# Questions Documentation

## 5-year Questionnaire
## when the child was 5 years old

The Norwegian Mother, Father and Child Cohort Study (MoBa)

Mother Questionnaire

Please note:
This document describes the instruments used in the questionnaire. It has not yet undergone final quality control and may contain minor inaccuracies. The document is subject to revision. If you have any comments or suggestions for improvement, please contact mor.barndata@fhi.no

| Version | Date | Performed by | Description |
|---|---|---|---|
| 1.0 | Dec. 2014 | Fufen Jin | |
| 1.1 | 15.04.2020 | Turid S. Solberg | Corrections to chapter 36 Child Development Inventory (CDI) |
| 1.2 | 04.01.2021 | Turid S. Solberg | Corrected response options in question 39 (Q39). |

**LIST OF CONTENT**

**Model structure of what is presented per instrument/section** ..... 3
Instrument ..... 3
Date When the Questionnaire was Completed ..... 4
**About the child** ..... 5
1. Height and Weight ..... 5
2-4. Family Household ..... 6
**Childcare** ..... 7
5. Day Care Solution ..... 7
6-11. Attending the Child Care Centre ..... 8
12-13. Children's Well-being in the Day Care Centre and Parental Satisfaction with it ..... 9
**Media and games** ..... 10
14 -16. Time in front of TV and PC Screen ..... 10
**Child development and illness** ..... 11
17 -18. Illnesses or Health Problems ..... 11
19. Developmental Milestones ..... 13
20-22. History of Developmental Problems ..... 14
23. Family History of Language, Reading and Writing Problems ..... 15
24. The Child's Pronunciation ..... 16
25. Food Supplements ..... 17
26. Breakfast ..... 18
27. Questionnaire of Eating and Weight Patterns-Parent Report (QEWP-P) ..... 19
**Language and preschool activities** ..... 20
28 Ages and Stages Questionnaires (ASQ) ..... 20
29-30. Mother Tongue, Language Backgrounds, and Home Language Use ..... 22
31. Checklist of 20 Statements about Language-Related Difficulties (Språk20) ..... 23
32. Children's Communication Checklist-2 Coherence Sub-scale (CCC-2 Coherence) ..... 24
33. Preschool Activities: Narrative and Communicative Skills ..... 26
33. Preschool Activities: Experiences with Letter and Sound Knowledge ..... 27
33. Preschool Activities: Literacy Skills ..... 28
33. Preschool Activities: Home Reading ..... 29
**Child's skills and behaviour** ..... 30
34. Preschool Play Behaviour Scale (PPBS) ..... 30
35a. Childhood Asperger Syndrome Test (CAST) ..... 32
35. Conners Parent Rating Scale-Revised, Short Form (CPRS-R (S)) ..... 34
36. Child Development Inventory (CDI) ..... 35
37. Temperament ..... 36
38. Speech and Language Assessment Scale (SLAS) ..... 38
39. Child Behaviour Checklist (CBCL) ..... 39
40-41. Bedtime Habits ..... 41
42. Maternal Concerns ..... 42
**About yourself** ..... 43
43-44. Weight and Pregnancy Status ..... 43
45-47. Intake of Nicotine and Alcohol ..... 44
48-50. Health and Health Problems ..... 45
51. Depression/Anxiety ..... 46
52. Relationship Satisfaction Scale (RSS) ..... 48
53. Parenting Style ..... 50
54. Satisfaction with Life Scale (SWLS) ..... 52
55-56. Adverse Life Events ..... 53
57. The International Personality Item Pool (IPIP) Big-Five Factor Markers ..... 54
58. History of Childcare Attendance ..... 56

# Model structure of what is presented per instrument/section

**Instrument**

1. **Name of original instrument/question:**
   Original name of scale (*no name* if only single question)
   List wording of questions included in the section (with number from questionnaire in front) and write response categories (with values used in the dataset)

2. **Description of original scale or selection of items used**
   Description of analytical approaches for selecting just a sample of items from a scale
   If single question. NOT RELEVANT
   If selection of established short version, make referral to literature and/or use
   Where does the Q/scale come from, what is it meant to measure. Description of number of items, subscales. Where the Q/scale has been used and any information that give insight into what instrument this is.
   Primary references of the instrument as well as important secondary publications if relevant.

3. **Rationale for choosing the instrument:**
   What is it meant to measure and IF RELEVANT: Why this is a good measure.

4. **Modifications:**
   Describe modifications during the study from one version to another.
   Write if omitted or added from one version to another

**NOTE 1:**
Q-5year has two versions (A and B). This instrument documentation is based on version B.

**NOTE 2:**
Questions to which the answers are written into open text fields are annotated with two variable names. The first indicates whether or not there is text; the second contains the actual text. In the case of medication, there is an additional variable name with a "k" at the end, to indicate how the name of medicine has been coded.

## Date When the Questionnaire was Completed

1. **Name of original questions:** Question about the date when the questionnaire was completed

| | Response options | Variable name |
|---|---|---|
| **Specify the day, month and year when the questionnaire was completed** | | |
| _ _day _ _month _ _ _ _year | | LL11 |

2. **Description of original scale: MoBa specific single questions**

   *Psychometric Information:*
   Not relevant.

   *Base References/Primary Citations:*
   Not relevant.

3. **Rationale for choosing the instrument:**
   This question can be an index for the child's age.

4. **Revision during the data collection period:**
   No revisions have been made.

# About the child

## 1. Height and Weight

1. **Name of original questions:** Questions about the child's height and weight nowadays

| Q | | Response options | Variable name |
|---|---|---|---|
| 1 | **What is your child's height and weight nowadays?** | | |
| | Height | _ _ _cm | LL12 |
| | Weight | _ _ , _ kg | LL13 |
| | Date of measurement | _ _ month _ _ _ _ year | UNKOWN |

2. **Description of original questions: MoBa specific single questions**

*Psychometric Information:*
Mothers make a cross to indicate whether the measures were taken by themselves. Measures made by mothers might be less reliable than those taken by professionals.

*Base References/Primary Citations:*
Not relevant.

3. **Rationale for choosing the questions:**
By using measures of weight and length, Body Mass Index (BMI) can be estimated. BMI is a reliable indicator of body fatness for most children and teens (cf. Center for Disease Control and Prevention: **http://www.cdc.gov/healthyweight/assessing/bmi/childrens_bmi/about_childrens_bmi.html#How%20is%20BMI%20used%20with%20children%20and%20tGGns**).

4. **Revision during the data collection period:**
No revisions have been made.

## 2-4. Family Household

**1. Name of original questions:** Questions about family household

| Q | | Response options | Variable name |
|---|---|---|---|
| **2** | **Who do you live with?** | | |
| Version B | Spouse | | LL447 |
| | Cohabitant | | LL448 |
| | Other adults | | LL449 |
| | Children of others | | LL450 |
| | None | | LL451 |
| Version A | Spouse/ cohabitant | | LL16 |
| | Your parents | | LL17 |
| | Your parents in law | | LL18 |
| | Children | | LL19 |
| | None | | LL20 |
| | Other, specify___ | | LL424 (txt.) |
| **3** | **If children live with you, how many and what ages?** (Also include the child you are filling out this form for.) | | |
| Version A | Number of children over 9 years | | LL22 |
| Version A | Number of children between 5 and 9 years | | LL23 |
| Version B | Number of children 5 years or older | | LL452 |
| Version A & B | Number of children 3 or 4 years old | | LL24 |
| Version A & B | Number of children from 0 to 3 years old | | LL25 |
| **4** | **Do you live with the child's father?** | | |
| Version A & B | | 1-Yes<br>2-No<br>3-Have never lived with the child's father | LL26 |
| | If NO, how old was the child when you separated/moved apart | __, __ years | LL27 |

**2. Description of original questions: MoBa specific single questions**

*Psychometric Information:*
Not relevant.

*Base References/Primary Citations:*
Not relevant.

**3. Rationale for choosing the questions:**
The questions were developed to get information about the family household.

**4. Revision during the data collection period:**
Slightly different response categories in the two versions for question 3 and 4 (see table above).

# Childcare

## 5. Day Care Solution

**1. Name of original questions:** Questions about the child's day care solution

| Q | | Response options | Variable name |
|---|---|---|---|
| **5** | **Where is the child looked after in the daytime these days?** | | |
| Version B | Child minder/an unqualified child minder/outdoor nursery | | LL453 |
| | No. hours per week | | LL454 |
| | At a family child care | | LL455 |
| | No. hours per week | | LL456 |
| | Center care, Private | | LL457 |
| | No. hours per week | | LL458 |
| | Centre care, Public | | LL459 |
| | No. hours per week | | LL460 |
| | Other family than mother/father | | LL461 |
| | No. hours per week | | LL462 |
| Version A | At home with his/her mother/ father/other family | | LL30 |
| | With a child minder/in outdoor nursery | | LL31 |
| | At a family child care | | LL32 |
| | Center care, Private | | LL33 |
| | Centre care, Public | | LL34 |
| | Other | | LL35 |
| | Other, specify: …… | | LL425 (txt.) |
| | How many hours a week is the child looked after during the day by someone else than his/her mother or father? | _ _ hours | LL37 |

**2. Description of original questions: MoBa specific single questions**

*Psychometric Information:*
Not relevant.

*Base References/Primary Citations:*
Not relevant.

**3. Rationale for choosing the questions:**
Questions were developed to determine the family's choice of childcare arrangements and number of hours per week in non-maternal/ non family care. Children who experience more organised and stimulating activities during the early years are more likely to have better developmental outcomes (NICHD Early Child Care Research Network, 2000).

**4. Revision during the data collection period:**
Different response categories in the two versions for this question (see table above).

**Added reference:**
NICHD Early Child Care Research Network. The relation of child care to cognitive and language development. Child Dev 2000;71:960-980.

## 6-11. Attending the Child Care Centre

**1. Name of original questions:** Questions about the child care centre, about number of times the child has changed child care arrangement, age when starting in the current arrangement, and whether the child has received any extra resources in the child care centre.

| Q | | Response options | Variable name |
|---|---|---|---|
| **6** | **If your child is attending kindergarten, is it organized in traditional units or as bases/large groups?** | | |
| | | 1-Unit-kindergarten<br>2-Base-kindergarten | LL463 |
| **7** | **If the child is looked after another place than home, how many adults are looking after the child (e.g. number of adults in the unit/base)?** | | |
| | | Number 0-99 | LL38 |
| **8** | **How many other children are cared for in the same child care?** (If kindergarten, state the number of children in the same unit/base) | | |
| | | Number 0-99 | LL39 |
| **9** | **How many times has the child changed child care?** | | |
| | | Number 0-99 | LL40 |
| **10** | **How old was the child when he/she started in current child care?** | | |
| | | Number 0-99 | LL41 |
| **11** | **Does your child receive, or has received any extra resources in the kindergarten?** | | |
| | | Number 0-99 | LL42 |

**2. Description of original questions: MoBa specific single questions**

*Psychometric Information:*
Not relevant.

*Base References/Primary Citations:*
Not relevant.

**3. Rationale for choosing the questions:**
Organisational aspects, size of the child care, and staff-child ratio are indicators of the *structural quality* of the child care centre (cf. Cassidy et al., 2010).

**4. Revision during the data collection period:**
Question 6 is only included in version B. No further revisions were made.

**Added reference:**

Cassidy, D. J., Hestenes, L. L., Hansen, J. K., Hegde, A., Shim, J. & Hestenes, S.(2010). Revisiting the two faces of child care quality: Structure and process. *Early Education & Development* 16(4): 505-520.

## 12-13. Children's Well-being in the Day Care Centre and Parental Satisfaction with it

**1. Name of original questions:** Questions about the child's well-being in day care centre and parental satisfaction with staff skills concerning child development.

| Q | | Response options | Variable name |
|---|---|---|---|
| **12** | **How does your child like being in the current child care?** | | |
| | | 1-Not at all<br>2-Not much<br>3-Both likes and dislikes<br>4-Mostly<br>5-Very much | LL44 |
| **13** | **If your child is cared for elsewhere than home or with child minder, to what extent are you satisfied with different aspects of the child care your child is attending?** | | |
| | Type of activities in child care | 1-Dissatisfied<br>2-More dissatisfied than satisfied<br>3-Both satisfied and dissatisfied<br>4-More satisfied than dissatisfied<br>5-Very satisfied | LL45 |
| | Adaptations for school prep activities | | LL46 |
| | Staff competence for doing a good/ qualified job with your child | | LL47 |
| | Food program in child care (healthy food, proper meal) | | LL48 |
| | Information from child care about how your child is doing | | LL49 |

**2. Description of original questions: MoBa specific single questions**

*Psychometric Information:*
Not relevant.

*Base References/Primary Citations:*
Not relevant.

**3. Rationale for choosing the questions:**
Children's well-being in and parental satisfaction with the child care can be an index for the quality of the child care centre.

