Questions Documentation
Father's Questionnaire
Sent to fathers between 2000 and 2009

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

Father Questionnaire

Version 1.0 March 2016 by Fufen Jin

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

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MODEL STRUCTURE OF WHAT IS PRESENTED PER INSTRUMENT / SECTION

Instrument

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

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

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

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

NOTE 1:
Q-far has four versions (A, B, D, and E). Q-farA is the pilot version and not scanned; farD is the same as farE. Thus in this documentation, Q-far is taken to have only 2 versions: farB and farD. 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.

1-2. Date of Birth and Marital Status

1. **Name of original questions:** one question about the father's date of birth; one question about marital status

Q		Response options	Variable name
1	**Date of birth?**		
	Day		FF12
	Month		FF13
	Year		FF14
2	**Marital status?**		
		1-Married 2-Cohabitant 3-Single 4-Divorced 5-Separated 6-Widow 7-Other	FF15

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

   Psychometric Information
   Not relevant.

   Base References/Primary Citations
   Not relevant.

3. **Rationale for choosing the questions:**
   This is a standard measure of marital status.

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

3-9. Height and Weight

1. Name of original questions: questions about height and weight of the father

Q		Response options	Variable name
3	**How tall are you?**		
	_ _ _ cm	Number 0-999	FF333
4	**How much do you weigh?**		
	_ _ _, _kg	Number 0-999	FF334
5	**What is the heaviest you have weighed since you were 18 years old?**		
	_ _ _, _kg	Number 0-999	FF335
6	**What is the lightest you have weighed since you were 18 years old?**		
	_ _ _, _kg	Number 0-999	FF336
7	**Have you ever dieted or limited your food intake?**		
		1-No 2-Yes	FF337
8	**If yes, how old were you the first time you dieted or limited your food intake?**		
		Number 0-99	FF338
9	**Are you the type of person who can eat as much as you want without gaining weight?**		
		1-No 2-Yes	FF339

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base References/Primary Citations:
Not relevant.

3. Rationale for choosing the questions:
By using measures of weight and height, Body Mass Index (BMI) can be estimated. In addition, these questions can also be used as a brief measure of the father's weight change and attitude toward his own weight.

4. Revision during the data collection period:
Questions 5-9 are not included in version B. No further revisions have been made.

Education and work

10. Education

1. Name of original questions: Questions about the father's education level

Q		Response options	Variable name	
10	**What level of education do you have?**			
			Completed	*Ongoing*
		1) Secondary school 2) Further education 1-2 years 3) Further education-vocational 4) Further education 3 years –(general studies, sixth form) 5) Higher education (University/college), up to and including 4 years 6) Higher education (University/college), over 4 years	FF16	FF17
		7) Other education	FF18	FF19

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base References/Primary Citations:
Not relevant.

3. Rationale for choosing the questions:
These are standard measures of education levels.

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

11-13. Work Situation

1. Name of original questions: Questions about the father's work situation

Q		Response options	Variable name
11	**What is your work situation now?**		
	1. Student		FF20
	2. At home		FF21
	3. Intern/apprentice		FF22
	4. Military service		FF23
	5. Unemployed/laid off		FF24
	6. Rehabilitation/disabled		FF25
	7. Employed in public sector		FF26
	8. Employed in private sector		FF27
	9. Self-employed		FF28
	10. Family member without steady income in family company (ex. Farming, business)		FF29
	11. Other		FF30
	Other, describe		FF31 FF305 (txt)
12	**Describe the business at your place of work/service as accurately as possible** (e.g. farming of grain and pigs, body shop at garage for diesel cars, insurance company, college).		
			FF32 FF306 (txt)
13	**Job title at this workplace** (e.g. panel beater, foreman, lecturer, student, cleaning assistant, farmer, homemaker/at home)**?**		
			FF33 FF307 (txt)

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base References/Primary Citations:
Not relevant.

3. Rationale for choosing the questions:
This is a measure of the father's work situation.

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

14-15. Income

1. Name of original questions: Question about the father's income

Q		Response options	Variable name
14	**How many hours of paid labour do you do per week?**		
	_ _, _ hours		FF340
15	**What is your and the baby's father's yearly gross income? (*Include child support, unemployment benefits and other allowances.)***		
		1) No income 2) Under 150.000 NOK 3) 151.000-199.999 NOK 4) 200.000-299.999 NOK 5) 300.000-399.999 NOK 6) 400.000-499.999 NOK 7) Over 500.000 NOK	FF341

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base References/Primary Citations:
Not relevant.

3. Rationale for choosing the questions:
These questions were developed to get information about the father's income.

4. Revision during the data collection period:
This section is not included in version B. No further revisions have been made.

16-17. Sick Leave

1. Name of original questions: Questions about the father's sick leave

Q		Response options	Variable name
16	**In the last 12 months have you been on sick leave?**		
	Without medical certificate (self-notification)	1-No 2-Yes	FF342
	With medical certificate from doctor		FF343
17	**If yes, how long in total?**		
		1) Less than 1 week 2) 1-2 weeks 3) 2-8 weeks 4) More than 8 weeks	FF344

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base References/Primary Citations:
Not relevant.

3. Rationale for choosing the questions:
These questions were developed to get information about the father's sick leave.

