Questions documentation
14-year Questionnaire (Q-14aar)
when the child is 14 years old

The Norwegian Mother and Child Cohort Study (MoBa)

Mother's questionnaire

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This document describing the instruments used to construct the questionnaire has not been finally quality assured. The document may contain some minor inaccuracies and will be subjected to revision. If you have any comments that may improve this document, contact mobaadm@fhi.no.

Version	Date	Performed by	Description
1.1	17/10/2022	Sandra Seljeset	Revised to add new variables for version C (UM522-UM527)
1.2	31/10/2022	Sandra Seljeset	Updated the numbering of questions in accordance with version C

LIST OF CONTENT

MODEL STRUCTURE OF WHAT IS PRESENTED PER INSTRUMENT / SECTION

Instrument

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

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

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

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

NOTE 1: There are three versions of this questionnaire (A, B and C). This instrument documentation is based on version C.

NOTE 2:
This instrument documentation was written based on the version of the questionnaire per 31.10.2022. The questionnaire may be subject to further changes. Where there was no official English version of a question, Semantix has translated from Norwegian to English.

If you have any comments that may improve this document, please contact mobaadm@fhi.no

1-4. Child's grade, physical activities, leisure time and friends

1. Name of original questions: Questions about the child's friends and leisure time

Q		Response options	Variable name
1	**What grade is your child in?**		
		1) 7th grade 2) 8th grade 3) 9th grade 4) 10th grade	UM10
2	**Outside school hours: Approximately how many hours per week is your child usually physically active / takes part in sports** (football, handball, skiing, gymnastics / dance, etc.)?		
		1) Less than 1 hour 2) 1-2 hours 3) 3-4 hours 4) 5-7 hours 5) 8-10 hours 6) 11 hours or more	UM11
3	**How many hours on a typical weekday (outside school hours) ...**		
	…does the child watch a film, series/TV?	1) Never / seldom 2) Less than 1 hour 3) 1-2 hours 4) 3-4 hours 5) 5 hours or more	UM12
	…does the child play games (on TV/computer/tablet /mobile)?		UM13
	…does the child spend time with friends?		UM14
4	**Approximately how many close friends does your child have (not including siblings)?**		
		1) None 2) 1 friend 3) 2-3 friends 4) 4 + friends	UM15

2. Description of original scale: MoBa specific single questions. Question 2 about physical activity is based on Sagatun et al. (2007).

Psychometric Information:
Not relevant.

Base Reference/Primary Citation:
Sagatun A. Søgaard AJ. Bjertness, E. Selmer, R. Heyerdahl, S. The association between weekly hours of physical activity and mental health: A three-year follow-up study of 15-16-year-old students in the city of Oslo, Norway. BMC Public Health 2007, 7:155.

3. Rationale for choosing the instrument:
These questions were developed to get information about the child's grade, physical activities, leisure time and friends.

4. Revision during the data collection period:
Questions 2 was revised in version B adding the word "usually".

5-6. The project child's academic performance and special need education

1. Name of original questions: questions about the project child's academic performance and special need education

Q		Response options	Variable name
5	**How is the child coping in the following subjects?**		
	Norwegian	1- Very well 2- Quite well	UM16
	Mathematics	3- Struggling with the subject	UM17
	English	4- Has severe problems 5- Don't know	UM18
6	**Is an administrative decision made about your child being eligible for special education at school?**		
		1- No 2- Yes	UM19
	If yes, in which subject?		
	Norwegian		UM20
	Mathematics		UM21
	Other subjects		UM22
	Other kinds of special education		UM23

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

   Psychometric Information:
   Not relevant.

   Base Reference/Primary Citation:
   Not relevant.

3. **Rationale for choosing the instrument:**
   These questions were developed to get information about the project child's academic performance and special need education.

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

7. Sleeping at night

1. Name of original questions: One question about time the child spent sleeping per night on weekdays.

Q		Response options	Variable name
7	**Approximately how many hours does the child usually sleep at night (excluding weekends and holidays)?**		
		1) 6 hours or less 2) 7 hours 3) 8 hours 4) 9 hours 5) 10 hours 6) 11 hours or more	UM24

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

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

   Base Reference/Primary Citation:
   Not relevant.

3. Rationale for choosing the questions:
   The question was developed to get information about the child's sleeping habit at night.

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

8-23. Health problems

1. Name of original questions: Questions about the child's illness or health problems

Q		Response Categories/ Variable name			
	Has the child now, or has s/he ever had any of the following diseases or health problems?				
			If yes:		
			When:		Has the condition been Confirmed by physician?
		1-no 2-yes	now	earlier	1-no 2-yes
8	Rheumatoid arthritis/chronic joint inflammation	UM25	UM26	UM27	UM28
9	Epilepsy	UM29	UM30	UM31	UM32
10	Migraine	UM33	UM34	UM35	UM36
11	Cancer	UM37	UM38	UM39	UM40
12	Asthma	UM41	UM42	UM43	UM44
13	Accidental injury	UM45	UM46	UM47	UM48
14	Diabetes	UM49	UM513*	UM514*	UM50
15	Chronic fatigue syndrome/ ME	UM51	UM52	UM53	UM54
16	Reduced hearing	UM55	UM56	UM57	UM58
17	Coeliac disease	UM59	UM60	UM61	UM62
18	Anorexia nervosa	UM63	UM64	UM65	UM66
19	Bulimia	UM67	UM68	UM69	UM70
20	An anxiety disorder	UM71	UM72	UM73	UM74
21	ADHD	UM75	UM76	UM77	UM78
22	Other serious illnesses	UM79	UM80	UM81	UM83
	Other serious illnesses, describe:	UM82			
23	**Has the child…**				
	1. had/contracted a respiratory infection during the past year (ear/throat/sinus infection)?	1- no 2- yes 3- don't know			UM84
	2. had/contracted influenza during <u>the past year</u>?				UM85
	3. ever been *vaccinated* against influenza?				UM86

*Items only available in version A

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base Reference/Primary Citation:
Not relevant.

3. Rationale for choosing the questions:
Questions were developed for MoBa to survey the occurrence of illness, health problems, and traumas among 14-year-old children.

4. Revision during the data collection period:
In version B, the question about *when* the child had diabetes is removed.

24-31. Developmental problems

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

Q		Response options	Variable name		
	Has the child now, or has s/he ever had any of the following developmental problems?				
		1- No 2- Yes	*If yes:* When: Now	In the past	Has your child been referred to a specialist? 1-No 2-Yes
24	General learning disabilities	UM87	UM88	UM89	UM90
25	Delayed or abnormal language development	UM95	UM96	UM97	UM98
26	Reading/writing difficulties	UM103	UM104	UM105	UM106
27	Concentration- or attention difficulties	UM111	UM112	UM113	UM114
28	Autistic traits /autism/Asperger's Syndrome	UM119	UM120	UM121	UM122
29	Behavioural problems	UM127	UM128	UM129	UM130
30	Emotional difficulties (sad or anxious)	UM135	UM136	UM137	UM138
31	Other developmental difficulties	UM143	UM144	UM145	UM147
	Other, describe:				
		If now: Do the difficulties affect the child's daily life in any of the following areas?			Is the child bothered or disturbed by the difficulties?
		At home/ in the family *1- no* *2- yes a bit* *3- yes a lot*	With friends/ peers *1- no* *2- yes a bit* *3- yes a lot*	Learning at school *1- no* *2- yes a bit* *3- yes a lot*	*1- no* *2- yes a bit* *3- yes a lot*
24	General learning disabilities	UM91	UM92	UM93	UM94
25	Delayed or abnormal language development	UM99	UM100	UM101	UM102
26	Reading/writing difficulties	UM107	UM108	UM109	UM110
27	Concentration- or attention difficulties	UM115	UM116	UM117	UM118
28	Autistic traits /autism/Asperger's Syndrome	UM123	UM124	UM125	UM126
29	Behavioural problems	UM131	UM132	UM133	UM134
30	Emotional difficulties (sad or anxious)	UM139	UM140	UM141	UM142
31	Other developmental difficulties	UM148	UM149	UM150	UM151

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base Reference/Primary Citation:
Not relevant.

