Optimal care ?
9-months fully paid maternal leave, high quality care and associations with Child behaviour at 3 years

A sub-project of the MoBa-study

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Overview

Part I

Childcare and levels of risks in Norway

Part II

Methods and procedures of The MoBa-Study

Part III

A longitudinal population based sub-study of the MoBa-study: Optimal care ? maternal leave and childcare effects on behaviour difficulties at 3-years

Part I:

Childcare and levels of risks in Norway

Social welfare in Norway

Maternal leave benefit:

- In Norway the leave of absence is laid down in the Working Environment Act.
- Fully paid maternal leave for 43 weeks or 52 weeks at 80% salary.
- Parental benefits for employees cover 100 per cent of their income.
- Parental benefits are not paid for income in excess of 6G (71 000 AU$)

The use of child care

- Only 1% of the children under 1 year in non-parental care.
- After the first year about 77% of children attend some form of non-parental care, preferably group day-care.

(National statistics of Norway, SSB 2010)

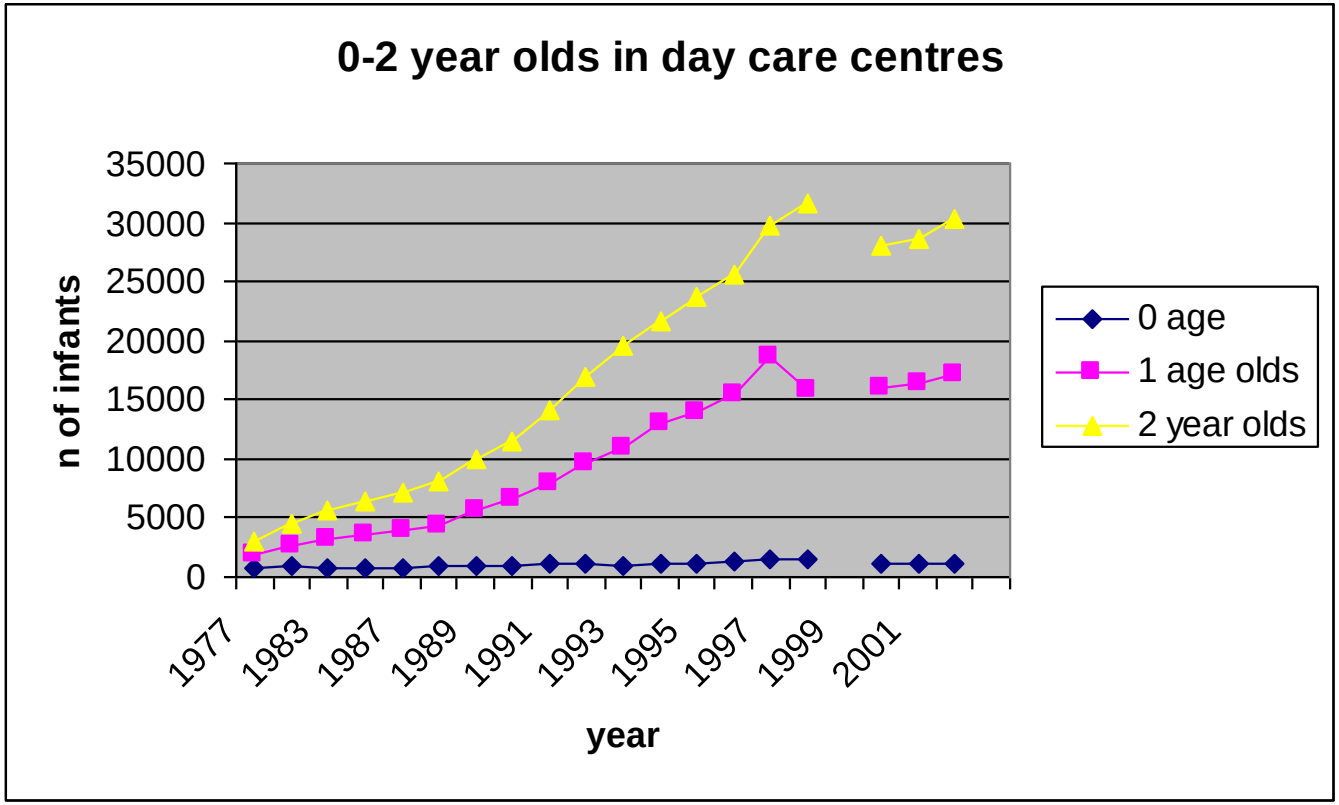
Childcare coverage

- Day care centre coverage of 87-100% around the country.

