



Risk factors for alcohol drinking in early pregnancy

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1. Objective

- Health authorities advise against alcohol consumption during pregnancy or when planning pregnancy.
- Recommendations are based on the known risks of e.g. miscarriage, malformations, preterm birth, and fetal alcohol syndrome associated with alcohol consumption.
- Still, the prevalence of alcohol drinking after recognition of pregnancy may be up to 60%.
- Up to 40% of pregnant women report at least one episode of alcohol binge drinking.

The aim was to identify risk factors of alcohol drinking before and during pregnancy to better target guidance and lower the risk of prenatal alcohol exposure.

2. Design

Prospective cohort study.

3. Method

A total of 2,053 pregnant women who attended their first antenatal care visit, were invited to participate in the study. Information on risk factors and drinking habits before and during pregnancy was collected by in-person interviews at 16 weeks of gestation.

Ordinal logistic regression was used for analysing the association between alcohol consumption and lifestyle factors. Average alcohol intake *before* pregnancy was categorized as; 0; >0-3; >3-6; >6 drinks/week, average intake *during* pregnancy as 0; <1; 1-3; >3 drinks/week, binge drinking (≥ 5 drinks on a single occasion) as 0; 1; 2; 3; ≥ 4 episodes.

4. Results

Of the 2,053 invited 1,895 (92%) were interviewed.

RISK FACTORS FOR ALCOHOL DRINKING*

BEFORE PREGNANCY	DURING PREGNANCY	BINGE DRINKING
Age >25 years OR 2.33 (95% CI: 1.77–3.06)	Age <25 years (reference; 25–34 years) OR 0.78 (95% CI 0.61–0.98)	Being single OR 1.64 (95% CI: 1.09–2.46)
Smoking OR 1.52 (95% CI: 1.25–1.84)	Single OR 1.52 (95% CI: 1.01–2.29).	Smoking (during pregnancy) OR 1.34 (95% CI: 1.06–1.69),
Higher education OR 2.57 (95% CI: 2.12–3.11)		Higher education OR 1.54 (95% CI: 1.28–1.86)
Nulliparity OR 2.18 (95% CI: 1.82–2.59)		Nulliparity OR 1.91 (95% CI: 1.60–2.38)
Partner’s average alcohol intake OR 15.29 (95% CI: 8.65–27.03).		Partner’s average alcohol intake OR 3.70 (95% CI: 2.35–5.84).

5. Conclusion

The profile of women drinking before pregnancy is very similar to the characteristics of women binge drinking in early pregnancy.

The women who are higher educated, smoking, nulliparous, and with a partner consuming any amount of alcohol need to be identified prior to pregnancy to lower the risk of prenatal alcohol exposure.

Since binge drinking mostly occurs before pregnancy recognition, pre-conceptual guidance must be addressed.

*Reference: Age ref < 25 years, Single ref married, Smoking ref non-smokers, Education ref school-education ≤ 10 years, Parity ref multiparous, Partner alcohol intake ref 0 consumption. All risk factors were simultaneously and mutually adjusted for all other risk factors, except paternal alcohol intake.