

University of Maryland Baltimore Graduate School

Announcement of Doctoral Dissertation Defense*

Candidate: Eleanor B. Schron, M.S, R.N.

Date, Time, and Place: March 25, 2008; 3-5 PM; UMB SON Room 503

Dissertation Title: Biopsychosocial Factors as Predictors of Mortality and Morbidity in Patients with Atrial Fibrillation

Dissertation Abstract**:

Background: Over 2.2 million adults in the U.S. have atrial fibrillation (AF) and hospital discharges for AF exceed 444,000 annually (Rosamond et al., 2007). Atrial fibrillation is a common cardiac arrhythmia in primarily older adults, affecting almost 1 in 20 people over the age of 60 and is an independent risk factor for ischemic stroke and is associated with symptoms and poor psychosocial status. Prevalence is expected to increase as the general population ages. Psychosocial status is a predictor of mortality and morbidity in patients with other cardiac diseases, but data are lacking on whether it predicts mortality and morbidity in people with AF.

Purpose: To examine the contributions of biopsychosocial variables to mortality and morbidity in patients with AF.

Methods: A secondary data analysis of the Atrial Fibrillation Follow-up Investigation of Rhythm Management (AFFIRM) Limited Access Database (NHLBI, 2006) was conducted. Cox regression models were used to examine the predictors of mortality and logistic regressions were used to examine the independent predictors of morbidity (lost days due to hospitalization or death in one year) in patients with AF. Independent variables included: biomedical (coronary artery disease (CAD), hypertension, heart failure (HF), diabetes, stroke/TIA, left ventricular ejection fraction<50, biosocial (age, gender, socioeconomic status), and psychosocial [SF-36 Physical component scale (PCS), Mental component score (MCS), Quality of Life Index-cardiac disease (QLI-CV) subscale scores - health & functioning, psychological-spiritual, & family) measures at baseline.

Results: A total of 693 patients in the AFFIRM QOL study were included in this analysis. Mortality was 14.3% (N=93) and 62.2% (N=427) were hospitalized in the first year of participation in the study. Patients had a mean age of 69.7±9.0 years, 62% were male, and 93% were white (93%). Clinical history at baseline: 70.8 % had a history of hypertension, 38.2 % had CAD, and 23.7% had HF. Biomedical, biosocial and psychosocial variables each predicted mortality and morbidity. Patients with a history of CAD, hypertension, older age, lower PCS, and women with diabetes had a higher risk of mortality ($p < .001$). Psychosocial variables predicted mortality beyond the effect of biomedical and biosocial variables. Patients with a history of HF, stroke, rhythm control arm, PCS were more likely to be hospitalized or die within one year of the study ($p < .001$).

Conclusions: This study supported the contributions of biopsychosocial variables to mortality and morbidity in patients treated for AF. Interventions for improving psychosocial status and helping patients adapt to treatments for AF may decrease morbidity and improve survival. These data suggests that psychosocial variables add meaningful information beyond traditional biomedical factors to the prediction of mortality and/or morbidity of patients with AF.

Dissertation Committee Chair: Erika Friedmann, Ph.D., Professor

Dissertation Committee Members:

Sue A. Thomas, Ph.D., Professor & Assistant Dean for PhD Program
Patricia G. Morton, Ph.D., Professor & Associate Dean for Academic Affairs;

Debra Jones, Ph.D., Assistant Professor

Robert Peters, M.D., Professor

**The Open Presentation is open to the university community and invitees of the candidate. Any member of the Graduate Faculty may observe the Final Examination. Only committee members may vote. For more information, see Procedures for*

Examination of the Doctoral Dissertation.

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Updated: February 24, 2006