4. Revision during the data collection period:
This section is not included in version B. No further revisions have been made.

18-19. Social Benefits

1. Name of original questions: Questions about whether the father is receiving social benefits

Q		Response options / Variable name			
18	**In the last 12 months have you been on sick leave?**				
			1-No 2-Yes	*If yes, from when?*	
				Month	Year
	Sick pay/rehabilitation money		FF345	FF346	FF347
	Benefits for vocational rehabilitation		FF348	FF349	FF350
	Disability pension/limited disability pension		FF351	FF352	FF353
	Social security payments		FF354	FF355	FF356
	Unemployment benefit		FF357	FF358	FF359
	Other benefits		FF360	FF361	FF362
19	**Could you/your household cover an unexpected expense of 10,000 kroner in the course of a month without having to take out a loan or ask for financial help?**				
			1-No 2-Yes 3-Don't know		FF363

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base References/Primary Citations:
Not relevant.

3. Rationale for choosing the questions:
These questions were developed to get information whether the father is receiving social benefits, if yes what type and duration. Question 19 indirectly collects information about the family's financial situation.

4. Revision during the data collection period:
This section is not included in version B. No further revisions have been made.

20. Exposure to Harmful Substances

1. Name of original questions: Questions about exposure to harmful substances during this pregnancy

Q		Response options / Variable name			
20	**Have you been in contact with any of the following substances either at work or in your leisure time during the last six months?**				
		1-Yes 2-No	*If yes, number of days*	Fill in if you have used a extractor fan or breathing protection	Fill in if you have used protective gloves
	1. Lead vapors, lead dust, lead particles or lead alloys	FF34	FF35	FF36	FF37
	2. Chrome, arsenic, cadmium or combinations of these	FF38	FF39	FF40	FF41
	3. Gasoline or exhaust (does not apply to filling gasoline in your own car)	FF42	FF43	FF44	FF45
	4. Mercury vapors, mercury or work with amalgam fillings (does not apply to your own dental treatment)	FF46	FF47	FF48	FF49
	5. Disinfectants, vermin poisons	FF50	FF51	FF52	FF53
	6. Weed killers, insecticides, fungicides	FF54	FF55	FF56	FF57
	7. Oil-based paint	FF58	FF59	FF60	FF61
	8. Water-based or latex paint	FF62	FF63	FF64	FF65
	9. Paint thinner, paint-lacquer-glue remover or other solvents (ex. lynol, turpentine, toluene, carbon tetrachloride)	FF66	FF67	FF68	FF69
	10. Industrial dyes or ink	FF70	FF71	FF72	FF73
	11. Motor oil, lubrication oil or other types of oil	FF74	FF75	FF76	FF77
	12. Photographic chemicals (fixatives or developers)	FF78	FF79	FF80	FF81
	13. Substances used in welding	FF82	FF83	FF84	FF85
	14. Substances used in soldering	FF86	FF87	FF88	FF89
	15. Formalin/formaldehyde	FF90	FF91	FF92	FF93
	16. Chemotherapeutic substances/ chemotherapy treatment (does not apply to your own medical treatment)	FF94	FF95	FF96	FF97
	17. Chemotherapy (taken in treatment as a patient)	FF364	FF365	FF366	FF367
	18. Laughing gas or other anesthetic gases (does not apply to you own treatment as a patient)	FF98	FF99	FF100	FF101
	19. Other substances and conditions	FF102	FF103	FF104	FF105
	Other substances and conditions, describe_____	FF106 FF308 (txt)			

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base References/Primary Citations:
Not relevant.

3. Rationale for choosing the questions:
This is a measure of the father's exposure to harmful substances.

4. Revision during the data collection period:
Item 17 is not included in version B. No further revisions have been made.

1. Name of original questions: Questions about exposure to radiation

Q		Response options	Variable name
21	**How often have you worked with radio transmitters or radar in the last six months before your partner became pregnant?**		
		1-Seldom/never 2-A few times a week 3- Daily 4- On average more than an hour per day	FF110
22	**How often have you worked with x-ray equipment (at a distance of less than two metres) after you became pregnant? (*This does not include treatment as a patient*)**		
		1-Seldom/never 2-A few times a week 3- Daily 4- On average more than an hour per day	FF112
23	**Do you use a mobile phone?**		
		1-No 2-Yes	FF369
24	**If yes, how old were you when you got your first mobile phone?**		
		Number 0-99	FF370
25	**Do you use 'hands-free'?**		
		1-Seldom/never 2-Only for longer conversations 3- As a rule	FF371
26	**If/when you use 'hands-free', where is the phone usually during the conversation?**		
		1-In front trouser pocket 2-On a belt in front of the body 3- Other places on the body 4-Away from the body	FF372
27	**How often did you talk on a mobile phone in the six months before your partner became pregnant?**		
		1) Less than once a week 2) 1-2 times per week 3) 3-6 times per week 4) 1-4 times per day 5) More than 5 times per day	FF552
28	**How long on average do you talk in total on the days you use your mobile phone?**		
		1) Less than 1 minute 2) 1-10 minutes 3) 11-30 minutes 4) 31-60 minutes 5) More than 60 minutes	FF373
29	**How often do you work with a computer, laser printer or copying machine (at a distance of less than two metres) in the six months before your partner became pregnant?**		
	Computer monitor	1-Never 2-A few times a week 3-Daily 4-On average more than 1 hour per day	FF113
	Laser printer		FF114
	Copying machine		FF115

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base References/Primary Citations:
Not relevant.