- 3-5 years 100%

- Nearly all (80%) of the families ask for, and get full time provision for their children. (37.5 hours per week) .

25-year history of childcare use in Norway



Cost is regulated by maximum price level

- Sweden was the first country in Scandinavia to pass a regulation defining how much day care centre provision should cost, by fixing an upper roof.
- There are no big differences among centres with respect to cost in Scandinavia.
- There is heavy subsidizing from the government

Childcare quality

- The kindergarten ACT of 1975 ensures high structural quality through laws and regulations..
- In Norway (child-care giver ratio) it is 1:4 plus teacher once a week, at 12-24 months; 1:6 at 36 months; and 1: 6 for 54 months
- Teacher education of 3 years with focus on pedagogical learning and sensitivity to the childs needs (Borge et al., 1994; havnes, 2009).

Levels of Risk in Norway I:

- Considered to be the only country with child poverty below 5% that are continuing to decrease.

- USA, child poverty above 15%

- Norway among the top 4 countries in child well-being, while UK and USA in the bottom two

(ref: Unicef)

Levels of Risk in Norway II:
TEENAGE BIRTHS.

Teenage fertility rate: births per 1000 women age 15-19:

- Norway: 10
- Canada: 20
- United Kingdom 27
- United States 30

(ref: Unicef)

Levels of Risk in Norway III:
LOW BIRTH WEIGHT RATE

Percentage (%) births less than 2500 g.

- Sweden 4.5%
- Norway 4.9%
- Canada 5.3%
- UK 7.5%
- USA 7.9%

Levels of Risk in Norway IV:
EDUCATION

Percentage (%) of 15-19 year-olds not in education, training or employment

- Sweden 5.7%
- Norway 4 %
- Canada 5.3%
- UK 9.8%
- USA 7.5%

Part II:

The Norwegian Mother and Child Cohort Study (MoBa)

Study Aims:

- The study aims to calculate the degree of association between potential causal factors (exposures) and ill health in mother and child.

- There is also more than 100 different sub-projects; The ABC-study- Autism; ADHD; Language; Tooth study; Breast-milk study; many more