3. Rationale for choosing the questions:
Questions were developed for MoBa to survey the occurrence of developmental problems among 14-year-old children. Whether the child has been referred to a specialist is meant as an indicator of reliability of the mothers' response.

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

32. Parent/Teacher Rating Scale for Disruptive Behaviour Disorders (RS-DBD)

1. Name of original scale: Parent/Teacher Rating Scale for Disruptive Behaviour Disorders (RS-DBD)

Q		Response options	Variable name
32	**Choose the alternative that best describes your child's behaviour over the <u>past 6 months</u>.**		
	1. Fails to give close attention to details or makes careless mistakes in schoolwork		UM152
	2. Has difficulty sustaining attention in tasks or play activities		UM153
	3. Does not seem to listen when spoken to directly		UM154
	4. Does not follow through on instructions and fails to finish school work, chores or duties (not due to oppositional behaviour or failure to understand instructions)		UM155
	5. Has difficulty organizing tasks and activities		UM156
	6. Avoids, dislikes or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)		UM157
	7. Loses things necessary for tasks or activities (pencils, books, toys)		UM158
	8. Is easily distracted	1-never/rarely	UM159
	9. Is forgetful in daily activities		UM160
	10. Fidgets with hands or feet or squirms in seat (sits uneasily)	2-Sometimes	UM161
	11. Leaves seat in classroom or in other situations in which remaining seated is expected (e.g. at the table or in group gathering)	3-often	UM162
	12. Runs about or climbs excessively in situations in which it is inappropriate	4-very often	UM163
	13. Has difficulty playing or engaging in leisure activities quietly		UM164
	14. Is "on the go" or acts as if "driven by a motor"		UM165
	15. Talks excessively		UM166
	16. Blurts out answers before questions have been completed		UM167
	17. Has difficulty awaiting turn		UM168
	18. Interrupts or intrudes on others, such as in conversation or play		UM169
	19. Loses temper (tantrums)		UM170
	20. Argues with adults		UM171
	21. Actively defies or refuses to comply with adults' requests or rules		UM172
	22. Deliberately annoys people		UM173
	23. Blames others for his/her mistakes or misbehaviour		UM174
	24. Is touchy or easily annoyed by others		UM175
	25. Is angry and resentful		UM176
	26. Is spiteful or vindictive		UM177

2. **Description of original scale**: Parent/Teacher Rating Scale for Disruptive Behaviour Disorders (RS-DBD)

Parent/Teacher Rating Scale for Disruptive Behavior Disorders (RS-DBD; Silva et al., 2005) consists of 41 DSM-IV items; with 18 items related to ADHD, 8 items related to Oppositional Defiant (OD), and 15 items to Conduct Disorder (CD). The 18 items (items 1-18) related to ADHD, and the 8 items related to OD (items 19-26) were selected into use in Q-14aar. Each item is rated on a four-point scale (1 = Never/rarely, 2 = Sometimes, 3 = often, 4 = very often)

Psychometric Information/Base Reference/Primary Citation:
There was a significant correlation between parent and teacher ratings for each of the two subscales (ADHD, OD), though the magnitude of these correlations is not large: ADHD: r=.33, OD: r=.34.The alphas were excellent for both subscales for both parent- and teacher ratings (.93-.96). The RS-DBD shows construct and instrument validity when compared to the relevant factors of the parent and teachers Conners' scale (Silva et al., 2005).

Base Reference/Primary Citation:
Silva, R. R., Alpert, M., Pouget, E., Silva, V., Trosper, S., Reyes, K., et al. (2005). A rating scale for disruptive behaviour disorders, based on the DSM-IV item pool. *Psychiatric Quarterly, 76,* 327-339.

3. **Rationale for choosing the instrument:**
    The RS-DBD is one of the few rating scales that is keyed from the DSM.

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

No revisions have been made.

33. Adolescent depression

1. Name of original scale: Selective questions from the Short Mood and Feelings Questionnaire (SMFQ)

Q		Response options	Variable name
33	**The questions below concern how your child has felt or behaved recently <u>the past 2 weeks</u>.**		
	1. Felt miserable or unhappy	1-Not true	UM178
	2. Felt so tired that s/he just sat around and did nothing		UM179
	3. Felt s/he was no good anymore	2- Sometimes true	UM180
	4. Thought s/he could never be as good as other kids		UM181
	5. Thought nobody really loved him/her	3-True	UM182
	6. Felt s/he did everything wrong		UM183

2. Description of original scale: Short Mood and Feelings Questionnaire (SMFQ): Parent Version
The Mood and Feelings Questionnaire (MFQ; Angold & Costello, 1987) is a 32-item questionnaire based on DSM-III-R criteria for depression. The MFQ consists of a series of descriptive phrases regarding how the subject has been feeling or acting recently. Codings reflect whether the phrase was descriptive of the subject most of the time, sometimes, or not at all in the past two weeks. A 13-item subscale, based on the discriminating ability between the depressed and non-depressed, was developed as a short form alternative (Angold, et al., 1995). Both parent and child-report forms are available. 6 items from the parent version of the SMFQ is used in the MoBa 14-year mother questionnaire.

Psychometric Information/Base Reference/Primary Citation:
The internal reliability coefficient for the parent version of SMFQ is α=0.87. The correlation between the short and the long version was high (r= .91), indicating the short version adapted from the long version is sufficient. The child-reported SMFQ was found to be a better predictor of depression than the parent-reported SMFQ. However, the combination of both the parent and child versions of the SMFQ was a better predictor than was either measure when used alone (Angold, et al., 1995).

Base Reference/Primary Citation:
Angold A, Costello EJ. 1987. Mood and feelings questionnaire (MFQ). Durham Duke University Developmental Epidemiology Program.

Angold, A., Costello, E. J., Messer, S. C., Pickles, A., Winder, F., & Silver, D. (1995) The development of a short questionnaire for use in epidemiological studies of depression in children and adolescents. *International Journal of Methods in Psychiatric Research*, 5, 237 - 249.

3. Rationale for choosing the instrument:
The SMFQ is a brief, easy-to-administer measure of childhood and adolescent depression, designed for the rapid evaluation of core depressive symptomatology or for use in epidemiological studies.

