Questions Documentation

Questionnaire 5

when the child was 18 months old

The Norwegian Mother and Child Cohort Study (MoBa) Mother Questionnaire

Version 1.0 March 2016 by Fufen Jin

This document describing the instruments used to construct the questionnaire has not been finally quality controlled. The document may contain some minor inaccuracy and will be subjected to revision. If you have any comments that may improve this document contact [mobaadm@fhi.no](mailto:mobaadm@fhi.no)

**LIST OF CONTENT**

[Instrument 3](#_bookmark0)

[1-3. Food and Drink: Beverage Consumption 4](#_bookmark1)

[4-6. Food and Drink: Food Consumption 6](#_bookmark2)

[7-10. Food Allergy and Avoidance 8](#_bookmark3)

[11-12. Nutrition: Dietary Supplement 9](#_bookmark4)

[13-15. Vaccination 10](#_bookmark5)

[16-18. Long-term Illnesses or Health Problems 11](#_bookmark6)

[19. Acute illnesses or Health Problems 13](#_bookmark7)

[20-22. Visits to Doctors or Admission to Hospitals 14](#_bookmark8)

[23-25. Symptoms and Food Allergies since the Age of 6 months 15](#_bookmark9)

[26-29. Medication 16](#_bookmark10)

[30. Length, Weight, and Head Circumferences 17](#_bookmark11)

[31-32. Child’s Development 18](#_bookmark12)

1. [Non-verbal Communication 20](#_bookmark13)
2. [Temperament 21](#_bookmark14)

[35/36. Autistic Traits: ESAT 23](#_bookmark15)

[35/36. Autistic Traits: M-CHAT 25](#_bookmark16)

[37. Child Behaviour CheckList (CBCL) 27](#_bookmark17)

[38-39. Sleep 29](#_bookmark18)

[40. Maternal Concerns 30](#_bookmark19)

[41-43. Day Care Solution 31](#_bookmark20)

[44-45. Living with the Child’s Father 32](#_bookmark21)

[46-50. Living Situations 33](#_bookmark22)

[51-55. Living Environments 34](#_bookmark23)

[56-58. First Tooth and Brushing Teeth 35](#_bookmark24)

[59-62. Time outside Home and in front of TV/Video 36](#_bookmark25)

[63-68. Health, Illness and Use of Dietary Supplements 37](#_bookmark26)

[69-71. Eating Disorders 38](#_bookmark27)

[72-77. Bodily Pain 39](#_bookmark28)

[78. Incontinence 40](#_bookmark29)

[79-80. Medication 41](#_bookmark30)

[81-84. Parental Leave and Sick Leave 42](#_bookmark31)

[85-86. Financial Situations 43](#_bookmark32)

[87-88. Physical Activity 44](#_bookmark33)

[89-91. Smoking and Drinking Habits 45](#_bookmark34)

[92. Partnership Satisfaction 46](#_bookmark35)

[93-95. Social Support 48](#_bookmark36)

1. [The General Self-Efficacy Scale (GSE) 49](#_bookmark37)
2. [Emotion: Enjoyment and Anger 51](#_bookmark38)
3. [The Rosenberg Self-Esteem Scale 52](#_bookmark39)
4. [Depression/Anxiety 53](#_bookmark40)
5. [Adverse Life Events 55](#_bookmark41)

[101-107. World Health Organization’s Quality of Life Instrument 56](#_bookmark42)

**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)

## 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.

## Rationale for choosing the instrument:

What is it meant to measure and IF RELEVANT: Why this is a good measure.

## Modifications:

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

## NOTE 1:

Q5 has five versions (A, B, C, D and E). This instrument documentation is based on version D.

## 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.

# About your child

**1-3. Food and Drink: Beverage Consumption**

1. **Name of original questions:** Questions related to baby’s beverage consumption

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Q** | **Version B, C, D, E** | **Response options / Variable name** | | | | |
| **1** | **What type of milk has your baby been given since he/she was 6 months old?** | | | | | |
|  | Milk type |  | *Child’s age in months* | | | |
| 6-8 | 9-11 | 12-14 | 15-18 |
| 1.Breast milk | EE12 | EE13 | EE14 | EE15 |
| 2. Formula | EE16 | EE17 | EE18 | EE19 |
| 3. Formula in the case of milk intolerance | EE20 | EE21 | EE22 | EE23 |
| 4. Whole milk (sweet) | EE24 | EE25 | EE26 | EE27 |
| 5. Low-fat milk (sweet) | EE28 | EE29 | EE30 | EE31 |
| 6. Extra low-fat milk (sweet) | EE32 | EE33 | EE34 | EE35 |
| 7. Skimmed milk (sweet) | EE36 | EE37 | EE38 | EE39 |
| 8. Yogurt with active lactobacillus, all types | EE40 | EE41 | EE42 | EE43 |
| 9. Other yogurt | EE44 | EE45 | EE46 | EE47 |
| 10. Other types of sour milk | EE48 | EE49 | EE50 | EE51 |
| **2** | **How often do you give your child the following to drink now that he/she is 18 months old? Select the frequency which is most applicable on average.** | | | | | |
|  | 1.Breast milk | 1. Never 2. Less than once a week 3. 1-3 times a week 4. 4-6 times a week 5. 1-2 times in 24 hours 6. 3-4 times in 24 hours 7. 5 or more times in 24 hours | | | EE736 | |
| 2. Formula | EE737 | |
| 3. Formula in the case of milk intolerance | EE738 | |
| 4. Whole milk | EE739 | |
| 5. Low-fat milk | EE740 | |
| 6. Extra low-fat milk | EE741 | |
| 7. Skimmed milk | EE742 | |
| 8. Yogurt, natural | EE743 | |
| 9. Yogurt with fruit | EE744 | |
| 10. Other types of sour milk | EE745 | |
| 11. Tap water | EE746 | |
| 12. Bottled water | EE747 | |
| 13. Cordial, sweetened | EE748 | |
| 14. Cordial, artificially sweetened | EE749 | |
| 15. Juice | EE750 | |
| 16. Fizzy drinks | EE751 | |
| 17. Diet fizzy drinks | EE752 | |
| 18. Other | EE753 | |
| Other, specify | EE67 EE701 (txt.) | |
| **3** | **Do you give your child the following to drink during the night now that he/she is roughly 18 months old?** | | | | | |
|  | 1.Water | 1. Never/seldom 2. Now and then 3. Yes, most night | | | EE68 | |
| 2.Milk or cordial from a cup | EE69 | |
| 3.Milk or cordial from a bottle | EE70 | |
| 4.Breast milk | EE71 | |

\*Some revisions have been made in question 2 from version A to the other versions. Question 2 in version A has instead 15 sub-questions with 4 response options, listed as below.

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** | **Version A** | **Response options** | **Variable name** |
| **2** | **How often do you give your child the following to drink now that he/she is 18 months old?** | | |
|  | 1.Breast milk | 1. Never/seldom 2. 1-3 times a week 3. 4-6 times a week 4. At least once a day | EE52 |
| 2. Formula | EE53 |
| 3. Formula in the case of milk intolerance | EE54 |
| 4. Low-fat skimmed milk | EE55 |
| 5. Yogurt with active lactobacillus, all types | EE56 |
| 6. Other yogurt | EE57 |
| 7. Other types of sour milk | EE58 |
| 8. Tap water | EE59 |
| 9. Bottled water | EE60 |
| 10. Juice | EE61 |
| 11. Cordial, with added sugar | EE62 |
| 12. Cordial, artificially sweetened | EE63 |
| 13. Fizzy drinks | EE64 |
| 14. Diet fizzy drinks | EE65 |
| 15. Other | EE66 |

## Description of original questions: MoBa specific single questions

The questions were derived from the Food Frequency Questionnaire (FFQ; see [http://www.](http://www/) framinghamheartstudy.org/share/protocols/ffreq1\_7s\_protocol. pdf). The checklist of beverages is selected based on knowledge of Norwegian 18-month-old children’s drink habits.

*Psychometric Information:*

The checklist has not yet been validated.

*Base References/Primary Citations:*

Not relevant.

## Rationale for choosing the questions:

The checklist will allow for estimating dietary patterns, healthy index, sugar and fat intake, but it will not be possible to calculate energy or nutrient intake.

## Revision during the data collection period:

Some revisions have been made in question 2 from version A to the other versions. Question 2 in version A has instead 15 sub-questions with 4 response options (see tables above).

**4-6. Food and Drink: Food Consumption**

1. **Name of original questions:** Questions related to baby’s food consumption

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** | **Version B, C, D, E** | **Response options** | **Variable name** |
| **4** | **How often do you give your child the following to eat now that he/she is 18 months old? Select the frequency which is most applicable on average.** | | |
|  | 1. Liver paste sandwich |  | EE754 |
| 2. Meat sandwich |  | EE755 |
| 3. Fish sandwich (e.g. sardines, mackerel) |  | EE756 |
| 4. Cheese sandwich |  | EE757 |
| 5. Jam/honey sandwich | 1) Never | EE758 |
| 6. Sandwich with other filling | EE759 |
| 7. Baby porridge (instant) | 2) Less than once a week | EE760 |
| 8. Home-made porridge | EE761 |
| 9. Meat, sausages, meat balls, etc. | 3) 1-3 times a week | EE762 |
| 10. Fish, fish balls, fish pudding, etc. | EE763 |
| 11. Pancakes | 4) 4-6 times a week | EE764 |
| 12. Potatoes | EE765 |
| 13. Pasta | 5) 1-2 times in 24 hours | EE766 |
| 14. Rice | EE767 |
| 15. Peas, beans | 6) 3 or more times in 24 hours | EE768 |
| 16. Other cooked vegetables | EE769 |
| 17. Raw vegetables |  | EE770 |
| 18. Fruit |  | EE771 |
| 19. Cakes/waffles/biscuits |  | EE772 |
| 20. Dessert/ice cream |  | EE773 |
| 21. Chocolate |  | EE774 |
| 22. Other sweets, jelly beans, other confectionery |  | EE775 |
| **5** | **Do you give your child a home-made dinner or readymade (processed) baby food in a jar?** | | |
|  |  | 1-Only home-made 2-Mostly home-made  3-About half and half of each 4-Mostly ready-made  5-Only ready-made | EE95 |
| **6** | **How often do you give your child organic food/drink?** | | |
|  | Sweet milk | 1-Never | EE97 |
| Butter milk/Yogurt | EE98 |
| 2-Sometimes |
| Vegetables/fruit | EE99 |
| 3-Often |
| Porridge/flour/bread | EE100 |
| 4-Amost always |
| Meat | EE101 |

\*Some revisions have been made in question 4 from version A to the other versions. Question 4 in version A has instead 20 sub-questions with 4 response options (see table below). Version A also contains a question about whether or not the child was given organic food/drinks before the question ‘How often do you give your child organic food/drink?’, but was removed in the other versions.

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** | **Version A** | **Response options** | **Variable name** |
| **4** | **How often do you give your child the following to eat now that he/she is 18 months old?** | | |
|  | 1. Liver paste sandwich | 1. Never/seldom 2. 1-3 times a week 3. 4-6 times a week 4. At least once a day | EE72 |
| 2. Meat sandwich | EE73 |
| 3. Fish sandwich (e.g. sardines, mackerel) | EE74 |
| 4. Cheese sandwich | EE75 |
| 5. Jam/honey sandwich | EE76 |
| 6. Sandwich with other filling | EE77 |
| 7. Baby porridge (instant) | EE78 |
| 8. Other type of porridge | EE79 |
| 9. Meat, sausages, meat balls, etc. | EE80 |
| 10. Fish, fish balls, fish pudding, etc. | EE81 |
| 11. Potatoes | EE82 |
| 12. Pasta | EE83 |
| 13. Rice | EE84 |
| 14. Peas, beans | EE85 |
| 15. Other cooked vegetables | EE86 |
| 16. Raw vegetables | EE87 |
| 17. Fruit | EE88 |
| 18. Yogurt/other sour milk products with fruit/berries | EE89 |
| 19. Cakes/dessert | EE90 |
| 20. Chocolate/sweets | EE91 |
| **6** | **Do you give your child organic food/drinks?** | | |
|  |  | 1. No 2. Yes 3. Don’t know | EE96 |

## Description of original questions: MoBa specific single questions

The questions were derived from the Food Frequency Questionnaire (FFQ; see [http://www.](http://www/) framinghamheartstudy.org/share/protocols/ ffreq1\_7s\_protocol. pdf). The checklist of foods is selected based on knowledge of Norwegian 18-month old children’s food habits.

