Screening Asymptomatic Women for Cardiovascular Disease Risk
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Significance of the Project
- CVD is the leading cause of death in women resulting in 1 death per minute in the United States
- 80-90% of CVD is attributable to modifiable risk factors (site)
- Despite validated risk prediction tools, national clinical guidelines, and adequate scientific evidence for screening asymptomatic women, screening is sadly deficient in clinical practice

PICOT
In women ages 35-50 presenting for their annual gynecologic exam, who are asymptomatic for CVD, how does implementation of the Framingham risk score (FRS) model, compared to usual care (no screening), identify the level of CVD risk over a 3 month period of time?

Review of the Literature
Inclusion criteria: 2008-2013, scholarly peer reviewed articles, English language , applicable to EBP
Search terms: cardiovascular disease, women, screening, predictive tools, risk factors, Framingham heart study

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- Literature was appraised using CASP, AGREE II, and Melnyk & Fineout-Overholt’s (2005) hierarchy of evidence

Synthesis of Evidence
- Acknowledgement that CVD is the result of a myriad of interacting risk factors including BMI, blood pressure, lipids, and blood sugar
- Limitations of risk prediction models are based on geographic and population of origin, outcomes, and variables assessed
- FRS consistently performed well and is nationally and internationally recognized as a gold standard screening tool
- 50% reduction in CVD mortality is related to change in risk factors
- Primary prevention of CVD is imperative therefore individuals must be screened before development of disease

Decision to Change Practice
- Only 21% of women report that their healthcare provider has ever discussed CV risk
- According to the literature, 25-46% of women consider their gynecologist as their primary care provider
- The mission/vision statement at the site of implementation includes verbiage that they will develop and implement quality, comprehensive, cost effective health care to women
- There was an obvious disconnect between national screening and actuality

Implementation
- The Stetler Model of evidence based practice (EBP) and Pender’s Health Promotion Model were used as the foundational framework for the EBP project
- Participants were a convenience sample from a large OB/GYN practice in Southern Ohio
- Education completed via PowerPoint presentation, scripting, and role playing
- Implementation was completed between September 9, 2013 and December 9, 2013, using the FRS model

Evaluation of Change
- Data forms were completed by the medical assistant, the EBP project manager inputted metrics into the web based FRS model
- FRS reports were scanned into the patient’s electronic medical record (EMR) for access by all of the healthcare team
- Metrics evaluated included age, smoking status, blood pressure, total cholesterol, HDL cholesterol, blood sugar, and body mass index (BMI)
- Descriptive statistics used to describe sample characteristics
- Pearson r correlations used to compare variables

Project Outcomes
- Sample n=109, mean age 43 SD 4.7
- Sample demographics:
  - 78.9% Caucasian; 18.3% AA; 1.8% Asian
  - 66.1% married; 10.1% divorced; 23.9% single
  - 85.3% employed; 14.7% unemployed
  - 80.7% commercial insurance
  - 14.7% Medicaid; 4.6% uninsured
  - 14.7% smokers; 75.2% non-smokers; 10.1% former smokers
- 91% of study participants had at least one identifiable risk factor
- 50.5% with significant risk factors necessitating an immediate follow up appointment
- Pearson r correlations found 27 statistically significant (p<0.001) correlations

Conclusions
- A cogent number of asymptomatic women had significant identifiable cardiovascular risk factors
- The FRS was easily implemented into the clinical practice site
- Over 90% of EBP project participants had at least one identifiable risk factor
- Results of EBP project were commensurate with current cardiovascular literature

Recommendations
- All asymptomatic women should be screened for CVD risk throughout their lifespan
- The OB/GYN practice setting is a tacit setting for implementation of CV risk screening
- The EMR is a practical and feasible format for continuity of screening and for reassessment of cardiovascular risk
- Cardiovascular risk factor assessment should be ongoing and one must remain current with cardiovascular literature and evidence based medicine

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