3. Rationale for choosing the questions:
This is a measure of the father's exposure to radiation through radio transmitters/radar, x-ray equipment, mobile telephone, computer, laser printer and copying machine. Recent research (e.g. Adams, et al., 2014) has found a correlation between mobile phone radiation exposure and decreased

sperm motility and viability.

4. **Revision during the data collection period:**
   Questions 22-26 &28 are not included in version B. In addition, response categories for question 27 differ from version B to D. There are 4 response options in version B: Seldom/never, Several times a week, Daily, On average more than 1 hour per day.

Added reference:

Adams JA, Galloway TS, Mondal D, Esteves, SC. Effect of mobile telephones on sperm quality: a systematic review and meta-analysis. Environ Int. 2014 (70):106-112.

Illnesses and health problems

30. Previous and Current Illnesses and Health Problems

1. Name of original questions: Question about previous and current illnesses and health problems

Q	Response options / Variable name				
30	**Do you have, or have you had any of the following illnesses or health problems?**				
			If yes, tick	If yes, how old were you at the first sign of illness/problem	If you became well or the problem stopped, at what age did this happen?
	1. Hay fever, pollen allergy		FF116	FF117	FF118
	2. Urticaria (hives)		FF119	FF120	FF121
	3. Asthma		FF122	FF123	FF124
	4. Atopic dermatitis (childhood eczema)		FF125	FF126	FF127
	5. Psoriasis		FF128	FF129	FF130
	6. Other eczema/skin problem		FF131	FF132	FF133
	7. Chlamydia		FF374	FF375	FF376
	8. Herpes		FF377	FF378	FF379
	9. Genital warts		FF380	FF381	FF382
	10. Gonorrhea		FF383	FF384	FF385
	11. Migraine		FF134	FF135	FF136
	12. Other frequent headaches		FF137	FF138	FF139
	13. Constant aches or discomfort in the upper abdomen		FF140	FF141	FF142
	14. Crohn's disease/ulcerative colitis (diarrohea, constipation intermittent pain)		FF143	FF144	FF145
	15. Sleep problems		FF146	FF147	FF148
	16. Diabetes		FF149	FF150	FF151
	17. Cancer		FF152	FF153	FF154
	18. Cardiovascular disease		FF155	FF156	FF157
	19. Epilepsy		FF158	FF159	FF160
	20. Repeated neck and shoulder pain		FF161	FF162	FF163
	21. Lower back pain		FF164	FF165	FF166
	22. Prolonged muscle pain		FF167	FF168	FF169
	23. Bechterew's disease/ rheumatoid arthritis		FF170	FF171	FF172
	24. High blood pressure		FF173	FF174	FF175
	25. ADHD		FF386	FF387	FF388
	26. Anorexia/bulimia/eating disorders		FF389	FF390	FF391
	27. Manic depressive illness		FF392	FF393	FF394
	28. Schizophrenia		FF395	FF386	FF397
	29. Other long-term mental illnesses or health problems		FF398	FF399	FF400
	30. Other long-term physical illnesses or health problems		FF179	FF180	FF181
	If other long-term illnesses, describe:		FF182, FF309 (txt)		

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base References/Primary Citations:
Not relevant.

3. **Rationale for choosing the questions:**
   Questions were developed for MoBa to survey the presence of illness among the fathers. The list covers both common public health issues as well as rare illnesses.

4. **Revision during the data collection period:**
   Items 7-10, 25-28 &30 are not included in version B. No further revisions have been made.

31-34. Birth Defect and Medicines

1. Name of original questions: Question about other illnesses/health problems and medicines

Q		Response options	Variable name	
31	**Do you have a congenital deformity/ birth defect?**			
		1-No 2-Yes	FF198	
32	**If yes, which?**			
		1-No 2-Yes	FF199 FF319 (txt)	
33	**Did you use medicines in the 6 months before your partner became pregnant?**			
		1-No 2-Yes	FF183	
34	**If yes, please give the name of the medicines.**			
			Name of medicine	*How long did you use the medicine?* 1) Less than 1 week 2)1 week-1 month 3) More than 1 month
	Medicine 1.		FF184 FF310 (txt) FF310_K	FF185
	Medicine 2.		FF186 FF311 (txt) FF311_K	FF187
	Medicine 3.		FF186 FF312 (txt) FF312_K	FF189
	Medicine 4.		FF190 FF313 (txt) FF313_K	FF191

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base References/Primary Citations:
Not relevant.

3. Rationale for choosing the questions:
Questions were developed for MoBa to survey the presence of birth defect, and the use of medicines among fathers. The use of medication is considered an important proxy for possible disease, and is relevant to consider effects and prevalence of use.

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

35-36. X-rays

1. Name of original questions: Questions about X-rays take 6 months before the partner became pregnant

Q		Response options	Variable name	
35	**Did you have any X-rays taken in the 6 months before your partner became pregnant?**			
		1-No 2-Yes	FF200	
36	**If yes, what were the X-rays taken of, and how many times.**			
			X-rays taken of…	*Number of times*
	Teeth		FF201	FF202
	Lungs		FF203	FF204
	Pelvis/stomach/back		FF205	FF206
	Arms and legs		FF207	FF208
	Other		FF209	FF210

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base References/Primary Citations:
Not relevant.