*Psychometric Information:*

The checklist has not yet been validated.

*Base References/Primary Citations:*

Not relevant.

## Rationale for choosing the questions:

The checklist will allow for estimating dietary patterns, healthy index, sugar and fat intake, but it will not be possible to calculate energy or nutrient intake.

## Revision during the data collection period:

Some revisions have been made in question 4 from version A to the other versions. Question 4 in version A has instead 20 sub-questions with 4 response options. Version A also contains an extra question about whether or not the child was given organic food/drinks before the question ‘How often do you give your child organic food/drink?’, but was removed in the other versions (see tables above).

**7-10. Food Allergy and Avoidance**

1. **Name of original questions:** Questions related to baby’s food allergy and avoidance

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** |  | **Response options** | **Variable name** |
| **7** | **Does your child have a reaction to certain foods?** | | |
|  |  | 1. No 2. Yes 3. Don’t know | EE102 |
| **8** | **If yes, what type of food does your child have a reaction to?** | | |
|  | 1. Whole milk |  | EE103 |
| 2. Skimmed/low-fat milk | EE104 |
| 3. Cream | EE105 |
| 4. Yogurt/buttermilk | EE106 |
| 5. Ice cream | EE107 |
| 6. Cheese | EE108 |
| 7. Raw egg (e.g. egg flip) | EE109 |
| 8. Boiled or fried egg | EE110 |
| 9. Fish/fish products | EE111 |
| 10. Additives | EE112 |
| 11. Wheat | EE113 |
| 12. Nuts | EE114 |
| 13. Soya | EE115 |
| 14. Fruit, berries | EE116 |
| 15. Vegetables/potatoes | EE117 |
| 16. Chocolate | EE118 |
| 17. Other sweets | EE119 |
| 18. Sugar | EE120 |
| 19. Other | EE121 |
| Other, specify | EE122 EE702 (txt.) |
| **9** | **Are there any foods which you specifically avoid giving your child?** | | |
|  |  | 1. No 2. Yes | EE123 |
| **10** | **If yes, which foods do you try to avoid and how strict are you with your child’s diet?** | | |
|  | 1. Milk |  | EE124 |
| 2. Eggs | EE125 |
| 3. Fish/fish products | EE126 |
| 4. Meat/meat products | EE127 |
| 5. Wheat | EE128 |
| 6. Sugar | EE129 |
| 7. Other | EE130 |
| Other, specify | EE131 EE703 (txt.) |

## Description of original questions: MoBa specific single questions

*Psychometric Information:*

Not relevant.

*Base References/Primary Citations:*

Not relevant.

## Rationale for choosing the questions:

Questions were developed to survey the baby’s food allergy and avoidance.

## Revision during the data collection period:

No revisions have been made in the questions.

**11-12. Nutrition: Dietary Supplement**

1. **Name of original questions:** Questions related to baby’s vitamins or other dietary supplement

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** |  | **Response options** | **Variable name** |
| **11** | **Do you give your child cod liver oil, vitamins, iron or any other dietary supplement?** | | |
|  |  |  | EE132 |
| **12** | **If yes, specify which product(s) and how often you give them to your child. How old was your child**  **when you first started giving him/her the product?** | | |
|  |  | *How often do you give your child this?* | *How old was your child when you started giving the product?* |
| 1. Daily 2. Sometimes | months Number 0-99 |
| 1.Cod liver oil | EE133 | EE134 |
| 2.Biovit | EE135 | EE136 |
| 3.Sanasol | EE137 | EE138 |
| 4.Nycoplus Multi-Vitamin mixture for children | EE139 | EE140 |
| 5.Fluoride tablets | EE141 | EE142 |
| 6. Iron supplement | EE143 | EE144 |
| Iron supplement, specify | EE145 EE704 (txt.) | |
| 7. Other dietary supplement | EE146 | EE147 |
| Other dietary supplement, specify | EE148 EE705 (txt.) | |

## Description of original questions: MoBa specific single questions

*Psychometric Information:*

Not relevant.

*Base References/Primary Citations:*

Not relevant.

## Rationale for choosing the questions:

Questions were developed to measure the baby’s nutrition through intake of cod liver oil, vitamins and other dietary supplement.

## Revision during the data collection period:

No revisions have been made in the questions.

# Growth, health and illness

**13-15. Vaccination**

1. **Name of original questions:** Questions related to baby’s vaccination

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Q** |  | **Response options** | | | **Variable name** |
| **13** | **How many times have you been to the mother and child health centre since his/her birth?** | | | | |
|  |  | 1) 0-4   1. 5-10 times 2. 11-15 times 3. 16 or more | | | EE149 |
| **14** | **Do you want your child to be given the vaccinations that are recommended for children in Norway?** | | | | |
|  |  | 1. Yes, all the recommended vaccinations 2. Yes, some vaccinations 3. No, no vaccinations | | | EE150 |
| **15** | **Indicate whether your child has had any vaccinations. If yes, how many times, and indicate if there have been**  **any side effects requiring a doctor or hospital to be contacted.** | | | | |
|  |  | *Received the vaccination?* | *If yes, how many times?* | *Side-effect resulting in extra contact with a*  *doctor?* | *Side-effect resulting in examination/*  *hospital admission?* |
| 1. No 2. Yes | 1-1  2-2  3-3 | 1. No 2. Yes | 1. No 2. Yes |
| 1.DTP(Diphtheria, tetanus, whooping cough) | EE776 | EE151 | EE152 | EE153 |
| 2.Hib (Haemophilus infuenzea type b) | EE777 | EE784 | EE785 | EE786 |
| 3.Polio | EE778 | EE956 | EE957 | EE958 |
| 4.MMR(measles, mumps, rubella) | EE779 | EE160 | EE161 | EE162 |
| 5.DT (diphtheria, tetanus-sometimes given instead of DTP) | EE780 | EE154 | EE155 | EE156 |
| 6.Hepatitis B | EE781 | EE163 | EE164 | EE165 |
| 7. BCG (tuberculosis) | EE782 | EE166 | EE167 | EE168 |
| 8. Pneumococcus (Prevenar) | EE1008 | EE1009 | EE1010 | EE1011 |
| 9. Other vaccination | EE783 | EE169 | EE170 | EE171 |
| Other vaccination, specify | EE172 EE706 (txt.) | | | |

## Description of original questions: MoBa specific single questions

*Psychometric Information:*

Not relevant.

*Base References/Primary Citations:*

Not relevant.

## Rationale for choosing the questions:

Questions were developed to survey the baby’s vaccinations and their side effects.

## Revision during the data collection period:

Some revisions have been made in question 15. The first two response columns were not included in version A.

**16-18. Long-term Illnesses or Health Problems**

1. **Name of original questions:** Questions related to baby’s long-term illness or health problems

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Q** |  | **Response options/Variable name** | | | |
| **16** | **Does your child have or has he/she had any of the following health problems? If yes, has your child been referred for a specialist examination?** | | | | |
|  |  | No | *Yes, has now* | *Yes, has previously* | *Has your child been referred*  *for a specialist investigation?* |
| 1. No 2. Yes |
| 1.Dislocated hip (hip problem) | EE787 | EE788 | EE789 | EE790 |
| 2.Reduced hearing | EE791 | EE792 | EE793 | EE794 |
| 3.Impaired vision | EE795 | EE796 | EE797 | EE798 |
| 4.Delayed motor development (e.g. sits/walks late) | EE799 | EE800 | EE801 | EE802 |
| 5.Too little weight gain | EE803 | EE804 | EE805 | EE806 |
| 6.Too much weight gain | EE807 | EE808 | EE809 | EE810 |
| 7.Abnormal head circumference | EE811 | EE812 | EE813 | EE814 |
| 8.Heart defect | EE815 | EE816 | EE817 | EE818 |
| 9.Testicles not descended into scrotum | EE819 | EE820 | EE821 | EE822 |
| 10.Asthma | EE823 | EE824 | EE825 | EE826 |
| 11.Atopic eczema (childhood eczema) | EE827 | EE828 | EE829 | EE830 |
| 12.Urticaria (hives) | EE831 | EE832 | EE833 | EE834 |
| 13.Food allergy/intolerance | EE835 | EE836 | EE837 | EE838 |
| 14.Delayed or abnormal speech development | EE839 | EE840 | EE841 | EE842 |
| 15.Sleep problems | EE843 | EE844 | EE845 | EE846 |
| 16.Behavioural problems | EE847 | EE848 | EE849 | EE850 |
| 17. Social problems | EE967 | EE968 | EE969 | EE970 |
| 18. (Other) malformations | EE851 | EE852 | EE853 | EE854 |
| Other malformations, specify | EE207 EE707 (txt.) | | | |
| 19. Other | EE856 | EE857 | EE858 | EE859 |
| Other, specify | EE210 EE708 (txt.) | | | |
| **17** | **If a specialist referral was made, what did this examination show?** | | | | |
|  |  | 1. Everything was fine 2. Still some doubts/further investigation needed 3. Has not been for any examination yet | | | EE211 |
| Diagnosis 1 | | | EE861 |
| Diagnosis 1, describe: | | | EE212 EE709(txt.) |
| Diagnosis 2 | | | EE862 |
| Diagnosis 2, describe: | | | EE863 EE951(txt.) |
| Diagnosis 3 | | | EE864 |
| Diagnosis 3, describe: | | | EE865 EE952(txt.) |
| **18** | **Has your child been treated with a “cushion” for a hip problem?** | | | | |
|  |  | 1. No 2. Yes | | | EE213 |
| If yes, how long?  months | | | EE214 |

Question 16 corresponds to question 18 in version A, with 15 sub-questions and two response columns (see table below).

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** | **Version A** | **Response options/Variable name** | |
| **18** | **Does your child have or has he/she had any of the following health problems? If yes, has your child**  **been referred for a specialist examination?** | | |
|  |  | *Has the problem?*   1. No 2. Yes | *Has your child been referred for a specialist investigation?* 1-No  2-Yes |
| 1.Hips | EE 179 | EE180 |
| 2. Hearing | EE181 | EE182 |
| 3. Sight | EE183 | EE184 |
| 4. Delayed motor development(e.g. sits/walks late) | EE185 | EE186 |
| 5.Too little weight gain | EE187 | EE188 |
| 6.Too much weight gain | EE189 | EE190 |
| 7.Abnormal head circumference | EE191 | EE192 |
| 8.Heart defect | EE193 | EE194 |
| 9.Testicles not descended into scrotum | EE195 | EE196 |
| 10.Asthma | EE197 | EE198 |
| 11.Atopic eczema (childhood eczema) | EE199 | EE200 |
| 12.Urticaria (hives) | EE201 | EE202 |
| 13.Food allergy/intolerance | EE203 | EE204 |
| 14. (Other) malformations | EE205 | EE206 |
| 15. Other | EE208 | EE209 |

## Description of original questions: MoBa specific single questions

*Psychometric Information:*

Not relevant.

*Base References/Primary Citations:*

Not relevant.

## Rationale for choosing the questions:

Questions were developed for MoBa, specifically for the purpose of assessing the presence of long- term illnesses and health problems of the baby at 18 months. These particular illnesses and health problems have been chosen to cover both common public health issues as well as rare illnesses. Information about referral to a specialist can be used as an indicator of severity of illness.

## Revision during the data collection period:

Question 16 corresponds to question 18 in version A, with 15 sub-questions and two response columns (see tables above).