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

34. Screen for Child Anxiety Related Disorders (SCARED)

1. **Name of original scale:** Screen for Child Anxiety Related Disorders (SCARED)

Q		Response options	Variable name
34	**Following are several questions concerning how your child has felt or behaved <u>the past months</u>.**		
	1. My child gets really frightened for no reason at all		UM184
	2. My child is afraid to be alone in the house	1- Not true	UM185
	3. People tell my child that he/she worries too much	2- Sometimes true	UM186
	4. My child is scared to go to school	3- Very true	UM187
	5. My child is shy		UM188

2. **Description of original scale**: Screen for Child Anxiety Related Disorders (SCARED): Parent Version

The Screen for Child Anxiety Related Emotional Disorders (SCARED; Birmaher et al., 1997) is a multidimensional questionnaire that purports to measure DSM-defined anxiety symptoms. It contains 41 items which can be allocated to five separate anxiety subscales. Four of these subscales represent anxiety disorders that correspond with DSM categories, namely panic disorder, generalized anxiety disorder, social phobia, and separation anxiety. The fifth subscale is school phobia. The SCARED comes in two versions; one asks questions to parents about their child and the other asks these same questions to the child directly. The 5-item version, as used in the MoBa, was developed in Birmaher et al. (1999). Mothers rate how true the statements describe their children using a 3-point scale (i.e. 1= Not true, 2=Sometimes true, 3=Often true).

Psychometric Information/Base Reference/Primary Citation:
The SCARED has good internal consistency, assessed by means of Cronbach's Alpha (.70-.90), as well as good test–retest reliability (p=0.6-0.9). It has shown good discriminant validity, differentiating between youths with and without anxiety disorders, and good convergent validity. The 5-item version of the SCARED showed similar psychometrics to the full scale (Birmaher et al., 1997, 1999).

Base Reference/Primary Citation:
Birmaher, B., Brent, D. A., Chiappetta, L., Bridge, J., Monga, S., & Baugher, M. (1999) Psychometric properties of the Screen for Child Anxiety Related Emotional Disorders (SCARED): A replication study. *Journal of the American Academy of Child and Adolescent Psychiatry*, 38(10), 1230–6.

Birmaher, B., Khetarpal, S., Brent, D., Cully, M., Balach, L., Kaufman, J., et al. (1997). The Screen for Child Anxiety Related Emotional Disorders (SCARED): Scale construction and psychometric characteristics. *Journal of the American Academy of Child and Adolescent Psychiatry*, 36, 545–553.

3. **Rationale for choosing the instrument:**
The SCARED is a valid screening instrument to rate anxiety symptoms of children and adolescents.

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

35. Child-Parent Relationship Scale

1. Name of original scale: the Child-Parent Relationship Scale

Q		Response options	Variable name
35	**Currently, how is your relationship with your child**		
	My child openly shares his/her feelings and experiences with me.	1- Not true 2- Rarely true 3- Sometimes true 4- Often true 5- Always true	UM357
	It is easy to understand what my child is feeling		UM358
	If upset, my child will seek comfort from me		UM359

2. Description of original scale:
The Child-Parent Relationship Scale (CPRS), assesses parents' perceptions of their relationship with their child. The original scale includes 15 items concerning conflict (8items) and closeness (7items) in the relationship. The CPRS was adapted from the Student-Teacher Relationship Scale (STRS) (Pianta, 2001) to enable the parent to report the child's attachment behaviors in the home. The items are rated on a 5-point scale from 'not true' to 'always true'. The three selected items in this section are from the closeness scale.

Psychometric Information/Base Reference/Primary Citation: The closeness scale of the Child-Parent Relationship Scale shows good reliability when children were 4-6 years olds (Cronbach's alpha range from .64 to .74 for bother mothers and fathers ratings). Validity of the scale was found through correlations between the closeness scale and observed ratings of the parent-child interactions concerning sensitivity, supportive presence and positive caregiving (Driscoll & Pianta, 2011).

Base Reference/Primary Citation:
Driscoll, K., & Pianta, R. C. (2011). Mothers' and fathers' perceptions of conflict and closeness in parent-child relationships during early childhood. Journal of Early Childhood and Infant Psychology, (7), 1-24.

Pianta, R. C. (2001). Student-teacher relationship scale. Lutz, FL: Psychological Assessment Resources, Inc.

3. Rationale for choosing the instrument:
The questions address the mother's perceived relationship with their child.

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

36. The mother's conflict with the child

1. Name of original scale: questions about the mother's conflict with the child

Q		Response options	Variable name
72	**How often would you say you and your child…**		
	…have unpleasant conversations		UM360
	…argue	1- Never 2- Rarely 3- Sometimes 4- Often	UM361
	…are angry with each other		UM362

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

Psychometric Information:
Not relevant

Base Reference/Primary Citation:

Johnson, D. D., White, L. K., Edwards, J. N., & Booth, A. (1986). Dimensions of marital quality: Toward methodological and conceptual refinement. Journal of Family Issues, 7, 31–49.

Dush, C. M. K., Cohan, C. L. and Amato, P. R. (2003), The Relationship Between Cohabitation and Marital Quality and Stability: Change Across Cohorts?. Journal of Marriage and Family, 65: 539–549.

3. Rationale for choosing the instrument:
MoBa-specific questions based on the Johnson's conflict scale used in the TOPP-questionnaires. The scale is abbreviated.

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

37. Strengths and Difficulties Questionnaire (SDQ) – Prosocial Subscale

1. Name of original scale: Strengths and Difficulties Questionnaire (SDQ)

Q		Response options	Variable name
37	**Give answers on the basis of your child's behaviour over the past 6 months.**		
	Is considerate to other people's feelings		UM189
	Shares readily with other youths (treats, games, other things)	1- Not true 2- Somewhat true 3- Certainly true	UM190
	Is helpful if someone is hurt, upset or feeling ill		UM191
	Is kind to younger children/youths		UM192
	Often volunteers to help others (parents, teachers, other children/youths)		UM193

2. Description of original scale: **Strength and Difficulties Questionnaire (SDQ)-Prosocial Subscale**
The SDQ (Goodman, 1997) is a brief behavioural screening questionnaire about 3-16 year olds. The original scale is composed of 25 questions. Five subdomains are covered: Prosocial, hyperactivity-inattention, emotional, conduct, and peer. The five items from SDQ covering prosocial behavior are used in MoBa. Questions are answered on a 3-point likert scale marked 'not true', 'somewhat true', and 'certainly true'

Psychometric Information:
A nationwide epidemiological sample of 10,438 British 5–15-year-olds obtained SDQs from 96% of parents, 70% of teachers, and 91% of 11–15-year-olds. Cronbach's α was .73, cross-informant correlation was .34, and retest stability after 4 to 6 months was .62. SDQ scores above the 90th percentile predicted a substantially raised probability of independently diagnosed psychiatric disorders (mean odds ratio: 15.7 for parent scales, 15.2 for teacher scales, 6.2 for youth scales). The specificity and negative predictive value was .95, whereas the sensitivity and positive predictive value was .35 (Goodman, 2001).

Base Reference/Primary Citation:
Goodman, R. (1997). The Strengths and Difficulties Questionnaire: A Research Note. *Journal of Child Psychology and Psychiatry 38*: 581-586.

Goodman, R. (2001). Psychometric properties of the strengths and difficulties questionnaire. *Journal of the American Academy of Child and Adolescent Psychiatry 40*: 1337-1345.

3. Rationale for choosing the instrument:
The SDQ is well suited for epidemiological research. It is short, but still gives an accurate survey of some of the most important dimensions in children's mental health. The SDQ is used in several large Norwegian epidemiological surveys (cf. Heyerdahl, 2003) in addition to the MoBa. The Prosocial Subscale was included as this dimension is not covered in other scales.

4. Revision during the data collection period:
This scale was included only in versions B and C.

Added reference: Heyerdahl, S. (2003). SDQ – Strength and Difficulties Questionnaire: En orientering om et nytt spørreskjema for kartlegging av mental helse hos barn og unge, brukt i UNGHUBRO, OPPHED og TROFINN. Norsk Epidemiologi 13 (1): 127-135.