3. Rationale for choosing the questions:
This is a measure of the father's exposure to X-ray.

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

37-38. Number of Children

1. Name of original questions: Questions about number of children the father has

Q		Response options	Variable name
37	**How many children do you have from before?**		
		Number 0-99	FF401
38	**How many of these are with your present partner?**		
		Number 0-99	FF402

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base References/Primary Citations:
Not relevant.

3. Rationale for choosing the questions:
These questions were developed to get information about the number of children the father has from before, and the number of children he has with his present partner.

4. Revision during the data collection period:
This section is not included in version B. No further revisions have been made.

Diet and eating habits

39-41. Bread/Crispbread/Biscuits

1. Name of original questions: 8 questions about work situations

Q		Response options	Variable name
39	**How many slices of bread/crispbread/crackers do you eat on average every day?** (Combine all meals)		
	1. White bread (baguettes, ciabatta etc.)	Number 0-99	FF403
	2. Medium coarse-grain bread (incl. rolls)		FF404
	3. Coarse-grain bread		FF405
	4. Crispbread/biscuits		FF406
40	**Do you use butter, margarine or oil on bread?**		
		1-No, almost never 2-Yes, sometimes 3-Yes, daily	FF407
41	**How often do you add these to bread?**		
	1. Reduced fat cheese	1) Seldom/never 2) 1-2 times per week 3) 3-4 times per week 4) 5-7 times per week 5) Several times per day	FF408
	2. Regular cheese (yellow/brown)		FF409
	3. Prawns/Italian salad or similar		FF410
	4. Lean meat		FF411
	5. Servelat sausage, salami or similar		FF412
	6. Liver pate or similar		FF413
	7. Fish		FF414
	8. Preserves (Jam/jelly), other sweet spreads		FF415
	9. Egg (boiled, fried, scrambled)		FF416

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base References/Primary Citations:
Not relevant.

3. Rationale for choosing the questions:
This is a measure of the father's daily intake of bread and food eaten together with bread.

4. Revision during the data collection period:
This section is not included in version B. No further revisions have been made.

42. Drink

1. Name of original questions: Questions about beverage consumption

Q		Response options	Variable name
42	**How often do you drink the following?**		
	1. Whole milk, buttermilk, yogurt	1) Seldom/never 2) 1-6 glasses per week 3) 1 glass per day 4) 2-3 glass per day 5) 4 glasses or more per day	FF417
	2. Low-fat and skimmed milk		FF418
	3. Fruit juice		FF419
	4. Coca Cola/Pepsi with sugar		FF420
	5. Coca Cola/Pepsi sugar-free		FF421
	6. Other sugar-free fizzy drinks		FF422
	7. Energy drinks, Battery or similar		FF423
	8. Filter-and instant coffee		FF424
	9. Boiled/Cafeteria coffee		FF425
	10. Other coffee, espresso or similar		FF426
	11. Tea		FF427

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base References/Primary Citations:
Not relevant.

3. Rationale for choosing the questions:
This is a measure of the father's daily intake of beverage.

4. Revision during the data collection period:
This section is not included in version B. No further revisions have been made.

43. Dinner

1. Name of original questions: Questions about dinner

Q		Response options	Variable name
43	**How often do you eat these meals?**		
	1. Sausages, hamburger	1) Seldom/never 2) 1-2 times per month 3) 3-4 times per month 4) 2-3 times per week 5) 4 times or more per week	FF428
	2. Kebab		FF429
	3. Pizza		FF430
	4. Meals with minced meat		FF431
	5. Pure meat		FF432
	6. Chicken/turkey		FF433
	7. Lean fish (cod, Pollock, haddock etc.)		FF434
	8. Fatty fish (trout, salmon, mackerel, herring)		FF435
	9. Fish balls/fish cakes		FF436
	10. Vegetable meals		FF437
	11. Other		FF438

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base References/Primary Citations:
Not relevant.

3. Rationale for choosing the questions:
This is a measure of the father's daily food intake through dinner.

4. Revision during the data collection period:
This section is not included in version B. No further revisions have been made.

44. Vegetables/Fruits

1. Name of original questions: Questions about intake of vegetables/fruit

Q		Response options	Variable name
44	**How often do you eat vegetables and fruit?**		
	1. Raw vegetables/salad	1) Seldom/never 2) 1-3 times per month 3) 1-2 times per week 4) 3-4 times per week 5) 5 times or more per week	FF439
	2. Cooked vegetables in stews		FF440
	3. Cooked vegetables		FF441
	4. Fruits		FF442

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base References/Primary Citations:
Not relevant.

3. Rationale for choosing the questions:
This is a measure of the father's daily intake of vegetables and fruits.

4. Revision during the data collection period:
This section is not included in version B. No further revisions have been made.