**19. Acute illnesses or Health Problems**

1. **Name of original questions:** Questions about baby’s acute illnesses or health problems

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Q** |  | **Response options / Variable name** | | | | |
| **19** | **Has your child had any of the following illnesses/health problems between 6 and 11 months and/or 12 and 18 months? Specify how many times and whether your child has been admitted to hospital for this health problem.** | | | | | |
|  |  | *At 6-11 months* | | *At 12-18 months* | | *Has your child been admitted to hospital?* |
| 1. No 2. Yes | Number of times | 1. No 2. Yes | Number of times | 1. No 2. Yes |
| 1.Common cold | EE215 | EE216 | EE217 | EE218 | EE219 |
| 2a. Throat infection | EE220 | EE221 | EE222 | EE223 | EE224 |
| 2b.Throat infection with confirmed streptococcal infection | EE971 | EE972 | EE973 | EE974 | EE975 |
| 3. Other type of sore throat | EE976 | EE977 | EE978 | EE979 | EE980 |
| 4.Ear infection | EE225 | EE226 | EE227 | EE228 | EE229 |
| 5.Pseudocroup | EE230 | EE231 | EE232 | EE233 | EE234 |
| 6.Bronchitis/RS virus/pneumonia | EE235 | EE236 | EE237 | EE238 | EE239 |
| 7.Gastric flu/diarrhoea | EE240 | EE241 | EE242 | EE243 | EE244 |
| 8.Urinary tract infection | EE245 | EE246 | EE247 | EE248 | EE249 |
| 9.Conjunctivities | EE250 | EE251 | EE252 | EE253 | EE254 |
| 10.Febrile convulsions | EE255 | EE256 | EE257 | EE258 | EE259 |
| 11.Other convulsions (with any fever) | EE260 | EE261 | EE262 | EE263 | EE264 |
| 12. Chickenpox | EE866 | EE867 | EE868 | EE869 | EE870 |
| 13.Injury or accident | EE265 | EE266 | EE267 | EE268 | EE269 |
| 14.Other | EE270 | EE271 | EE272 | EE273 | EE274 |
| Other, describe | EE275 EE710 (txt.) | | | | |

## Description of original questions: MoBa specific single questions

*Psychometric Information:*

Not relevant.

*Base References/Primary Citations:*

Not relevant.

## Rationale for choosing the questions:

Questions were developed for MoBa to survey the occurrence of illness or health problems of a more acute nature.

## Revision during the data collection period:

Item 2a in versions A and B was replaced by 2b and 3 in versions C, D and E. Item 12 was used in all other versions except for version A.

**20-22. Visits to Doctors or Admission to Hospitals**

1. **Name of original questions:** Questions about baby’s visits to doctors or admission to hospitals

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Q** |  | **Response options / Variable name** | | | |
| **20** | **Has your child been to see the doctor or to the hospital between 6 and 11 months and/or 12 and 18 months?**  **If yes, specify how many times.** | | | | |
|  |  | *At 6-11 months* | | *At 12-18 months* | |
| 1. No 2. Yes | Number of times | 1. No 2. Yes | Number of times |
| GP (excluding mother and baby health centre) | EE276 | EE277 | EE278 | EE279 |
| Casualty doctor | EE280 | EE281 | EE282 | EE283 |
| Private specialist | EE284 | EE285 | EE286 | EE287 |
| Hospital outpatient clinic | EE288 | EE289 | EE290 | EE291 |
| Admitted to hospital | EE292 | EE293 | EE294 | EE295 |
| **21** | **Has your child been referred to any of the following services?** | | | | |
|  | Habilitation service | 1. No 2. Yes | | EE871 | |
| Educational psychology service | EE872 | |
| Child psychiatric outpatient clinic/department | EE873 | |
| **22** | **If your child has been examined at or admitted to hospital, give the name of the hospital:** | | | | |
|  | Hospital name 1: |  | | EE296 EE711 (txt.) | |
| Hospital name 2: | EE297 EE712 (txt.) | |
| Hospital name 3: | EE298 EE713 (txt.) | |

## Description of original questions: MoBa specific single questions

*Psychometric Information:*

Not relevant.

*Base References/Primary Citations:*

Not relevant.

## Rationale for choosing the questions:

Questions were developed for MoBa to survey the baby’s visits to doctors, referral to a specialist and admission to hospitals, which can be used as an indicator of severity of illness.

## Revision during the data collection period:

Question 21 was not included in version A.

**23-25. Symptoms and Food Allergies since the Age of 6 months**

1. **Name of original questions:** Questions about the baby’s symptoms and food allergies since the age of 6 months

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Q** |  | **Response options / Variable name** | | | | |
| **23** | **Has your child had any of the following symptoms since the age of 6 months? If yes, at what age?** | | | | | |
|  |  | *Had symptoms?* | *If yes, at what age?* | | | |
| 1. No 2. Yes | 6-8 mth | 9-11 mth | 12-14mth | 15 mth or more |
| 1.Wheezing/whistling in the chest | EE299 | EE300 | EE301 | EE302 | EE303 |
| 2.Tightness in the chest | EE304 | EE305 | EE306 | EE307 | EE308 |
| 3.Coughing at night | EE309 | EE310 | EE311 | EE312 | EE313 |
| 4.Running nose without a cold | EE314 | EE315 | EE316 | EE317 | EE318 |
| 5.Constipation | EE319 | EE320 | EE321 | EE322 | EE323 |
| 6.Diarrhoea | EE324 | EE325 | EE326 | EE327 | EE328 |
| 7.Itchy rash that comes and goes | EE329 | EE330 | EE331 | EE332 | EE333 |
| **24** | **Has your child ever been tested for allergies?** | | | | | |
|  |  | 1. No 2. Yes | | | | EE334 |
| **25** | **If yes, what allergens were tested for and what was the result?** | | | | | |
|  |  | *Test for…?* | *Was the test positive?* | | | |
| 1. No 2. Yes 3. Don’t know | | | |
| 1.Milk | EE335 | EE336 | | | |
| 2.Egg | EE337 | EE338 | | | |
| 3.Fish | EE339 | EE340 | | | |
| 4.Mould | EE341 | EE342 | | | |
| 5.Mites | EE343 | EE344 | | | |
| 6.Animals | EE345 | EE346 | | | |
| 7.Pollen | EE347 | EE348 | | | |
| 8. Other | EE349 | EE350 | | | |
| Other, specify | EE351 EE714 (txt.) | | | | |

## Description of original questions: MoBa specific single questions

*Psychometric Information:*

Not relevant.

*Base References/Primary Citations:*

Not relevant.

## Rationale for choosing the questions:

Questions were developed for MoBa to survey the presence of symptoms and food allergies since the baby was 6 months old.

## Revision during the data collection period:

No revisions have been made in the questions.

**26-29. Medication**

1. **Name of original questions:** Questions about children’s use of medication

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Q** |  | **Response options / Variable name** | | | | |
| **26** | **Have you ever tried any kind of so-called alternative medicine on your child since he/she was 6 months old?** | | | | | |
|  | If yes, how many times? | 1. No 2. Yes Number 0-99 | | | | EE352 EE353 |
| **27** | **If yes, what kind of alternative medicine?** | | | | | |
|  | Alternative medicine 1. |  | | | | EE354 EE715 (txt.) |
| Alternative medicine 2. | EE355 EE716 (txt.) |
| Alternative medicine 3. | EE356 EE717 (txt.) |
| Alternative medicine 4. | EE357 EE718 (txt.) |
| Alternative medicine 5. | EE358 EE715 (txt.) |
| **28** | **Has your child received any medication since the age of 6 months?** | | | | | |
|  |  | 1. No 2. Yes | | | | EE362 |
| **29** | **If yes, give the name of the medication and what age your child was when he took it.** | | | | | |
|  |  | *Name of medicine* | *How old was your child when you gave the medicine?* | | | |
| 6-8 month | 9-11  months | 12-14  months | 15-18 months |
| Medicine 1. | EE363 EE720\_K | EE364 | EE365 | EE366 | EE367 |
| Medicine 2. | EE368 EE721\_K | EE369 | EE370 | EE371 | EE372 |
| Medicine 3. | EE373 EE722\_K | EE374 | EE375 | EE376 | EE377 |
| Medicine 4. | EE378 EE723\_K | EE379 | EE380 | EE381 | EE382 |
| Medicine 5. | EE981 EE1003\_K | EE382 | EE383 | EE384 | EE385 |

## Description of original questions: MoBa specific single questions

*Psychometric Information:*

Not relevant.

*Base References/Primary Citations:*

Not relevant.

## Rationale for choosing the questions:

Questions were developed for MoBa specifically for the purpose of surveying what medication children have been taking the last 12 months. The use of medication is relevant both to consider effects and prevalence of use. It is also considered an important proxy for possible disease (e.g. insulin/diabetes, stimulants/ADHD).

## Revision during the data collection period:

No revisions have been made in the questions.

**30. Length, Weight, and Head Circumferences**

1. **Name of original questions:** Questions about children’s height, weight and head circumferences

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Q** |  | **Response options / Variable name** | | | | | |
| **30** | **What were your child’s length, weight and head circumference when he/she was around 8 months, 1 year and the last time they were measured (15–18 months)?** | | | | | | |
|  |  | *Date of measurement* | | | *Length* | *Head*  *circumferences* | *Weight* |
| Day | Month | Year | \_ \_ \_cm | \_ \_ \_cm | \_ \_ \_ \_g |
| Around 8 months | Q5\_A6E\_8\_M | | | EE387 | EE388 | EE386 |
| Around 1 year | Q5\_A6E\_1\_Y | | | EE393 | EE394 | EE392 |
| 15-18 months | Q5\_A6E\_15\_18\_M | | | EE399 | N/A | EE398 |

## Description of original questions: MoBa specific single questions

*Psychometric Information:*

Not relevant.

*Base References/Primary Citations:*

Not relevant.

## 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. Additionally, BMI is an inexpensive and easy- to-perform method of screening for weight categories that may lead to health problems.

## Revision during the data collection period:

No revisions have been made in the questions.

# Development and behaviour

**31-32. Child’s Development**

1. **Name of original scale:** Ages and Stages Questionnaires (ASQ) and one MoBa specific questions about unaided walk.

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** |  | **Response options** | **Variable name** |
| **31a** | **How many months old was your child when he/she took his/he first steps unaided?** | | |
| Version A & B | \_ \_ months |  | EE400 |
| Still not walking unaided | EE401 |
| **31b** | **Can your child walk unaided?** | | |
| Version C, D, E |  | 1. No 2. Yes   \_ \_months | EE986 |
| If yes, how old was your child when he/she could first walk unaided? | EE987 |
| **32** | **The following questions concern your child’s development. If you haven’t actually observed your child,**  **spend a little time looking at what he/she can actually do.** | | |
| Only in version A&B | 1a. When your child wants something, does he/she tell you by pointing to the object? | 1-Yes, often 2-Sometimes 3-Not yet | EE402 |
| In ALL  versions | 1b. When you ask him/her, does your child go into another room to find a familiar toy or object? (You might ask, “Where is your ball?”, or say, “Bring me your coat” or “Go get your blanket”). | EE403 |
| 2. Does your child say eight or more words in addition to “mama” and “Dada”? | EE404 |
| 3. Without showing him/her first, does your child point to the correct picture when you say, “Show me the kitty” or ask, “Where is the dog”? | EE405 |
| 4. Does your child move around by walking, rather than by crawling on his/her hands and knees? | EE406 |
| 5. Can your child walk well and seldom fall? | EE407 |
| 6. Does your child walk down stairs if you hold onto one of his/her hands? | EE408 |
| 7. Does your child throw a small ball or toy with a forward arm motion? (If he/she simply drops the ball, enter a cross under “Not yet”) | EE409 |
| 8. Does your child stack a small block or toy on top of another one? (For example, small boxes or toys about 3 cm in size) | EE410 |
| 9. Does your child turn the pages of a book by himself/herself? (He/she may turn more than one page at a time.) | EE411 |
| 10. Does your child play with a doll or stuffed animal by hugging it? | EE412 |
| 11. Does your child try to get your attention show you something by pulling your hand or clothes? | EE413 |
| 12. Does your child come to you when he/she needs help, such as with opening a box? | EE414 |
| 13. Does your child copy the activities you do, such as wipe up a spill, sweep, shave, or comb hair? | EE415 |

## 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.

## 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).

## Revision during the data collection period:

Item 31a was included only in versions A and B; in versions C, D, and E, item 32 was used (It should be noted that one has to recode the variables in order to utilize the whole dataset). Item 32-1a was only included in versions A and B; it was removed in versions C, D, & E.

