

# Questions documentation

## 14-year Questionnaire (Q-14aar)

### when the child is 14 years old

The Norwegian Mother and Child Cohort Study (MoBa)

Child questionnaire

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## MODEL STRUCTURE OF WHAT IS PRESENTED PER INSTRUMENT / SECTION

<b>Instrument</b>
<b>1. Name of original instrument/question:</b> Original name of scale ( <i>no name</i> 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)
<b>2. Description of original scale or selection of items used</b> 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.
<b>3. Rationale for choosing the instrument:</b> What is it meant to measure and IF RELEVANT: Why this is a good measure.
<b>4. Modifications:</b> Describe modifications during the study from one version to another. Write if omitted or added from one version to another

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

NOTE 2:

This instrument documentation was written based on the version of the questionnaire per 06.01.2020. 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](mailto:mobaadm@fhi.no)

# Leisure time

## 1-6. Activities in leisure time

### 1. Name of original questions: Questions about the child's activities in leisure time

Q		Response options	Variable name
1	<b>Outside school hours, how many days a week do you usually do the following?</b>		
	1. Hanging out with friends	1- Never / seldom	UB10
	2. Exercise (e.g. soccer, handball, skiing, running, dance, gymnastics)*	2- 1 day	UB11
	3. Other organized activities (for instance drama class/music/scouts)	3- 2-3 days	UB12
	4. Stay at home all afternoon and evening	4- 4-5 days	UB13
	5. Reading a book, listening to audio book	5- 6-7 days	UB14
	<b>Outside school hours...</b>		
Version B	2 ...about how many hours a week do you usually do sports or physical activities (soccer, handball, running, gymnastics, dance etc.) so much that you become out of breath or sweaty?	1- Never 2- Less than 1 hour 3- 1-2 hours 4- 3-4 hours 5- 5-7 hours 6- 8-10 hours 7- 11 hours or more	UB15
	3 ... on a <u>typical weekday</u> , about how many hours a day do you sit still (TV, PC, travel, reading, 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	UB16
	4 ... on a typical <u>weekend day</u> , about how many hours a day do you sit still (TV, PC, travel, reading, 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	UB17
	2a ... about how many hours a week are you physically active?	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	UB298
Version A	3a ... about how many hours a day do you sit still (travel, TV, PC, reading, 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	UB299
5	<b>How much time do you usually spend during one weekday on the following activities?</b>		
	1. Watch movies/series/TV	1-never/ rarely	UB18
	2. Doing homework	2- Less than 1 hour	UB19
	3. Playing games (on PC, TV, tablet, mobile etc.)	3- 1-2 hours	UB20
	4. Sitting/lying down with PC, mobile or tablet (irrespective of activity)**	4- 3-4 hours 5- 5-6 hours 6- 7 hours or more	UB21
	5. Communicating with friends on social media	6- 7 hours or more	UB22
6	<b>Do you participate in organized exercise or sports (through sports teams or clubs/organisations)?</b>		
		1- Yes 2- No, but did previously 3- No	UB23
	If 'no, but did previously' How old were you when you stopped?	No. of years	UB24

\* "handball, dance and gymnastics" were added as examples in version B

\*\* "lying down" was added in version B

### 2. Description of original scale: MoBa specific single questions; questions 2-4 about physical activity are 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 activities in leisure time, including physical and social activities, doing homework, playing games, etc.

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

Question 2 and 6 only appears in version B. Question 3a in version A was split into weekdays (3) and weekends (4) in version B, and the response categories were changed

## 7-8. Friendship and relationship/social competence

- 1. Name of original Scale:** Questions adapted from the Self-perception Profile for Adolescents; Scale for Social Competence

Q		Response options	Variable name
<b>7</b>	<b>How well do the following statements correspond for you?</b>		
	1. I find it quite hard to make friends	1- Corresponds very poorly	UB25
	2. I have a lot of friends	2- Corresponds quite poorly	UB26
	3. Other teenagers find it hard to like me	3- Corresponds quite well	UB27
	4. I am popular with other teenagers	4- Corresponds very well	UB28
	5. I feel socially accepted among others		UB29
<b>8</b>	<b>Do you have a steady boy-/girlfriend?</b>		
		1- yes 2- no, but had previously 3- no, never had	UB30

- 2. Description of original scale:** The Self-perception Profile for Adolescents; Scale for Social Competence (Harter, 1988) was revised and adapted by Wichtstrøm for use in the Young in Norway surveys (Strand & von Soest, 2008; Wichstrøm, 1995).