45-46. Eating Patterns

1. Name of original questions: Questions about the father's eating patterns

Q		Response options	Variable name
45	**How often do you eat food bought from these places?**		
	1. Canteen/cafeteria	1) Seldom/never 2) 1-3 times per month 3) 1-4 times per week 4) 5-7 times per week 5) Several times per day	FF443
	2. Restaurant		FF444
	3. Kiosk/snack bar		FF445
	4. Petrol/gasoline station		FF446
	5. McDonald's Burger King etc.		FF447
46	**How would do describe your diet?**		
	1. I have a varied diet		FF448
	2. I do not eat fish		FF449
	3. I do not eat meat		FF450
	4. I am a vegetarian		FF451

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base References/Primary Citations:
Not relevant.

3. Rationale for choosing the questions:
The questions were developed to survey fraternal eating patterns and dietary characteristics.

4. Revision during the data collection period:
This section is not included in version B. No further revisions have been made.

47-48. Dietary Supplement

1. Name of original questions: Questions about the father's eating patterns

Q		Response options	Variable name
47	**Do you use any form of dietary supplement?**		
		1-No 2-Yes	FF452
48	**If yes, which type?**		
	1. Multivitamin-/mineral supplement		FF453
	2. Cod-liver oil/fish oil		FF454
	3. Protein supplement		FF455

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base References/Primary Citations:
Not relevant.

3. Rationale for choosing the questions:
The questions were developed to survey fraternal eating patterns and dietary characteristics.

4. Revision during the data collection period:
This section is not included in version B. No further revisions have been made.

Lifestyle

49-56. Smoking

1. Name of original questions: Questions about the father's smoking habits

Q		Response options	Variable name
49	**Have you ever smoked?**		
		1-No 2-Yes	FF214
50	**Did you smoke in the six months before your partner became pregnant?**		
		1-No 2-Yes, sometimes 3-Yes, daily	FF215
	If sometimes, number of cigarettes per week	Number 0-99	FF216
	If yes, number of cigarettes per day		FF217
51	**Do you smoke now after your partner became pregnant?**		
		1-No 2-Yes, sometimes 3-Yes, daily	FF218
	If sometimes, number of cigarettes per week	Number 0-99	FF219
	If yes, number of cigarettes per day		FF220
52	**If yes, where do you smoke?**		
		1-Only outside 2-Both inside and outside 3-Only inside	FF221
53	**Have you ever used smokeless/chewing tobacco ('snus')?**		
		1-No 2-Yes	FF456
54	**If yes, dis you use smokeless/chewing tobacco in the six months before your partner became pregnant?**		
		1-No 2-Yes, daily 3-Yes, may times per week, but not daily 4-Less often than weekly	FF457
55	**What type of smokeless/chewing tobacco do you usually use?**		
		1-Normal (loose) 2-Pouche 3-Mini-pouches 4-About the same of each type	FF458
56	**How much smokeless/chewing tobacco do you use per week?**		
		1-Whole box 2-Half box 3-Quarter box 4-Less than a quarter box	FF459
	If whole box, specify number of boxes:	Number 0-99	FF460

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base References/Primary Citations:
Not relevant.

3. Rationale for choosing the questions:
This is a measure of the father's intake of nicotine, both through cigarettes and smokeless/chewing tobacco, which can be a risk factor for unborn babies.

4. Revision during the data collection period:
Questions 53-56 are not included in version B. No further revisions have been made.

57. Illegal Drugs

1. Name of original questions: Questions about the father's history of drug use

Q		Response options			Variable name
57	**Have you used any of the following narcotic substances?**				
		Never	*Previously*	*Six months before your partner became pregnant*	*Now*
	1. Cannabis/Hash	FF222	FF223	FF224	FF225
	2. Ecstasy	FF226	FF227	FF228	FF229
	3. Cocaine	FF230	FF231	FF232	FF233
	4. Heroin	FF234	FF235	FF236	FF237
	5. Amphetamine	FF553	FF554	FF555	FF556
	Other	FF461	FF462	FF463	FF464
	Other, which?	FF550 FF551(txt)			

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base References/Primary Citations:
Not relevant.

3. Rationale for choosing the questions:
These questions were developed to survey the father's history of illegal drug use.

4. Revision during the data collection period:
In version B, item 5 is 'Stimulants (ephedrine, amphetamine, caffeine)', and the 'other' options are not included. No further revisions have been made.

58-61. Alcohol Use

1. Name of original questions: Questions about the father's intake of alcohol

Q		Response options	Variable name	
58	**Have you ever drunk alcohol?**			
		1- No 2- Yes	FF242	
59	**How often did you drink alcohol in the six months before your partner became pregnant and how often do you drink now that your partner is pregnant?**			
	Before	1-Approximately 6-7 times per week 2-Approximately 4-5 times per week 3-Approximately 2-3 times per week 4-Approximately once per week 5-Approximately 1-3 times per month 6-Less than once per month 7-Never	FF243	
	Now		FF244	
60	**How many alcohol units did you normally drink in the six months before your partner became pregnant and how many alcohol units now that your partner is pregnant?**			
			Weekends	*Weekdays*
	Before	1) 10 or more 2) 7-9 3) 5-6 4) 3-4 5) 1-2 6) Fewer than 1	FF465	FF466
	Now		FF467	FF468
61	**Have you drunk 5 alcohol units or more on at least one occasion in the six months before your partner became pregnant or now after your partner became pregnant?**			
	Before	1) Several times per week 2) Once per week 3) 1-3 times per month 4) Less than once per month 5) Never	FF473	
	Now		FF474	

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base References/Primary Citations:
Not relevant.