**4. Revision during the data collection period:**
No revisions have been made.

# Media and games

## 14 -16. Time in front of TV and PC Screen

**1. Name of original question:** one question about how much time the child spends in front of a TV/PC/video

| Q | | Response options | Variable name |
|---|---|---|---|
| **14** | **Does your child have a TV in his/her own room?** | | |
| | | 1-No<br>2-Yes | LL50 |
| **15** | **How many hours does the child watch TV/DVD or play PC/TV-games?** | | |
| | On a typical weekday | 1-Never<br>2-Less than 1 hour<br>3-From 1 up to 3 hours<br>4-From 3 up to 5 hours<br>5-Five hours or more | LL51 |
| | On a typical day during the weekend | | LL52 |
| **16** | **How often does the child use…?** | | |
| | 1. PC/ computer at home | 1)Daily<br>2)4-6 days a week<br>3)2-3 days a week<br>4)1 day a week<br>5)Never/rarely | LL53 |
| | 2. TV-games/ handheld electronic games (e.g. Playstation, Game Boy, PSP etc.) | | LL54 |
| | 3. PC-/TV-games where the purpose is pedagogical (learn things that are relevant for school) | | LL55 |
| | 4. Reading books as activity and entertainment | | LL56 |
| | 5. Drawing/painting as activity and entertainment | | LL57 |

**2. Description of original questions: MoBa specific single questions**

*Psychometric Information:*
Not relevant.

*Base References/Primary Citations:*
Not relevant.

**3. Rationale for choosing the questions:**
The questions were developed to get information about the amount of time the child is using in front of the TV – and PC screen, and using handheld electronic games, compared to other sedentary activities such as reading and drawing. Sedentary activities, such as TV/video viewing, has been shown to be significantly positively associated with the acceleration of BMI growth from preschool to school age (Danner, 2008), and language delay (Weerasak & Pruksananonda, 2008).

**4. Revision during the data collection period:**
No revisions have been made.

**Added references:**

Danner, F.W. (2008). A National Longitudinal Study of the Association Between Hours of TV Viewing and the Trajectory of BMI Growth Among US Children, *Journal of Pediatric Psychology* 33: 1100-1107.

Weerasak, C. & Pruksananonda, C. (2008). Television viewing associates with delayed language development. *Acta Pædiatrica* 97 (7): 9777-982.

# Child development and illness

## 17 -18. Illnesses or Health Problems

**1. Name of original question:** Questions about the child's illnesses or health problems

| Q | | Response options / Variable name | | | |
|---|---|---|---|---|---|
| **17** | **Have the child now or have it ever had any of the following diseases or health problems?** | | | | |
| | | | 1-No<br>2-Yes | *If yes, was the illness/ problem confirmed by a doctor/psychologist?*<br>1-No<br>2-Yes | *If yes, does the child still have the illness /problem?*<br>1-No<br>2-Yes |
| | 1. Asthma | | LL58 | LL59 | LL60 |
| | 2. Pollen allergy/hay fever | | LL61 | LL62 | LL63 |
| | 3. Obstructed/wheezing chest | | LL64 | LL65 | LL66 |
| | 4. Epilepsy | | LL67 | LL68 | LL69 |
| | 5. Cerebral palsy | | LL70 | LL71 | LL72 |
| | 6. Impaired hearing, | | LL73 | LL74 | LL75 |
| | 7. Delayed motor development or clumsy | | LL76 | LL77 | LL78 |
| | 8. Delayed or deviant language development | | LL79 | LL80 | LL81 |
| | 9. Unusual restless /hyperactive/ADHD | | LL82 | LL83 | LL84 |
| | 10. Attention problems/ difficulties concentrating | | LL85 | LL86 | LL87 |
| | 11. Autism/autism spectrum disorder | | LL88 | LL89 | LL90 |
| | 12. Asperger syndrome | | LL91 | LL92 | LL93 |
| | 13. Behavior problems (difficult and unruly) | | LL94 | LL95 | LL96 |
| | 14. Emotional difficulty (sad and worried) | | LL97 | LL98 | LL99 |
| | 15. Impaired vision (patch treatment /need for daily use of glasses) | | LL100 | LL101 | LL102 |
| | 16, Other | | LL103 | LL104 | LL105 |
| | Other , specify: | | LL426 (txt.) | | |
| **18** | **More questions about the child's health…** | | | | |
| | Have the child had an accident injury with diagnosed long term consequence? | | | | LL107 |
| | If yes, describe: | | | | LL427 (txt.) |
| | Does the child have a learning disability or mental develop delay? | | | | LL109 |
| | If yes, describe: | | | | LL428 (txt.) |
| | Does the child has a syndrome or suspected of having a syndrome? | | | | LL111 |
| | If yes, describe: | | | | LL429 (txt.) |
| | Does the child have other serious, but short term diseases? | | | | LL113 |
| | If yes, describe: | | | | LL430 (txt.) |
| | Has the child ever been witness to close family being subject to violence? | | | | LL115 |
| | If yes, describe: | | | | LL431(txt.) |

**2. Description of original questions: MoBa specific single questions**

*Psychometric Information:*
Not relevant.

*Base References/Primary Citations:*
Not relevant.

*Modifications*:
The second sub-question of question 17 is formulated as 'If yes, was the illness/problem *diagnosed* by a doctor/psychologist?' in version A; in version B it is formulated as 'If yes, was the illness/problem *confirmed* by a doctor/psychologist?'

3. **Rationale for choosing the questions:**
   Questions were developed for MoBa to survey the occurrence of illness, health problems, and traumas among 5-year-old children. Whether the child's illness/health problems have been confirmed by a doctor/psychologist is meant as an indicator of reliability of the mothers' response.

4. **Revision during the data collection period:**
   No revisions have been made in the questions.

## 19. Developmental Milestones

**1. Name of original question:** Questions about the child's developmental milestones

| Q | | Response options | Variable name |
|---|---|---|---|
| **19** | **Developmental milestones** | | |
| Version B | Did your child say his/her first word before 2 years of age (do not count mom and dad)? | | LL465 |
| | Did your child start combining words before 2, 5 years of age (putting together 2-3 words to sentences)? | | LL466 |
| | Did your child quit using diapers during the day before 4 years of age (enter a cross if less than 3 accidents per month)? | | LL467 |
| Version A | When did the child start using the first words (do not count mom and dad)? | _ _ months | LL117 |
| | Not yet start using the first words | | LL118 |
| | When did the child start to combine words and sentences? | _ _ months | LL119 |
| | Not yet start to combine words and sentences | | LL120 |
| | When did the child quit using diapers during the day? | _ _ months | LL121 |
| | Not yet quit using diapers during the day | | LL122 |
| | When did the child quit using diapers during the night? | _ _ months | LL123 |
| | Not yet quit using diapers during the night | | LL124 |

**2. Description of original questions: MoBa specific single questions**

*Psychometric Information:*
Not relevant.

*Base References/Primary Citations:*
Not relevant.

*Modifications*:
The items in version A have been changed from open to closed questions in version B (see table above), because it can be difficult for mothers to remember exact age in month, but it is easier to remember if it happened before or after a certain age.

**3. Rationale for choosing the questions:**
Questions were developed to get information about when the child reaches important milestones in his/her development.

**4. Revision during the data collection period:**
No revisions have been made in the questions.

## 20-22. History of Developmental Problems

**1. Name of original questions:** Questions about the child's history of developmental problems

| Q | | Response options | Variable name |
|---|---|---|---|
| **20** | **Has a professional ever assessed your child as having reduced hearing?** | | |
| | | 1- No<br>2- Yes | LL125 |
| | If yes at what age? | 1) Before 18 months<br>2) 18-36 months<br>3) Later than 36 months | LL126 |
| **21** | **Has your child been referred to the following services** | | |
| | Habilitation services | | LL127 |
| | Child psychiatric clinic / department | | LL128 |
| | Educational – psychological services | | LL129 |
| | If yes, what was the reason for the referral? | | LL432 (txt.) |
| **22** | **Have your child been assessed for language delay or other difficulties with language/speech or communication?** | | |
| | | 1- No<br>2- Yes | LL131 |
| | If yes: What was the conclusion after the assessment? (You may enter several crosses) | 1-Everything was fine, no difficulties | LL132 |
| | | 2-Only delay in spoken language, good language comprehension | LL133 |
| | | 3-Delay in both using spoken language and ability to understand spoken language | LL134 |
| | | 4-Difficulties in pronunciation | LL135 |
| | | 5-Stammer or stutters when talking | LL136 |
| | | 6-Other language issues | LL137 |
| | | Other language issues, describe: | LL433 (txt.) |

**2. Description of original questions: MoBa specific single questions**

*Psychometric Information:*
Not relevant.

*Base References/Primary Citations:*
Not relevant.

**3. Rationale for choosing the questions:**
These questions were developed to get information about the child's history of developmental problems, especially regarding reduced hearing and language delay. Information about referral to a specialist can be used as an indicator of severity of illness.

**4. Revision during the data collection period:**
No revisions have been made in the question.

## 23. Family History of Language, Reading and Writing Problems

**1. Name of original questions:** Questions about the child's family history of language, reading and writing problems

| Q | | Response options | Variable name |
|---|---|---|---|
| 23 | **Has anyone in the child's close family ever had any of the following problems?** (Only include the child's biological relatives) We are especially interested in the child's siblings, parents, grandparents, uncles, aunts or cousins. | | |
| | 1. Been a late talker as a child | 1-No<br>2-Yes | LL139 |
| | If yes, specify the relationship: | | LL434 (txt.) |
| | 2. Had difficulties learning to read and write | 1-No<br>2-Yes | LL141 |
| | If yes, specify the relationship: | | LL435 (txt.) |
| | 3. Had difficulties in pronouncing sounds as a child (preschool) | 1-No<br>2-Yes | LL143 |
| | If yes, specify the relationship: | | LL436 (txt.) |

**2. Description of original questions: MoBa specific single questions**

*Psychometric Information:*
Not relevant.

*Base References/Primary Citations:*
Not relevant.

**3. Rationale for choosing the questions:**
These questions were developed to get information about family history of language, reading and writing. Language problems are often inherited; children are at increased risk if they have a family history of language, reading and writing problems (e.g. Byrne, et al., 2002).

**4. Revision during the data collection period:**
No revisions have been made.

**Added reference:**
Byrne, B., Delaland, C., Fielding-Barnsley, R., Quain, P. Samuelsson, S. et al. 2002. Longitudinal twin study of early reading development in three countries: Preliminary results. *Annals of Dyslexia* 52: 49-73.

## 24. The Child's Pronunciation

**1. Name of original questions:** Questions about the child's pronunciation

| Q | | Response options | Variable name |
|---|---|---|---|
| **24** | **About the child's pronunciation** | | |
| | 1. How easy it is for you to understand what your child is saying? | 1-Very difficult<br>2-2<br>3-Varies<br>4-4<br>5-Very easy | LL145 |
| | 2. How easy it is for strangers to understand what your child is saying? | | LL146 |

**2. Description of original questions: MoBa specific single questions**

*Psychometric Information:*
Not relevant.

*Base References/Primary Citations:*
Not relevant.

**3. Rationale for choosing the questions:**
These two questions can form an index for the child's pronunciation difficulties.

**4. Revision during the data collection period:**
No revisions have been made.

## 25. Food Supplements

**1. Name of original questions:** Questions about the child's food supplements

| Q | | Response options / Variable name | | | |
|---|---|---|---|---|---|
| **25** | **Is your child taking any of the following dietary supplements?** (Enter a cross for each line, for both frequency, amount and write brand name) | | | | |
| | **Liquid dietary supplements** | | No | *No. of times per week*<br>1) 6-7<br>2) 4-5<br>3)1-3<br>4) <1 | *Amount per time*<br>1)1tsp<br>2)1csp<br>3)1ss |
| | 1. Cod liver oil | | LL471 | LL147 | LL148 |
| | 2. Omega 3, | | LL472 | LL149 | LL150 |
| | Omega 3, brand name: | | LL437 (txt.) | | |
| | 3. Sanasol/Biovit | | LL473 | LL152 | LL153 |
| | 4. Other liquid dietary supplement | | LL474 | LL154 | LL155 |
| | Other liquid dietary supplement, brand name: | | LL438 (txt.) | | |
| | **Capsules/tablets** | | | | |
| | 1. Omega 3 | | LL475 | LL157 | LL158 |
| | Omega 3, brand name: | | LL439 (txt.) | | |
| | 2. Cod liver oil | | LL476 | LL160 | LL161 |
| | 3. Multivitamins | | LL477 | LL162 | LL163 |
| | Multivitamins, brand name: | | LL440 (txt.) | | |
| | 4. Fluoride tablets | | LL478 | LL165 | LL166 |
| | 5. Other dietary supplements | | LL479 | LL167 | LL168 |
| | Other dietary supplements, brand name: | | LL441 (txt.) | | |

**2. Description of original questions: MoBa specific single questions**

*Psychometric Information:*
Not relevant.

*Base References/Primary Citations:*
Not relevant.

**3. Rationale for choosing the questions:**
These questions were developed for the purpose of surveying what dietary supplements are used among 5-year-old children.

**4. Revision during the data collection period:**
The response category 'No' is not available in version A. No further revisions have been made.

## 26. Breakfast

**1. Name of original questions:** Questions about the child's breakfast habits

| Q | | Response options | Variable name |
|---|---|---|---|
| **26** | **How often does the child eat breakfast (at home or in the kindergarten)?** | | |
| | | 1) Rarely/never<br>2) Once a week<br>3) 2-3 times per week<br>4) 4-6 times per week<br>5-Every day | LL170 |

**2. Description of original questions: MoBa specific single questions**

*Psychometric Information:*
Not relevant.