About you

38. Mother's Work

1. Name of original questions: question about the mother's current employment status and work environment

Q		Response options	Variable name
38	**Are you currently in paid employment?**		
		1- Yes, full time work 2- Yes, part time 3- Yes, but am currently on sick leave 4- No	UM194
	If yes (1-3): **About your workplace: Please decide how much you agree with the following claims/questions about your workplace and your job:**		
	1. There is a good team spirit at my workplace	1- Very rarely or never	UM506
	2. My colleagues are there for me (give me support)	2- Rarely	UM507
	3. I get on well with my work colleagues	3- Sometimes	UM508
	4. Have you been bullied/harassed at your workplace?	4- Fairly often	UM509
	5. If you need it, can you get support and help concerning your job from your immediate superior?	5- Very often or always 6- Not relevant	UM510

2. **Description of original instrument**: The work related well being was measured with five items about work environment: four items (1, 2, 3 and 5) focus on Social Support at Work and were based on the Demand-Control-Support Questionnaire (DCSQ). One item (4) captures bullying at work.

   Psychometric Information (sample, reliability, validity):
   In the MoBa pilot-sample, the four items from the DCSQ show a clear uni-dimensional factor structure (eigenvalue 2.89, with the next of 0.63), and have a Cronbach's alpha of 0.84.

   Base Reference/Primary Citation:
   Sanne, B., Torp, S., Mykletun, A., & Dahl, A. A. (2005). The Swedish Demand—Control—Support Questionnaire (DCSQ): Factor structure, item analyses, and internal consistency in a large population. *Scandinavian journal of public health*, *33*(3), 166-174.

3. **Rationale for choosing the questions:**
   The questions were included to get information about the mother's current employment status, and work environment.

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

39-43. The family household

1. Name of original scale: questions about the family household

Q			Response options	Variable name
39	**Does the child's biological father live with you?**			
			1- Yes 2- No, we have separated 3- No, we have never lived together 4- No, he is no longer alive	UM195
	1.If 'no, he is no longer alive'			
	How old was the child when the father died?		Years of age	UM196
	2.If 'no, we never lived together' or 'no, we have separated'			
	Version B	How much of the time does your child live with you?	1- More than half the time 2- About half the time 3- About 1/3 of the time (equivalent to every other weekend, one day a week and half the time during holidays)	UM197
	Version B	How much of the time does your child live with his/her biological father	4- At least once a week 5- At least once a month 6- Less than once a month 7- Never	UM198
	Version A	If no, how much of the time does the child live with you?	1- Always, or close to always 2- 50 %, or more 3- Less than 50 %	UM515
	Which agreement do you have concerning the child's living arrangements?		1- Joint physical custody 2- Mother is the primary resident parent 3- Father is the primary resident parent	UM199
	3.If 'no, we have separated'			
	How old was the child when you and the father separated?		Years of age	UM200
40	**How many children (below 20 years of age) in total live in your household?**			
			No. of children	UM201
41	**Do you share household with others, other than your own children?**			
			1- No 2- yes	UM202
	if 'yes'			
	Who do you share household with, in addition to your own children?		Spouse	UM203
			Partner	UM204
			Other children	UM205
			Others	UM206
42	**How many children do you have?**			
			No. of children	UM207
	What year was your child born? (one year per child, new variable for first, second, third child etc. when relevant)		Year of birth	UM208 – UM262
43	**Respond to each question**			
	Has there been any damage caused by damp, visible fungal/mould growth, or smell of mould in your home <u>during the past year?</u>		1- No 2- yes	UM263
	Is a wood-burning stove/fireplace often used for heating the home?			UM264
	Do you have any pets with fur (dog, cat etc.)?			UM265

2. **Description of original scale**: MoBa-spesific questions

   Psychometric Information/Base Reference/Primary Citation:
   Not relevant

   Base Reference/Primary Citation:
   Not relevant

3. **Rationale for choosing the instrument:** to get information about the family household, who the child lives with, how the house is heated, and whether there are pets.

4. **Revision during the data collection period:**
   Question 39.2 was changed in version B.

44-45. Physical activity

1. Name of original questions: Questions about frequency of physical activity leading the mother to get out of breath or sweat.

Q		Response options	Variable name
44	**How physically active are you? Here we ask about how long you do activities in which you become short of breath or sweat. Include activities both at home and at work.**		
	1. How often do you exercise for up to 30 minutes *	1) Never 2) Less than once per week 3) Once per week 4) 2 times per week 5) 3-4 times per week 6) 5 times or more per week	UM266
	2. How often do you exercise for 30-60 minutes		UM267
	3. How often do you exercise for more than 60 minutes		UM268
45	**Respond to each question**		
	4. About how many hours do you spend sitting during a normal day when you work/study? (if you do not work or study, how many hours per day do you spend sitting between 8am and 5pm?)	1) Less than 1 hour 2) 1-2 hours 3) 3-4 hours 4) 5-8 hours 5) Over 8 hours	UM269
	5. About how many hours do you spend sitting during a normal day in your leisure time (after 5pm)? Include transport, TV, reading, etc.)		UM270

* Item phrased "less than 30 minutes" in version A

2. **Description of original instrument**: MoBa specific questions, adapted from Sagatun, et al. (2007)

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

Base Reference/Primary Citation:
 Sagatun A. Søgaard AJ. Bjertness, E. Selmer, R. Heyerdahl, S. The association between weekly hours of physical activity and mental health:A three-year follow-up study of 15-16-year-old students in the city of Oslo, Norway. BMC Public Health 2007, 7:155.

3. **Rationale for choosing the questions:**
 The questions were developed for MoBa to survey the mother's physical activities when the child was 14 years old.

4. **Revision during the data collection period:**
 Item 44.1 was rephrased to "up to" in version B.

46-51. The mother's height, weight and eating disorder

1. Name of original scale: Selective questions from the Eating Disorder Examination Questionnaire (EDE-Q).

Q		Response options	Variable name
46	**What is your current height in centimetres (cm)?**		
		No. of cm	UM271
47	**What is your current weight in kilograms (kg)?**		
		No. of kg	UM272
48	**Do you still menstruate?**		
		1- No 2- Yes	UM273
	If no | How old were you when you stopped menstruating?	No. of years	UM274
49	**Respond to each question: over the <u>past 4 weeks</u>…**		
	1…how often have you been deliberately trying to limit the amount of food you eat to influence your shape or weight?	1-Never/rarely 2-Sometimes 3-Often 4-Very often	UM275
	2…how often have you tried to follow definite rules regarding what you can eat, in order to influence your shape or weight (for example a limited amount of calories)?		UM276
	3…how often have you had a definite fear of losing control over eating?		UM277
	4…how often has thinking about weight or body made it very difficult to concentrate on things you are interested in (for example, working, following a conversation, or reading)?		UM278
	5…how often have you been eating secretly?		UM279
50	**Respond to each question:**		
	How dissatisfied are you with your body shape (what you see in the mirror)?	1- Not at all 2- A little 3- Much 4- Very much	UM280
	How uncomfortable do you feel seeing your body, for instance in the mirror when you undress, or when showering or taking a bath?		UM281
	How uncomfortable do you feel when others see your body, for instance when bathing or wearing tight clothing?		UM282
51	**How do you rate your own weight?**		
		1- Too thin 2- Little too thin 3- Okay 4- Little too thick 5- Too thick	UM283

2. **Description of original scale**: The Eating Disorder Examination Questionnaire (EDE-Q)

The EDE-Q (Fairburn and Beglin, 1994; 2008) is a 22-item self-report version of the Eating Disorder Examination (EDE), the well-established investigator-based interview (Fairburn and Cooper, 1993). The EDE was designed to measure the broad range of the specific psychopathology of eating disorders. The 22 items of EDE-Q comprise 4 subscales assessing Restraint (5 items), Eating Concern (5 items), Shape Concern (8 items), and Weight Concern (5 items) over the previous 28 days. The 8 items chosen for the Q14aar in MoBa stem from the Restraint and Shape concern subscales.