**33. Non-verbal Communication**

1. **Name of original scale:** Non-Verbal Communication Checklist (NVCC)

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** |  | **Response**  **options** | **Variable**  **name** |
| **33** | **More about your child’s development.** | | |
|  | 1. Does your child use sounds or words together with gestures (for example, uses sounds when pointing or reaching towards toys or objects)? | 1-Yes, usually 2-Rarely  3- Not yet | EE874 |
| 2. When you look at a distant object and surprised and excited, say: “WOW...what’s that?”, does he/she turn his/her head in the same direction as you? | EE875 |
| 3. When you enthusiastically say: “Where is the ball (or other toy)?”, will your child point towards the toy, even if it is more than 1 metre away? | EE876 |
| 4. Does your child show you toys by looking at you and holding the toy up towards you (from a distance just so you can look at it)? | EE988 |

## Description of original instrument: Non-Verbal Communication Checklist (NVCC)

The Non-Verbal Communication Checklist (Schjolberg, 2003; 2005) is a parental-report Autism screening tool developed for use with children younger than 30 months of age, focusing on the development of non-verbal skills used in play and interaction. The original questionnaire includes 12 questions. The first five focus on whether the child initiates activities without the mother doing something first. The next five questions focus on how the child responds to things the mother does. The questions are answered “yes, usually”, “rarely” or “not yet”. The last two questions ask the mother to rate the child’s communicative development and general development. These questions are answered with “earlier than”, “similar to”, or “later than” peers. A selection of four questions from the original scale was chosen for use in the MoBa. Two of the questions focus on child responding (items 1 & 2) and the other two (items 3 & 4) focus on child initiating.

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

The NVCC has been used for screening in a Well baby clinic sample of 1,243 children ranging from

8.2 to 36.8 months old (mean age was 22.6 months; sd=7.1) in addition to a referred sample of 41 children. Test retest reliability was assessed for 110 parents filling out the checklist twice within 3 weeks: Pearsons r was .87 for the NVCC total score. Inter-rater agreement rate was 88%. Kappa for screen positive was .81. Cronbach’s alpha for the entire checklist was .79. The inter-item correlations ranged from .12 to .50 (Schjolberg, 2005). Cronbach’s alphas for the 4 items are .49 and

.70 respectively in MoBa Q5 and Q6.

*Base References/Primary Citations:*

Schjolberg, S. (2003). Early Identification of Autism Spectrum Disorders. Paper presented at conference the Social Brain. Gøteborg, Sweden.

Schjolberg, S. (2005). Test retest reliability of a screening checklist for Autism Spectrum disorders in young children. Paper presented at International Meeting for Autism Research. Boston, Massachusetts.

## Rationale for choosing the questions:

This instrument is chosen to cover an area of communication that is not dependent on language skills and taps into aspects of joint attention not already covered through the use of M-CHAT or ESAT.

## Revision during the data collection period:

The four questions were used in versions C, D, and E. Only the first three questions were used in version B; none of the questions were included in version A.

**34. Temperament**

1. **Name of original scale:** The Emotionality, Activity and Shyness Temperament Questionnaire (EAS)

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** |  | **Response options** | **Variable**  **name** |
| **34** | **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 2- Quite typical  3- Neither/nor 4-Not so typical  5-Not at all typical | EE416 |
| 2. Your child is always on the go | EE417 |
| 3. Your child prefers playing with others rather than alone | EE418 |
| 4. Your child is off and running as soon as he/she wakes up in the morning | EE419 |
| 5. Your child is very sociable | EE420 |
| 6. Your child takes a long time to warm up to strangers | EE421 |
| 7. Your child gets upset or sad easily | EE422 |
| 8. Your child prefers quiet, inactive games to more active ones | EE423 |
| 9. Your child likes to be with people | EE424 |
| 10. Your child reacts intensely when upset | EE425 |
| 11. Your child is very friendly with strangers | EE426 |
| 12. Your child complains that certain garments are too tight | EE877 |
| 13. Your child becomes distressed by having his/her face or hair washed | EE878 |

## 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.

## 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.

## Revision during the data collection period:

Items 12&13 were not included in version A.

**35/36. Autistic Traits: ESAT**

NB! Both ESAT and M-CHAT are screening instruments for autistic traits, and need to be looked together. Due to redundancy of items between the two scales and limited space in the questionnaires, for the most similar items only one scale was selected.

1. **Name of original scale:** Selective questions from Early Screening of Autistic Traits Questionnaire (ESAT)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Q** |  | | | | **Response**  **options** | **Variable name** |
| **35/**  **36** | **A** | **B** | **C D**  **E** | **About your child’s behavior. We are asking you about how your child usually is. If something happens seldom (for instance, if you have only seen it once or twice), enter a cross under “No”.** | | |
|  |  | **X** | **X** | ESAT-1. Is your child interested in different sorts of toys or objects, and not for instance mainly in cars or buttons? | 1. Yes 2. No | EE886 |
| **X** | **X** | **X** | ESAT-2. Can your child play with toys in varied ways (not just fiddling, mouthing or dropping them)? | EE433 |
|  | **X** |  | ESAT-3. When your child expresses his/her feelings, for instance  by crying or smiling, is that mostly in expected and appropriate moments? | EE887 |
|  | **X** | **X** | ESAT-4. Does your child react in a normal way to sensory stimulation, such as coldness, warmth, light, pain or tickling? | EE888 |
|  | **X** | **X** | ESAT-5. Can you easily tell from the face of your child how he/she feels? | EE889 |
|  | **X** |  | ESAT-6. Is it easy to make eye-contact with your child? | EE890 |
|  | **X** | **X** | ESAT-7. When your child has been left alone for some time, does he/she try to attract your attention, for instance by crying or calling? | EE891 |
|  | **X** | **X** | ESAT-8. Is the behaviour of your child free of stereotyped repetitive movements like banging his/her head or rocking his/her body? | EE892 |
|  | **X** |  | ESAT-9. Does your child, on his/her own accord, ever bring objects over to you or show you something? | EE893 |
|  | **X** |  | ESAT-10. Does your child show to be interested in other children or adults? | EE894 |
|  | **X** | **X** | ESAT-11. Does your child like to be cuddled? | EE895 |
|  | **X** |  | ESAT-12. Does your child ever smile at you or at other people? | EE896 |
|  | **X** |  | ESAT-13. Does your child like playing games with others, such as peek-a-boo, ride on someone’s knee, or to be swung? | EE960 |
|  | **X** | **X** | ESAT-14. Does your child react when spoken to, for instance, by looking, listening, smiling, speaking or babbling? | EE897 |

\*Items selected into Q5 differ in different versions. In the table above, a cross (**X**) is used to mark the selected items. The number appears in the order as used in the original ESAT scale.

3 items from section 35 were selected from other scales than the ESAT.

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** |  | **Response**  **options** | **Variable name** |
| **35** | **About your child’s behavior. We are asking you about how your child usually is. If something**  **happens seldom (for instance, if you have only seen it once or twice), enter a cross under “No”.** | | |
| SCQ-Social communication questionnaire | 10. Does your child ever try to comfort you if you are sad or hurt? | 1. Yes 2. No | EE898 |
| 11. Has your child ever had things that he/she seemed to do in a very particular way or order, or rituals that he/she has to have you  to do? | EE884 |
| Communication and Symbolic  Behaviour Scales | 12. Does your child ever do things to get you to laugh? | EE885 |

1. **Description of original instrument**: **Early Screening of Autistic Traits Questionnaire (ESAT)** The ESAT (Swinkels, et al., 2006) is a level-one screener originally designed for use with 14-15 month old children. The ESAT consists of fourteen parent report items measuring early social- communication skills, play, and restricted and repetitive behaviours, answered with yes or no. Children who failed three or more items are considered to be at risk for Autism Spectrum Disorder (ASD). Items 10 & 11 in section 35 are from Autism Screening Questionnaire (Later renamed to

Social communication questionnaire; Berument, et al., 1999; Howlin & Karpf, 2004). Item 12 is from Communication and Symbolic Behaviour Scales (CSBS; Wetherby & Prizant, 2001).

*Psychometric Information:*

Dietz et al. (2006) screened 31,724 Dutch children in a two-part process. Initially children were screened at well baby visits using a 4-item questionnaire administered by physicians. A psychologist using the 14-item ESAT then evaluated children who screened positive in their homes. Children who failed 3 or more items were invited for a comprehensive psychiatric evaluation. Eighteen children with ASD were detected and an additional 55 children were identified as having developmental concerns. This yields a positive predictive power of .25, although none of the children identified by the ESAT were typically developing. Children who received an ASD diagnosis were re-evaluated at age 42 months, and stability of diagnosis was observed in 14 of 16 children.

*Base References/Primary Citations:*

Berument S.K, Rutter M., Lord C, Pickles A, & Bailey A. 1999. Autism screening questionnaire: diagnostic validity. *British Journal of Psychiatry* 175: 444-451.

Dietz C, Swinkels S, van Daalen E, van Engeland H, & Buitelaar, KJ. 2006. Screening for autistic spectrum disorder in children aged 14-15 months. II: Population screening with the Early Screening of Autistic Traits Questionnaire (ESAT), design and general findings. *Journal of Autism and Developmental Disorders* 36: 713-722, 2006.

Howlin P, & Karpf J. 2004. Using the social communication questionnaire to identify ‘autistic spectrum’ disorders associated with genetic conditions. *Autism* 8 (2): 175-182.

Swinkels S, Dietz C, van Daalen E, van Engeland H, & Buitelaar, KJ. 2006. Screening for Autistic Spectrum in Children Aged 14 to 15 months. I: The Development of the Early Screening for Autistic Traits Questionnaire (ESAT). *Journal of autism and Developmental Disorders* 36; 723-732.

Wetherby, A. & Prizant, B. 2001. *Communication and Symbolic Behavior Scales Developmental Profile- Preliminary Normed Edition*. Baltimore, MD: Paul H. Brookes.

*Modifications:*

Some modifications have been made on item ESAT-8 in version B of Q5. English translation of item ESAT-8 in version B: Does your child ever show a peculiar way of behaving that is constantly repeated like banging his/her head or rocking back and forth? Original English for item 8: Is the behaviour of your child without stereotyped repetitive movements like banging his/her head or rocking his/her whole body? The original item from the ESAT is used in later versions of the questionnaire.

## Rationale for choosing the questions:

Due to the Autism Birth Cohort (ABC) study, a sub-study of the MoBa, including items from different screening instruments as well as covering different aspects of “autistic traits” has been of importance for studying symptom trajectories from 6 months and upwards.

## Revision during the data collection period:

Items selected into Q5 differ in different versions (see table above for details).

**35/36. Autistic Traits: M-CHAT**

NB! Both ESAT and M-CHAT are screening instruments for autistic traits, and need to be looked together. Due to redundancy of items between the two scales and limited space in the questionnaires, for the most similar items only one scale was selected.

1. **Name of original scale:** The Modified Checklist for Autism in Toddlers (M-CHAT)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Q** |  | | | | **Response**  **options** | **Variable name** |
| **35/**  **36** | **A** | **B** | **C D**  **E** | **More about your child’s behavior. We are asking you about how your child usually is. If something happens seldom (for instance, if you have only seen it once or twice), enter a cross**  **under “No”.** | | |
|  | **X** |  | **X** | 1. Does your child enjoy being swung, bounced on your knee, etc.? | 1. Yes 2. No | EE427/EE1005 |
| **X** | **X** | **X** | 2. Does your child take an interest in other children? | EE434 |
| **X** | **X** | **X** | 3. Does your child like climbing on things, such as up stairs? | EE429 |
| **X** |  | **X** | 4. Does your child enjoy playing peek-a-boo/hide-and-seek? | EE430 |
| **X** | **X** | **X** | 5. Does your child ever pretend, for example, to talk on the phone or take care of dolls, or pretend other things? | EE431 |
|  |  | **X** | 6. Does your child ever use his/her index finger to point, to ask for something? | EE998 |
| **X** | **X** | **X** | 7. Does your child ever use his/her index finger to point, to indicate interest in something? | EE432/997 |
| **X** | **X** | **X** | 8. Can your child play properly with small toys (e.g. cars or bricks) without just mouthing, fiddling, or dropping them? | EE433 |
| **X** | **X** | **X** | 9. Does your child ever bring objects over to you to show you something? | EE428 |
|  |  | **X** | 10. Does your child look you in the eye for more than a second or two? | EE1006 |
|  | **X** | **X** | 11. Does your child ever seem oversensitive to noise? (e.g., plugging ears) | EE900 |
|  |  | **X** | 12. Does your child smile in response to your face or your smile? | EE1000 |
|  | **X** | **X** | 13. Does your child imitate you? (e.g., you make a face-will your child imitate it?) | EE879 |
|  | **X** | **X** | 14. Does your child respond to his/her name when you call? | EE901 |
|  | **X** | **X** | 15. If you point at a toy across the room, does your child look at it? | EE882 |
|  |  | **X** | 16. Does your child walk?\* | EE986/406 |
|  |  | **X** | 17. Does your child look at things you are looking at? | EE1001 |
|  | **X** | **X** | 18. Does your child make unusual finger movements near his/her face? | EE 880 |
|  | **X** | **X** | 19. Does your child try to attract your attention to his/her own activity? | EE881 |
|  |  | **X** | 20. Have you ever wondered if your child is deaf? | EE1002 |
|  | **X** | **X** | 21. Does your child understand what people say? | EE899 |
|  | **X** | **X** | 22. Does your child sometimes stare at nothing or wander with no purpose? | EE833 |
|  | **X** | **X** | 23. Does your child look at your face to check your reaction when faced with something unfamiliar? | EE902 |

1. **Description of original instrument**: **The Modified Checklist for Autism in Toddlers (M-CHAT)** The M-CHAT (Robins et al., 2001) is a 23 item (yes/no) parent report checklist designed to identify signs of ASD in children aged 16-30 months. It includes items that ask about language, sensory responsiveness or arousal modulation, theory of mind, motor functions or social/emotional functions or the precursors to these functions. A subset of six items pertaining to social relatedness and communication (namely, items 2, 7, 9, 13, 14 &15) was found to have the best discriminability between children diagnosed with and without autism. The M-CHAT is an extension of the Checklist for Autism in Toddlers (CHAT; Baron-Cohen, Allen & Gillberg, 1992). The format and the first 9 items are directly taken from the CHAT.