*Psychometric Information:*

The Norwegian version was validated in a representative sample of adolescents aged 13 to 20, and indicated good reliability, convergent validity and factorial validity (Wichstrøm, 1995).

*Base Reference/Primary Citation:*

Harter, S. (1988). *Manual for the Self-Perception Profile for Adolescents*. Denver, CO: University of Denver.

Harter, S. (2012). Self-perception profile for adolescents: Manual and questionnaires. *Denver, CO: Univeristy of Denver, Department of Psychology*.

Wichstraum, L. (1995). Harter's Self-Perception Profile for Adolescents: Reliability, validity, and evaluation of the question format. *Journal of personality assessment*, 65(1), 100-116.

Strand, N. P., & von Soest, T. (2008). Young in Norway—Longitudinal. Documentation of design, variables, and scales. *Oslo, Norway: NOVA, NTNU*.

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

These items reflect general attributes of *self* that determined social success.

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

No revisions have been made.

## 9. Strengths and Difficulties Questionnaire (SDQ) – Prosocial Subscale

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

Q		Response options	Variable name
9	<b>Give answers on the basis of your behaviour over the past 6 months.</b>		
	1. I am considerate to other people's feelings	1- Not true 2- Somewhat true 3- Certainly true	UB31
	2. I share readily with others (treats, games other things)		UB32
	3. I am helpful if someone is hurt, upset or feeling ill		UB33
	4. I am kind to children younger than me		UB34
	5. I often volunteer to help others (parents, teachers, other children/youths)		UB35

**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/Base Reference/Primary Citation:*

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  $\alpha$  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 MoBa. The Prosocial Subscale was included as this dimension is not covered in other scales.

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

This scale only appears in version B.

## 10. Satisfaction with Life Scale (SWLS)

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

Q		Response options	Variable name
10	<b>How satisfied are you with your life?</b>		
	1. In most ways my life is close to my ideal	1- Disagree completely	UB36
	2. The conditions of my life are excellent	2- Disagree	UB37
	3. I am satisfied with my life	3- Disagree somewhat	UB38
	4. So far I have gotten the important things I want in life	4- Don't agree or disagree	UB39
	5. If I could live my life over, I would wish to have it the same way	5- Agree somewhat 6- Agree 7- Agree completely	UB40

### 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 ( $r=.28\sim.82$ ), 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 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.

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.

## 11. Adolescent depression

### 1. Name of original scale: Short Mood and Feelings Questionnaire (SMFQ)

Q		Response options	Variable name
11	<b>Here follows a list of different disturbing feelings and thoughts one might have sometimes. Think about the past two weeks and mark each item whether you have felt or thought these ways.</b>		
	1. Felt miserable or unhappy		UB41
	2. Felt so tired that I just sat around and did nothing		UB42
	3. Was very restless		UB43
	4. Didn't enjoy anything at all	1-Not true	UB44
	5. Felt I was no good anymore		UB45
	6. Cried a lot	2- Sometimes true	UB46
	7. Hated myself		UB47
	8. Thought I could never be as good as other kids	3-True	UB48
	9. Felt lonely		UB49
	10. Thought nobody really loved me		UB50
	11. Felt I was a bad person		UB51
	12. Felt I did everything wrong		UB52
	13. Found it hard to think/concentrate		UB53

### 2. Description of original scale: Short Mood and Feelings Questionnaire (SMFQ)

The 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. This section used the child-report form.

#### *Psychometric Information/Base Reference/Primary Citation:*

The internal reliability coefficient for the child version of is: Cronbach's alpha= 0.87, suggesting this shortened version of the survey 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.