Psychometric Information:
According to Berg, et al. (2012), who systematically reviewed research on the psychometric properties of the EDE-Q, the test–retest correlations ranged from 0.66 to 0.94 for scores on the four subscales. The internal consistency coefficients ranged from 0.70 to 0.93. The EDE-Q has also been shown to demonstrate good criterion-oriented and construct validity.

Base Reference/Primary Citation:
Berg KC, Peterson CB, Frazier P, Crow SJ: Psychometric evaluation of the eating disorder examination and eating disorder examination-questionnaire: a systematic review of the literature. Int J Eat Disord 2012, 45:428-438.

Fairburn C, Beglin S: Eating Disorder Examination. In Cognitive Behavior Therapy and Eating Disorders. Edited by Fairburn C. New York: Guilford Press; 2008:265-308.

Fairburn CG, Cooper Z. The eating disorder examination. In: Fairburn CG, Wilson GT, editors. Binge Eating: Nature, Assessment, and Treatment. 12. New York: Guilford Press; 1993. pp. 317–360.

Fairburn CG, Beglin SJ. Assessment of eating disorders: Interview or self-report questionnaire? Int J Eat Disord. 1994;16:363–370.

Modifications
Items from question 50 were, in the original scale, rated on a 7-point scale (from 'no days' to 'every day'), instead of the 4-point scale used in MoBa.

3. **Rationale for choosing the questions:**
   The EDE-Q, together with the interview version (EDE), is widely considered the preeminent eating disorder assessment.

4. **Revision during the data collection period:**
   Question 48 only appears in versions B and C.

52. Cosmetic surgery

1. Name of original questions: One question about history of the mother's cosmetic surgery

Q		Response options	Variable name
52	**Have you ever had cosmetic surgery?**		
		1-No 2-Yes	UM284
If yes	How many cosmetic operations have you had?		
		No. of operations	UM285
	How old were you when you had your first operation?		
		No. of years	UM300
	What type of cosmetic surgery have you had?		
	Breast enlargement		UM286
	Breast reduction		UM287
	Liposuction		UM288
	Nose surgery (Rhinoplasty)		UM289
	Eyelid surgery (Blepharoplasty)		UM290
	Tummy tuck (Abdominoplasty)		UM291
	Facelift (Rhytidectomy)		UM292
	Other		UM293
	If Liposuction	Which body part	
		Stomack	UM294
		Hips	UM295
		Buttocks	UM296
		Thighs	UM297
		Other	UM298
	If other:	State the type of cosmetic surgery you have had. (include body part if it is not apparent from the type of surgery concerned.	
		Text response	299

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

    Psychometric Information:
    Not relevant.

    Base Reference/Primary Citation:
    Not relevant

3. **Rationale for choosing the questions:**
    The questions are used to get information about the mother's history of cosmetic surgery.

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

53-54. Pregnancy and birth

1. Name of original questions: questions about pregnancy and giving birth

Q		Response options	Variable name
53	Are you pregnant now?		
		1-No 2-Yes	UM301
54	Have you given birth in the past year?		
		1-No 2-Yes	UM302

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

   Psychometric Information:
   Not relevant.

   Base Reference/Primary Citation:
    Not relevant

3. **Rationale for choosing the questions:**
   The questions are used to get information about the mother's pregnancy status and whether she has given birth last year.

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

More about how you are doing now

55-63. The mother's sleep and sleep problems

1. **Name of original scale:** questions about the mother's sleep pattern the past month.

Q		Response options	Variable name
	Questions about sleeping and sleep problems <u>over the past month</u>		
55	How often do you find it difficult to get to sleep at night?	1- Never 2- Less than once a week 3- Once per week 4- Twice per week 5- Three times per week 6- 4 times or more per week	UM303
56	How often have you woken up repeatedly during the night?		UM305
57	How often do you feel tired or sleepy during the day?		UM307
	If q53 = 2-6: for how long have you found it difficult to get to sleep at night?	1- Less than 1 month 2- 1-2 months 3- 3-6 months 4- 7-11 months 5- 1-3 years 6- More than 3 years	UM304
	If q54 = 2-6: for how long have you woken up repeatedly during the night?		UM306
	If q55 = 2-6: for how long have you felt tired or sleepy during the day?		UM308
58	**What time do you normally go to bed to <u>sleep</u> on weekdays?**		
		Choose time point	UM309
59	**How long time does it normally take you from going to bed to <u>sleep</u>, until you actually fall asleep on weekdays?**		
		Choose time	UM310
60	**For how long are you awake during the night (after you have first fallen asleep) on weekdays?**		
		Choose time	UM311
61	**What time do you normally get up in the morning on weekdays?**		
		Choose time point	UM312
62	**How often do you use electronic devices (e.g. mobile phone, tablet, pc/mac, tv, etc.) in the bedroom during <u>the last hour</u> before you go to <u>sleep</u>?**		
		1- Never 2- 1-2 evenings a week 3- 3-6 evenings a week 4- Every evening	UM313
63	**How often do you receive or send messages during the night, after you have gone to <u>sleep</u>?**		
		1- Never 2- 1-2 nights a week 3- 3-6 nights a week 4- Every night	UM314

2. **Description of original scale**: questions adapted from the Karolinska Sleep Questionnaire (Kecklund and Åkerstedt, 1992), Bergen Insomnia scale (BIS; Pallesen et al., 2008), and standard clinical sleep diary.

Psychometric Information/Base Reference/Primary Citation:
Not relevant

Base Reference/Primary Citation:
Kecklund G, Åkerstedt T (1992). The psychometric properties of the Karolinska Sleep Questionnaire. J Sleep Res 1:113

Pallesen, S., Bjorvatn, B., Nordhus, I. H., Sivertsen, B., Hjørnevik, M., & Morin, C. M. (2008). A new scale for measuring insomnia: the Bergen Insomnia Scale. *Perceptual and motor skills*, 107(3), 691-706.

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

The first 3 items are core symptoms of insomnia, the most common sleep disorder in adolescents and adults. Virtually all insomnia instruments in the literature on sleep uses these three components, with slight variations in wording. Using the question about duration, one gets a well validated operationalization regarding 'Insomnia Disorder' in both DSM-IV and DSM-V.

4. **Revision during the data collection period:**
   Question 60 is only included in versions B and C.

64. Social phobia

1. **Name of original scale:** Mini Social Phobia Inventory (miniSPIN)

Q		Response options	Variable name
64	**How much have the following problems bothered you during the past week?**		
	1. Fear of embarrassment cause me to avoid doing things or speaking to people	1-Not at all 2-A little bit	UM315
	2. I avoid activities in which I am the centre of attention	3-Somewhat 4-Very much	UM316
	3. Being embarrassed or looking stupid are among my worst fears	5-Extremely	UM317

2. **Description of original instrument:** Mini Social Phobia Inventory (miniSPIN)
   The Mini-SPIN (Connor, et al., 2001) is 3-item self-rated scale derived from the Social Phobia Inventory (SPIN; Connor, et al., 2000). The questions are constructed to measure the level of fear, embarrassment and avoidance in the context of social situations. Each item is evaluated on a 5-point Likert scale (1-5 points for replies from "not at all" to "extremely").

