview of community-centered research will be presented as a continuum from community-based participatory research to community-owned and –managed research. Two additional health research models, translational research and comparative effectiveness research, will also be briefly reviewed and their relevance to community-centered research explored.

Two theories will then be introduced that help explain RM's unique potential as a catalyst for innovation. Etienne Wenger's exploration of communities of practice (1998) and Evans & Schmalensee's analysis of catalyst organizations (2007) will briefly be summarized. In closing a synopsis of the nursing process and international definitions of advanced nursing practice's core competencies will be presented.

HEALTH PARADIGMS

Medicine and Public Health

The distinct but inter-related realms of 'medicine' and 'public health' have been recognized since ancient times, represented in Greece by the daughters of Aesculapius, Panacea and Hygeia, the Goddesses of healing and health. Although specific definitions vary over time, societies have recognized two broad health roles: 'healers' who care for the sick, and those who work to prevent illness by promoting healthful conditions for the community at large. Historically leaders in these fields have overlapped significantly, with physicians playing prominent roles in both medicine and public health (Lasker, 1997, p. 3). The basic characteristics of medicine and public health are compared in Table 1.

Historically, society has understood that an effective health strategy required collective preventive action as well as medical care. Until the 20th century, infectious diseases were rampant and primary causes of morbidity and mortality. "Little could be done for patients once they were infected. Moreover, communicable diseases affected everyone – both the wealthy and the work-

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