*Psychometric Information:*

Cronbach’s alphas for the entire checklist and for the subset of 6 items was .85 and .83, respectively. Discriminant function analysis found high classification accuracy, but positive predictive power (PPP) was estimated at .36. A follow-up interview resulted in a decreased false positive rate and yielded an estimate of .68 for PPP (Robins et al., 2001). The sensitivity of the M-CHAT was .92 for the total score, but specificity was low at .27 (Eaves, et al., 2006).

*Base References/Primary Citations:*

Robins D L, Fein D, Barton M L, & Green J A. (2001). The Modified Checklist for Autism in Toddlers: An Initial Study Investigating the Early Detection of Autism and Pervasive Developmental Disorders. *Journal of Autism and Developmental Disorders,* 31(2):131-144.

Baron-Cohen S, Allen J, & Gillberg C. 1992. Can autism be detected at 18 months? The needle, the haystack, and the CHAT. *The British Journal of Psychiatry* 161(6):839-843.

Eaves L, Wingert H, & Ho H H. 2006. Screening for autism, Agreement with diagnosis. *Autism*

10(3): 229-242.

## Rationale for choosing the questions:

The M-CHAT was chosen in the MoBa due to the possibility to look at screening properties for autism as well as to form a basis to study developmental trajectories of non-verbal communication and autistic traits.

## Revision during the data collection period:

In Q5, the entire checklist was used in versions C, D and E; only selective items were used in version A and B of Q5.

**37. Child Behaviour CheckList (CBCL)**

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** |  | **Response options** | **Variable name** |
| **37** | **To what extent are the following statements true of your child’s behaviour during the last two months?** | | |
|  | 1. Can’t concentrate, can’t pay attention for long | 1. Not true 2. Somewhat or sometimes true 3-Very true or often true | EE435 |
| 2. Quickly shifts from one activity to another | EE961 |
| 3. Can’t sit still, restless or overactive | EE903 |
| 4. Gets into everything | EE904 |
| 5. Is mostly happy and contented | EE905 |
| 6. Clings to adults or too dependent | EE438 |
| 7. Gets too upset when separated from parents | EE439 |
| 8. Gets in many fights | EE962 |
| 9. Hits others | EE442 |
| 10. Defiant | EE446 |
| 11. Doesn’t seem to feel guilty after misbehaving | EE447 |
| 12. Punishment doesn’t change his/her behavior | EE448 |
| 13. Doesn’t eat well | EE963 |
| 14. Likes almost every kind of food | EE964 |
| 15. Resists going to bed at night | EE906 |
| 16. Doesn’t want to sleep alone | EE440 |
| 17. Afraid to try new things | EE907 |
| 18. Disturbed by any change in routine | EE908 |
| 19. Too fearful or anxious | EE909 |

## 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.

*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). Cronbach’s alpha is .53 for Q5.

*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 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 12 (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.

## Rationale for choosing the questions:

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

## Revision during the data collection period:

While there are only 8 items (namely, item 1, 6, 7, 9, 10, 11, 12, &16; cf. the table above) from the CBCL in version A, there are 11 additional items in the other versions.

**38-39. Sleep**

1. **Name of original questions:** 2 questions about the child’s sleep

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** |  | **Response options** | **Variable name** |
| **38** | **How often does your child usually wake during the night?** | | |
|  |  | 1. 3 or more times every night 2. Once or twice every night 3. A few times a week 4. Seldom or never | EE453 |
| **39** | **How many hours in total does your child sleep in 24hrs?** | | |
|  |  | 1. 10 hours or less 2. 11-12 hours 3. 13-14 hours 4. 15 hours or more | EE454 |

## Description of original questions: MoBa specific single questions

*Psychometric Information:*

Not relevant.

*Base References/Primary Citations:*

Not relevant.

## Rationale for choosing the questions:

Questions were developed for MoBa to survey the child’s sleep patterns in the last 6 months.

## Revision during the data collection period:

No revisions have been made in the questions.

**40. Maternal Concerns**

1. **Name of original questions:** 5 questions about maternal concerns of their children’s development

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** |  | **Response**  **options** | **Variable name** |
| **40** | **About your worries** | | |
|  | 1. Are you worried about your child’s physical development? |  | EE910 |
| 2. Are you worried about your child’s behaviour? | EE911 |
| 3. Are you worried because your child is demanding and difficult to cope with? | EE912 |
| 4a. Have you ever wondered that your child is deaf? | EE913 |
| 4b. Are you worried because your child is so uninterested in other children? | EE1007 |
| 5. Have you any other worries with regard to your child’s health? | EE914 |
| If you have, specify | EE915 EE953 (txt.) |

## Description of original questions: MoBa specific single questions

*Psychometric Information:*

Not relevant.

*Base References/Primary Citations:*

Not relevant.

## 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).

## Revision during the data collection period:

Question 40 was not used in version A. Item 4a in version B was replaced with item 4b in versions C, D, and E; no further 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.

# Your child’s daily routine

**41-43. Day Care Solution**

1. **Name of original questions:** About the child’s day care solutions

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Q** |  | **Response options** | | | **Variable name** |
| **41** | **Where has your child been cared for during the day? Enter a cross for the various age groups.** | | | | |
|  |  | *At home with his/her mother / father* | *At home with unqualified childminder* | *At home with a childminder/in an family crèche nursery* | *In a nursery* |
| 1. 0-6 months | EE466 | EE467 | EE468 | EE469 |
| 2. 7-9 months | EE470 | EE471 | EE472 | EE473 |
| 3. 10-12 months | EE474 | EE475 | EE476 | EE477 |
| 4. 13-15 months | EE478 | EE479 | EE480 | EE481 |
| 5. 16-18 months | EE482 | EE483 | EE484 | EE485 |
| **42** | **How many hours a week is your child looked after in the current childcare scheme (other than by his/her**  **mother and father)?** | | | | |
|  | hours | Number 0-99 | | | EE486 |
| **43** | **How many children in total are looked after in this childcare scheme (if day-care centre, how many in the**  **department)?** | | | | |
|  |  | Number 0-99 | | | EE487 |

## Description of original questions: MoBa specific single questions

*Psychometric Information:*

Not relevant.

*Base References/Primary Citations:*

Not relevant.

## Rationale for choosing the questions:

Questions were developed for MoBa to survey what day care solution parents choose for their children. 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).

## Revision during the data collection period:

No revisions have been made in the questions.

Added reference:

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

**44-45. Living with the Child’s Father**

1. **Name of original questions:** Question about whether the child’s parents live together; if they do not, they are further asked how much time the child spends with his/her father.

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** |  | **Response options** | **Variable name** |
| **44** | **Do you and your child live with your child’s father?** | | |
|  |  | 1. No 2. Yes | EE488 |
| **45** | **If your child does not live with his/her father, how much time does your child spend with him?** | | |
|  |  | 1-At least half the time 2-At least once a week 3-At least once a month  4-Less often than once a month 5-Never | EE489 |

## Description of original questions: MoBa specific single questions

*Psychometric Information:*

Not relevant.

*Base References/Primary Citations:*

Not relevant.

## Rationale for choosing the questions:

Questions were developed for MoBa to survey how much time children of parents who do not live together spend with each parent. There is evidence to support the positive influence of father engagement on offspring on social, behavioral and psychological outcomes (e.g. Marcia, 2006). Also, research has shown that living away from one's biological father is associated with a greater risk of adverse child and adolescent outcomes (Sarkadi, et al., 2008).

## Revision during the data collection period:

No revisions were in the questions.

**Added references:**

Marcia, C.J. (2006). Family Structure, Father Involvement, and Adolescent Behavioral Outcomes. *Journal of Marriage and Family* 68 (1): 137-154.

Sarkadi, A., Kristiansson, R., Oberklaid, F., Bremberg, S. (2008). Father’s involvement and children’s developmental outcomes: a systematic review of longitudinal studies. *Acta Pædiatrica* 97 (2):153-158.

**46-50. Living Situations**

1. **Name of original questions:** Questions about living situations

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** |  | **Response options** | **Variable name** |
| **46** | **How many times have you moved house since your child was born?** | | |
|  |  | Number 0-99 | EE490 |
| **47** | **Roughly how many square metres is the living area where you currently live?** | | |
|  |  | Number 0-999 | EE491 |
| **48** | **Do you have heating based on electrical heating cables under the floor in rooms where you child is?** | | |
|  |  | 1. No 2. Yes | EE916 |
| **49** | **If yes, in which rooms?** | | |
|  | Living room |  | EE917 |
| kitchen | EE918 |
| Child’s room | EE919 |
| Bedroom | EE920 |
| Hall | EE921 |
| Bathroom | EE922 |
| Other rooms | EE923 |
| **50** | **Has there been any damage caused by damp, any visible fungal/mould growth or mouldy smell in your**  **home during the last year?** | | |
|  | No |  | EE492 |
| Yes, damage caused by damp | EE493 |
| Yes, visible fungal mould growth | EE494 |
| Yes, mouldy smell | EE495 |

## Description of original questions: MoBa specific single questions

*Psychometric Information:*

Not relevant.

*Base References/Primary Citations:*

Not relevant.

## Rationale for choosing the questions:

Questions were developed for MoBa to survey the child’s living situations.

## Revision during the data collection period:

No revisions have been made in the questions.

**51-55. Living Environments**

1. **Name of original questions:** Questions about the baby’s living environments

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** |  | **Response options** | **Variable name** |
| **51** | **What type of drinking water do you have where you live?** | | |
|  | Water from a public or private water company |  | EE496 |
| Water from your own water supply (e.g. own well) | EE497 |
| Don’t know | EE498 |
| **52** | **Do you live close to high-voltage lines?** | | |
|  |  | 1. No 2. Yes, closer than 50 meters 3-Yes, 50-100 meters away   4-Yes, but more than 100 meters away | EE499 |
| **53** | **Are there pets where your child live?** | | |
| **Version A** |  | 1. No 2. Yes | EE500 |
| **53** | **Are there pets where your child lives or at the childminder’s?** | | |
| **Version B,C,D,E** | No |  | EE947 |
| Yes, at home | EE948 |
| Yes, at the childminder’s | EE949 |
| **54** | **If yes, which kind of pets?** | | |
|  | 1. Dog |  | EE501 |
| 2. Cat | EE502 |
| 3. Guinea pig/rabbit/hamster/ rat, etc. | EE503 |
| 4. Budgie or other type of birds | EE504 |
| 5. Other type of animals | EE505 |
| Other type of animals, specify | EE506 EE724 (txt.) |
| **55** | **Is your child ever present in a room where someone smokes?** | | |
|  |  | 1. Yes, every day 2. Yes, several times a week 3-Yes, sometimes   4-Don’t know 5-No | EE507 |
| If yes, how many hours a day? | Number 0-99 | EE508 |

## Description of original questions: MoBa specific single questions

*Psychometric Information:*

Not relevant.

*Base References/Primary Citations:*

Not relevant.