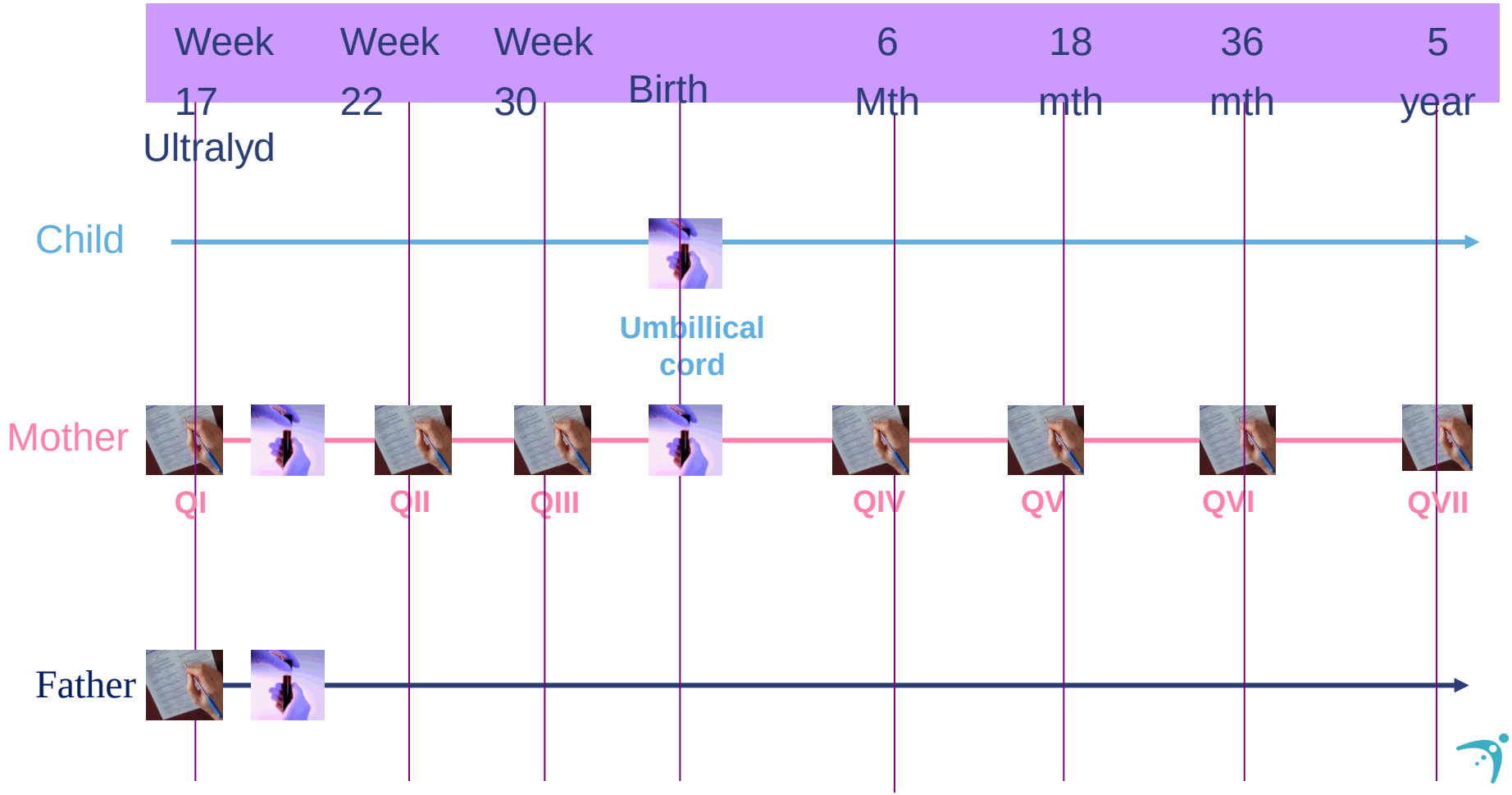
Historical Background

- Recruitment are finalized, and include a total of 107 000 children and their parents
- Pilot study in 1997
- Recruitment started in Hordaland, Bergen, 1999
- Became a National cohort study 2002

Recruitment and participants

- 50 out of 52 hospitals around Norway have agreed to participate in the recruitment to the study.
- Pregnant women are registered at the hospital, and 98% of pregnant women in Norway attend routine Ultrasound examinations around the 17th week in pregnancy.
- They are then invited via postal questionnaires which is sent to their home address.
- The invitation describes the purpose of the study, protection of privacy and practical details.

Data Collection



MoBa-cohort

Invited	277 700
Consent	106 980
% returned Q	38,5%

Response rate

per October 2009

Questionnaire	%respons
1 – 17 weeks	95.2 %
2 – Nutrition	92.3 %
3 – 30 weeks	90.9 %
4 – Child 6 m	84.8 %
5 – Child 18 m	73.0 %
6 – Child 3 Years	60.2 %

Biological samples

	Total
Mother-week17	92 630
Mother- birth	83 220
Child- Umbilical cord	88 850
Father- week17	68 000

Ethical considerations I

The purpose of the project is to investigate the causes of disease. Knowledge about the causes of disease can lead to good interventions and further laboratory research which can reveal the mechanisms that underlie disease processes.

Ethical considerations II

- The MoBa-study is approved by Regional Ethics Committees for medical research, Health Region II (REK II), and the data inspectorate.

- From spring 1997 to spring 2000, the project had its own committee advising and making recommendations to the project's executive and working groups.

Part III :

Optimal care ?

The role of maternal leave and high provision of good quality care and associations with behaviour difficulties at 3-years.

