Title of Presentation: Social Network Structures of Women in Academic Medicine: A Research Proposal

Abstract: Since informal communications are often the key to information acquisition (Baker, 2001; Burt, 1998; Krackhardt & Kilduff, 2002; Lyness & Thompson, 2000; McCarty, 2003; Ragins & Sundstrom, 1989), when women are underrepresented in key positions, their insulation from men’s information channels is detrimental to their leadership success (Burt, 1998; Krackhardt & Kilduff, 2002; Lyness & Thompson, 2000; Ragins & Sundstrom, 1989). The literature fails to include a study of women in a male-dominated field at differing career stages. This study will address this gap by examining and performing a cross-sectional comparison of the social network structures of junior- and senior-level women in academic medicine.

Research purpose & main question: This project will draw inferences as to the relationship between women’s leadership development and their social network structure. The purpose of this study is to characterize the social network structures of women in academic medicine at two career levels (junior and senior) by asking the following: Will the social network structures of women in academic medicine have different characteristics across two career stages (junior and senior levels)?

Research paradigm/design overview: This study is based on a positivist research paradigm, using a quantitative methodology and statistical significance testing.

Brief introduction to theoretical foundations and theoretical constructs of the study: The intersection of the accessed social capital model, social network analysis, and the social exchange theory of leadership forms the theoretical framework of this study. “Accessed social capital” refers to the resources (e.g., information, power) individuals can reach through their social connections. In other words, it is the structure of and benefits reaped from social networks that constitute social capital. Social network researchers seek to operationalize and quantify social capital and offer clues as to how to take advantage of the “opportunities” (Baker, 2001; Burt, 1998; Lin, 1999; McCarty, 2003) that characterize social capital. Social exchange theory contends that leaders are those who use their relationships to their and the organization’s benefit, not necessarily those who occupy positions of formal power. The three operational constructs used in this study relating to the analysis of networks are structure (size, adjusted size, density, weak/strong ties, and structural holes), composition (diversity in terms of gender, age, race/ethnicity, education), and focus (internal, external).

Population/sampling strategy: The study population will be randomly drawn from two purposeful sample populations of women in academic medicine at junior (assistant professor) and senior (associate and full professor) levels who are participating in two specific leadership development programs. In a stratified design, volunteers (n = 25) from each group (junior and senior) will then be randomly selected by the researcher to complete the survey instrument (total study population of N = 50).

Summary of methods (instrumentation, data collection, analysis steps): This research will employ quantitative analysis (t-tests and chi-square assessments) techniques to discern relationships for two sample populations between career level (junior and senior) and social network structure (structure, composition, and focus) as measured by the Humax Assessment instrument. The Humax Assessment is administered online and data gathered from participants will be sent to this researcher electronically and without individual identifiers.

Design Issues: The Humax instrument has been previously validated for validity (construct, criterion) and reliability. Generalizability of findings is constrained by the specialized nature of the women who have applied to the leadership programs from which the samples are drawn and who volunteer for this study.