3. Rationale for choosing the questions:
This is a measure of the father's intake of alcohol six months before his partner became pregnant and now after his partner became pregnant.

4. Revision during the data collection period:
For questions 60 & 61, the response option does not make a distinction between 'before' and 'now', nor between 'weekends' and 'weekdays'. No further revisions have been made.

62-64. Physical Activities

1. Name of original questions: Questions about the father's physical activities

Q		Response options	Variable name
62	**How often are you now so physically active that you become out of breath or seat?**		
	In leisure time	1) Never 2) Less than once per week 3) Once per week 4) 2-3 times per week 5) 4-6 times per week 6) Approximately every day	FF246
	At work		FF247
63	**How has your physical activity in leisure time been in the last year?**		
	Light physical activity (not sweating/out of breath)	1) None 2) Less than 1 per week 3) 1-2 times per week 4) 3 or more times per week	FF475
	Heavy physical activity (sweating/out of breath)		FF476
64	**Describe your exercise and physical exertion in your leisure time. If the activity varies a lot, e.g. between summer and winter, take an average. The question relates to the last year.**		
		1- Read, watch TV or other sedentary occupation 2- Walking, cycling or other motion, at least 4 hours per week (including walking/cycling to work, Sunday walks etc.) 3- Take part in sports/athletics, heavy garden work etc. at least 4 hours per week 4- Hard training or take part in competitive sport regularly and several times a week	FF477

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base References/Primary Citations:
Not relevant.

3. Rationale for choosing the questions:
This is a measure of the father's daily physical activities.

4. Revision during the data collection period:
Questions 63 & 64 are not included in version B. No further revisions have been made.

65. Hormone Substances

1. Name of original questions: Questions about the father's use of hormone substances

Q		Response options			Variable name
65	**Have you ever used any of the following substances?**				
		Never	*Previously*	*Six months before your partner became pregnant*	*Now*
	1. Anabolic steroid	FF321	FF322	FF323	FF324
	2. Testosterone medications	FF325	FF326	FF327	FF328
	3. Growth hormone (e.g. Genotropin/Somatropin)	FF329	FF330	FF331	FF332

2. Description of original questions: MoBa specific single questions

Psychometric Information:
Not relevant.

Base References/Primary Citations:
Not relevant.

3. Rationale for choosing the questions:
These questions were developed to survey the father's history of use of hormone substances.

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

How are you now?

66. Depression/Anxiety

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

Q		Response options	Variable name
66	**Have you been bothered by any of the following feelings during the last two weeks?**		
	1. Feeling fearful	1-Not bothered 2-A little bothered 3-Quite bothered 4-Very bothered	FF251
	2. Nervousness or shakiness inside		FF252
	3. Feeling hopeless about the future		FF253
	4. Felling blue		FF254
	5. Worrying too much about things		FF255
	6. Feeling everything is an effort		FF256
	7. Feeling tense or keyed up		FF257
	8. Suddenly scared for no reason		FF258

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

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

Psychometric Information:

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

Base References/Primary Citations:

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

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

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

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

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

3. Rationale for choosing the questions:

Symptom Check List and its short versions have proven to be a brief, valid and reliable measure of mental distress (Tambs & Moum, 1993).

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

67-68. Life Time History of Depression

1. Name of original Scale: Life Time History of Major Depression (LTH of MD)

Q		Response options	Variable name
67	**Have you ever experienced the following for a period of 2 weeks or more earlier in your life?**		
	1. Felt depressed, sad	1-No 2-Yes	FF259
	2. Had problems with appetite or eaten too much		FF260
	3. Been bothered by lack of energy		FF261
	4. Blamed yourself and felt worthless		FF262
	5. Had problems with concentration or had problems making decisions		FF263
	6. Had at least 3 of the problems named above simultaneously		FF264
68	**If you have had 3 or more of these problems at the same time:**		
	How many times has it occurred?	Number 0-99	FF478
	How many weeks did the longest period last?		FF479

2. Description of original instrument: Life Time History of Major Depression (LTH of MD)

These items closely correspond to the DSM-III criteria for lifetime major depression. DSM criteria are met when *i)* three types of symptom items are endorsed, *ii)* one of these is the first, felt depressed, and *iii)* three types of symptoms occurred simultaneously. The criteria also include that the depression was not caused by some externally negative incident.

Psychometric Information:

The reliability of the scale was tested by a new examination a year later, now using the CIDI structured interview. The correspondence was rather modest (kappa = 0.34, tetrachoric r = 0.56) (Kendler, et al., 1993).

Base Reference/Primary Citation:

Kendler, K. S., Neale, M. C., Kessler, R. C., Heath, A.C. and Eaves, L.J. (1993). The lifetime history of major depression in women: reliability of diagnosis and heritability. *Archives of General Psychiatry 50*: 863-870.

3. Rationale for choosing the questions:

The questions aim to measure lifetime symptoms of depression. The measurement precision is not impressing, probably primarily because people tend to forget their problems earlier in life, but no alternative measure of life time depression was available.

4. Revision during the data collection period:

Question 68 is not included in version B. No further revisions have been made.