*Base References/Primary Citations:*
Not relevant.

**3. Rationale for choosing the questions:**
The question was developed to get information about the child's breakfast habits. Earlier studies have found correlations between breakfast-eating and better health outcomes (e.g. Cahill, et al., 2013).

**4. Revision during the data collection period:**
No revisions have been made.

Added reference:
*Cahill, LE., Chiuve SE., Mekary, RA., Jensen, AF., Hu, FB., & Rimm, EB. 2013. Prospective Study of Breakfast Eating and Incident Coronary Heart Disease in a Cohort of Male US Health Professionals Circulation. Epidemiology and Prevention 128: 337-343.*

## 27. Questionnaire of Eating and Weight Patterns-Parent Report (QEWP-P)

**1. Name of original scale:** Questionnaire of Eating and Weight Patterns-Parent report (QEWP-P)

| Q | | Response options | Variable name |
|---|---|---|---|
| **27** | **Is the following correct for your child for the last 6 months?** | | |
| | 1. Did your child ever eat what most people would think was a really big amount of food? | 1- No<br>2- Yes | LL171 |
| | 2. Did you have the impression that your child could not stop eating or that he/she could not control what or how much he/she was eating? | | LL172 |
| | 3. How often did your child eat a really big amount of food when you had the impression that his/her eating was out of control? | 1-Twice a week or more<br>2- Once a week<br>3- More rarely<br>4- Never | LL173 |

**2. Description of original instrument**: **Questionnaire of Eating and Weight Patterns-Parent report (QEWP-P)**

The QEWP-P (Johnson, et al., 1999) is a modified version of the Questionnaire of Eating and Weight Patterns (QEWP; Spitzer et al., 1992), which was developed to assess aspects of binge eating disorder which was introduced as a diagnostic category in the DSM-IV. The QEWP-P comprises 12 stem items of which several are followed up with detailed items. The first three items were selected into use in this section.

*Psychometric Information:*

Test-retest reliability assessed with a phi coefficient was .42 across a 3-week interval. The stability of diagnostic categories was higher for males than for females, who changed in 33% of the cases from the nonclinical binging to the no diagnosis category. Children in the binge eating disorder category had significantly higher scores on self-reported depression and self-reported behaviours associated with eating disorders than children in the no diagnosis and nonclinical binging categories.

*Base References/Primary Citations:*

Johnson, W. G., Grieve, F. G., Adams, C. D., & Sandy, J. (1999). Measuring binge eating in adolescents: Adolescent and parent 152 versions of the Questionnaire of Eating and Weight Patterns. *International Journal of Eating Disorders* 26(3): 301–314.

Johnson, W. G., Kirk, A. A., & Reed, AE. (2000). Adolescent version of the Questionnaire of Eating and Weight Patterns: Reliability and gender differences. *International Journal of Eating Disorders* 26(3): 301–314.

Spitzer, RL, Devlin M, Walsh BT, Hassin D, Wing R, Marcus M, Stunkard A, Wadden T, Yanovski S, Agras, S, Mitchell J, & Jonas C. (1992). Binge eating disorder: A multi-site field trial of the diagnostic criteria. *International Journal of Eating Disorders* 11: 191–203.

**3. Rationale for choosing the questions:**

These items from the QEWP-P are the most developmentally appropriate parent-report measures of both binge eating episodes and loss of control over eating (personal communication with Leila Torgersen, August 2012).

**4. Revision during the data collection period:**

No revisions have been made.

# Language and preschool activities

## 28 Ages and Stages Questionnaires (ASQ)

**1. Name of original scale:** Ages and Stages Questionnaires (ASQ)

| Q | | Response options | Variable name |
|---|---|---|---|
| **28** | **The child's ability to understand and tell** | | |
| | 1. Can your child tell you at least two things about common object? For example, if you say to your child, "Tell me about the ball", does he say something like, "It is round. I throw it. It is big"? | 1-Yes<br>2-Sometimes<br>3-Not yet | LL174 |
| | 2. Without giving your child help by pointing or repeating directions, does your child follow three directions that are *unrelated* to one another? Give all three directions before your child starts. For example, you may ask your child to "Clap your hands, walk to the door, and sit down" or "Give me the pen, open the book, and stand up." | | LL175 |
| | 3. Does your child use four- and five- word sentences? For example, does your child say, "I want the car"? | | LL176 |
| | 4. When talking about something that already happened, does your child use words that end in "ed" such as *walked, jumped* or *played*? Ask your child questions, such as "How did you get to the store?" ("We walked.") "What did you do at your friend's house?" ("We played.") | | LL177 |
| | 5. Does your child use comparison words, such as *heavier, stronger* or *shorter*? Ask your child questions, such as "A car is *big*, but a bus is _____" (bigger); "A cat is *heavy*, but a man is ____" (heavier); A TV is *small*, but a book is ____ " (smaller). | | LL178 |
| | 6. Does your child answer the following questions: 1) "What do you do when you are hungry?" (Acceptable answers include: "Get food", "Eat", "Ask for something to eat", and "Have a snack".) 2) "What do you do when you are tired?" (Acceptable answers include: "Take a nap", "Rest", "Go to sleep", "Go to bed", "Lie down", and "Sit down.") | | LL179 |
| | 7. Does your child repeat the sentences shown below back to you, without any mistakes? You may repeat each sentence one time. Mark "yes" if your child repeats both sentences without mistakes or "sometimes" if your child repeats one sentence without mistakes. "Jane hides her shoes for Maria to find." "Al read the blue book under his bed." | | LL180 |

**2. Description of original instrument: Ages and Stages Questionnaires (ASQ)**

The ASQ (Squires, et al., 1999) is a series of 19 parent-completed screening questionnaires for child development, specific to the ages of 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 27, 30, 33, 36, 42, 48, 54, and 60 months. Each questionnaire consists of five 6-item scales: Communication, Gross Motor, Fine Motor, Problem Solving, and Personal-Social. Parents answer "yes", "sometimes", or "not yet", according to whether the child can do the activity. The questionnaires were back translated into Norwegian (versions in both standard forms — Bokmål and Nynorsk — were produced). Janson and Smith (2003) presented descriptive results of the study along with details of the translation and adaptation.

*Psychometric Information:*

Cronbach's alphas on the communication area ranged from .63 to .74 at different ages. On the gross motor area, Cronbach's alphas ranged from .53 to .87 across ages, whereas on the fine motor area the alpha ranged from .49 to .86. Test-retest reliability, measured as percentage agreement between classifications based on the questionnaires completed twice by 175 parents at 2-weeks intervals, was 94%. Inter-observer reliability, measured as percentage agreement between classifications based on the questionnaires completed by 112 parents and those completed by two examiners, was 94%. As for the general validity of the ASQ, the questionnaires as reported in percent agreement between questionnaires and standardized assessments reached an 84% overall agreement. Specificity remained high (86%) across questionnaire intervals and standardized assessments. Sensitivity was lower, averaging 72% (Squires, et al., 1999). The construct validity of the ASQ was also supported in a Norwegian Study (Richter & Janson, 2007)

*Base References/Primary Citations:*

Janson, H. & Smith, L. (2003). *Norsk manualsupplement til Ages and Stages Questionnaires* [Norwegian manual supplement for the Ages and Stages Questionnaires]. Oslo, Norway: Regionsenter for barne- og ungdomspsykiatri, Helseregion Øst/Sør.

Squires, J., Potter, L., & Bricker, D. (1999). *The ASQ User's Guide* (2nd edition). Baltimore: Paul H. Brookes Publishing Co.

Richter & Janson (2007). A validation study of the Norwegian version of the Ages and Stages Questionnaire. *Acta Pædiatrica* 96:748-752.

*Modifications*:

All six original items were included in MoBa Q-5yr, together with the item (i.e. item 1 in the table above) from the 4-year scale. The item was also included in Q6.

3. **Rationale for choosing the questions:**
   The ASQ has been found to be an effective diagnostic tool of developmental delay and/or disturbances (Richter & Janson, 2007).

4. **Revision during the data collection period:**
   No revisions have been made.

## 29-30. Mother Tongue, Language Backgrounds, and Home Language Use

1. **Name of original questions:** Questions about the child's mother tongue, language backgrounds and home language use

| Q | | Response options | Variable name |
|---|---|---|---|
| **29** | **What is the mother tongue of the child's mother and father and what language(s) does the child speak?** | | |
| | Mother's mother tongue | 1- Norwegian, Danish or Swedish<br>2- Other Nordic languages (Icelandic, Finish) or Sami<br>3- Western European languages (German, English, Spanish)<br>4- Other languages (Eastern European, Asian, Turkish, African) | LL181 |
| | Father's mother tongue | | LL182 |
| | *What language (s) does the child speak?* | Norwegian, Danish or Swedish | LL183 |
| | | Other Nordic languages (Icelandic, Finish) or Sami | LL184 |
| | | Western European languages (German, English, Spanish) | LL185 |
| | | Other languages (Eastern European, Asian, Turkish, African) | LL186 |
| **30** | **About the child's language experiences.** | | |
| | What language (s) do you speak with your child? | 1-Only Norwegian<br>2-More Norwegian than other language<br>3-As much Norwegian as other language<br>4-More other language than Norwegian<br>5-Only other language | LL187 |
| | What languages do your spouse / partner speak with the child? | | LL188 |
| | What language does the child speak with his/her siblings? | | LL189 |

2. **Description of original questions: MoBa specific single questions**

*Psychometric Information:*
Not relevant.

*Base References/Primary Citations:*
Not relevant.

3. **Rationale for choosing the questions:**
The question was developed to get information about the child's mother tongue, language backgrounds and home language use.

4. **Revision during the data collection period:**
No revisions have been made.

## 31. Checklist of 20 Statements about Language-Related Difficulties (Språk20)

1. **Name of original scale:** The checklist of 20 Statements about Language-Related Difficulties (Språk 20)

| Q | | Response options | Variable names |
|---|---|---|---|
| 31 | **How do these statements fit the child?** | | |
| | 1. Forgets words s/he knows the meaning of | 1- Doesn't fit the child, absolutely wrong<br>2- 2<br>3- Both yes and no<br>4- 4<br>5- Fits well with the child, absolutely right | LL190 |
| | 2. Confuses words with similar meaning (e.g. shirt, sweater, jacket) | | LL191 |
| | 3. Has difficulty understanding the meaning of common words | | LL192 |
| | 4. Has difficulty answering questions as quickly as other children | | LL193 |
| | 5. Is often searching for the right words | | LL194 |
| | 6. Uses incomplete sentences | | LL195 |
| | 7. Uses short sentences when s/he answers questions | | LL196 |
| | 8. Has difficulty retelling a story s/he has heard | | LL197 |
| | *9. Is quickly getting tired in tasks demanding attention to language | | LL198 |
| | *10a. Does not explain the meaning of a word accurately | | LL199 |
| | 10. It doesn't seem like what s/he is learning is remembered | | LL200 |
| | 11. Has difficulty remembering things | | LL201 |
| | 12. Has difficulty understanding what others are saying | | LL202 |
| | 13. Misconceive instructions and messages | | LL203 |
| | 14. Has problems remembering messages | | LL204 |
| | 15. Misunderstands context and what is going on | | LL205 |
| | 16. Is difficult to understand | | LL206 |
| | 17. Has difficulty expressing wishes and needs | | LL207 |
| | 18. Is not understood by others | | LL208 |
| | 19. Seldom initiates conversation with others | | LL209 |
| | 20.Has difficulties in pronunciation | | LL210 |
| | 21. Is not able to have a dialogue with peers | | LL211 |
| | *22. Avoids talking to other than family members | | LL212 |

* Items 9, 10a and 22 are MoBa specific questions, not from Språk 20.

2. **Description of original scale**: **20 Statements about Language-Related Difficulties (Språk 20)**
   *Språk 20* is a checklist developed by Ottem (2009), a Norwegian psychologist at Bredvet Competence Centre, to identify children with risk for language impairment. The checklist consists of 20 statements describing language-related difficulties, which can be further divided into three subscales: Semantics (items 1-8), Receptive (items 10-15) and Expressive language (items 16-21). All answers are scored on a 5-point Likert scale from '1-Doesn't fit the child, absolutely wrong' to '5-fits fine with the child, absolutely right.'

   *Psychometric Information/Base References/Primary Citations*:
   Internal consistency (Cronbach's alpha) for full scale and the Semantic subscale are .97 and .95. Specificity rates for full scale and the Semantic subscale are .87 and .88. Sensitivity rates are: .83 for the full scale and .81 for the Semantic subscale. The Språk20 has also demonstrated concurrent validity (Ottem, 2009).

   *Base References/Primary Citations:*
   Ottem, E. (2009). 20 spørsmål om språkferdigheter – en analyse av sammenhengen mellom observasjonsdata og testdata. *Skolepsykologi* 1: 11-27.

3. **Rationale for choosing the instrument:**
   The checklist is a well-used Norwegian instrument to identify children with language impairment in terms of semantics, receptive and expressive language.

4. **Revision during the data collection period:**

Item '10a' has been deleted in version B. No further revisions have been made.