## Rationale for choosing the questions:

Questions were developed to survey the baby’s living environments, including drinking water, distance to high-voltage lines, pets, and exposure to smoking.

## Revision during the data collection period:

Some revisions in question 53 from version A to the other versions (see the table above).

**56-58. First Tooth and Brushing Teeth**

1. **Name of original questions:** 3 questions about teeth and brushing teeth

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** |  | **Response options** | **Variable name** |
| **56** | **How many months old was your child when he/she got his/her first tooth?** | | |
|  |  | Number 0-99 | EE1012 |
| Don’t know | EE1013 |
| **57** | **How often does your child have his/her teeth brushed?** | | |
|  |  | 1-Twice a day or more 2-Once a day  3-Sometimes 4-Never | EE509 |
| **58** | **Do you use fluoride toothpaste when brushing your child’s teeth?** | | |
|  |  | 1. No 2. Sometimes 3-Yes, usually | EE510 |

## Description of original questions: MoBa specific single questions

*Psychometric Information:*

Not relevant.

*Base References/Primary Citations:*

Not relevant.

## Rationale for choosing the questions:

Questions were developed to survey the age when the children get their first tooth, and evaluate children’s tooth health habits.

## Revision during the data collection period:

Question 56 was included only in versions D and E, but not in A, B or C.

**59-62. Time outside Home and in front of TV/Video**

1. **Name of original questions:** Questions about the time the baby spent outside home and in front of TV, and whether the baby has been to swimming classes for babies. The last question is whether or not the baby uses a pacifier at 18 months.

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** |  | **Response options** | **Variable**  **name** |
| **59** | **How often is your child outside at the moment?** | | |
|  |  | 1. Seldom 2. Often, but less than one hour a day on average 3. 1-3 hours a day on average 4)More than 3 hours a day | EE959 |
| **60** | **How many hours on average does your child sit in front of a TV/video every day?** | | |
|  |  | 1. 4 hours 2. 3 hours 3. 1-2 hours 4. Less than 1 hour 5. Seldom/never | EE512 |
| **61** | **Does your child go to or has been to swimming classes for babies?** | | |
|  |  | 1. No 2. Yes | EE513 |
| If yes, how long has your child been going? | months | EE514 |
| **62** | **Does your child use a dummy/pacifier now at 18 months?** | | |
|  |  | 1. Seldom or never 2. Only when he/she goes to sleep 3. Quite often 4)Most of the time | EE515 |

## Description of original questions: MoBa specific single questions

*Psychometric Information:*

Not relevant.

*Base References/Primary Citations:*

Not relevant.

## Rationale for choosing the questions:

These questions were developed to estimate how much time children spend outside and in from of TV/video. Time spent outside is found to correlate with physical activity, and also negatively correlated with obesity, whereas hours of TV 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).

## Revision during the data collection period:

Question 59 was not included in version A. No further 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 (10): 1100-1107.

Weerasak, C. & Pruksananonda, C. (2008). Television viewing associates with delayed language development. *Acta Pædiatrica* 97 (7): 9777-9982.

# About yourself

**63-68. Health, Illness and Use of Dietary Supplements**

1. **Name of original questions:** About the mother’s civil status, pregnancy status, illness, admission to hospitals and use of dietary supplements

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** |  | **Response options** | **Variable name** |
| **63** | **What is your civil status at the moment?** | | |
|  |  | 1. Married 2. Cohabiting 3-Single   4-Divorced/separated 5-Widowed  6-Other | EE520 |
| **64** | **Are you pregnant at the moment?** | | |
|  |  | 1. No 2. Yes | EE521 |
| If yes, how many weeks? | EE522 |
| **65** | **Are you suffering from a long-term illness that has started during the last 12 months?** | | |
|  |  | 1. No 2. Yes | EE523 |
| If yes, specify | EE524 EE725 (txt.) |
| **66** | **Have you yourself been admitted to hospital during the last 12 months?** | | |
|  |  | 1. No 2. Yes | EE525 |
| If yes, which hospital? | EE526 EE726 (txt.) |
| **67** | **Are you taking at the moment any cod liver oil, vitamins or other dietary supplements?** | | |
|  |  | 1. No 2. Yes | EE527 |
| If yes, specify | 1. | EE528 EE727 (txt.) |
| 2. | EE529 EE728 (txt.) |
| 3. | EE530 EE729 (txt.) |
| 4. | EE531 EE730 (txt.) |

## Description of original questions: MoBa specific single questions

*Psychometric Information:*

Not relevant.

*Base References/Primary Citations:*

Not relevant.

## Rationale for choosing the questions:

Questions were developed for MoBa to survey mother’s civil status, health and illness when the baby was at 18 months old.

## Revision during the data collection period:

No revisions have been made in the questions.

**69-71. Eating Disorders**

1. **Name of original questions:** Questions on eating disorders and behaviours

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Q** |  | **Response options** | **Variable name** | |
| **69** | **Have you during the last 6 months or at any time previously:** | | | |
|  |  | 1. Yes 2. Perhaps 3-No | Last 6 mth | Previously |
| Thought yourself that you were too fat? | EE925 | EE926 |
| Been really afraid of putting on weight or becoming too fat? | EE927 | EE928 |
| Heard others say that you were too thin, while you yourself thought that you were too fat? | EE929 | EE930 |
| Thought that it was extremely important for your self-image to maintain a particular weight? | EE931 | EE932 |
| **70** | **Have you at some time during the last 18 months or previously in your life - for a period lasting at least 3**  **months – experienced any of the following situations, and if so, how frequently was this?** | | | |
|  | You lost control while eating, and could not stop before you had eaten far too much? | 1. At least twice a week 2. 1-4 times a month 3. Seldom/never | EE933 | EE934 |
| Used vomiting to control your weight? | EE935 | EE936 |
| Used laxatives to control your weight? | EE937 | EE938 |
| Used fasting to control your weight? | EE939 | EE940 |
| Used hard physical exercise to control you weight? | EE941 | EE942 |
| **71** | **Have you at some time during the last 18 months gone at least three months without a period in connection with a time when you have been having eating problems?** | | | |
|  |  | 1. No 2. Yes | EE943 | |

## Description of original questions: Questions on eating disorders and behaviors

The questions were designed in accordance with the DSM-IV (APA, 1994) diagnoses of Anorexia Nervosa (AN), Bulimia Nervosa (BN) and Eating Disorders Not Otherwise Specified (EDNOS).

*Psychometric Information:*

Similar diagnostic questions have been used in previous epidemiological studies in Norway (e.g. Reichborn-kjennerud, et al., 2003). Still, the questions are based on self-report and are intended to target more broadly defined disorders than diagnostic interviews (Bulik et al., 2007).

*Base References/Primary Citations:*

American Psychiatric Association (1994). *Diagnostic and Statistical Manual of Mental Disorders (*4th

edition). Washington, DC: American Psychiatric Association.

Bulik C.M., Von Holle A., Hamer R., Berg C.K., Torgersen L., Stoltenberg C., Siega-Riz A.M., Sullivan P., and Reichborn-Kjennerud T. (2007). Patterns of remission, continuation, and of broadly defined eating disorders in the Norwegian Mother and Child Cohort Study (MoBa). *Psychological Medicine* 10: 1-10.

Reichborn-Kjennerud T, Bulik CM, Kendler KS, Røysamb E, Maes H, Tambs K, Harris JR. 2003. Gender differences in binge-eating: a population-based twin study. *Acta Psychiatrica Scandnavica* 108(3):196-202.

## 4. Revision during the data collection period:

The questions were used in all versions of the questionnaire except for version A.

**72-77. Bodily Pain**

1. **Name of original questions:** Questions about bodily pain

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** |  | **Response options** | **Variable name** |
| **72** | **Have you experienced pain during the last 12 months in any of the following places?** | | |
|  | 1. Stomach | 1-Seldom/never 2-Slight pain  3-Some pain 4-Major pain | EE532 |
| 2. Arms/legs | EE533 |
| 3. Neck/shoulders | EE534 |
| 4. Head | EE535 |
| 5. Back | EE536 |
| 6. Pelvis (pelvic girdle pains) | EE537 |
| **73** | **Have you experienced any pain in your back or pelvis during the last 12 months. Enter a cross to indicate**  **how much pain you have felt in different places:** | | |
|  | 1. In the small of the back | 1. Some pain 2. Major pain | EE538 |
| 2. One of the pelvic/sacroiliac joints at the back | EE539 |
| 3. Both pelvic/sacroiliac joints at the back | EE540 |
| 4. Over the coccygeal bone | EE541 |
| 5. In the buttocks | EE542 |
| 6. Over the public bone | EE543 |
| 7. Groin | EE544 |
| 8. Other back pains | EE545 |
| 9. Other pains | EE546 |
| **74** | **Currently, do you wake during the night because of pelvic pain?** | | |
|  |  | 1. No, never 2. Yes, but seldom 3-Yes, often | EE547 |
| **75** | **Do you have such problems walking at the moment because of pelvic pains that you have to use a stick or**  **crutches?** | | |
|  |  | 1. No, never 2. Yes, but not every day- the pain varies from day to day 3. Yes, must use a stick or crutches every day | EE548 |
| **76** | **Did you receive any treatment for pelvic pain after your last birth?** | | |
|  |  | 1. No 2. Yes | EE549 |
| **77** | **If yes, what type of treatment did you receive?** | | |
|  | Physiotherapy |  | EE550 |
| Chiropractic | EE551 |
| Medication | EE552 |
| Other | EE553 |
| Other, specify | EE554 EE731 (txt.) |

## Description of original questions: MoBa specific single questions

*Psychometric Information:*

Not relevant.

*Base References/Primary Citations:*

Not relevant.

## Rationale for choosing the questions:

Questions were developed for MoBa to survey the presence of bodily pain in the mother, along with its frequency, severity, and treatment.

## Revision during the data collection period:

No revisions have been made in the questions.

**78. Incontinence**

1. **Name of original questions:** Questions about incontinence 18 months after the birth

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** | **Versions A,B,C & D** | **Response options / Variable name** | |
| **78** | **Do you have any of the following problems at the moment?** | | |
|  | *Problems* | *How often do you have problems?*   1. Never 2. 1-4 times a month 3. 1-6 times a week 4. Once a day 5. More than once a day | *How much at a time?*   1. Drops 2. Large amounts |
| Incontinence when coughing, sneezing or laughing | EE555 | EE556 |
| Incontinence during physical activity (running/jumping) | EE557 | EE558 |
| Incontinence with a strong need to urinate | EE559 | EE560 |
| Problems with retaining faeces | EE561 | N/A |
| Problems with flatulence | EE562 |

In version E, the questions are formulated as below. (Due to the extra questions in version 5E the question numbers are 3 more from question 79 in this version, i.e. Q79 in 5D= Q82 in 5E, etc.)

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** | **Version E** | **Response options** | **Variable name** |
| **78** | **Do you experience an escape of urine in connection with coughing, sneezing, laughter or heavy lifts at**  **present?** | | |
|  |  | 1-Yes 2-No | EE1021 |
| **79** | **Do you experience an escape of urine in connection with sudden and strong urinary urgency at present?** | | |
|  |  | 1-Yes 2-No | EE1022 |
| **80** | **How often have you had problem?** | | |
|  |  | 1. Never 2. Less than once a month 3-Once or more a month 4-Once or more a week   5-Every day and/or every night | EE1023 |
| **81** | **How much urine escapes usually each time at present?** | | |
|  |  | 1-Never happens 2-Drops or less  3-Small amounts 4-Large amounts | EE1024 |

## Description of original questions: MoBa specific single questions

*Psychometric Information:*

Not relevant.

*Base References/Primary Citations:*

Not relevant.

## Rationale for choosing the questions:

Questions were developed for MoBa to survey the presence of incontinence, problems with retaining faeces and problems with flatulence in the mother when the baby was 18 months old.

## Revision during the data collection period:

The questions in version E are formulated differently from those in the other versions (see tables above).

**79-80. Medication**

1. **Name of original questions:** About the mother’s use of medicines

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** |  | **Response options / Variable name** | |
| **79** | **Do you regularly take medication?** | | |
|  |  | 1. No 2. Yes | EE563 |
| **80** | **If yes, give the name of the medicines and how often you take them.** | | |
|  |  | Name of medicine | *How often do you take them?*   1. Every day 2. Every day for certain periods 3-Sometimes |
| 1. | EE564 EE732\_K | EE565 |
| 2. | EE566 EE733\_K | EE567 |
| 3. | EE568 EE734\_K | EE569 |
| 4. | EE570 EE735\_K | EE571 |

## Description of original questions: MoBa specific single questions

*Psychometric Information:*

Not relevant.