   Psychometric Information:
   With a cutoff of 6 or more points, its sensitivity and specificity reaches 88.7% and 90.0% respectively (Connor et al. 2001). The miniSPIN showed good test-retest reliability, $r = 0.70$. and excellent internal consistency, $\alpha = .91$ (Seeley-Wait, et al., 2009). The miniSPIN also demonstrated adequate concurrent, convergent and divergent validity, and satisfactory discriminative validity in a Swedish sample (Ek & Ostlund, 2013).

   Base Reference/Primary Citation:
   Connor et al., 2000K.M. Connor, J.R.T. Davidson, L.E. Churchill, A. Sherwood, E. Foa, R.H. Weisler Psychometric properties of the Social Phobia Inventory (SPIN): New self-rating scale British Journal of Psychiatry, 176 (2000), pp. 379–386.

   Connor KM, Kobak KA, Churchill LE, Katzelnick D, Davidson JR. Mini-SPIN: a brief screening assessment for generalized social anxiety disorder. Depression and Anxiety 2001; 14:137-140.

   Ek, A. & Ostland, P. 2013. Internet validation and psychometric evaluation of the Mini Social Phobia Inventory applied to one clinical and two nonclinical samples. Retrieved on 25. 04.2014 from http://www.diva-portal.org/smash/get/diva2:632130/FULLTEXT01.pdf.

   Seeley-Wait E, Abbott MJ, Rapee RM. Psychometric properties of the Mini-Social Phobia Inventory. Prim Care Companion J Clin Psychiatry. 2009;11(5):231-236.

3. **Rationale for choosing the questions:**
   Mini-SPIN is a compact screening instrument for social anxiety disorder.

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

65. Satisfaction with Life Scale (SWLS)

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

Q		Response options	Variable name
65	**How much do you agree with these descriptions?**		
	1. In most ways my life is close to my ideal	1- Disagree completely 2- Disagree 3- Slightly agree 4- Don't agree or disagree 5- Slightly agree 6- Agree 7- Agree completely	UM318
	2. The conditions of my life are excellent		UM319
	3. I am satisfied with my life		UM320
	4. So far I have gotten the important things I want in life		UM321
	5. If I could live my life over, I would change almost nothing		UM322

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

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

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

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

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

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

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

3. **Rationale for choosing the questions:**
The Satisfaction with Life Scale is a well-established measure of life satisfaction.

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

66. Differential Emotional Scale (DES), Enjoyment and Anger Subscales

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

Q		Response options	Variable name
66	**Think about the past 2 weeks: how often do you experience the following in your daily life?**		
	1. Feel glad about something	1-Rarely or never 2-Hardly ever 3-Sometimes 4-Often 5-Very often	UM323
	2. Feel happy		UM324
	3. Feel joyful, like everything is going your way, everything is rosy		UM325
	4. Feel like screaming at somebody or banging on something		UM326
	5. Feel angry, irritated, annoyed		UM327
	6. Feel mad at somebody		UM328

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

The Differential Emotional Scale (DES) 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 Reference/Primary Citation:
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.

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.

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

3. Rationale for choosing the questions:
Enjoyment and anger represent basic emotional tendencies, typically not covered in symptom scales of mental health problems. Both emotions are theoretically and empirically important with regard to mental disorders, well-being, social adjustment, relationships and physical health. The DES-subscales were considered well-established measures of emotional tendencies.

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

67-68. Panic/anxiety disorder

1. **Name of original scale:** Selective questions from the Autonomic Nervous System Questionnaire (ANS)

Q			Response options	Variable name
	In the past 6 months have you experienced the following?			
67	1. A spell or attack when all of sudden you felt frightened, anxious or very uneasy?		1-Yes 2-No	UM329
	If yes:	Did any of these attacks happen in a situation where you were not in danger or not the center of attention?		UM330
68	2. A spell or attack when for no reason your heart suddenly began to race, you felt faint, or you couldn't catch your breath?			UM331
	If yes:	Did any of these attacks happen in a situation where you were not in danger or not the center of attention?		UM332

2. **Description of original instrument:** The Autonomic Nervous System Questionnaire (ANS)

   The Autonomic Nervous System Questionnaire (ANS; Stein, et al., 1999) is a self-report questionnaire with two "gating" and three subsequent questions, specially developed to screen for panic disorder. The two gating questions ask about the occurrence of anxiety attacks or unexplained paroxysms of physical symptoms (tachycardia, dizziness or shortness of breath) in the prior 6 months. The three subsequent questions ask about the occurrence of attacks outside dangerous or performance situations, the frequency of attacks in the prior month and the extent of worry in the prior month about the recurrence of attacks.

   The two gating questions and one of the three subsequent questions were selected for use in the MoBa. All the items are administered in a yes/no response format.

   Psychometric Information:
   The ANS had sensitivity of 0.94 and specificity of 0.76, when tested in primary care in the USA (Stein, et al., 1999). It had the sensitivity of 0.88 and specificity of 0.77, when tested in Finnish primary care (Tilli, et al., 2013)

   Base Reference/Primary Citation:
   M.B. Stein, P.P. Roy-Byrne, J.R. McQuaid, C. Laffaye, J. Russo, M.E. McCahill et al. Development of a brief diagnostic screen for panic disorder in primary care. *Psychosom Med*, 61 (1999), pp. 359–364.

   Tilli, V. Suominen, K. & Karlsson, H. 2013. The autonomic Nervous System Questionnaire and the Brief Patient Health Questionnaire as screening instruments for panic disorder in Finnish primary care. *European Psychiatry*, 28 (7):442-447.

3. **Rationale for choosing the questions:**
   The ANS is a brief screening tool for panic disorders.

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

69. Depression/anxiety

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

Q		Response options	Variable name
69	**Have you been bothered by any of the following during the last two weeks?**		
	1. Feeling fearful		UM333
	2. Nervousness or shakiness inside		UM334
	3. Feeling hopeless about the future		UM335
	4. Felling blue		UM336
	5. Worrying too much about things		UM337
	6. Feeling everything is an effort	1-Not bothered	UM338
	7. Feeling tense or keyed up	2-A little bothered	UM339
	8. Suddenly scared for no reason	3-Quite bothered	UM340
	9. Anxiety or panic attack	4-Very bothered	UM341
	10. Feelings of worthlessness		UM342
	11. Feeling low in energy, slowed down		UM343
	12. Crying easily		UM344
	13. Feelings of uselessness		UM345
	14. Blaming yourself for things		UM346

2. Description of original instrument: The Hopkins Symptoms Checklist-25 (HSCL-25/SCL-25)
The Hopkins Symptoms Checklist (HSCL) with 90 items was originally designed by Parloff, Kelman, and Frank (1954) at Johns Hopkins University and measures several types of symptoms of mental disorders, two of which are anxiety and depression. It was later described and validated by Derogatis *et al*. (1973). Hesbacher, *et al*., (1980) demonstrated the usefulness of a 25-item version of the HSCL-90 consisting of 10 items for anxiety symptoms and 15 items for depression symptoms. Twelve of the selected items constitute the short version SCL-12 (Tambs, 2014). Two items were also included from the original SCL-25 (i.e. 9 and 10). Five items (i.e. 1, 2, 7, 8 and 9) capture symptoms of anxiety and nine items (i.e. 3-6 & 10-14) 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:
The correlation between the SCL-12 and the full SCL-25, based on the original data used to select the items, was .97. The correlation between the 8-item depression score from the SCL-12 and the full SCL depression score was .97. The Alpha reliability was .90 for SCL-12, .86 for the 8-item depression score, and .78 for the 4-item anxiety score (Tambs & Røysamb, 2014).