## 32. Children's Communication Checklist-2 Coherence Sub-scale (CCC-2 Coherence)

**1. Name of original scale:** The Children's Communication Checklist-2 Coherence sub-scale (CCC-2 Coherence), and 3/4 additional MoBa questions about grammar use

| Q | | Response options | Variable names |
|---|---|---|---|
| 32 | **About the child's language competence.** Enter cross for how often you think this is typical for your child. | | |
| | 1. It is hard to make sense of what s/he is saying, even though the words are clearly spoken. | 1-Rarely or never<br>2-Sometimes<br>3-Regularly<br>4-Often or always | LL213 |
| | 2. Gets sequence of events muddled up when telling a story or describing event. E.g. if describing a film, might talk about the end before the beginning. | | LL214 |
| | 3. Uses terms like "he" or "it" without making it clear what s/he is talking about. For instance, when talking about a film, might say "he was really great" without explaining who "he" is. | | LL215 |
| | 4. Uses appropriate language to talk about what s/he plans to do in the future (e.g. what s/he will do tomorrow, or plans for going on holiday). | | LL216 |
| | 5. Can be hard to tell if s/he is talking about something real or make-believe. | | LL217 |
| | 6. Explains a past event clearly (e.g. what s/he did at school or what happened at a football game). | | LL218 |
| | 7a. Does the child use long sentences with the word "that" in, e.g. I saw that Peter was playing with Sara. | 1-No<br>2-Yes | LL219 |
| | 8a. Does the child use sentences with the word "who" in.? e.g. "It was us who came first"; "Anita who works in the kindergarten is very nice". | | LL220 |
| | 9a. Does the child use the same words (e.g. slang expression) as others at the same age? | | LL221 |
| | 7b. Does the child talk about things that is going to happen in the near future, like the weekend, e.g. " Tomorrow, we'll go to the movies." | | LL480 |
| | 8b. Does the child talk about things that has already happened, e.g. "Yesterday, we took the bus to kindergarten" | | LL481 |
| | 9b. Does the child talk about things that could or can happen, e.g." If he touches the stove top, he could burn himself" | | LL482 |
| | 10b. Does the child talk in a special way when they role play, e.g. "Now you were the king and I was the queen". | | LL483 |

**2. Description of original scale: The Children's Communication Checklist-2 (CCC-2)**

CCC-2 (Bishop 2003, 2006) is a measure designed to assess the communication skills of children 4 to 16.11 years of age. Initially developed in the United Kingdom, the CCC-2 has been adapted for use in the United States (Bishop, 2006). The purposes of the CCC-2 are the identification of pragmatic language impairment, screening of receptive and expressive language skills, and assistance in screening for ASD. The CCC-2 consists of 70 items that are divided into 10 scales (Speech, Syntax, Semantics, Coherence, Initiation, Scripted Language, Context, and Nonverbal Communication, Social Relations and Interests), each with 7 items. Five items on each subscale tap into communicative deficits, and two items target communicative strengths. A 13-item short scale (CCC-S) was developed by Bishop and Norbury (2004) as a brief screening instrument to help identify children with potential speech, language and communication needs. Six items from the Coherence subscale were selected in this section.

*Psychometric Information:*

The U.S. Edition of the CCC-2 was standardized on 950 American children. Internal consistency reliability coefficients ranged from .94 to .96 across age groups. Validity was assessed by calculating classification rates for a variety of matched clinical groups based on GCC scores at 1, 1.5, and 2.0 SDs below the mean. For the group with ASD, 89% of the children were identified as such based on a GCC 1.0 SD below the mean. Based on these results, the CCC-2 demonstrates good reliability and validity (Bishop, 2006). Cronbach's alpha for CCC-S is .87; correlation with GCC: r= -.88 (Bishop and Norbury 2004).

Base References/Primary Citations:

Bishop, D.V.M. (2003). *Children's Communication Checklist-2*. London: Pearson.

Bishop, D. V.M. (2006). *Children's Communication Checklist-2* (U.S. Edition). New York, NY: The Psychological Corporation.

Norbury, C.F., Nash, M., Baird, G., & Bishop, D. V.M. (2004). Using a parental checklist to identify diagnostic groups in children with communication impairment: A validation of Children's Communication Checklist-2. *International Journal of Language & Communication Disorders* 39: 345-364.

3. **Rationale for choosing the instrument:**
   The CCC-2 appears to be a well-constructed instrument that has both face validity and reliability to achieve its stated purpose of assisting in identifying children with language and communication problems, especially in the area of pragmatic communication skills. The MoBa specific questions are meant to tap into children's knowledge about grammar use.

4. **Revision during the data collection period:**
   For the first 6 items, some revisions have been made in question order from version A to B; for the additional MoBa specific questions, items 7a, 8a, and 9a in version A have been replaced with 7b, 8b, 9b and 10b in version B.

## 33. Preschool Activities: Narrative and Communicative Skills

**1. Name of original questions:** 2 questions about the child's narrative and communicative skills

| Q | | Response options | Variable name |
|---|---|---|---|
| **33** | **About the child's preschool activities** | | |
| | 1. How would you rate your child's ability to tell a story? | 1- Very poor/poor<br>2- Average<br>3- Good/very good | LL222 |
| | 2. How would you rate your child's ability to communicate his/ her own needs in a way understandable to adults and friends? | | LL223 |

**2. Description of original questions: MoBa specific single questions**

*Psychometric Information:*
Not relevant.

*Base References/Primary Citations:*
Not relevant.

**3. Rationale for choosing the questions:**
The questions are used as a brief measure about the child's oral narrative and communicative skills.

**4. Revision during the data collection period:**
No revisions have been made.

## 33. Preschool Activities: Experiences with Letter and Sound Knowledge

**1. Name of original questions:** 2 questions about the child's experiences with letter and sound knowledge

| Q | | Response options | Variable name |
|---|---|---|---|
| **33** | **About the child's preschool activities** | | |
| | 3. During a typical week, how often do you teach your child how to print letters and words? | 1- Never<br>2- Seldom<br>3- Sometimes<br>4- Often<br>5- Very Often | LL224 |
| | 4. During a typical week, how often do you help your child read letters and sounds? | | LL225 |

2. **Description of original questions:** The two questions were selected from the four-year questionnaire of the Early Language in Victoria Study (ELVS; cf. Prior et al., 2011)

   *Psychometric Information:*
   Not relevant.

   *Base References/Primary Citations:*
   Prior, M. Bavin E., & Ong, B. (2011). Predictors of school readiness in five to - six year- old children from an Australian longitudinal community sample. *Educational Psychology: An International Journal of Experimental Educational Psychology* 31(1): 3-16.

3. **Rationale for choosing the questions:**
   The questions are used as a brief measure about the child's letter knowledge.

4. **Revision during the data collection period:**
   No revisions have been made.

## 33. Preschool Activities: Literacy Skills

**1. Name of original questions:** Questions about the child's literacy skills

| Q | | Response options | Variable name |
|---|---|---|---|
| **33** | **About the child's preschool activities** | | |
| | 5. Would you say your child is interested in writing letters? | 1- No<br>2- Yes | LL226 |
| | 6. Would you say that your child is generally interested in books? | | LL227 |
| | 7. Would you say that your child is able to read simple words? | | LL228 |
| | 8. Would you say that your child is able to read simple sentences? | | LL229 |
| | 9. Would you say that your child is able to write his/ her name? | | LL230 |

2. **Description of original questions:** Questions were selected and adapted from the Early Development Instrument (EDI; Janus and Offord, 2007).

   *Psychometric Information:*
   Not relevant.

   *Base References/Primary Citations:*
   Janus, M. & Offord, D. (2007). Development and Psychometric Properties of the Early Development Instrument (EDI): A measure of children's school readiness. *Canadian Journal of Behavioural Science* 39 (1):1-22.

3. **Rationale for choosing the questions:**
   The questions are used as a brief measure about the child's reading and writing skills.

4. **Revision during the data collection period:**
   No revisions have been made.

## 33. Preschool Activities: Home Reading

**1. Name of original questions:** question about home reading to children

| Q | | Response options | Variable name |
|---|---|---|---|
| **33** | **About the child's preschool activities** | | |
| | For about how many minutes does your child enjoy being read to at a sitting? | 1) Child doesn't like to be read to at all<br>2) Less than 5 minutes<br>3) 6-15 Minutes<br>4) 16-45 ,<br>5) More than 45 minutes<br>6) Child is not read to | LL231 |

2. **Description of original questions:** The question was selected from the four-year questionnaire of the Early Language in Victoria Study (ELVS; cf. Prior et al., 2011)

   *Psychometric Information:*
   Not relevant.

   *Base References/Primary Citations:*
   Prior, M. Bavin E., & Ong, B. (2011). Predictors of school readiness in five to - six year- old children from an Australian longitudinal community sample. *Educational Psychology: An International Journal of Experimental Educational Psychology* 31(1): 3-16.

3. **Rationale for choosing the questions:**
   The questions are used as a brief measure about home reading to children.

4. **Revision during the data collection period:**
   No revisions have been made.

# Child's skills and behaviour

## 34. Preschool Play Behaviour Scale (PPBS)

**1. Name of original scale:** The Preschool Play Behaviour Scale (PPBS)

| Q | | Response options | Variable name |
|---|---|---|---|
| 34b | **Please indicate how common the following statements are for this child.** | | |
| | 1. Talks to other children during play | 1- Never<br>2- Hardly ever<br>3- Sometimes<br>4- Often<br>5- Very often | LL484 |
| | 2. Plays by himself/herself, examining a toy or object | | LL485 |
| | 3. Plays 'rough-and tumble' with other children | | LL486 |
| | 4. Takes on the role of onlooker or spectator | | LL487 |
| | 5. Plays 'make-believe' with other children | | LL488 |
| | 6. Engages in group play | | LL489 |
| | 7. Engages in pretend play by himself/herself | | LL490 |
| | 8. Plays alone, building things with blocks and /or other toys | | LL491 |
| | 9. Wanders around aimlessly | | LL492 |
| | 10. Plays in groups with (and not just beside) other children | | LL493 |
| | 11. Plays 'make-believe', but not with other children | | LL494 |
| | 12. Watches or listens to other children without trying to join in | | LL495 |
| | 13. Engages in playful/mock fighting with other children | | LL496 |
| | 14. Plays by himself/herself, drawing, painting pictures, or doing puzzles | | LL497 |
| | 15. Engages in active conversations with other children during play | | LL498 |
| | 16. Engages in pretend play with other children | | LL499 |
| | 17. Plays alone, exploring toys or objects, trying to figure out how they work | | LL500 |
| | 18. Remains alone and unoccupied, perhaps staring off into space | | LL501 |
| | 19. Plays by him/herself, engaging in simple motor activities (e.g. running) | | LL502 |
| | 20. Plays just for a short while with each toy, does not settle with any toy | | LL503 |

2. **Description of original scale**: **The Preschool Play Behaviour Scale (PPBS)**

The PPBS (Coplan & Rubin, 1998) measures pre-schoolers' non-social and social play behaviour. The total scale with 20 items contains five subscales: 1) Reticent behaviour (4 items), 2) Solitary-passive behaviour (4 items), 3) Solitary-active behaviour (4 items), 4) Social play (6 items), and 5) Rough-play (2 items). The response categories are designed to reflect frequency of occurrence (1=Never, 5=Very often). The full scale with 20 items was used in Q-5yr. The 11 items in Q-Cc were selected from the subscales of Social play (6 items), Solitary-active behaviour (2 items), Reticent behaviour (2 items), and Solitary-active behaviour (1 item).

*Psychometric Information (sample, reliability, validity):*

The PPBS subscale Social play had relatively high reliability correlations, ranging from $r$ = .54 ($p$<.05) to $r$ = .89 ($p$< .001). Solitary-active behaviour was less consistently reliable, with a wide range of reliability correlations from $r$ = .10 (n.s.) to $r$ = .83 ($p$< .01). The stability over time has been found to be moderate to high: Social play, $r$ = .65, $r$ = .66; Solitary-active, $r$ = .50 (all $p$'s < .05), $r$ = .17 (n.s.) (Coplan & Rubin, 1998). Alpha reliability for the selective items in Q-Cc was .78.

*Primary citation/ base reference:*

Coplan, R. J. & Rubin, K. H. (1998). Exploring and assessing non-social play in the preschool: The development and validation of the preschool play behaviour scale. *Social Development* 7 (1): 72-91.

*Modifications*

One item in the original scale: Plays alone in an active fashion, enjoying an activity solely for the physical sensation it creates was modified in MoBa into: Plays just for a short while with each toy, does not settle with any toy.

3. **Rationale for choosing the instrument:**
   This scale has been chosen to measure children's play behaviour.

4. **Revision during the data collection period:**
   The full scale with 20 items was only used in B version of the questionnaire.