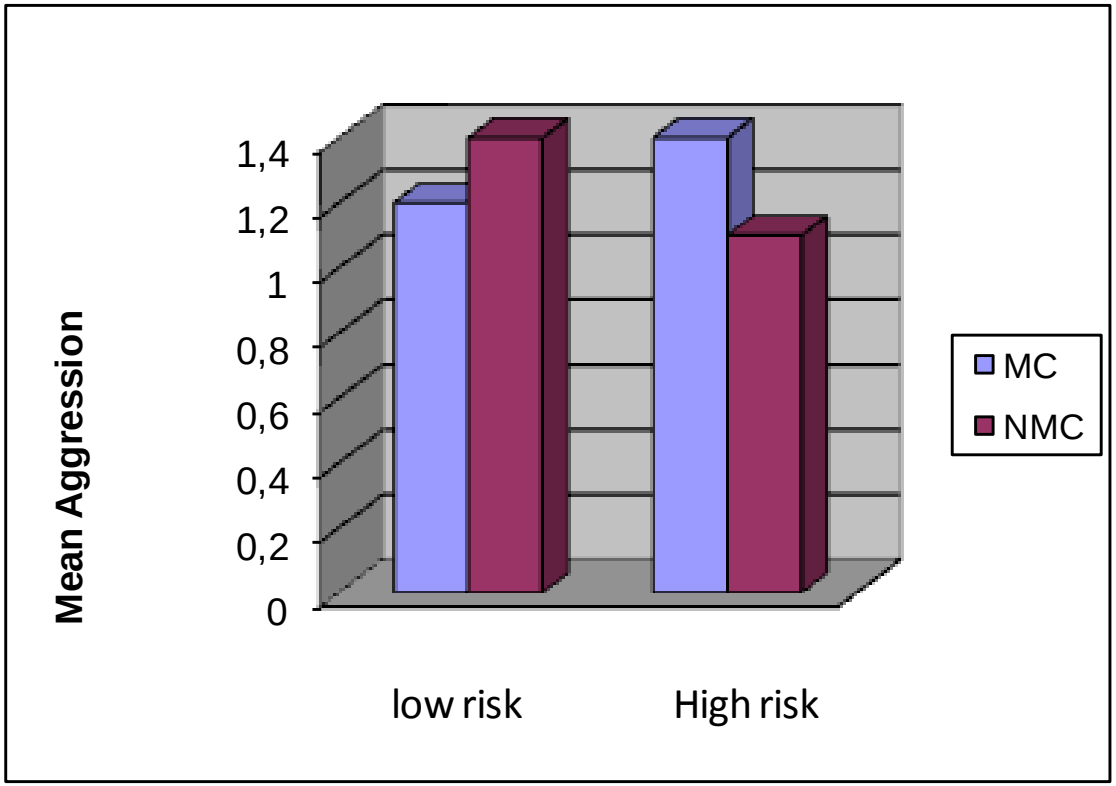
Background I: Non-maternal care

Half a century ago Bowlby argued that mothers form relationship with their infants that are qualitatively different from any other, thus major concerns were raised about the possible risks associated with non-maternal care (Bowlby, 1951).

Background II: Non-maternal care

- Childcare have mostly been focused on the first 12 months of life, and the potential harmfull effects is particularly associated with reseach in the USA (see i.e. NICHD, Jay Belsky).
- The effects of childcare may vary with the quality of of both homecare and care outside the home (Rutter, 1981).
- There are major differences in the effects of childcare in different social contexts.
- Childcare may vary with the levels of risk, and can for example be protective in the case of high family risk (Borge etal., 2004).

Example :Non-maternal care moderates aggression in children from high risk families (Côté et al., 2008)