*Base References/Primary Citations:*

Not relevant.

## Rationale for choosing the questions:

The use of medication is considered an important proxy for possible disease, and is relevant to consider effects and prevalence of use.

## Revision during the data collection period:

No revisions have been made in the questions.

# Finances - lifestyle

**81-84. Parental Leave and Sick Leave**

1. **Name of original questions:** Questions about parental leave and sick leave

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Q** |  | **Response options** | **Variable name** | |
| **81** | **How much leave did you and the child’s father take after the birth?** | | | |
|  |  |  | Months *or* | Weeks |
| You | EE572 | EE573 |
| Child’s father | EE574 | EE575 |
| **82** | **Are you in paid employment?** | | | |
|  |  | 1. No 2. Yes | EE576 | |
| **83** | **If so, how many hours do your work a week?** | | | |
|  |  | Number 0-999 | EE577 | |
| **84** | **If you are in paid employment, have you taken any time off sick since you went back to work? If**  **yes, specify how many days you were off sick.** | | | |
|  |  |  | *Sick leave?* | *No. of days* |
| No | EE578 | n/a |
| Yes, due to own illness | EE579 | EE580 |
| Yes, due to child being ill | EE581 | EE582 |

## Description of original questions: MoBa specific single questions

*Psychometric Information:*

Not relevant.

*Base References/Primary Citations:*

Not relevant.

## Rationale for choosing the questions:

The questions were developed to survey how much parental leave the mother and the father respectively took, how long the mother took sick leave and the reasons for it.

## Revision during the data collection period:

No revisions have been made in the questions.

**85-86. Financial Situations**

1. **Name of original questions:** Questions about the family’s financial situations

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** |  | **Response options** | **Variable name** |
| **85** | **Would your current financial situation allow you to cope with an unexpected bill of NOK 3,000 for a dental visit or a repair, for instance?** | | |
|  |  | 1. No 2. Yes 3. Don’t know | EE583 |
| **86** | **Have you found it difficult sometimes during the last six months to cope with running expenses**  **for food, transport, rent, etc.?** | | |
|  |  | 1. Never 2. Yes, but infrequently 3-Yes, sometimes   4-Yes, often | EE584 |

## Description of original questions: MoBa specific single questions

*Psychometric Information:*

Not relevant.

*Base References/Primary Citations:*

Not relevant.

## Rationale for choosing the questions:

The questions were developed to measure the family’s financial situations.

## Revision during the data collection period:

No revisions have been made in the questions.

**87-88. Physical Activity**

1. **Name of original questions:** Questions about physical activities

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** |  | **Response options** | **Variable name** |
| **87** | **How often at the moment are you so physically active in your spare time and/or at work that you get out of breath or sweat?** | | |
|  | Spare time | 1) Never | EE585 |
|  | 2) Less than once a week |  |
|  | 3) Once a week |  |
|  | 1. Twice a week 2. 3-4 times or more a week |  |
| At work | EE586 |
|  | 6) 5 times a week or more |  |
| **88** | **How often are you physically active at present?** | | |
|  | 1. Walking |  | EE590 |
| 2. Brisk walking |  | EE591 |
| 3. Running/jogging/orienteering | 1) Never | EE592 |
| 4. Cycling | EE593 |
| 2) 1-3 times a month |
| 5. Training studio/weight training | EE594 |
| 3) Once a week |
| 6. Aerobics/gymnastics/dance without running and jumping | EE595 |
| 4) Twice a week |
| 7. Aerobics/gymnastics with running and jumping | EE596 |
| 5) 3 times or more a week |
| 8. Dancing (swing/rock/folk) | EE597 |
| 9. Skiing |  | EE598 |
| 10. Ball sports |  | EE599 |
| 11. Swimming |  | EE600 |
| 12. Riding |  | EE601 |
| 13. Other |  | EE602 |

## Description of original questions: MoBa specific single questions

*Psychometric Information:*

Not relevant.

*Base References/Primary Citations:*

Not relevant.

## Rationale for choosing the questions:

The questions were developed for MoBa to survey the mother’s physical activities when the baby was 18 months old.

## Revision during the data collection period:

No revisions have been made in the questions.

**89-91. Smoking and Drinking Habits**

1. **Name of original questions:** Questions about the couples’ smoking habits and the mother’s alcohol consumption when the baby was 18 months old

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Q** |  | **Response options** | **Variable name** | |
| **89** | **How much leave did you and the child’s father take after the birth?** | | | |
|  | If very day, number of cigarettes per day | 1. Don’t smoke 2. Smoke sometimes 3-Smoke every day Number 0-99 | You | Your partner  /husband |
| EE603 | EE605 |
| EE604 | EE606 |
| **90** | **How often do you consume alcohol at the moment?** | | | |
|  |  | 1. Roughly 6-7 times a week 2. Roughly 4-5 times a week 3. Roughly 2-3 times a week 4- Roughly once a week 4. Roughly 1-3 times a month 5. Less often than once a month 7- Never | EE607 | |
| **91** | **How many units do you usually drink when you consume alcohol? (Enter a cross for both**  **weekends and weekdays).** | | | |
|  | Weekend | 1)10 or more  2) 7-9  3) 5-6  4) 3-4  5) 1-2  6) Less than 1 | EE608 | |
| Weekdays | EE609 | |

## Description of original questions: MoBa specific single questions

*Psychometric Information:*

Not relevant.

*Base References/Primary Citations:*

Not relevant.

## Rationale for choosing the questions:

The questions were developed to measure the couples’ intake nicotine and the mother’s intake of alcohol.

## Revision during the data collection period:

No revisions have been made in the questions.

# A little more about yourself and how you are keeping now

**92. Partnership Satisfaction**

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** |  | **Response options** | **Variable name** |
| **92** | **If you have a husband/boyfriend/partner, to what extent do you agree with the following descriptions?** | | |
|  | 1. I have a close relationship with my spouse/partner | 1-Agree completely 2-Agree   1. Agree somewhat 2. Disagree somewhat 5-Disagree   6-Disagree completely | EE610 |
| 2. My partner and I have problems in our relationship | EE611 |
| 3. I am very happy with our relationship | EE612 |
| 4. My partner is generally understanding | EE613 |
| 5. I often consider ending our relationship | EE614 |
| 6. I am satisfied with my relationship with my partner | EE615 |
| 7. We frequently disagree on important decisions | EE616 |
| 8. I have been lucky in my choice of a partner | EE617 |
| 9. We agree on how our child should be raised | EE618 |
| 10. I believe my partner is satisfied with our relationship | EE619 |

## 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*](http://www.springer.com/social%2Bsciences/well-being/journal/10902?changeHeader) *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](http://link.springer.com/article/10.1007%2Fs00127-013-0681-3) [other risk factors for future relationship dissolution: a population-based study of 18,523 couples](http://link.springer.com/article/10.1007%2Fs00127-013-0681-3). [*Social Psychiatry and Psychiatric Epidemiology*](http://link.springer.de/link/service/journals/00127/) *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.

## 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.

## Revision during the data collection period:

No revisions have been made.

**93-95. Social Support**

1. **Name of original questions:** 3 questions about social relations and social support

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** |  | **Response options** | **Variable name** |
| **93** | **Do you have anyone other than your husband/partner you can ask for advice in a difficult situation?** | | |
|  |  | 1. No 2. Yes, 1 or 2 people 3. Yes, more than 2 people | EE620 |
| **94** | **How often do you meet or talk on the telephone with your family (other than your**  **husband/partner and children) or close friends?** | | |
|  |  | 1. Once a month or less 2. 2-8 times a month 3. More than twice a week | EE621 |
| **95** | **Do you often feel lonely?** | | |
|  |  | 1-Almost never 2-Infrequently 3-Sometimes 4-Usually  5-Almost always | EE622 |

## Description of original questions: MoBa specific questions

*Psychometric Information:*

Not relevant

*Primary citation/ base reference:*

Not relevant

## Rationale for choosing the questions:

Social support and social relations are related to personal health and happiness (see Reblin & Uchino, 2008 for a review).

## Revision during the data collection period:

No revisions have been made.

Added reference:

Reblin, MA & Uchino BN. 2008. Social and emotional support and its implication for health. *Current Opinion in Psychiatry*

21(2): 201–205.

**96. The General Self-Efficacy Scale (GSE)**

1. **Name of original scale:** The General Self-Efficacy Scale (GSE)

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** |  | **Response options** | **Variable name** |
| **96** | **How well do these statements describe you?** | | |
|  | 1. I can always manage to solve difficult problems if I try hard enough | 1-Not at all true 2-Hardly true  3-Moderately true 4-Exactly true | EE623 |
| 2. If someone opposes me, I can find the means and ways to get what I want | EE624 |
| 3. I am confident that I could deal efficiently with unexpected events | EE625 |
| 4. I can remain calm when facing difficulties because I can rely on my coping abilities | EE626 |
| 5. If I am in trouble, I can think of a good solution | EE627 |

## Description of original instrument: The General Self-Efficacy scale (GSE)

The General Self-Efficacy scale is a 10-item psychometric scale that is designed to assess optimistic self-beliefs to cope with a variety of difficult demands in life. The scale has been originally developed in German by Matthias Jerusalem and Ralf Schwarzer in 1979, and later revised and adapted to many other languages by various co-authors (e.g Schwarzer et al., 1997; Leganger, et al., 2000). A 5-item short version (Tambs & Røysamb, 2014) is used in MoBa. Responses were reported on a 4-point scale ranging from (1) = Not at all true, to (4) = Exactly true.

*Psychometric Information:*

In samples from 25 nations, Cronbach’s alphas ranged from .75 to .91, with the majority in the high

.80s. The scale is unidimensional (Scholz, et al., 2002). Criterion-related validity is documented in numerous correlation studies (Schwarzer & Born, 1997; Scholz, et al., 2002), where positive coefficients were found with favorable emotions, and negative coefficients were found with depression, anxiety, stress, burnout, and health complaints. The construct validity of GSE was also supported in a Norwegian study (Leganger, et al., 2000). The 5 items in the short version were chosen after regression analyses based on a sample of N>1500. The short version had alpha of .78, and correlated .96 with the full scale (multiple R2=.92). Internal consistency of the short version based on the MoBa data was alpha=.83 (Ystrom, et al., 2008)

*Base References/Primary Citations:*

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

Leganger, A., Kraft, P. & Røysamb, E. 2000. Perceived self-efficacy in health behaviour research: conceptualisation, measurement and correlates. *Psychology and Health* 15: 51-69.

Scholz, U., Gutiérrez-Doña, B., Sud, S., & Schwarzer, R. 2002. Is general self-efficacy a universal construct? Psychometric findings from 25 countries. *European Journal of Psychological Assessment 18*(3): 242-251*.*

Schwarzer, R., & Born, A. 1997. Optimistic self-beliefs: Assessment of general perceived self- efficacy in thirteen cultures. *World Psychology*, *3*(1-2): 177-190.

Schwarzer, R., Born, A., Iwawaki, S., Lee, Y.-M., Saito, E., & Yue, X. 1997. The assessment of optimistic self-beliefs: Comparison of the Chinese, Indonesian, Japanese and Korean versions of the General Self-Efficacy Scale. *Psychologia: An International Journal of Psychology in the Orient 40* (1): 1-13.

Ystrom E, Niegel S, Klepp K-I, Vollrath ME. 2008. The impact of maternal negative affectivity and self-efficacy on breastfeeding: The Norwegian Mother and Child Cohort Study (MoBa). *The Journal of Paediatrics* 152(1):68-72.

## Rationale for choosing the questions:

Self-efficacy is considered to be an important determinant of behavioural change. The GSE has been used internationally with success for two decades, and is suitable for a broad range of applications.

## Revision during the data collection period:

No revisions have been made in the questions.