## 35a. Childhood Asperger Syndrome Test (CAST)

**1. Name of original scale:** Childhood Asperger Syndrome Test (CAST)

| Q | | Response options | Variable name |
|---|---|---|---|
| **35a** | **How do these statements fit the child?** | | |
| 1 | Does s/he appear to have an unusual memory for details? | | LL232 |
| 2 | Can s/he keep a two-way conversation going? | | LL233 |
| 3 | Does s/he have at least one good friend? | | LL234 |
| 4 | Does s/he have an unusual eye gaze, facial expression, voice or gestures? | | LL235 |
| 5 | Does s/he prefer imaginative activities such as play-acting or story-telling, rather than numbers or lists of facts? | | LL236 |
| 6 | Is it important to him/ her to fit in with the peer group? | | LL237 |
| 7 | Does s/he tend to take things literally? | | LL238 |
| 8 | Does s/he have an odd style of communication; old-fashioned, formal, or pedantic? | | LL239 |
| 9 | Does s/he have a strong interest in an unusual topic? | 1-No | LL240 |
| 10 | Does s/he like to do things over and over again, in the same way all the time? | 2- Yes | LL241 |
| 11 | Does s/he find it easy to interact with other children? | | LL242 |
| 12 | Does s/he mostly have the same interests as his/ her peers? | | LL243 |
| 13 | Are people important to him/ her? | | LL244 |
| 14 | Does s/he often do or say things that are tactless or socially inappropriate? | | LL245 |
| 15 | Rather solitary and tends to play alone? | | LL246 |
| 16 | Does s/he have any unusual or repetitive movements? | | LL247 |
| 17 | Is his/ her social behavior very one-sided and always on his/ her own terms? | | LL248 |
| 18 | Does s/he sometimes lose the listener because of not explaining what s/he is talking about? | | LL249 |
| 19 | Does s/he care how s/he is perceived by the rest of the group? | | LL250 |
| 20 | Does s/he often turn conversations to his/ her favorite subject rather than following what the other person wants to talk about? | | LL251 |

**2. Description of original scale**: **Childhood Asperger Syndrome Test (CAST)**

*CAST (*Scott, et al. 2002*)* is a 37-item, yes or no evaluation aimed at parents. The questionnaire was developed by the Autism Research Centre at the University of Cambridge, for identifying children at risk for Asperger Syndrome and related conditions in a clinical situation.

*Psychometric Information*:

The sensitivity of the CAST, at a designated cut-point of 15, was 100 percent, the specificity was 97 percent and the positive predictive value was 50 percent, using the group's consensus diagnosis as the gold standard (Williams, et al., 2004). Agreement above and below a screening cut-point of 15 was investigated. The kappa statistic for agreement (< 15 versus ≥ 15) was .70, and 97 percent (95 percent CI: 93–99 percent) of children did not move across the cut point of 15. The correlation between the two test scores was .83 (Spearman's rho) (Williams, et al., 2006).

*Base References/Primary Citations:*

Williams J, Scott F, Stott C, Allison C, Bolton P, Baron-Cohen S, & Brayne C. 2004. The CAST (Childhood Asperger Syndrome Test): Test Accuracy. *Autism* 9(1): 45-68.

Williams J, Scott F, Stott C, Allison C, Bolton P, Baron-Cohen S, & Brayne C. 2006. The Childhood Asperger Syndrome Test (CAST): Test-retest Reliability. *Autism* 10(4): 415-27.

Scott FJ, Baron-Cohen S, Bolton P, & Brayne C. 2002. The CAST (Childhood Asperger Syndrome Test): preliminary development of a UK screen for mainstream primary-school-age children. *Autism* 6(1): 9-31.

3. **Rationale for choosing the instrument:**
   This instrument aims at identifying Asperger syndrome from 4 years and onwards. It includes items similar to the SCQ, M-CHAT and ESAT already included in the MoBa study. If these instruments are not suitable for 5-year-old children, CAST would be a good substitute.

4. **Revision during the data collection period:**
   The questions were only used in version A of the questionnaire. No further revisions have been made.

## 35. Conners Parent Rating Scale-Revised, Short Form (CPRS-R (S))

1. **Name of original scale:** Selective questions from the Conners Parent Rating Scale - Revised, Short Form (CPRS-R (S))

| Q | | Response options | Variable name |
|---|---|---|---|
| 35 | **How much of a problem has this been in the last 6 month?** | | |
| | 1. Inattentive, easily distracted | 1- Not true/ never/ Seldom<br>2- Somewhat true/ sometimes<br>3- Quite often<br>4- Very often | LL252 |
| | 2. Short attention span | | LL253 |
| | 3. Fidgets with hands or feet, squirms in seat | | LL254 |
| | 4. Messy or disorganised at home or in the kindergarten | | LL255 |
| | 5. Only attends if it is something he/she is very interested in | | LL256 |
| | 6. Distractibility or attention span a problem | | LL257 |
| | 7. Avoids, expresses reluctance about, or has difficulties engaging in tasks that require sustained mental effort (such as activities in kindergarten or helping out at home) | | LL258 |
| | 8. Gets distracted when given instructions to do something | | LL259 |
| | 9. Has trouble concentrating in kindergarten | | LL260 |
| | 10. Leaves seat in kindergarten or in other situations in which remaining seated is expected | | LL261 |
| | 11. Does not follow through on instructions and fails to finish tasks such as putting away shoes/tidying toys (not due to oppositional behaviour or failure to understand instructions) | | LL262 |
| | 12. Easily frustrated in efforts | | LL263 |

2. **Description of original scale: The Conners Parent Rating Scale-Revised: Short Form (CPRS-R (S))**
   The CPRS-R (Conners, et al., 1998) assesses behaviours and other concerns in children from age 3-17. The short version with 27 items provides evaluation of the key areas of inattention, hyperactivity/impulsivity, learning problems, executive functioning, aggression, and peer relations. Responses are scored on a 4-point Likert scale ranging from 'not true/never/seldom' to 'very often'. The items in this section were selected from the areas of inattention and hyperactivity/impulsivity.

   *Psychometric Information:*
   Conners CK, Sitarenios G, Parker JD, & Epstein JN. 1998. The revised Conners' Parent Rating Scale (CPRS-R): factor structure, reliability, and criterion validity. *Journal of Abnormal Child Psychology* 26(4):257-68.

   Kumar, G. & Steer, R. A. 2003. Factorial Validity of the Conners' Parent Rating Scale-Revised: Short Form with Psychiatric Outpatients. *Journal of Personality Assessment* 80(3): 252–259.

3. **Rationale for choosing the instrument:**
   The Conners Parent Rating Scale is a popular research and clinical tool for obtaining parental reports of childhood behaviour problems.

4. **Revision during the data collection period:**
   No revisions have been made.

## 36. Child Development Inventory (CDI)

**1. Name of original scale:** Child Development Inventory (CDI) – Gross- and Fine Motor skills subscales

| Q | | Response options | Variable name |
|---|---|---|---|
| **36** | **About motor skills.** *Mark each item whether your child master the activities mentioned.* | | |
| | 1. Do you think your child walks, runs, and climbs like other children at the same age | 1-No<br>2-Yes | LL264 |
| | 2. Able to stand on one foot for at least 5 seconds without problems keeping balance * | | LL265 |
| | 3. Hops on one foot, many times, without support | | LL266 |
| | 4. Plays "catch" with other children; throwing to him/her and catching the ball at least half the time | | LL267 |
| | 5. Swings on a swing, pumping by self | | LL268 |
| | 6. Rides a two-wheeled bike, with or without training wheels | | LL269 |
| | 7. Puts together a puzzle with nine or more pieces | | LL270 |
| | 8. Draws or copies a square with four good corners | | LL271 |
| | 9. Cuts with scissors, following a simple outline or pattern | | LL272 |
| | 10. Draws pictures of complete people that have at least head: with eyes, nose, mouth; body: arms and legs, hands and feet (need to do all seven for a yes) | | LL273 |
| | 11. Colours within the lines in a colouring book | | LL274 |
| | 12. Does your child like to participate in activities or active games requiring good motor skills? | | LL275 |

* The original item is phrased "stands on one foot for a few seconds without support"

2. **Description of original scale**: The CDI (1992) replaced the original Minnesota Child Development Inventory (1972), and was designed to obtain parent reported in-dept information about children's development from ages 15 months to 6 years. Originally, it contains 270 items divided into 9 subscales (Ireton, 1992). The fine and gross motor skills subscales consist of 30 items each. For this section, items from the fine motor skill subscale (items 7-11) and gross motor skills (items 2-6) were included. The parents' respond with 'yes' or 'no' to each statement, and scoring is done by counting 'yes'-responses. Item 1 and 12 are MoBa-specific questions, included to capture more variance.

*Psychometric Information*: The gross- and fine motor skills subscales were correlated with age (.81 and .84 respectively), and mean scores increased with age from 1 year to 6 years, ensuring validity as these items are age dependent by design. Cronbach's alpha was .54 and .67 for gross- and fine motor skills respectively among children aged 5-6 years old. Gross- and fine motor skills were moderately correlated with each other between ages 1-5 years (range .39- .64) (Ireton & Glascoe, 1995) with a correlation of .55 at 5 years of age (Ireton, 1992).

*Base Reference/Primary Citation:*

Ireton H. (1992). *Child Development Inventory, Manual*. Minneapolis: Behaviour Science Systems.

Ireton, H., & Glascoe, F. P. (1995). Assessing Children's Development Using Parents' Reports: The Child Development Inventory. *Clinical Pediatrics*, *34*(5), 248-255.

**3. Rationale for choosing the instrument:**
CDI is a much used scale to collect information about fine and gross motor skills, and is included as motor skills often associate with other developmental difficulties.

**4. Revision during the data collection period:**
No revisions have been made

## 37. Temperament

1. **Name of original scale:** Selective items from the Emotionality, Activity and Shyness Temperament Questionnaire (EAS)

| Q | | Response options | Variable name |
|---|---|---|---|
| 37 | **About temperament and personal style. To what extent do the following statements apply to your child's behaviour during the last two month?** | | |
| | 1. Your child cries easily | 1-Very typical<br>2- Quite typical<br>3- Neither/nor<br>4-Not so typical<br>5-Not at all typical | LL276 |
| | 2. Your child is always on the go | | LL277 |
| | 3. Your child prefers playing with others rather than alone | | LL278 |
| | 4. Your child is off and running as soon as he/she wakes up in the morning | | LL279 |
| | 5. Your child is very sociable | | LL280 |
| | 6. Your child takes a long time to warm up to strangers | | LL281 |
| | 7. Your child gets upset or sad easily | | LL282 |
| | 8. Your child prefers quiet, inactive games to more active ones | | LL283 |
| | 9. Your child likes to be with people | | LL284 |
| | 10. Your child reacts intensely when upset | | LL285 |
| | 11. Your child is very friendly with strangers | | LL286 |
| | 12. Your child find other people more fun than anything else | | LL287 |

2. **Description of original instrument**: **The Emotionality, Activity and Shyness Temperament Questionnaire (EAS)**

The EAS temperament questionnaire measures the four temperament dimensions; Shyness (fear), Emotionality (irritability/anger), Sociability (Positive affect/including approach), and Activity (activity level). These are measured by subscales with five questions each. Mothers are asked to rate whether the 20 different statements apply to their child. There are five response categories from "very typical" to "not at all typical". Three questions from each temperament dimension are selected for use in the MoBa. The 12 selective items constitute the short form of the EAS.

*Psychometric Information:*

The Cronbach's alpha reliability estimates for the original instrument were estimated to be .71-.79 (in the 18-month, 30-month and 50-month material) for shyness, .61-.67 for emotionality, .48-.60 for sociability, and .68-.75 for activity (Mathiesen & Tambs, 1999). Estimates for the short-form scales were .70-.72 for shyness, .58-.61 for emotionality, .43-.45 for sociability, and .59-.62 for activity. Test-retest correlations for 18-30 months varied from .44 to .60 for original scores and from .40 to .58 for short-form scores. Corresponding values were .46-.61 and .43-.56 for 30-50 months and .37-.50 and .36-.49 for 18-50 months. The correlations between the short-form and original scores were: for 18, 30 and 50 months, respectively, .94, .95 and .95 for shyness, .95, .95 and .94 for emotionality, .92, .92 and .92 for sociability, and .94, .96 and .95 for activity.

*Base References/Primary Citations:*

Buss, A. H., & Plomin, R. (1984). *Temperament: Early Developing Personality Traits*. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Mathiesen, K. S. & Tambs, K. (1999). The EAS Temperament Questionnaire—factor structure, age trends, reliability, and stability in a Norwegian sample. *Journal of Child Psychology and Psychiatry 40:* 431-439.

*Modifications:*

The wording on the following questions was changed from the original scale:
Original: Gets upset easily; MoBa: Gets upset or sad easily

Original: Finds people more stimulating than anything else; MoBa: Finds people more fun than anything else.

3. **Rationale for choosing the questions:**
   The EAS temperament questionnaire seems to be the scale most directly constructed to measure the four temperament dimensions; Shyness (fear), Emotionality (irritability/anger), Sociability (Positive affect/including approach), and Activity (activity level), exclusively and in a clear-cut way, and is found to have good psychometric properties.

4. **Revision during the data collection period:**
   No revisions have been made.

