Breastfeeding and later depression/anxiety in adolescence

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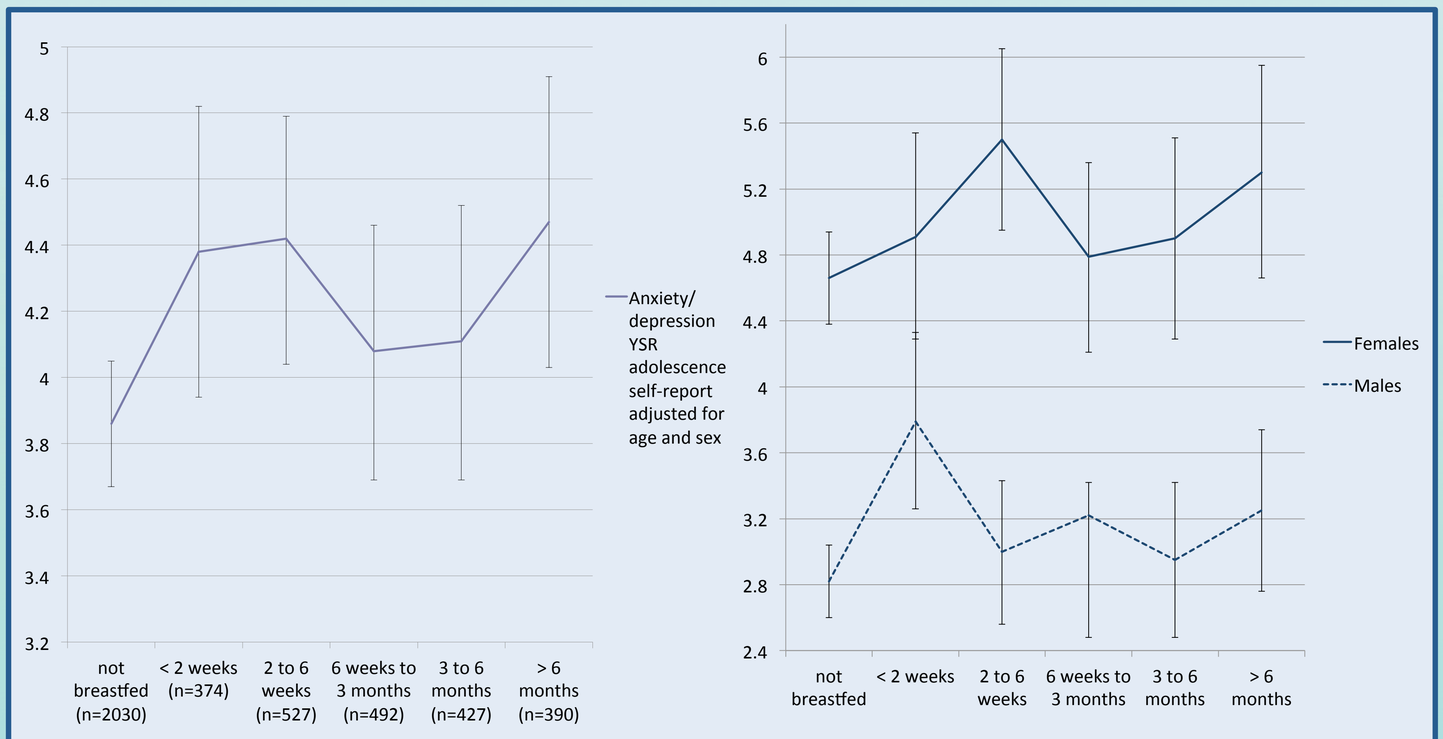
Background

• Depression is a major mental health problem with rising prevalence from adolescence onwards.
• In mammals, breastfeeding is the natural way of feeding newborn offspring,
• long-term effects of breastfeeding for the psychological functioning of the human offspring are still widely unknown.
• Breastfeeding has been associated with later offspring hostility in Finnish adults (1),
• an interaction between breastfeeding and the estrogen receptor gene has shown to associate with depression in adulthood (2),
• an association with adolescent attention, social and aggression problems have been found (3).
• We explore the association between breastfeeding and later emotional functioning in Dutch adolescent twins .



Methods

Participants

• 4,240 Dutch twins born with gestational age over 32 weeks to 2,308 families (average age 16 years).
• Participants were followed in the Netherlands Twin Register since birth.

Measures

• Information of breastfeeding was reported by parents two years after the twins were born.
• Anxiety/depression was reported with the Youth Self-report (YSR), and it was used as a continuous variable.
• Parental age at birth and education, child's birth weight, birth order, and whether there were problems in the birth or child being in an incubator were used as covariates.

Statistical analyses

• Mixed linear multilevel model nested within the family was conducted among 4240 twins from 2308 families.
• In addition model fittness was tested with SEM in OpenMx package in R.

Results

• 48% of the twins were not breastfed, and average duration of breastfeeding was < 3 months.
• Only 9% were breastfed > 6 months.
• Breastfeeding predicted anxiety/depression in adolescence (p=.024).
• Not breastfed had lowest level of anxiety/depression (3.86) which differed statistically significantly from those who had been breastfed < 2 weeks (4.38), 2-6 weeks (4.42) and > 6 months (4.47).
• Adjustment for birth weight, birth order, gestational age, zygosity, parental age at delivery, parental education, and early problems had little effect.
• The present model with 6 different breastfeeding groups fitted adequately to the data
• Also a model with no differences between the breastfeeding groups fitted the data, implying that the possible effect of the breastfeeding of twins is only small and marginally significant (Table 1).

Conclusions

• Breastfeeding predicted later offspring mental health in adolescent Dutch twins
• Effect of not breastfeeding was reversed compared to the results from adult Finnish singletons.
• Decision to not breastfeed twins may reduce the stress in the mothers, which may explain the lowest anxiety/depression in non-breastfed twins.
• The found association is marginally significant and small on effect size (only 1 point on a scale of 0-32). Thus, having only little impact on twins anxiety/depression levels.

References

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