

NAPCRG 52nd Annual Meeting — Abstracts of Completed Research 2024.

**Submission Id:** 7033

**Title**

*A Comparative Study Using Patient-Reported Experience Measures (PREMs) in Prenatal Screening Among Pregnant Women in Canada*

**Priority 1 (Research Category)**

Secondary data analysis

**Presenters**

Alix Dubeau, BSc, Meryeme El Balqui, BSc, MSc, Denis Talbot, Sylvie Langlois, MD, Georgina Suélène Dofara, MSc, François Audibert, MD, MSc, Souleymane Gadio, MSc, France Legare, MD, PhD, MSc, CCMF

**Abstract**

**Context:** The non-invasive prenatal screening (NIPS) has higher sensitivity and specificity in detecting trisomy 21, 18 or 13 than standard care screening, thereby reducing the need for more invasive confirmatory tests that can result in pregnancy loss. The turnaround time for results is also shorter when NIPS is used as a first-tier test compared to standard care. Patient-reported experience measures (PREMs) allow for the evaluation of care quality from the patient's perspective. **Objective:** Compare the experience of pregnant women undergoing first-tier NIPS with those undergoing standard care. **Study Design and Analysis:** This study is a secondary analysis using data from a prospective, open-label, multicenter randomized trial. **Setting or Dataset:** Data was collected in two Canadian provinces (QC and BC) from 2020 to 2022. At 10 weeks of pregnancy, pregnant women provided their socio-demographic data, between 10 and 13 weeks, they received prenatal screening and at 22 weeks of pregnancy, they were invited to complete the PREMs questionnaire, which assesses patient experiences. **Population Studied:** Pregnant women aged 19 and older. **Intervention/Instrument:** Pregnant women were randomized 2:1 to first-tier NIPS or standard care for prenatal screening of chromosomal anomalies T21, T18, or T13. The administered questionnaire consists of 17 questions, 10 items being on a 5-point Likert scale. Following the validation of the questionnaire through exploratory and confirmatory factor analyses, 7 items were retained and grouped into two distinct factors (i.e. human experience of the process and perception of the healthcare professional's technical competence). **Outcome Measures:** Linear regression models compared the patient experiences between the two distinct treatment groups using the 2 factors as outcomes. **Results:** Of the 7815 pregnant women enrolled from 5 clinical sites, 6050 were included for comparison, with 4213 participants in the intervention group and 1837 in the

control group. The mean age was 32.1 ( $\pm 4.0$ ). The overall response rate was 80% and the overall completion rate was 96%. First-tier NIPS has converged positively with the factor score assessing the perception of the healthcare professional's technical competence ( $\beta=1.28, P=0.02$ ). Conclusions: First-tier NIPS testing enhanced patient experiences by mitigating the uncertainty associated with prenatal screening processes and fostering the perception of healthcare professionals' technical competence.

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