**97. Emotion: Enjoyment and Anger**

1. **Name of original scale:** Differential Emotional Scale (DES), Enjoyment and Anger Subscales

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** |  | **Response options** | **Variable name** |
| **97** | **In your daily life, how often do you experience the following?** | | |
|  | 1. Feel glad about something | 1-Rarely or never 2-Hardly ever  3-Sometimes 4-Often  5-Very often | EE628 |
| 2. Feel happy | EE629 |
| 3. Feel joyful, like everything is going your way, everything is rosy | EE630 |
| 4. Feel like screaming at somebody or banging on something | EE631 |
| 5. Feel angry, irritated, annoyed | EE632 |
| 6. Feel mad at somebody | EE633 |

## Description of original instrument: The Differential Emotional Scale (DES)

The Differential Emotional Scale (DES; Izard, *et al*., 1993) derives from Izard's (1971) differential emotions theory. The DES consists of a series of subscales that capture various emotions. It is formulated around a thirty/forty-two-item adjective checklist, with three adjectives of each of the emotions. The DES has been developed through cross-cultural research and is thus considered to be emotion-specific. The scale comes in four forms. The items in this section were selected from Enjoyment and Anger subscales from DES-IV, which consists of 12 discrete subscales (Interest, Enjoyment, Surprise, Sadness, Anger, Disgust, Contempt, Fear, Shame, Shyness, and Guilt, Hostility Inward). Each item is administered on a 5-point (rarely/never to very often) scale.

*Psychometric Information:*

Construct validity of the DES has been documented for the different versions, including DES-IV (see

e.g. Blumber & Izard, 1985; Kotsch, *et al*.,1982). For DES-IV, Alpha coefficients range from .56 to

.85 (mean = .74). Internal reliability is .83 for Enjoyment and .85 for Anger (Izard *et al*., 1993).

*Base References/Primary Citations:*

Izard,CE, Libero, DZ, Putnam, P, & Haynes,O. (1993). Stability of emotion experiences and their relations to traits of personality*. Journal of Personality and Social Psychology* 64(5): 847-860.

Blumberg, S. H., & Izard, C. E. 1985. Affective and cognitive characteristics of depression in 10- and 11-year-old children. *Journal of Personality and Social Psychology* 49*:*194-202.

Izard, C. E. (1971). *The Face of Emotion*. New York, NY: Appleton-Century-Crofts.

Kotsch, W.E., Gerbing, D.W., and Schwartz, L.E. (1982). The construct validity of the Differential Emotional Scale as adapted for children and adolescents. In C.E. Izard (Ed.), *Measuring emotions in infants and children* (Vol. 1, pp. 251-278). Cambridge, England: Cambridge University Press.

## Rationale for choosing the questions:

Enjoyment and anger represent basic emotional tendencies, typically not covered in symptom scales of mental health problems. The enjoyment sub-scale captures positive affect, considered a component of subjective well-being, and the anger sub-scale measures activated negative emotions that are not covered by typical symptom scales of distress.

## Revision during the data collection period:

No revisions have been made in the questions.

**98. The Rosenberg Self-Esteem Scale**

1. **Name of original Scale:** Selective questions from the Rosenberg Self-Esteem Scale (RSES)

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** |  | **Response options** | **Variable name** |
| **98** | **How do you feel about yourself?** | | |
|  | 1. I have a positive attitude toward myself | 1-Agree completely 2-Agree   1. Disagree 2. Disagree completely | EE634 |
| 2. I feel completely useless at times | EE635 |
| 3. I feel that I do not have much to be proud about | EE636 |
| 4. I feel that I am a valuable person, as good as anyone else | EE637 |

## Description of original Instrument: The Rosenberg Self-Esteem Scale (RSES)

The RSES (Rosenberg, 1965; 1986) is a 10-item scale, intended to measure global self-esteem. In the original version, half of the items are positively worded, while the other half negatively worded. Four of the selected items in this section constitute the short version of RSES (Tambs, 2004). Four response categories range from strongly agree to strongly disagree.

*Psychometric Information:*

Test-retest reliability ranges from .82 to .88. Cronbach’s alpha ranges from .77 to .88 (Blascovich & Tomaka, 1993; Rosenberg, 1986). Alpha-reliability for the whole 10-item scale was .88 in a Norwegian sample of 250 youths (Ystgyrd, 1993). The four-item short version correlated .95 with the score based on the original 10-item scale, and the alpha reliability was estimated at .80 (Tambs, 2004).

*Base References/Primary Citations:*

Blascovich, J. & Tomaka, J. (1991). Measures of self-esteem. *Measures of personality and social psychological attitudes* 1:115-160.

Robinson, P.R. Shaver, and L.S. Wrightsman (eds.) (1991). *Measures of Personality and Social Psychological Attitudes (Third edition)*. Ann Arbor: Institute of Social Research.

Rosenberg, M. (1986). *Conceiving the Self*. Krieger: Malabar, FL.

Rosenberg, M. (1965). *Society and the Adolescent Self-image.* New Jersey: Princeton University Press.

Tambs, K. (2004). Valg av spørsmål til kortversjoner av etablerte psykometriske instrumenter. Ed. I. Sandanger, G. Ingebrigtsen, J.F. Nygård and K. Sørgyrd. *Ubevisst sjeleliv og bevisst samfunnsliv. Psykisk hele i en sammenheng. Festskrift til Tom Sørensen på hans 60-års dag*, 217-229. Nittedal: Nordkyst Psykiatrisk AS.

Ystgyrd, M. (1993). *Sårbar ungdom og sosialt støtte. En tilnærming til forebygging av psykisk stress og selvmord.* Oslo: Senter for sosialt nettverk og helse.

## Rationale for choosing the questions:

The Rosenberg Self-Esteem Scale is one of the most widely used self-esteem measures in social science research.

## Revision during the data collection period:

No revisions have been made in the questions.

**99. Depression/Anxiety**

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** |  | **Response options** | **Variable name** |
| **99** | **Have you been bothered by any of the following during the last two weeks?** | | |
|  | 1. Feeling fearful | 1-Not bothered  2-A little bothered 3-Quite bothered 4-Very bothered | EE638 |
| 2. Nervousness or shakiness inside | EE639 |
| 3. Feeling hopeless about the future | EE640 |
| 4. Felling blue | EE641 |
| 5. Worrying too much about things | EE642 |
| 6. Feeling everything is an effort | EE643 |
| 7. Feeling tense or keyed up | EE644 |
| 8. Suddenly scared for no reason | EE645 |

## 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.

## 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).

## Revision during the data collection period:

No revisions have been made in the questions.

**100. Adverse Life Events**

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** |  | **Response options & variable**  **name** | |
| **100** | **Have you experienced any of the following situations since the previous questionnaire? If yes, how painful or**  **difficult was this for you?** | | |
|  |  | 1. No 2. Yes | *If yes:*   1. Not too bad 2. Painful/difficult 3. Very painful/difficult |
| 1. Have you had problems at work or where you study? | EE649 | EE650 |
| 2. Have you had financial problems? | EE651 | EE652 |
| 3. Have you been divorced, separated or ended the relationship with your partner? | EE653 | EE654 |
| 4. Have you had any problems or conflicts with your family, friends or neighbors? | EE655 | EE656 |
| 5. Have you been seriously worried that there is something wrong with your child? | EE657 | EE658 |
| 6. Have you been seriously ill or injured? | EE659 | EE660 |
| 7. Has anyone close to you been seriously ill or injured? | EE661 | EE662 |
| 8. Have you been involved in a serious traffic accident, house fire or robbery? | EE663 | EE664 |
| 9. Have you lost someone close to you? | EE665 | EE666 |
| 10. Have you been pressurized into having sexual intercourse? | EE667 | EE668 |
| 11. Other | EE669 | EE670 |

## 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.

## Rationale for choosing the questions:

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

## Revision during the data collection period:

No revisions have been made in the questions.

**101-107. World Health Organization’s Quality of Life Instrument**

1. **Name of original scale:** World Health Organization’s Quality of Life instrument-short version (the WHOQOL-BREF)

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** |  | **Response options** | **Variable**  **name** |
| **101** | **How would you rate your quality of life?** | | |
|  |  | 1-Very poor 2-Poor  3-Neither poor nor good 4-Good  5-Very good | EE671 |
| **102** | **How satisfied are you with your health?** | | |
|  |  | 1-Very dissatisfied 2-Dissatisfied  3-Neither satisfied nor dissatisfied 4-Satisfied  5-Very satisfied | EE672 |
| **103** | **The following questions ask about how much you have experienced certain things in the last two weeks.** | | |
|  | 1. To what extent do you feel that (physical) pain prevents you from doing what you need to do? | 1-Not at all 2-A little  3-A moderate amount 4-Very much  5-Totally/extremely | EE673 |
| 2. How much do you need medical treatment to be able to function in your daily life? | EE674 |
| 3. How much do you enjoy life? | EE675 |
| 4. To what extent do you feel your life to be meaningful? | EE676 |
| 5. How well are you able to concentrate? | EE677 |
| 6. How safe do you feel in your daily life? | EE678 |
| 7. How healthy is your physical environment? | EE679 |
| **104** | **The following questions ask about how completely you experience or were able to do certain things in the**  **last two weeks.** | | |
|  | 1. Do you have enough energy for everyday life? | 1-Not at all 2-A little  3-Moderately 4-Mostly  5-Completely | EE680 |
| 2. Are you able to accept your bodily appearance? | EE681 |
| 3. Have you enough money to meet your needs? | EE682 |
| 4. How available to you is the information that you need in your day-to-day life? | EE683 |
| 5. To what extent do you have the opportunity for leisure activities? | EE684 |
| **105** | **How well are you able to get around?** | | |
|  |  | 1-Very badly 2-Badly  3-Neither well nor bad 4-Well  5-Very well | EE685 |
| **106** | **The following questions ask you to say how good or satisfied you have felt about various aspects of your**  **life over the last two weeks.** | | |
|  | 1. How satisfied are you with your sleep? | 1-Very dissatisfied 2-Dissatisfied  3-Neither satisfied nor dissatisfied 4-Satisfied  5-Very satisfied | EE686 |
| 2. How satisfied are you with your ability to perform your daily living activities? | EE687 |
| 3. How satisfied are you with your capacity for work? | EE688 |
| 4. How satisfied are you with yourself? | EE689 |
| 5. How satisfied are you with your personal relationships? | EE690 |
| 6. How satisfied are you with your sex life? | EE691 |
| 7. How satisfied are you with the support you get from your friends? | EE692 |
| 8. How satisfied are you with the conditions of your living place? | EE693 |
| 9. How satisfied are you with your access to health services? | EE694 |
| 10. How satisfied are you with your transport? | EE695 |
| **107** | **How often do you have negative feelings, such as blue mood, despair, anxiety, depression?** | | |
|  |  | 1-Never 2-Seldom  3-Quite often | EE696 |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 1. Very often 2. Always |  |

## Description of original Instrument: The World Health Organization’s Quality of Life Instrument-short version (WHOQOL-BREF)

The WHOQOL-BREF (cf. The WHOQOL Group, 1998) is an abbreviated 26 item version of the WHOQOL-100, which was developed by World Health Organization (WHO), with the aid of 15 collaborating centres around the world. The WHOQOL-BREF is a self-administered scale that covers four domains of quality of life: psychological, physical health, social relationships and environmental. It also includes one facet on overall quality of life and general health. All items are rated on a five-point scale (1-5). The WHOQOL-BREF is now available in over 20 different languages.

*Psychometric Information:*

The Cronbach’s alpha for each of its domain were: physical health .82, psychological .81, social relationship .68, environmental .80 (Skevington, et al., 2004). The WHOQOL-BREF has the ability to discriminate between sick and well respondents (Skevington, 2004), and between outpatients on the basis of their level of depression (Berlim, et al., 2005). It was also sensitive to improvement after treatment with antidepressants (Berlim, et al., 2005).

*Base References/Primary Citations:*

Berlim MT, Pavanello DP, Caldieraro MAK, Fleck MP. (2005). Reliability and validity of the WHOQOL BREF in a sample of Brazilian outpatients with major depression. *Quality of Life Research* 14(2): 561-564.

Development of the World Health Organization WHOQOL-BREF quality of life assessment. The WHOQOL Group. (1998) *Psychological Medicine* 28(3): 551-558.

Skevington SM, Lotfy M, O'Connel KA, WHOQOL Group. (2004). The World Health Organization's WHOQOL-BREF quality of life assessment: psychometric properties and results of the international field trial: A report from the WHOQOL group. *Quality of Life Research* 13(2): 299- 310.

## Rationale for choosing the questions:

The WHOQOL-BREF is a sound, cross-culturally valid assessment of quality of life (Skevington, et al., 2004).

## Revision during the data collection period:

No revisions have been made in the questions.