69. Self Esteem

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

Q		Response options	Variable name
69	**What kind of perception do you have of yourself?**		
	1. I have a positive attitude toward myself	1-Agree completely 2-Agree 3-Disagree 4-Disagree completely	FF265
	2. I feel completely useless at times		FF266
	3. I feel that I do not have much to be proud about		FF267
	4. I feel that I am a valuable person, as good as anyone else		FF268

2. 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 (Ystgyeard, 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. Sørgyeard. *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.

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

3. Rationale for choosing the questions:

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

4. Revision during the data collection period:

No revisions have been made.

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

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

	Describe yourself as you usually are	Response options	Variable name
1	Am the life of the party	1-Strongly disagree 2-Disagree somewhat 3-Neither nor 4-Agree somewhat 5-Strongly agree	FF480
2	Feel little concern for others		FF481
3	Am always prepared		FF482
4	Get stressed out easily		FF483
5	Have a rich vocabulary		FF484
6	Don't talk a lot		FF485
7	Am interested in other people		FF486
8	Leave my belongs around		FF487
9	Am relaxed most of the time		FF488
10	Have difficulty understanding abstract ideas		FF489
11	Feel comfortable around people		FF490
12	Insult people		FF491
13	Pay attention to details		FF492
14	Worry about things		FF493
15	Have a vivid imagination		FF494
16	Keep in the background		FF495
17	Sympathize with others' feelings		FF496
18	Make a mess of things		FF497
19	Seldom feel blue		FF498
20	Am not interested in abstract ideas		FF499
21	Start conversations		FF500
22	Am not interested in other people's problems		FF501
23	Get chores done right away		FF502
24	Am easily disturbed		FF503
25	Have excellent ideas		FF504
26	Have little to say		FF505
27	Have a soft heart		FF506
28	Often forget to put things back in their proper place		FF507
29	Get upset easily		FF508
30	Do not have good imagination		FF509
31	Talk to a lot of different people at parties		FF510
32	Am not really interested in others		FF511
33	Like order		FF512
34	Change my mood a lot		FF513
35	Am quick to understand things		FF514
36	Do not like to draw attention to myself		FF515
37	Take time out for others		FF516
38	Shirk my duties		FF517
39	Have frequent mood swings		FF518
40	Use difficult words		FF519
41	Don't mind being the centre of attention		FF520
42	Feel others' emotions		FF521
43	Follow a schedule		FF522
44	Get irritated easily		FF523
45	Spend time reflecting on things		FF524
46	Am quiet around strangers		FF525
47	Make people feel at ease		FF526
48	Am exacting in my work		FF527
49	Often feel blue		FF528
50	Am full of ideas		FF529

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

The IPIP Big-Five factor markers (Goldberg, 2001) consist of a 50 or 100-item inventory. The MoBa makes use of the 50-item version consisting of 10 items for each of the Big-Five personality factors: Extraversion, Agreeableness, Conscientiousness, Emotional Stability (Neuroticism) and Intellect. Participants were requested to rate how well the 50 items described them on a 5-point scale (strongly disagree to strongly agree).

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

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

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

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

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

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

4. **Revision during the data collection period:**
   The instrument was only used in version D of the questionnaire. No further revisions have been made.

71. Life Satisfaction

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

Q		Response options	Variable name
71	**Do you agree or disagree with the following statements?**		
	1. In most ways my life is close to my ideal	1-Disagree completely 2- Disagree 3- Disagree somewhat 4- Don't agree or disagree 5- Agree somewhat 6- Agree 7- Agree completely	FF269
	2. The conditions of my life are excellent		FF270
	3. I am satisfied with my life		FF271
	4. So far I have gotten the important things I want in life		FF272
	5. If I could live my life over, I would change almost nothing		FF273

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

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

Psychometric Information:

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

Base References/Primary Citations:

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

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

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

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

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

3. Rationale for choosing the questions:

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

4. Revision during the data collection period:

No revisions have been made.

72. Adult ADHD

1. Name of original scale: Adult ADHD Self-Report Scale (ASRS Screener)

Q		Response options	Variable name
72	**Feeling of agitation and restlessness in the last six months.**		
	1. How often do you have trouble wrapping up the final details of a project, once the challenging parts have been done?	1-Never 2-Rarely 3-Sometimes 4-Often 5-Very often	FF535
	2. How often do you have difficulty getting things in order when you have to do a task that requires organisation?		FF536
	3. When you have a task that requires a lot of thought, how often do you avoid or delay getting started?		FF537
	4. How often do you have problems remembering appointments or obligations?		FF538
	5. How often do you fidget or squirm with your hands or feet when you have to sit down for a long time?		FF539
	6. How often do you feel overly active and compelled to do things, like you were driven by a motor?		FF540

2. Description of original instrument: Adult ADHD Self-Report Scale (ASRS Screener)

Adult ADHD Self-Report Scale (ASRS; Kessler et al.,2005) is a self-report screening scale of adult attention deficit/hyperactivity disorder (ADHD). This scale was originally developed in conjunction with revision of the WHO Composite International Diagnostic Interview (CIDI) and includes 18 questions concerning the frequency of recent DSM-IV Criterion A - symptoms of adult ADHD. A short form of the ASRS (ASRS screener), consisting of six questions, was developed by Kessler et al. (2007). Four questions (1-4) capture symptoms of inattention and two questions (5 & 6) entail symptoms of hyperactivity - impulsivity. The response options are “never”, “rarely”, “sometimes”, “often”, and “very often”.