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

Hesbacher, P.T., Rickels, R., Morris, R.J., Newman, H., and Rosenfeld, M.D. 1980. Psychiatric illness in family practice. *Journal of Clinical Psychiatry*, 41: 6-10.

Parloff, M.B., Kelman, H. C., and Frank, J. D. 1954. Comfort, effectiveness, and self-awareness as criteria for improvement in psychotherapy. *American Journal of Psychiatry*, 3:343-351.

Tambs, K. & Røysamb, E. (2014). Selection of questions to short-form versions of original psychometric instruments in MoBa. *Norsk Epidemiology (Special issue for MoBa).*

3. Rationale for choosing the questions:
Items in SCL-12 are designed to tap anxiety and depression, and has proven to be a brief, valid and reliable measure of mental distress (Tambs & Røysamb, 2014).

4. Revision during the data collection period:

Items 9 and 10 is only included in version B and C. Item 13 *'feelings of uselessness'* is not originally in the SCL, but was kept due to compatibility with version A, and with the fathers- questionnaire 2015.

70-71. Social support

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

Q		Response options	Variable name
70	**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	UM347
71	**How often do you see or talk on the telephone with your family (other than your husband/partner and children) or close friends?**		
		1) Several times per week 2) 1-4 times per month 3) Less often	UM348

2. Description of original questions: MoBa specific questions

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

Primary citation/ base reference:
Not relevant

3. Rationale for choosing the questions:
Social support and social relations are related to personal health and happiness (see Reblin & Uchino, 2008 for a review).

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

Added reference:
Reblin, MA & Uchino BN. 2008. Social and emotional support and its implication for health. Curr Opin Psychiatry, 21(2): 201–205

72.1 Relationship Satisfaction

1. Name of original scale: Relationship Satisfaction Scale (RSS), and questions about conflict with the child's father

Q		Response options	Variable name
72.1	**If you have a husband/boyfriend/partner, to what extent do you agree with the following descriptions?**		
	1. My partner and I have problems in our relationship		UM349
	2. I am very happy with our relationship	1-Disagree completely 2-Disagree	UM350
	3. My partner is generally understanding	3-Disagree somewhat 4-Agree somewhat	UM351
	4. I am satisfied with my relationship with my partner	5-Agree 6-Agree completely	UM352
	5. We agree on how our child should be raised		UM353

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

   The RSS is a 10-item scale developed originally in Norwegian for the MoBa. The scale is based on core items used in previously developed measures of marital satisfaction and relationship quality (e.g. Blum & Mehrabian, 1999; Henrick, 1988; Snyder, 1997). Also included was an item concerning partner agreement on child-rearing. All answers are scored on a 6-point scale from 'disagree completely' (1) to 'agree completely' (6). The 5 items selected into use in this section constitute the short version of the RSS.

   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, 2010). 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, submitted 2010). The short version correlates .97 with the full scale.

   Base Reference/Primary Citation:

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

   Dyrdal, Gunvor Marie; Røysamb, Espen; Nes, Ragnhild Bang & Vittersø, Joar (2011). Can a happy relationship predict a happy life? A population-based study of maternal well-being during the life transition of pregnancy, infancy, and toddlerhood. *Journal of Happiness Studies, 12*(6), 947- 962 .

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

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

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

   Røysamb, E., Vittersø, J., & Tambs, K. (2014). The Relationship Satisfaction Scale. Reliability, validity, and goodness of fit (submitted for review).

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

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

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

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

   No revisions have been made.

72.2 The mother's conflict with the child's biological father

1. **Name of original scale:** questions about the mother's conflict with the child's biological father

Q		Response options	Variable name
72.2	*If your child's biological father is still alive (Q.37)* **How often would you say you and the biological father of your child…**		
	…have unpleasant conversations	1- Never 2- Rarely 3- Sometimes 4- Often	UM354
	…argue		UM355
	…are angry with each other		UM356

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

   Psychometric Information:
   Not relevant

   Base Reference/Primary Citation:

   Johnson, D. D., White, L. K., Edwards, J. N., & Booth, A. (1986). Dimensions of marital quality: Toward methodological and conceptual refinement. Journal of Family Issues, 7, 31–49.

   Dush, C. M. K., Cohan, C. L. and Amato, P. R. (2003), The Relationship Between Cohabitation and Marital Quality and Stability: Change Across Cohorts?. Journal of Marriage and Family, 65: 539–549.

3. **Rationale for choosing the instrument:**
   MoBa-specific questions based on the Johnson's conflict scale used in the TOPP-questionnaires. The scale is abbreviated

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

73-75. Smoking/snusing

1. Name of original questions: Questions about maternal smoking habits

Q			Response options	Variable name
73	**Do you smoke now? If yes, how many cigarettes?**			
			1-Do not smoke 2- Smoke sometimes 3- Smoke daily	UM363
	If smoke sometimes	number of cigarettes per week	Number 0-99	UM364
	If smoke daily	number of cigarettes daily	Number 0-99	UM365
74	**Do you use 'snus' now? If yes, how much?**			
			1- Don't use snus 2- Use snus now and then 3- Use snus daily	UM366
	If use 'snus' now and then, or daily	How many boxes do you use per month?		UM367
75	**Do you use any of the following?**			
	e-cigarettes with nicotine		1- Never	UM368
	Nicotine chewing gum		2- Have tried	UM369
	Other nicotine preparations		3- Occasionally 4- Daily	UM370

2. Description of original questions: MoBa specific single questions
By 'Snus', we refer to the moist snuff usually placed between you lip and cheek or gum.

Psychometric Information:
Not relevant.

Base Reference/Primary Citation:
Not relevant.

3. Rationale for choosing the questions:
Questions were developed to get information about maternal smoking/snusing habits.

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

76-79. Alcohol use

1. Name of original scale: Alcohol Use Disorders Identification Test (AUDIT)

Q		Response options	Variable name
76	**How often do you drink alcohol now?**		
		1-About 6-7 times per week 2-About 4-5 times per week 3-About 2-3 times per week 4-About once per week 5-About 1-3 times per month 6-Less than once a month 7-Never	UM371
	If Q76 response '1-6':		
	How many alcohol units do you have on a typical day when you are drinking?	1) 10 or more 2) 7-9 3) 5-6 4) 3-4 5) 1-2 6) Less than 1	UM372
77	**How often during the last year…**		
	1. …have you had 6 or more drinks on one occasion?	1-Never 2-Less than monthly 3-Monthly 4-Weekly 5-Daily/almost daily	UM373
	2. …have you found that you were not able to stop drinking once you had started?		UM374
	3. …have you failed to do what was normally expected from you because of drinking?		UM375
	4. …have you needed a first drink in the morning to get yourself going after a heavy drinking session?		UM376
	5. …have you had a feeling of guilt or remorse after drinking alcohol?		UM377
	6. …have you been unable to remember what happened the night before because you had been drinking alcohol?		UM378
78	Have you or someone else been injured as a result of your drinking?	1-No 2-Yes	UM379
	If yes — When was this?	Earlier than the past year	UM380
		During the past year	UM381
79	Has a relative, friend or doctor (or other health worker) been concerned about your drinking or suggested that you cut down?	1-No 2-Yes	UM382
	If yes — When was this?	Earlier than the past year	UM383
		During the past year	UM384

2. **Description of original instrument**: Alcohol Use Disorders Identification Test (AUDIT)
   The Alcohol Use Disorders Identification Test (AUDIT; Saunders, et al., 1993) has been developed from a six-country WHO collaborative project as a screening instrument for hazardous and harmful alcohol consumption. It is a 10-item questionnaire which covers the domains of alcohol consumption, drinking behaviour, and alcohol-related problems.