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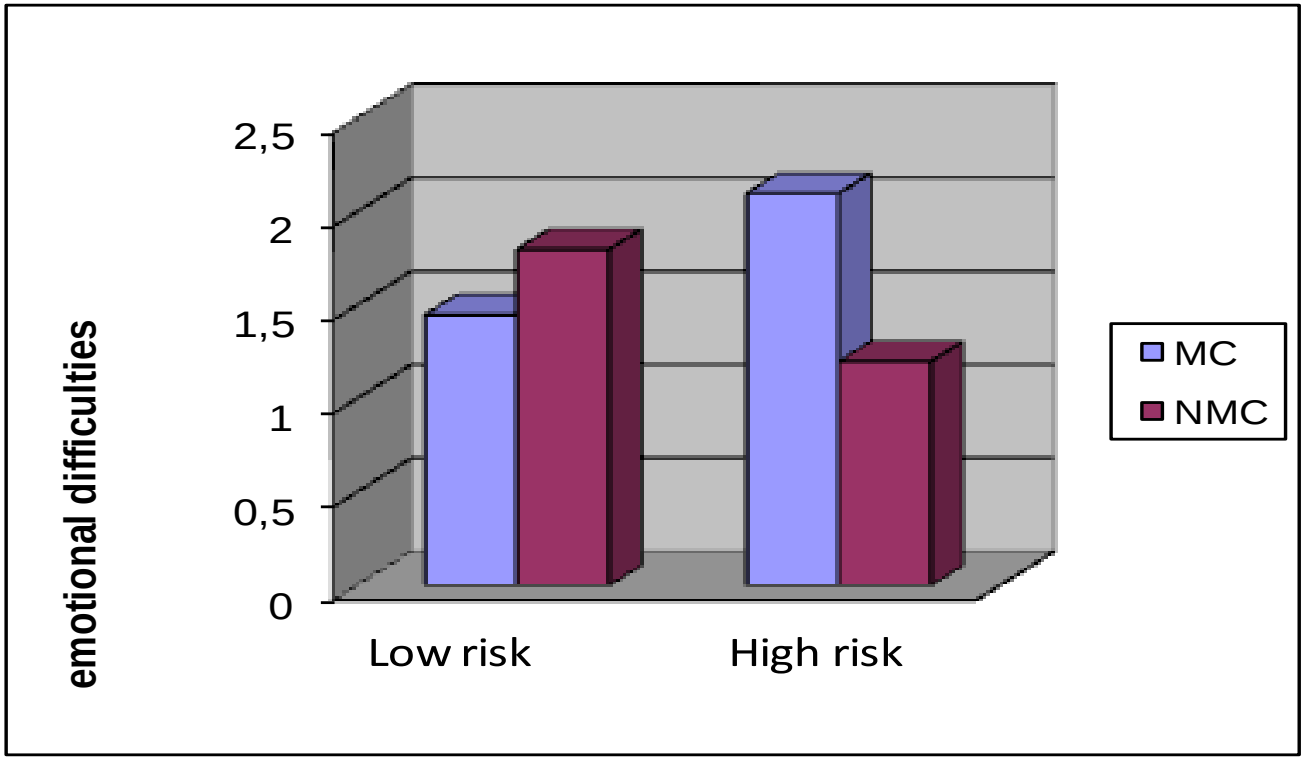


The present Study

- To date, no other studies have examined population-based data where the majority of infants are cared for at home the first year of life.
- In the present study we examined how the extensive welfare policy of 42 weeks maternal leave and high coverage of group day-care, is related to social selection and behaviour problems in 36 month-olds.

Method

Child outcome:

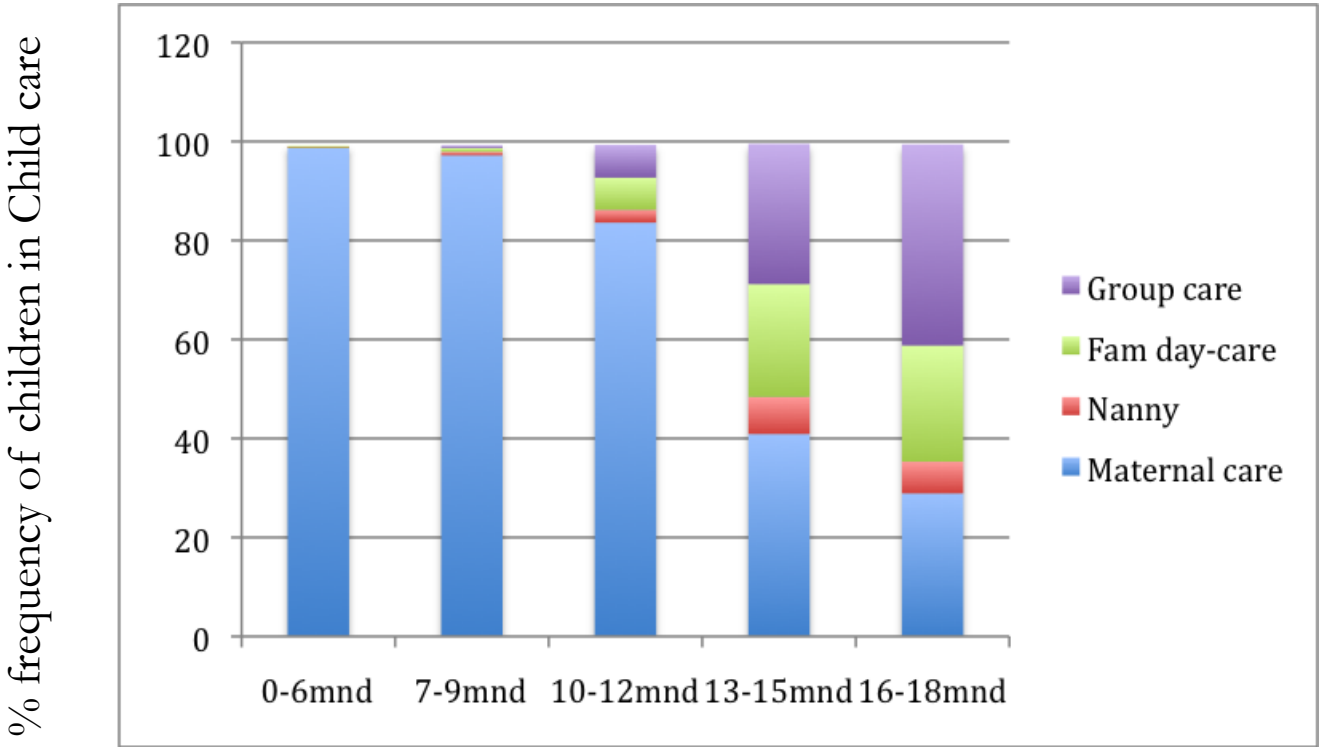
- Physical aggression measured at age 18 and 36months
- Crying behaviour at 18 and 36 months
- Demographics (i.e. maternal age, education Income, number of siblings).
- Psychosocial variables; family disharmony and maternal anxiety
- Child characteristics ; Gender and Child temperament at 6 months

Measures:

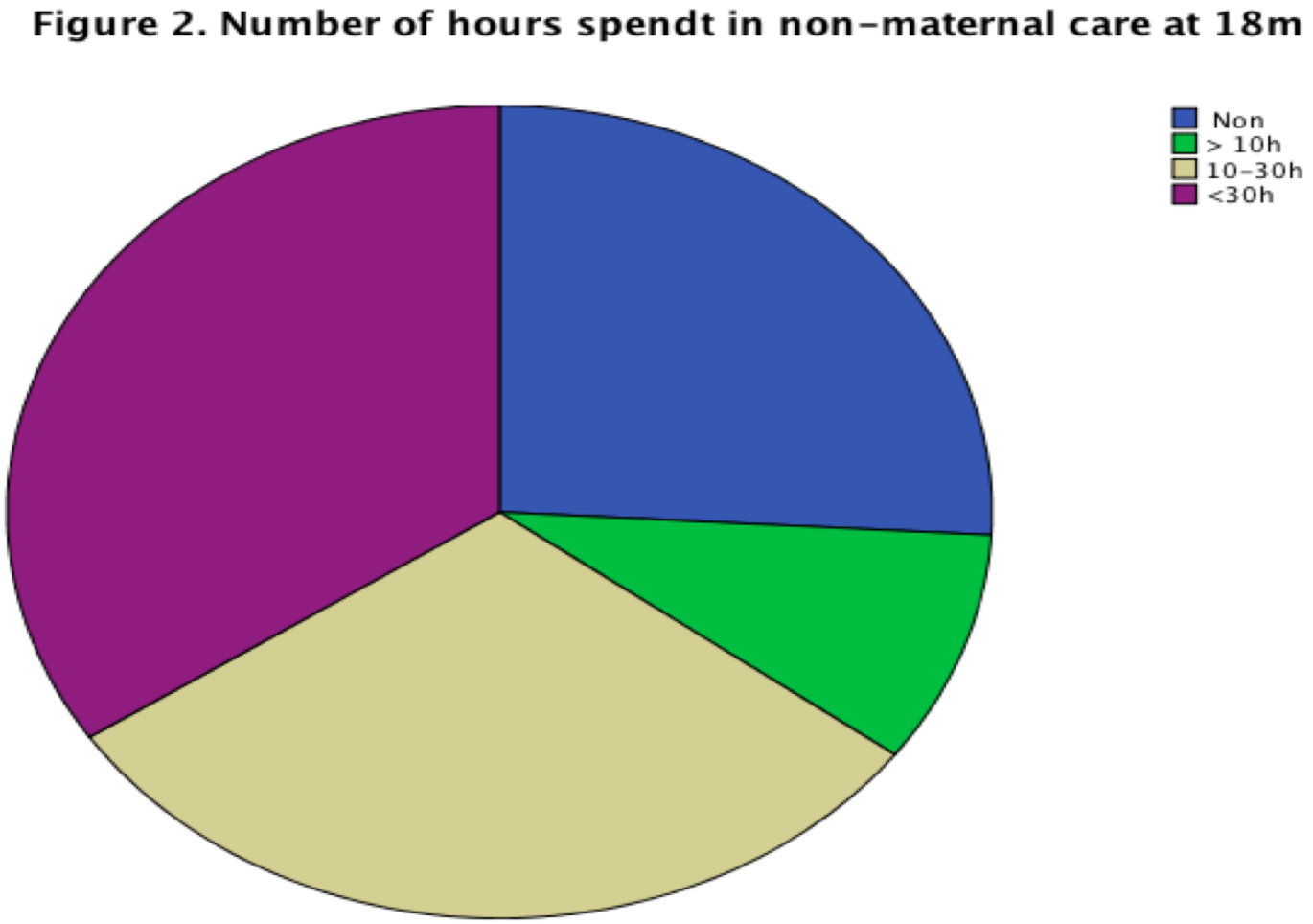
Childcare:

- Group day-care
- Family care
- Nanny

The percentage of children cared for regularly by different caregivers at 6, 9, 12, 15 and 18 months.



Number of hours spent in Childcare at age 18 months



Child outcome at 36 months:

Crying behaviour:

- The three items were rated by mothers on a five-point scale ("cries a lot", "gets easily upset", "scream and cries intensely") from the EAS tempreament scale

Physical aggression:

- Five items from the CBCL for ages 1.5 to 5 years (Achenbach, Edelbrock, & Howell, 1987). Included items were "is aggressive when he/she is frustrated", "gets often into fights",

In conclusion

We expect to find :

- There was a strong selection effect, and that as a result,
- there is no direct or moderating effect of group day-care starting in the second year of life on child behaviour difficulties.

Findings from this presentation have not been published, but I am happy send results to those interested when published.

Resources

- http://www.regjeringen.no/upload/BLD/Veiledning%20og%20brosjyrer/2007/270636_the_rights_of_parents_of_small_children_2007_english.pdf
- http://www.norway.org.uk/aboutnorway/society/welfare/benefits/
- http://www.norway.org/aboutnorway/society/welfare/benefits/
- *http://www.ssb.no/english/subjects/04/02/10/barnehager_en/*
- OECD (2006). *Starting strong II, early childhood education and care*. Paris: Organisation for Economic Cooperation and Development, OECD.
- UNICEF. (2007). *Child poverty in perspective: An overview of child well-being in rich countries. A comprehensive assessment of the lives and well-being of children and adolescents in the economically advanced nations.* Florence: UNICEF Innocenti Research Centre.
- UNISEF. (2008). *The child care transition: A league table of early childhood education and care in economically advanced countries*. Florence.
- Havnes, T., & Mogstad, M. (2009). No child left behind, universal child care and childrens long-run outcomes. *Discussion Papers No 582. Oslo, Statistics Norway, Research Department.*

Discussion

- How does the Norwegian model differ from that of Australia?
- What are the effects of group day-care in Australia? Why?

- The role of social selection in different cultures- Why does this mattter for child psychopathology?
- After almost half-a-century of group day-care research, where do we stand today?

  (Maternal care vs. Non-maternal care)