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**Title**

*Differences between female and male patients in the rate of diagnosed diseases in primary care after diagnostic interventions*

**Priority 1 (Research Category)**

Population health and epidemiology

**Presenters**

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**Abstract**

Context: Recently, the negative association between female sex and disease diagnoses (i.e. somatic symptoms that evolve into a disease) was found to be mediated by the fewer diagnostic interventions that an FP performs in women with common somatic symptoms. However, it remains unknown whether women and men receive disease diagnoses in equal frequencies after FPs perform diagnostic interventions. Objective: To assess differences between women and men in the association between diagnostic interventions (i.e. physical examinations, laboratory diagnostics, imaging and specialist referrals) and disease diagnoses when patients present with common somatic symptoms. Study design: Prospective observational cohort study. Dataset: FP-registration data from 2014 to 2018, derived from the Dutch FaMe-Net primary care database. Herein FPs (n=26) routinely code each encounter according to the International Classification of Primary Care in an episode-of-care structure. Population: New episodes of care starting with a common somatic symptom as a reason for encounter were included. 7,914 men presented 13,236 (38.6%) new episodes of care, whereas 10,542 women presented 21,032 (61.4%) new episodes of care. Outcome Measures: Differences between women and men in the rate of receiving a disease diagnosis after an intervention was assessed by multilevel logistic regression analyses. Analyses included sex-by-intervention interaction terms. Results: Physical examinations and specialist referrals associated with more disease diagnoses (OR=2.32; 95%CI=2.17-2.49 and OR=1.38; 95%CI=1.27-1.49, respectively), whereas laboratory diagnostics associated with fewer disease diagnoses (OR=0.50; 95%CI=0.47-0.54). Significant interaction terms showed that women presenting with (lower) back pain, tiredness, arm and/or leg symptoms and tingling extremities received fewer disease diagnoses than men after diagnostic interventions were performed by FPs. We found no indication that men receive fewer disease diagnosis after a diagnostic intervention than women. Conclusions: Especially when women present (lower) back pain, tiredness, arm and/or leg symptoms and tingling in extremities, FPs could be aware that diagnostic interventions yield less disease diagnoses in women than in men. However, performing fewer diagnostic interventions in women with these symptoms will further exacerbate the sex differences in disease diagnoses.