Title
The Effect of Patient-Physician Gender Concordance on Cardiovascular Disease Risk Factor Control, Treatment Adherence, and Treatment Intensification

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pathetic activity as measured by heart rate variability. Correlates of these differences in the brain have not been examined.

**Objective:** To characterize sex differences in the brain networks related to cardiovagal activity in patients with IBS.

**Method:** Thirty-six IBS patients (Rome I positive, 18 females) received H215O-PET scans during a resting baseline, averse rectal balloon distension, and expectation of distortion conditions while ECG was continuously recorded. Peak power high frequency (ppHF), the vagal component of heart rate variability, was determined using Fast Fourier Transformation. Mean ppHF values were log transformed, and a repeated measures analysis within the general linear model framework was applied to assess sex differences in ppHF across conditions. Multivariate partial least squares (behavioral PLS) was used to identify distributed patterns of brain activity that were functionally connected with ppHF across sex and conditions.

**Results:** Female patients had significantly higher mean ppHF across conditions, p<0.01. Behavioral PLS revealed a significant sexually dimorphic network, p<0.05. Regions in the network correlating more positively with ppHF in females compared to males included hypothalamus, orbitofrontal cortex (BA 11), periaqueuctal gray, and posterior insula.

**Conclusion:** A sexually dimorphic central network associated with cardiovagal activity in IBS patients. The sex-specific network may explain previously reported differences in ANS responses between males and females.

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**8. The Effect of Patient–Physician Gender Concordance on Cardiovascular Disease Risk Factor Control, Treatment Adherence, and Treatment Intensification**

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**Background:** Gender concordance between patients and their physicians is related to quality indicators such as prevention screening, counseling, and patient satisfaction. However, no existing research examines the effect of gender concordance on CVD treatment and outcomes.

**Objective:** Assess the effect of patient gender, physician gender, and their interaction on CVD risk factor control, medication adherence, and treatment intensification in diabetes.

**Method:** 161,697 Kaiser Permanente adult diabetes patients in 2005 with a primary care physician (PCP) were assessed for poor control of hyperglycemia (A1c >= 7%), hyperlipidemia (LDL-c = 100 mg/dL), and hypertension (SBP = 130 mmHg). Poor adherence was defined as medication gaps of >20% in pharmacy records. Treatment intensification was measured as a response to poor control with an increased number of drug classes, increased drug dosage, or drug switch within 6 months. Hierarchical logistic regression assessed patient gender, PCP gender, and interaction effects on control, adherence, and intensification adjusting for patient and PCP characteristics, and PCP as a random effect.

**Results:** Female patients of female PCPs were most likely to be in hyperglycemia control (OR = 1.06; 95% CI = [1.01, 1.11]). Female patients were less likely than males to be in hyperlipidemia (OR = 0.68; 95% CI = [0.66, 0.70]) and hypertension (OR = 0.73; 95% CI = [0.71, 0.75]) control; however, female patients with female PCPs had better control than women with male PCPs. Female PCPs were significantly more likely than males to intensify hyperlipidemia and hypertension treatment.

**Conclusion:** Gender and gender concordance appears to affect CVD treatment and risk factor control in diabetes. Further understanding of these differences could lead to improved CVD outcomes for women.

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**9. Cesarean Delivery on Maternal Request Versus Planned Vaginal Delivery: A Decision Analysis To Identify Important Outcomes and To Prioritize Future Research Directions**

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**Background:** Cesarean delivery on maternal request (CDMR), a planned cesarean performed in the absence of any obstetrical indication, is a controversial issue. Some studies suggest that CDMR prevents future pelvic floor disorders, while others focus on maternal and neonatal risks.

**Objective:** To estimate the risks of maternal and neonatal outcomes after CDMR versus planned vaginal delivery (PVD) using a decision model and to prioritize future research by identifying factors with a significant impact on outcomes.

**Method:** A decision analysis model was developed using TreeAge Pro software to simulate a cohort of healthy, primiparous women with term, singleton pregnancies deciding between (1) CDMR and (2) PVD. We assessed known maternal and neonatal risks based on an AHRQ-sponsored systematic evidence review. Sensitivity analyses were performed to ascertain what clinical factors had the greatest impact on outcomes.

**Results:** CDMR had a higher risk of intraoperative complications (1.7% v. 0.5%) and major peripartum infection (2.9% v. 1.7%). However, CDMR had a lower risk of anal incontinence (3.8% v. 7.9%) and urinary incontinence (5.2% v. 20.6%) at 6 months postpartum. CDMR had a higher risk of transient tachypnea of the newborn (TTN) (3.1% v. 1.8%) and mechanical ventilation (0.7% v. 0.4%). The factors that had the greatest impact on the model were the incidence of anal and urinary incontinence, TTN, neonatal respiratory distress, and mechanical ventilation.

**Conclusion:** When comparing CDMR to PVD, future research endeavors should assess differences in comprehensive maternal outcomes, including long-term pelvic floor disorders, and short-term neonatal outcomes, especially respiratory morbidity.

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**10. Proxy Bias in Studies of Older Adults: Impact on Evaluating Gender Disparities in Recovery From Hip Fracture**

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**Background/Objective:** Previous research has found evidence of bias in measurement of disability and depressive symptoms in hip fracture patients when symptoms are reported