Psychometric Information:

Due to the wide variation in symptom-level concordance, the unweighted six-question ASRS screener outperformed the unweighted 18-question ASRS in sensitivity (68.7% v. 56.3%), specificity (99.5% v. 98.3%), total classification accuracy (97.9% *vs*. 96.2%), _ (0.76 *vs*. 0·58), and OR (414.1 vs. 73.4) (Kessler et al., 2005). The internal consistency reliability of the continuous ASRS Screener was between .63-.72, while the test-retest reliability (Pearson’s correlations) was in the range of .58-.77. Furthermore, it seems like ASRS Screener measures the core aspects of adult ADHD, since the four-category version of ASRS Screener had strong concordance with clinical diagnoses with an AUC of .90 (Kessler et al., 2007).

Base References/Primary Citations:

Kessler R.C., Adler L., Ames M., Demler O., Faraone S., Hiripi E., Howes M. J., Jin R., Secnik, K., Spencer T., Ustun T.B. and Walters E.E. (2005). The World Health Organization adult ADHD self-report scale (ASRS): a short screening scale for use in the general population. *Psychological Medicine* 35(2):245-256.

Kessler R.C., Adler L., Gruber M.J., Sarawate C.A., Spencer T. and van Brunt D.L. (2007). Validity of the World Health Organization Adult Self-Report Scale (ASRS) Screener in a representative sample of health plan members. *International Journal of Methods in Psychiatric Research* 16(2): 52-65.

3. Rationale for choosing the questions:

The self-administrating nature of the ASRS Screener and the small number of questions makes it a suitable instrument for screening in large population-based questionnaires and epidemiological studies (Kessler et al., 2005).

4. Revision during the data collection period:
The instrument was only used in version D of the questionnaire. No further revisions have been made.

73. Adverse Life Events

1. Name of original questions: Questions about life events

Q		Response options	Variable name
73	**Have you experienced any of the following during the last 12 months?**		
	1. Problems at work or study place	1. No 2. Yes	FF283
	2. Financial problems		FF284
	3. Got divorced, separated or ended a relationship		FF285
	4. Problems or conflicts with your family, friends or neighbors		FF286
	5. Serious concerns that something is wrong with the bay you are expecting		FF544
	6. Serious personal ill or injured		FF545
	7. Close relative has been seriously ill or injured		FF546
	8. Involved in a serious traffic accident, fire or robbery		FF547
	9. Lost someone close to you		FF288
	10. Forced into sexual activity		FF548
	11. Exposed to physical violence		FF549
	12. Other Other, describe:		FF289 FF290 FF320(txt.)

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

Psychometric Information:
No relevant psychometric information has been found.

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

3. Rationale for choosing the questions:
The selected questions were chosen because they were believed to address life events that supposedly affect the father and his family.

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

74. Relationship Satisfaction Scale (RSS)

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

Q		Response options	Variable name
74	**How much do you agree with these descriptions of your relationship with your wife/partner?**		
	1. My partner and I have problems in our relationship	1-Agree completely 2-Agree 3-Agree somewhat 4-Disagree somewhat 5-Disagree 6-Disagree completely	FF292
	2. I am very happy with our relationship		FF293
	3. My partner is generally understanding		FF294
	4. I am satisfied with my relationship with my partner		FF295
	5. We agree on how our child should be raised		FF296

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

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

Psychometric Information:

Internal reliability of the RS10 is high (alpha: .85-.90). Confirmatory factor analyses provide evidence for a unidimensional structure, high loadings and good fit. The RSS correlates .92 with the Quality of Marriage Index (QMI: Norton, 1983). Predictive validity is evidenced by ability to predict future break-up/divorce and life satisfaction (Dyeardal 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.

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

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

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

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

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

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

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

3. Rationale for choosing the questions:

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

4. Revision during the data collection period:

No revisions have been made.

75-77. Social Support

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

Q		Response options	Variable name
75	**Do you have anyone other than your wife/partner you can ask for advice in a difficult situation?**		
		1- No 2-Yes, 1-2 people 3-Yes, more than 2 people	FF541
76	**How often do you meet or talk on the telephone with your family (other than your wife/partner and children) or close friends?**		
		1) Once a month or less 2) 2-8 times a month 3) More than twice a week	FF542
77	**Do you often feel lonely?**		
		1-Almost never 2-Infrequently 3-Sometimes 4-Usually 5-Almost always	FF543

2. Description of original questions: MoBa specific questions

Psychometric Information:
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:
In father questionnaire, the word 'husband' in the first 2 items has been replaced with 'wife'. The last item 'Do you often feel lonely?' is not included in Q-8year. No further 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.

78. 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
78	**How often do you experience the following in your everyday life?**		
	1. Feel glad about something	1-Rarely or never 2-Hardly ever 3-Sometimes 4-Often 5-Very often	FF277
	2. Feel happy		FF278
	3. Feel joyful, like everything is going your way, everything is rosy		FF279
	4. Feel like screaming at somebody or banging on something		FF280
	5. Feel angry, irritated, annoyed		FF281
	6. Feel mad at somebody		FF288

2. 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.

3. 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.

4. Revision during the data collection period:

No revisions have been made.