## 38. Speech and Language Assessment Scale (SLAS)

**1. Name of original scale:** Speech and Language Assessment Scale (SLAS)

| Q | | Response options | Variable name |
|---|---|---|---|
| **38** | **About the child's abilities and skills compared with peers.** *Enter a cross from 1-5 for each line according to how well the statement fits your child.* | | |
| | 1. My child's ability to ask questions properly is… | 1-Very much lower<br>2- 2<br>3-Typical for age<br>4-4<br>5-Very much higher | LL288 |
| | 2. My child's ability to answer questions properly is… | | LL289 |
| | 3. My child's ability to say sentences clearly enough to be understood by strangers is… | | LL290 |
| | 4. The number of words my child knows is… | | LL291 |
| | 5. My child's ability to use his/her words correctly is… | | LL292 |
| | 6. My child's ability to get his/her message across to others when talking is… | | LL293 |
| | 7. My child's ability to use proper words when talking to others is… | | LL294 |
| | 8. My child's ability to get what he/she wants by talking is… | | LL295 |
| | 9. My child's ability to start a conversation going with other children is… | | LL296 |
| | 10. My child's ability to keep a conversation going with other children is… | | LL297 |
| | 11. The length of this child's sentences is… | | LL298 |
| | 12. My child's ability to make 'grown up' sentences is… | | LL299 |
| | 13. My child's ability to correctly say the sounds in individual words is… | | LL300 |

**2. Description of original scale**: **Speech and Language Assessment Scale (SLAS)**

The SLAS (Rice, et al., 1989) consists of 14 reliable items which covers several dimensions of communication. The scale intends to address children's articulation, semantics, vocabulary, sentence construction, and conversational skills compared with peers. The questions were answered in a 5-point Likert scale from 'very much lower' to 'very much higher'.

*Psychometric Information*:

The inter-rater reliability between mothers and fathers was moderately high to high for all 5 composite scales. The three composite scales articulation, assertiveness and semantics emerged as the most effective for predicting group membership, correctly classifying 86% of the children in each sample (range = 75-95 %) (Hadley & Rice, 1993). The SLAS showed good construct validity (Weinberg, 1991).

*Base References/Primary Citations:*

Rice, M.L., Wilcox, K.A., Liebhaber, G.K., & Hadley, P.A. (1989). *The speech and Language Assessment Scale*. Unpublished, University of Kansas, USA.

Hadley P.A. & Rice, M.L. (1993). Parental judgments of preschoolers' speech and language development: a resource for assessment and IEP1 planning. *Topics in Speech and Language* 14: 278-288.

Weinberg, A.M. (1991). *Construct validity of the Speech and Language Assessment Scale: A tool for recording parent judgments*. Unpublished master's thesis, University of Kansas, USA.

**3. Rationale for choosing the instrument:**

The SLAS discriminates between children with typical development and children with speech/ language impairments. Thus, it constitutes a tool for determining group membership.

**4. Revision during the data collection period:**

No revisions have been made.

## 39. Child Behaviour Checklist (CBCL)

**1. Name of original scale:** Child Behaviour Checklist (CBCL)

| Q | | Response options | Variable name |
|---|---|---|---|
| **39** | **The following list contains statements describing children's behavior and manner from the age of 5. Some of these features are temporary while others continue for a longer period of time. To what extents are the following statements true of your child's behavior during the last two months?** | | |
| | 1. Afraid to try new things | | LL301 |
| | 2. Can't concentrate, can't pay attention for long | | LL302 |
| | 3. Can't sit still, restless or overactive | | LL303 |
| | 4. Can't stand waiting, wants everything now | | LL304 |
| | 5. Clings to adults or too dependent | | LL305 |
| | 6. Cries a lot | | LL306 |
| | 7. Defiant | | LL307 |
| | 8. Demands must be met immediately | | LL308 |
| | 9. Disturbed by any change in routine | | LL309 |
| | 10. Doesn't eat well | | LL310 |
| | 11. Doesn't seem to feel guilty after misbehaving | 1- Rarely/never | LL311 |
| | 12. Fears certain animals, situation or places | | LL312 |
| | 13. Gets in many fights | 2- Sometimes | LL313 |
| | 14. Gets into everything | | LL314 |
| | 15. Gets too upset when separated from parents | 3- Often/typical | LL315 |
| | 16. Hits others | | LL316 |
| | 17. Nervous, high strung, or tense | | LL317 |
| | 18. Punishment doesn't change his/her behavior | | LL318 |
| | 19. Quickly shifts from one activity to another | | LL319 |
| | 20. Stomach aches or cramps (without medical cause) | | LL320 |
| | 21. Too fearful or anxious | | LL321 |
| | 22. Unhappy, sad or depressed | | LL322 |
| | 23. Vomiting, throwing up (without medical cause) | | LL323 |
| | 24. Poorly coordinated or clumsy | | LL324 |
| | 25. The child is teased/bullied by others | | LL325 |
| | 26. Feelings are easily hurt | | LL504 |
| | 27. Self-conscious or easily embarrassed | | LL505 |

2. **Description of original instrument**: **Child Behaviour CheckList (CBCL)**

The Child Behaviour Checklist (CBCL), developed by Thomas Achenbach initially in 1982, is designed to identify problem behaviour in children. There are two versions of the checklist: the preschool checklist (CBCL/1½-5) with 100 questions and the school-age version (CBCL/6-18) with 120 questions. The CBCL contains seven subscales in addition to a category of "other problems". These are: Emotionally reactive, anxious/depressed, somatic complaints, withdrawn, sleep problems, attention problems and aggressive behaviour. The first four categories comprise a broader grouping of internalizing symptoms; the last two scales externalizing problems. A selection of 25 items (items 1-25) has been developed for use in this questionnaire. Two items (26 & 27) were added in version B to measure children's emotional well-being.

*Psychometric Information:*

All sub-scales of CBCL (2-3 years) showed good test-retest reliability ($p < .001$; $r = .71 – .93$). Interparental agreement was significant ($p < .01$) at both ages ($r = .63$ at age 2; $r = .60$ at age 3). All stability coefficients were significant at $p < .001$ over a 1-year period. The CBCL has adequate sensitivity (71%) and specificity (92%) (Achenbach, 1992). The predicative validity has been demonstrated both in Danish and Norwegian samples ( Bilenberg, 1999; Novik, 1999).

*Base References/Primary Citations:*

Achenbach, T.M. (1992). *Manual for the Child Behaviour Checklist/2-3 and 1992 Profile. Burlington*. VT: University of Vermont Department of Psychiatry.

Bilenberg, N. (1999). The Child Behaviour Checklist (CBCL) and related material: standardization and validation in Danish population based and clinically based samples. *Acta Psychiatrica Scandinavica* 100: 2-52.

Novik, T. S. (1999). Validity of the Child Behaviour Checklist in a Norwegian sample. *European Child and Adolescent Psychiatry* 8: 247-254.

*Modifications:*

Items 11 (English: Doesn't seem to feel guilty after misbehaving; Norwegian: Det merkes ikke på barnet når hun/han har gjort noe galt.) and 18 (English: Punishment doesn't change his/her behavior; Norwegian: Grensesetting endrer ikke barnets atferd.) were given a slightly different wording due to common attitudes in Norway, where punishing small children is not accepted. In item 3, "overactive" substituted for "hyperactive", because the latter is so heavily associated with ADHD.

**3. Rationale for choosing the questions:**

The CBCL is a widely used method of identifying problem behaviour in children.

**4. Revision during the data collection period:**

Items 26 & 27 were added in version B; they were not included in version A.

## 40-41. Bedtime Habits

**1. Name of original questions:** 2 questions about the child's bedtime habits

| Q | | Response options | Variable name |
|---|---|---|---|
| **40** | **How often does your child wake up during the night?** | | |
| | | 1) 3 or more times per night<br>2) 1-2 times per night<br>3) A few times per week<br>4)Seldom, never | LL506 |
| **41** | **Approximately how many hours does the child usually sleep per night on weekdays?** | | |
| | | 1) 8 hours or less<br>2) 9 hours<br>3) 10 hours<br>4) 11 hours<br>5) 12 hours or more | LL507 |

2. **Description of original instrument**: **MoBa specific questions**

*Psychometric Information:*
Not relevant.

*Base References/Primary Citations:*
Not relevant.

3. **Rationale for choosing the questions:**
These questions were developed to get information about bedtime habits and sleep problems among the 5-year-olds.

4. **Revision during the data collection period:**
These questions were only included in version B. No further revisions have been made.

## 42. Maternal Concerns

**1. Name of questions:** About the mother's concerns about the child's development

| Q | | Response options | Variable name |
|---|---|---|---|
| **42** | **About your concerns** | | |
| | 1. Do you have any concerns about how your child speaks and pronounce sounds? | 1-No<br>2-Yes | LL326 |
| | 2. Are you concerned because your child is demanding and difficult to cope with? | | LL327 |
| | 3. Are you concerned because your child is hardly interested at all in playing with other children? | | LL328 |
| | 4. Do you have any concerns because your child's activity level is so high? | | LL329 |
| | 5. Have others (family, nursery, health visitor) expressed concerns about your child's development? | | LL330 |
| | 6. Overall, during the last 6 months, has your child had difficulties in one or more of these areas: language, feelings, concentration, behaviour or in the way he/she gets along with others? | | LL331 |
| | **If yes**: | | |
| | 1. Is the child bothered or disturbed by the difficulties? | 1-No<br>2-Yes a bit<br>3-Yes a lot | LL332 |
| | 2. Do the difficulties affect the child's daily life in any of the following areas: | | |
| | At home/in the family | | LL333 |
| | With friends/peers | | LL334 |
| | In the kindergarten/outdoor nursery/with child minder | | LL335 |
| | 3. Do the difficulties cause strain on you or the family as a whole? | | LL336 |
| | 4. If the child has difficulties, how old was the child when the difficulties started? | Number 0-99 | LL337 |

2. **Description of original instrument**: **MoBa specific questions**

*Psychometric Information (sample, reliability, validity):*
Not relevant.

*Base References/Primary Citations:*
Not relevant.

**3. Rationale for choosing the questions:**
Mothers' concerns have a high degree of accuracy in detecting developmental and behavioral problems, an accuracy that represents a substantial improvement over disability detection rates usually found in medical settings using standardized instruments (Glascoe, 2003).

**4. Revision during the data collection period:**
No revisions have been made.

Added reference:
Glascoe, F.P. (2003). Parent's evaluation of developmental status: How Well do Parents' Concerns Identify Children With Behavioral and Emotional Problems? *Clinical Pediatrics* 42:133-138.

# About yourself

## 43-44. Weight and Pregnancy Status

**1. Name of original questions:** About the mother's weight and pregnancy status

| Q | | Response options | Variable name |
|---|---|---|---|
| **43a** | **How tall are you?** | | |
| | _ _ _, _cm | | LL338 |
| **43a&b** | **What is your current weight?** | | |
| | _ _ _, _kg | | LL339 |
| **44b** | **Are you pregnant now?** | | |
| | | 1-No<br>2-Yes | LL508 |

**2. Description of original questions: MoBa specific single questions**

*Psychometric Information:*
Not relevant.

*Base References/Primary Citations:*
Not relevant.

**3. Rationale for choosing the questions:**
The questions were developed to get information about the mother's current height, weight and pregnancy status.

**4. Revision during the data collection period:**
Question 43a was only included in version A; question 44b was only included in version B.

## 45-47. Intake of Nicotine and Alcohol

**1. Name of original questions:** 3 questions about the mother's intake of nicotine and alcohol

| Q | | Response options | Variable name |
|---|---|---|---|
| **45a** | **Do you smoke at the moment?** | | |
| | | 1-Don't smoke<br>2-Smoke sometimes<br>3-Smoke every day | LL340 |
| | Smoke sometimes- number of cigarettes per week: | Number 0-999 | LL341 |
| | Smoke every day- number of cigarettes per day: | Number 0-999 | LL342 |
| **45b** | **What are the smoking habits in your household?** | | |
| | You | | LL509 |
| | If daily, number of cigarettes per day: | Number 0-99 | LL510 |
| | Your partner/spouse | | LL511 |
| | If daily, number of cigarettes per day: | Number 0-99 | LL512 |
| **46b** | **How often do you consume alcohol at present?** | | |
| | | 1) Roughly 6–7 times a week<br>2) Roughly 4–5 times a week<br>3) Roughly 2-3 times a week<br>4) Roughly once a week<br>5) Roughly 1-3 times a month<br>6) Less than once a month<br>7) Never | LL513 |
| **47b** | **How many alcohol units do you usually drink when you consume alcohol?** | | |
| | Weekends | 1) 10 or more<br>2) 7–9<br>3) 5–6<br>4) 3–4<br>5) 1–2<br>6) Less than 1 | LL514 |
| | Weekdays | | LL515 |

**2. Description of original questions: MoBa specific single questions**

*Psychometric Information:*
Not relevant.

*Base References/Primary Citations:*
Not relevant.

**3. Rationale for choosing the questions:**
Questions were developed to measure the mothers' of present intake of nicotine and alcohol.

**4. Revision during the data collection period:**
The question about smoking habits were formulated differently in version A and B (see table above). The questions about intake of alcohol were only included in version B.