   Psychometric Information:
   The average reliability across the AUDIT scales is .65. Using the lower cut-off point of 8, the overall sensitivity for hazardous and harmful alcohol use was 87% to 96%, with an overall value of 94%. The corresponding specificity was 81% to 98%, with an overall value of 94%. When the cut-off point of 10 was taken, the overall value of sensitivity was 80%, and the corresponding specificity was 98%. The AUDIT also has the ability to discriminate between alcoholics and non-drinkers (Saunders, et al., 1993).

   Base Reference/Primary Citation:
   Saunders JB, Aasland OG, Babor TF, DE La Fuente JR, and Grant M (1993) Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO Collaborative Project on Early Detection of Persons with Harmful Alcohol Consumption-II. Addiction, 88, 791-804.

Modifications:
The response categories for the question 'How often do you drink alcohol now?' have been altered. The original response categories are: four or more times a week, two to three times a week, two to four times a month, monthly or less, never.
The second question was rephrased as 'How many alcohol units do you have on a typical day when you are drinking?'; the original questions is 'How many drinks containing alcohol do you have on a typical day when you are drinking?'

3. **Rationale for choosing the questions:**
The AUDIT provides a simple method of early detection of hazardous and harmful alcohol use in primary health care settings and is the first instrument of its type to be derived on the basis of a cross-national study.

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

80-81. Life events

1. Name of original questions: Questions about life events

Q		Response options & variable name		
80	**Have you experienced any of the following situations?**			
Version A, B and C	*Tick one or two boxes per question*	No	*Yes, during the last year*	*Yes, 1-5 years ago*
	1. Have you had problems at work or where you study?	UM385	UM386	UM387
	2. Have you had financial problems?	UM388	UM389	UM390
	3. Have you been divorced, separated or ended the relationship with your partner?	UM391	UM392	UM393
	4. Have you had conflicts in your partnership?	UM394	UM395	UM396
	5. Have you had any problems or conflicts with your family, friends or neighbors?	UM397	UM398	UM399
	7. Have you been seriously ill or injured?	UM403	UM404	UM405
	8. Has anyone close to you been seriously ill or injured?	UM406	UM407	UM408
	9. Have you been involved in a serious traffic accident, fire or robbery?	UM409	UM410	UM411
	10. Have you been a victim of physical violence?	UM412	UM413	UM414
	11. Have you been a victim of maltreatment or abuse?	UM415	UM416	UM417
	12. Have you lost someone close to you?	UM418	UM419	UM420
	14. Have any of your children been seriously ill?	UM424	UM425	UM426
	15. Have you been in despair over insufficient help with one of your children's illness, disorder or disability?	UM427	UM428	UM429
Version B and C	16. Have you experienced mental health problems in the family?	UM430	UM431	UM432
	17. Have you experienced suicide or suicide attempts in the family?	UM433	UM434	UM435
Version A and B	6. Have you been seriously worried that there is something wrong with your child?	UM400	UM401	UM402
	13. Has your child been a victim of bullying?	UM421	UM422	UM423
Version C	6. Have you been seriously worried that there is something wrong with one of your children?	UM522	UM523	UM524
	13. Has one of your children been a victim of bullying?	UM525	uM526	UM527
81	**Have you had other dramatic events/experiences the past years?**			
Version A, B and C		UM436	UM437	UM438
	Other events/experiences, describe:	UM439		

2. Description of original questions: MoBa specific single questions, inspired by the life event list in Coddington (1972)

The questions are inspired by the list in Coddington (1972), which was directed at children from preschool to senior high school. The questions in this section were adapted to adult respondents.

Psychometric Information:
No relevant psychometric information has been found.

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

3. Rationale for choosing the questions:
The selected items were chosen because they were believed to address life events that supposedly

affect the mother.

4. **Revision during the data collection period:**
   Items 16 and 17 are only included in version B and C. The wording of items 6 and 13 was updated from version B to C.

82-96. Maternal health problems

1. **Name of original questions:** Questions about maternal illness or health problems

Q			Response options /Variable name			
	Have you ever had any of the following diseases or conditions?					
			If yes			
			1- no 2- yes	When:		Confirmed by doctor 1- no 2- yes
				Now	Earlier	
82	Rheumatoid arthritis		UM440	UM441	UM442	UM443
83	Cancer		UM444	UM445	UM446	UM447
84	Asthma		UM448	UM449	UM450	UM451
85	Injury		UM452	UM453	UM454	UM455
86	Impaired hearing		UM456	UM457	UM458	UM459
87	Diabetes		UM460	UM516*	UM517*	UM461
88	Hypothyroid		UM462	UM463	UM464	UM465
89	Chronic fatigue syndrome/ME		UM466	UM467	UM468	UM469
90	Migraine		UM470	UM471	UM472	UM473
91	Anxiety disorder		UM474	UM475	UM476	UM477
92	Depressive disorder		UM478	UM479	UM480	UM481
93	Other mental health difficulties		UM482	UM483	UM484	UM485
94	Chronic back pain		UM486	UM487	UM488	UM489
95	Chronic neck/shoulder pain		UM490	UM491	UM492	UM493
96	Other serious illnesses		UM494	UM496	UM497	UM498
	If yes: describe		UM495			
Version A	Replaced by 91, 92 and 93	Mental health problems you have sought help for	UM518	UM519	UM520	UM521

* Items only available in version A

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

   Psychometric Information:
   Not relevant.

   Base Reference/Primary Citation:
   Not relevant.

3. **Rationale for choosing the questions:**
   Questions were developed for MoBa to survey the occurrence of illness or health problems among the mothers.

4. **Revision during the data collection period:**
   In version B, the question about <u>when</u> the mother had Diabetes was removed, and the question about hypothyroid was added. The question '*mental health problems you have sought help for'* was removed in version B, and replaced by three questions about anxiety disorder (91), depressive disorder (92), and other mental health difficulties (93).

97-98. Non-prescriptive medication and treatment

1. Name of original scale: Questions about the use of non-prescriptive medications and treatment

Q		Response options	Variable name
97	**How often have you used the following medicines the <u>past four weeks</u>?**		
	Paracetamol (Paracet, Panodil, Pamol, Pinex, Therimin)	1- Never 2- 1 day per week or fewer 3- 2-3 days per week 4- 4 days per week or more	UM499
	Ibuprofen (Ibux, Ibumetin, Burana)		UM500
	Acetylsalicylic acid (Asprin, Globoid, Dispril)		UM501
98	**Have you in the past 12 months visited…**		
	General Practitioner		UM502
	Psychologist/ psychiatrist	1- No 2- Yes	UM503
	Physiotherapist		UM504
	Homeopath, acupuncturist, reflexologist, healer, or other provider of alternative therapy		UM505

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

Psychometric Information/Base Reference/Primary Citation:
Not relevant

Base Reference/Primary Citation:
Not relevant

3. **Rationale for choosing the instrument:** questions were included for information about the use of non-prescriptive medications, treatment and therapists.

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