## 48-50. Health and Health Problems

**1. Name of original questions:** Questions about the mother's health and health problems

| Q | | Response options / Variable name | | | |
|---|---|---|---|---|---|
| **48** | **Do you have or have you had any illness or health problems the last 5 years (**Heart disease, cancer, muscle disease, serious chronic disease like asthma or diabetes, mental disease, disability or other illness**)?** | | | | |
| | | 1-No<br>2-Yes | | | LL343 |
| **Version A** | If yes, write down what illness / disease and check the following list about diagnosis and hospitalizing. If you became well or the problem stopped, write down at what age this happened. | | | | |
| | | *Illness* | *Doctor given a diagnosis* | *hospitalisation* | *If you are well, about how old were you?* |
| | 1. | text | LL345 | LL346 | LL347 |
| | 2. | text | LL349 | LL350 | LL351 |
| | 3. | text | LL353 | LL354 | LL355 |
| | 4. | text | LL357 | LL358 | LL359 |
| **Version B** | If yes, report which illness and cross off whether a diagnosis has been given by a medical doctor and if you have been hospitalized for this illness. | | | | |
| | | *Illness* | *Doctor given a diagnosis*<br>1-No<br>2-Yes | *Hospitalisation*<br><br>1-No<br>2-Yes | *If you are well, about how old were you?* |
| | 1. | text | LL516 | LL517 | LL347 |
| | 2. | text | LL519 | LL520 | LL351 |
| | 3. | text | LL521 | LL522 | LL355 |
| | 4. | text | LL523 | LL524 | LL359 |
| **49** | **Have this or these diseases / problems made it difficult for you to cope with daily activities?** | | | | |
| | | 1-No<br>2-Yes a little<br>3-Yes a great deal<br>4-Yes very much | | | LL360 |
| **50** | **Have you ever had any problems with your physical or mental health that has prevented you in your work or social activities with family or friends?** | | | | |
| | | 1-No<br>2-Yes | | | LL361 |
| | If yes, how much have the problems affected you? | | | | |
| | 1. Physical health | 1-Very much<br>2-A great deal<br>3-Some<br>4-A little<br>5-Not at all | | | LL362 |
| | 2. Mental health | | | | LL363 |

**2. Description of original questions: MoBa specific single questions**

*Psychometric Information:*
Not relevant.

*Base References/Primary Citations:*
Not relevant.

**3. Rationale for choosing the questions:**
Questions were developed to survey the mothers' physical health, mental health and health problems.

**4. Revision during the data collection period:**
In version B, a 'yes/no' option was added to columns 'Doctor given a diagnosis' and 'Hospitalisation' of questions 48 (see table above).

## 51. Depression/Anxiety

**1. Name of original scale:** Selective items from the (Hopkins) Symptoms Checklist-25 (SCL-25)

| Q | | Response options | Variable name |
|---|---|---|---|
| 51 | **Have you been bothered by any of the following during the last two weeks?** | | |
| | 1. Feeling fearful | 1-Not bothered<br>2-A little bothered<br>3-Quite bothered<br>4-Very bothered | LL363 |
| | 2. Nervousness or shakiness inside | | LL364 |
| | 3. Feeling hopeless about the future | | LL365 |
| | 4. Felling blue | | LL366 |
| | 5. Worrying too much about things | | LL367 |
| | 6. Feeling everything is an effort | | LL368 |
| | 7. Feeling tense or keyed up | | LL369 |
| | 8. Suddenly scared for no reason | | LL370 |

**2. Description of original instrument: The Hopkins Symptoms Checklist-25 (SCL-25)**

The Hopkins Symptoms Checklist with 90 items (SCL-90) measures several types of symptoms of mental disorders, two of which are anxiety and depression. The instrument was originally designed by Derogatis, Lipman & Covi (1973) at Johns Hopkins University. The SCL-25 was derived from the SCL-90 and measures symptoms of anxiety (10 items) and depression (15 items) (Hesbacher et al, 1980). Eight of the selected items in this section constitute the short version SCL-8 (Tambs & Røysamb, 2014). Four items (i.e. 1, 2, 7 & 8) capture symptoms of anxiety and four items (i.e. 3, 4, 5 & 6) tap symptoms of depression. The scale for each question includes four categories of response ("not bothered," "a little bothered," "quite bothered," "very bothered," rated 1 to 4, respectively).

*Psychometric Information:*

A concordance rate of 86.7% was demonstrated between the assessment by the physician and the patient's own rating of distress on the SCL-25 (Hesbacher, et al., 1980). Using and available data material (Tambs & Moum, 1993), the SCL-8 scores were estimated to correlate 0.94 with the total score from the original instrument. The correlations between the SCL-8 anxiety and depression scores and the original anxiety and depression scores were 0.90 and 0.92, respectively (Tambs & Røysamb, 2014). The alpha reliability was estimated at 0.88, 0.78 and 0.82 for the SCL-8 total, anxiety and depression scores, respectively (Tambs & Røysamb, 2014).

*Base References/Primary Citations:*

Derogatis, L.R., Lipman, R.S. & Covi L. 1973. The SCL-90: an outpatient psychiatric rating scale. *Psychopharmacology Bulletin*, 9: 13-28.

Hesbacher PT, Rickels R, Morris RJ, Newman H, & Rosenfeld MD. 1980. Psychiatric illness in family practice. *Journal of Clinical Psychiatry*, 41: 6-10.

Strand, B.H., Dalsgard, O.S., Tambs, K., & Rognerud, M. 2003. Measuring the mental health status of the Norwegian population: A comparison of the instrument SCL-25, SCL-10, SCL-5 and MHI-5 (SF-36). *Nordic Journal of Psychiatry*, 57: 113-118.

Tambs, K. & Moum, T. 1993. How well can a few questionnaire items indicate anxiety and depression? *Acta Psychiatrica Scandnavica*, 87: 364-367.

Tambs, K. & Røysamb E. 2014. Selection of questions to short-form versions of original psychometric instruments in MoBa. *Norsk Epidemiologi* 24:195-201.

3. **Rationale for choosing the questions:**
   Symptom Check List and its short versions have proven to be a brief, valid and reliable measure of mental distress (Tambs & Moum, 1993).

4. **Revision during the data collection period:**
   No revisions have been made.

## 52. Relationship Satisfaction Scale (RSS)

**1. Name of original scale:** Relationship Satisfaction Scale (RSS)

| Q | | Response options | Variable name |
|---|---|---|---|
| **52** | **If you have a husband/boyfriend/partner, to what extent do you agree with the following descriptions?** | | |
| | 1. My partner and I have problems in our relationship | 1-Agree completely<br>2-Agree<br>3-Agree somewhat<br>4-Disagree somewhat<br>5-Disagree<br>6-Disagree completely | LL371 |
| | 2. I am very happy with our relationship | | LL372 |
| | 3. My partner is generally understanding | | LL373 |
| | 4. I am satisfied with my relationship with my partner | | LL374 |
| | 5. We agree on how our child should be raised | | LL375 |

**2. Description of original instrument: The Relationship Satisfaction Scale (RSS)**

The RSS is a 10-item scale developed originally in Norwegian for the MoBa. The scale is based on core items used in previously developed measures of marital satisfaction and relationship quality (e.g. Blum & Mehrabian, 1999; Henrick, 1988; Snyder, 1997). All answers are scored on a 6-point scale from 'strongly agree' (1) to 'strongly disagree' (6).

*Psychometric Information:*

Internal reliability of the RS10 is high (alpha: .85-.90). Confirmatory factor analyses provide evidence for a unidimensional structure, high loadings and good fit. The RSS correlates .92 with the Quality of Marriage Index (QMI: Norton, 1983). Predictive validity is evidenced by ability to predict future break-up/divorce and life satisfaction (Dyrdal et al., 2011; Røsand, et al., 2013; Røysamb, Vittersø & Tambs, 2014). The 5-item short version (RS5) was empirically derived by identifying the best items in terms of accounting for variance in the full sum-score index. Multiple regression and factor analyses were used (Røysamb, Vittersø & Tambs, 2014). The short version correlates .97 with the full scale.

*Base References/Primary Citations:*

Blum, J. & Mehrabian, A. (1999). Personality and temperament correlates of marital satisfaction. *Journal of Personality* 67 (1): 93-125.

Dyrdal, G.M., Røysamb, E., Nes, R. B. & Vittersø, J. (2011). Can a happy relationship predict a happy life? A population-based study of maternal well-being during the life transition of pregnancy, infancy, and toddlerhood. *Journal of Happiness Studies 12*(6): 947- 962.

Gustavson, K., Nilsen, W., Ørstavik, R. & Røysamb, E. (2014). Relationship quality, divorce, and well-being: Findings from a three-year longitudinal study. *The Journal of Positive Psychology* 9(2): 163-174.

Henrick, S. S. (1988). A generic measure of relationship satisfaction. *Journal of Marriage and the Family 50*: 93-98.

Norton, R. (1983). Measuring marital quality: A critical look at the dependent variable. *Journal of Marriage and the Family 45*: 141-151.

Røsand, G-M. B., Slinning, K., Røysamb, E. & Tambs, K. (2013). Relationship dissatisfaction and other risk factors for future relationship dissolution: a population-based study of 18,523 couples. *Social Psychiatry and Psychiatric Epidemiology 49*(1): 109-119.

Røysamb, E., Vittersø, J. & Tambs, K. (2014). The Relationship Satisfaction scale: Psychometric properties. *Norwegian Journal of Epidemiology [Norsk Epidemiologi]* 24(1-2): 187-194.

Snyder, D. K. (1997). *Marital Satisfaction Inventory–Revised (MSI-R) Manual*. Los Angeles: Western Psychological Services.

**3. Rationale for choosing the questions:**

Partner relationship is considered a central aspect of family life. Relationship satisfaction is both an outcome *per se* and a potentially important predictor of mental health, well-being, divorce, and child-rearing.

**4. Revision during the data collection period:**

No revisions have been made.

## 53. Parenting Style

1. **Name of original scale:** For version B, selective items from the Alabama Parenting Questionnaire (APQ); for version A, selective items from the Parental Authority Questionnaire-Revised (PAQ-R)

| Q | In version B | Response options | Variable name |
|---|---|---|---|
| **53** | **How often does this happen in your home?** | | |
| | 1. You let your child know when he/she is doing a good job with something | 1-Never<br>2-Almost never<br>3-Sometimes<br>4-Often<br>5-Always | LL526 |
| | 2. You threaten to punish your child and then do not actually punish him/her | | LL527 |
| | 3. You have a friendly talk with your child | | LL528 |
| | 4. Your child talks him/herself out of being punished after he/she has done something wrong | | LL529 |
| | 5. You ask your child about his/her day in childcare | | LL530 |
| | 6. You compliment your child when he/she has done something well | | LL531 |
| | 7. You praise your child if he/she behaves well | | LL532 |
| | 8. You talk to your child about his/her friends | | LL533 |
| | 9. You let your child out of a punishment early (E.g. Lift restrictions earlier than you originally said) | | LL534 |
| | **In version A, the following items are used:** | | |
| | **Do you agree or disagree with the following questions?** | | |
| | 1. I expect my children to do what they are told immediately without questions | 1- Agree totally<br>2- Agree<br>3- Neither agree or disagree<br>4- Disagree<br>5- Disagree totally | LL376 |
| | 2. Other parents should use more force to get their children to behave properly | | LL377 |
| | 3. Smart parents should early teach their children who is the boss in the family | | LL378 |
| | 4. Most of the problems could be solved if parents would let their children choose their own activities, make their own decisions and follow their own dreams when they grow up. | | LL379 |
| | 5. I let my children decide most of the things by their own, without much help from me | | LL380 |
| | 6. I don't control the behaviour, the activities or wishes of my children | | LL381 |

**Items from version B:**

2. **Description of original instrument: Alabama Parenting Questionnaire (APQ)**

The APQ is a 42-item scale developed by Frick (1991) to assess parenting practices in clinical and research settings. The APQ measures five dimensions of parenting that are relevant to the etiology and treatment of child externalizing problems: (1) Positive Involvement with children, (2) Supervision and Monitoring, (3) Use of Positive Discipline techniques, (4) Consistency in the Use of Such Discipline and (5) Corporal Punishment. There is both a parent form and a child from. The 9 items from the parent form are selected into use in this section. Six items (1, 3, 5, 6, 7, 8) are from the subscale Positive Involvement with children; three items (2, 4, 9) are from the subscale Consistency in the Use of Such Discipline. All answers are scored on a 5-point scale from 'never' (1) to 'always' (5).

*Psychometric Information:*

The average reliability across the APQ scales is .68. The APQ has good psychometric properties including criterion validity in differentiating clinical and nonclinical groups (Dadds, Maujean, & Fraser, 2003; Frick et al., 1999; Shelton et al., 1996). Frick et al. (1999) reported a mean $R^2$ across its five scales of .24 for predicting child symptoms of oppositional defiant disorder and conduct disorder.

*Base References/Primary Citations:*

Frick, P. J. (1991). *Alabama Parenting Questionnaire*. University of Alabama.

Frick, P. J., Christian, R. E.,& Wooton, J. M. (1999). Age trends in the association between parenting practices and conduct problems. *Behavior Modification 23:* 106–128.

Shelton, K. K., Frick, P. J., &Wootton, J. (1996). Assessment of parenting practices in families of elementary school-age children. *Journal of Clinical Child Psychology 25:* 317–329.

**Items from version A:**

**Description of original instrument: The Parental Authority Questionnaire-Revised (PAQ-R)**

The Parent Authority Questionnaire (PAQ) is developed by Buri (1991) to assess parenting style based on retrospective adolescent ratings. The 30-item instrument consisted of three 10-item scales representing permissive, authoritarian, and authoritative parenting styles. The PAQ was modified for parent report and altered to improve readability by Reitman et al. (PAQ-R; 2002). The first 3 items are selected from the PAQ-R's Authoritarian subscale; the remaining 3 items from its Permissive subscale. All answers are scored on a 5-point scale from 'agree totally' (1) to 'disagree totally' (5).

*Psychometric Information:*

The internal consistency of the PAQ-R subscales ranged from .56 to .77. The PAQ-R subscales correlated with relevant subscales of the Parenting Scale and the Parent-Child Relationship Inventory (Reitman et al., 2002). The full PAQ-R scale and the short version show good psychometric properties. Confirmatory factor analyses provide evidence for an Authoritarian subscale with internal reliability of .70, Permissive subscale with internal reliability of .85.

*Base References/Primary Citations:*

Buri, J.R. (1991). Parental authority questionnaire. *Journal of Personality Assessment* 57: 110-119.

Reitman, D, Rhode, PC. Hupp, S & Altobello, C. (2002). Development and Validation of the Parental Authority Questionnaire-Revised. *Journal of Psychopathology and Behavioral Assessment* 24(2): 119-127.

**3. Rationale for choosing the questions:**

The two questionnaires are both useful for studying how parenting practices influence children's social and psychological development.

**4. Revision during the data collection period:**

The two versions include items selected from different scales (see above). The change was made because the items in version B contain the dimension of positive parenting (warmth), which is considered as an important part of parenting practice.

## 54. Satisfaction with Life Scale (SWLS)

**1. Name of original scale:** The Satisfaction With Life Scale (SWLS)

| Q | | Response options | Variable name |
|---|---|---|---|
| **54** | **Do you agree or disagree with the following statements?** | | |
| | 1. In most ways my life is close to my ideal | 1- Disagree completely<br>2- Disagree<br>3- Disagree somewhat<br>4- Don't agree or disagree<br>5- Agree somewhat<br>6- Agree<br>7- Agree completely | LL382 |
| | 2. The conditions of my life are excellent | | LL383 |
| | 3. I am satisfied with my life | | LL384 |
| | 4. So far I have gotten the important things I want in life | | LL385 |
| | 5. If I could live my life over, I would change almost nothing | | LL386 |
| | 6. I really enjoy my work | | LL387 |

**2. Description of original instrument**: **Satisfaction With Life Scale (SWLS)**

The SWLS (Diener et al., 1985) is a 5-item instrument designed to measure global cognitive judgments of satisfaction with one's life. All answers are scored on a 7-point scale from 'strongly disagree' (1) to 'strongly agree' (7).

*Psychometric Information:*

Internal consistency (Cronbach's alpha) for the SWLS is between .79 and .89. Test-retest coefficients are between .84 and .54, with the decline of stability of the scale over longer periods. The SWLS demonstrates adequate convergence with related measures (r=.28~.82), and it has been shown to have potential as a cross-cultural index of life satisfaction (Diener et al., 1985; Pavot & Diener, 1993; Pavot, et al., 1993; Shigehiro, 2006; Vittersø, Røysamb & Diener, 2002).

*Base References/Primary Citations:*

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment* 49: 71-75.

Pavot, W., & Diener, E. (1993). Review of the Satisfaction With Life Scale. *Psychological Assessment*, 5, 164-172.

Pavot, W., Diener, E., Colvin, R., & Sandvik, E. (1991). Further validation of the Satisfaction with Life Scale: Evidence for the cross-method convergence of self-report well-being measures. *Journal of Personality Assessment* 57: 149-161.

Shigehiro, O. (2006). The concept of life satisfaction across culture: An IRT analysis. *Journal of Research in Personality* 40(4): 411-423.

Vittersø, J., Røysamb, E., & Diener, E. (2002). The concept of life satisfaction across cultures: Exploring its diverse meaning and relation to economic wealth. In E. Gullone & R. Cummins (Eds.), *The universality of subjective wellbeing indicators. A multidisciplinary and multi-national perspective* (pp. 81–103). Dordrecht, the Netherlands: Kluwer Academic Publishers.

**3. Rationale for choosing the questions:**

The Satisfaction With Life Scale is a well-established measure of life satisfaction.

**4. Revision during the data collection period:**

No revisions have been made.

## 55-56. Adverse Life Events

**1. Name of original questions:** Questions about adverse life events

| Q | | Response options & variable name | | |
|---|---|---|---|---|
| **55** | **Have you experienced any of the following situations?** | | | |
| | | No | *Yes, during the last year* | *Yes, 2-5 years ago* |
| | 1. Have you had problems at work or where you study? | LL388 | LL389 | LL390 |
| | 2. Have you had financial problems? | LL391 | LL392 | LL393 |
| | 3. Have you been divorced, separated or ended the relationship with your partner? | LL394 | LL395 | LL396 |
| | 4. Have you had any problems or conflicts with your family, friends or neighbors? | LL397 | LL398 | LL399 |
| | 5. Have you been seriously worried that there is something wrong with your child? | LL400 | LL401 | LL402 |
| | 6. Have you been seriously ill or injured? | LL403 | LL4040 | LL405 |
| | 7. Has anyone close to you been seriously ill or injured? | LL406 | LL407 | LL408 |
| | 8. Have you been involved in a serious traffic accident, house fire or robbery? | LL409 | LL410 | LL411 |
| | 9. Have you lost someone close to you? | LL412 | LL413 | LL414 |
| | 10. Have you been pressurized into having sexual intercourse? | LL415 | LL416 | LL417 |
| | 11. Other dramatic events/experiences you have had | LL418 | LL419 | LL420 |
| | Other events/experiences, describe: | | | |
| **56** | **Have any of these events contributed to you being on sick leave, or to not have been able to function properly in your daily life/ work?** | | | |
| | | 1- No<br>2- Yes | | LL422 |

**2. Description of original questions: Questions about adverse life events**

These questions were selected primarily because of their relevance to the population in general, partly due to their relevance to women with small children. The questions are inspired by a list adopted from Coddington (1972), which was directed at children from preschool to senior high school. The questions in this section were adapted to adult respondents.

*Psychometric Information:*

No relevant psychometric information has been found.

*Base Reference/Primary Citation:*

Coddington, R.D. 1972. The significance of life events as etiologic factors in the diseases of children II: A study of a normal population. *Journal of Psychosomatic Research* 16: 205-213.

**3. Rationale for choosing the questions:**

The selected questions were chosen because they were believed to address life events that supposedly affect the mother and the family.

**4. Revision during the data collection period:**

No revisions have been made in the questions.

## 57. The International Personality Item Pool (IPIP) Big-Five Factor Markers

**1. Name of original scale:** The International Personality Item Pool (IPIP) Big-Five factor markers

| Q | | Response options | Variable name |
|---|---|---|---|
| **57** | **Describe yourself the way you usually are** | | |
| | 1. Am the life of the party | | LL535 |
| | 2. Feel little concern for others | | LL536 |
| | 3. Am always prepared | | LL537 |
| | 4. Get stressed out easily | | LL538 |
| | 5. Have a rich vocabulary | | LL539 |
| | 6. Don't talk a lot | | LL540 |
| | 7. Am interested in other people | | LL541 |
| | 8. Leave my belongs around | | LL542 |
| | 9. Am relaxed most of the time | | LL543 |
| | 10. Have difficulty understanding abstract ideas | | LL544 |
| | 11. Feel comfortable around people | | LL545 |
| | 12. Insult people | | LL546 |
| | 13. Pay attention to details | | LL547 |
| | 14. Worry about things | | LL548 |
| | 15. Have a vivid imagination | | LL549 |
| | 16. Keep in the background | | LL550 |
| | 17. Sympathize with others' feelings | | LL551 |
| | 18. Make a mess of things | | LL552 |
| | 19. Seldom feel blue | | LL553 |
| | 20. Am not interested in abstract ideas | | LL554 |
| | 21. Start conversations | 1-Strongly disagree | LL555 |
| | 22. Am not interested in other people's problems | | LL556 |
| | 23. Get chores done right away | 2-Disagree somewhat | LL557 |
| | 24. Am easily disturbed | | LL558 |
| | 25. Have excellent ideas | | LL559 |
| | 26. Have little to say | 3-Neither nor | LL560 |
| | 27. Have a soft heart | | LL561 |
| | 28. Often forget to put things back in their proper place | 4-Agree somewhat | LL562 |
| | 29. Get upset easily | | LL563 |
| | 30. Do not have good imagination | 5-Strongly agree | LL564 |
| | 31. Talk to a lot of different people at parties | | LL565 |
| | 32. Am not really interested in others | | LL566 |
| | 33. Like order | | LL567 |
| | 34. Change my mood a lot | | LL568 |
| | 35. Am quick to understand things | | LL569 |
| | 36. Do not like to draw attention to myself | | LL570 |
| | 37. Take time out for others | | LL571 |
| | 38. Shirk my duties | | LL572 |
| | 39. Have frequent mood swings | | LL573 |
| | 40. Use difficult words | | LL574 |
| | 41. Don't mind being the centre of attention | | LL575 |
| | 42. Feel others' emotions | | LL576 |
| | 43. Follow a schedule | | LL577 |
| | 44. Get irritated easily | | LL578 |
| | 45. Spend time reflecting on things | | LL579 |
| | 46. Am quiet around strangers | | LL580 |
| | 47. Make people feel at ease | | LL581 |
| | 48. Am exacting in my work | | LL582 |
| | 49. Often feel blue | | LL583 |
| | 50. Am full of ideas | | LL584 |

**2. Description of original instrument: The International Personality Item Pool (IPIP) Big-Five factor markers**

The IPIP Big-Five factor markers (Goldberg, 2001) consist of a 50 or 100-item inventory. The MoBa makes use of the 50-item version consisting of 10 items for each of the Big-Five personality factors:

Extraversion, Agreeableness, Conscientiousness, Emotional Stability (Neuroticism) and Intellect. Participants were requested to rate how well the 50 items described them on a 5-point scale (strongly disagree to strongly agree).

*Psychometric Information:*
Internal consistencies for the factors are: Extraversion .90, Agreeableness .85, Conscientiousness .79, Emotional Stability .89, Intellect .79. Conscientiousness, Extraversion and Emotional Stability scales of the IPIP Big-Five factor markers were highly correlated with those of the NEO-FFI (r=.69 to -.83, p<.01). Agreeableness and Intellect scales correlated less strongly (r=.49 and .59 respectively, p<.01) (Gow, et al., 2005). The IPIP Big-Five factor markers have also been validated in a Croatian sample (Mlacic & Goldberg, 2007).

*Base References/Primary Citations:*
Goldberg, L. R. (1999). A broad-bandwidth, public-domain, personality inventory measuring the lower-level facets of several five-factor models. In I. Mervielde, I. J. Deary, F. De Fruyt, and F. Ostendorf (Eds.), *Personality psychology in Europe* (Vol. 7, pp. 7–28). Tilburg, The Netherlands: Tilburg University Press.

Gow, AJ, Whiteman, MC, Pattie, A & Deary, IJ (2005). Goldberg's 'IPIP' Big-Five factor markers: Internal consistency and concurrent validation in Scotland. *Personality and individual differences* 39 (2): 317-329.

Mlacic, B., & Goldberg, L. R. (2007). An analysis of a cross-cultural personality inventory: The IPIP Big-Five factor markers in Croatia. *Journal of Personality Assessment* 88: 168-177.

Røysamb, E., Vittersø, J. & Tambs, K. (2014). The Relationship Satisfaction scale: Psychometric properties. *Norwegian Journal of Epidemiology* [Norsk Epidemiologi] 24(1-2): 187-194.

3. **Rationale for choosing the questions:**
   The IPIP Big-Five factor markers are frequently used in personality research.

4. **Revision during the data collection period:**
   The instrument was only used in version B of the questionnaire.

## 58. History of Childcare Attendance

**1. Name of original questions:** Questions about history of the child's childcare attendance

| Q | | Response options / Variable name | | | |
|---|---|---|---|---|---|
| **58** | **We wish to prepare for child care research in MoBa, and want to look at the connections between child care quality and health. We therefore ask you to name the child's present or previous kindergarten, when the child attend there, and what commune the kindergarten is placed.** | | | | |
| | My child has never attended kindergarten | | | | LL585 |
| | *Start with the first kindergarten the child attended*: | | | | |
| | | Name of the kindergarten | Municipality | 1-Autumn 2-Spring | Year |
| | 1. | LL586 | LL587 | LL588 | LL589 |
| | 2. | LL590 | LL591 | LL592 | LL593 |
| | 3. | LL594 | LL595 | LL596 | LL597 |
| | 4. | LL598 | LL599 | LL600 | LL601 |

**2. Description of original questions: MoBa specific single questions**

*Psychometric Information:*
Not relevant.

*Base References/Primary Citations:*
Not relevant.

**3. Rationale for choosing the questions:**
Questions were developed to get information about the history of the child's childcare attendance. The name of the kindergarten and the municipality where it is placed help gather information from a public kindergarten register (BASIL) so that different kindergartens can be compared based on number of employees, number of employees with Early Childhood Education, kindergarten size, and other resources.

**4. Revision during the data collection period:**
The section was only included in version B of the questionnaire. No further revisions have been made.