## 12. The (Hopkins) Symptoms Checklist (SCL-10)

### 1. Name of original scale: The (Hopkins) Symptoms Checklist (SCL-10)

Q		Response options	Variable name
12	<b>Have you over the past 2 weeks been bothered with any of the following?</b>		
	1.Feeling fearful	1-Not bothered	UB54
	2.Nervousness or shakiness inside	2-A little bothered	UB55
	3.Feeling hopeless about the future	3-Quite bothered	UB56
	4.Feeling blue	4-Very bothered	UB57
	5.Worrying too much about things		UB58
	6.Feeling everything is an effort		UB59
	7.Feeling tense or keyed up		UB60
	8.Suddenly scared for no reason		UB61
	9.Anxiety or panic attack		UB62
	10.Feelings of worthlessness		UB63

### 2. Description of original scale: 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. Short versions were developed for MoBa by stepwise regressing the items on the total scores (anxiety, depression and global scores) in an available data material (Tambs & Moum, 1993) as described by Tambs & Røysamb (2014). The combinations of items in the short versions that gave the maximum correlation between the short version scores and the original scores were chosen. Eight of the selected items constitute the short version (SCL-8) measuring anxiety (items 1, 2, 7 and 8) and depression (items 3, 4, 5 and 6). Items 9 and 10 (anxiety and depression, respectively), were included to increase reliability, resulting in a new SCL-10. Response categories are the same for all items: "not at all, bothered," "a little bothered," "quite a bit bothered," "extremely 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 available data material (Tambs & Moum, 1993), the short version scores were estimated to correlate 0.94 (SCL-8) 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 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. & 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. *Norwegian Journal of Epidemiology [Norsk Epidemiologi]* 24:195-201.

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

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

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

This scale only appears in version B.

## 13. Social phobia

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

Q		Response options	Variable name
13	<b>How much have the following problems bothered you during the past week?</b>		
	1. Fear of embarrassment cause me to avoid doing things or speaking to people	1-Not at all 2-A little bit 3-Somewhat 4-Very much 5-Extremely	UB64
	2. I avoid activities in which I am the centre of attention		UB65
	3. Being embarrassed or looking stupid are among my worst fears		UB66

### 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.

## 14. Bullying

1. **Name of original scale:** Scales concerning being bullied (BB) and bullying others (BO)

Q		Response options	Variable name
14	<b>Bullying is defined as being excluded, teased, hit or bothered repeated times. Have you experienced being bullied over the past year?</b>		
	1. Have been bullied by being teased	1- Never	UB67
	2. Have been bullied by not being allowed to be with others, isolated or shut out from others	2- Now and then	UB68
	3. Have been bullied by being hit, kicked or pushed	3- Weekly	UB69
	4. Have been bullied by someone using mobile phones or other social media to spread rumours, tease or threaten you	4- Daily	UB70

2. **Description of original scale:** Scales concerning being bullied (BB) and bullying others (BO)

The items in this section were taken from the scales concerning being bullied (BB) and bullying others (BO) as used in Roland and Idsøe (2001). BB and BO were each composed of four items: bullying by physical means, verbal means, isolation, and a general question about being bullied /bullying others. Alternative answers were ‘never,’ ‘now and then’, ‘weekly,’ and ‘daily.’ This section includes three items of BB, and one item concerning cyber-bullying.

*Psychometric Information:*

Not relevant.

*Base Reference/Primary Citation:*

Roland E. and Idsøe, T. Aggression and Bullying. Aggressive Behaviour, 2001 (27): 446-462.

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

These questions were developed to survey the incidences of being bullied concerning the project child.

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

No revisions have been made.

## 15.1 Relations with parents

**1. Name of original Scale:** Selective questions Parental relations Self-concept Scale from the Self-Description Questionnaire II-Short (SDQII-S)

Q		Response options	Variable name
15.1	<b>Here follows statements about how adolescents can feel about their parents.</b> Mark each question how often you feel this way in your family		
	1. My parents understand me	1- Never	UB71
	2. I get along well with my parents	2- Now and then	UB72
	3. My parents like me	3- Often	UB73
	4. I like my parents	4- Almost all the time	UB74

**2. Description of original instrument:** Parental relations Self-concept Scale from the Self-Description Questionnaire II-Short (SDQII-S)

The Self-Description Questionnaire II-Short (SDQII-S; Marsh et al., 2005) is a modified questionnaire from the original SDQII. The short version contains 51 items from the original 102-item questionnaire, measuring multi-dimensional self-concept in adolescences. SDQII-S contains 11 self-concept factors including 3 academic sub-scales, 7 psychosocial scales (including Parent Relations as selected in this section), and one global self-concept measure.

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

SDQII-S's 11-factor structure was analysed for internal consistency reliability. Based on the sample, Cronbach's Alpha reliability estimates range from .80 to .89 (Marsh et al., 2005)

*Base Reference/Primary Citation:*

Marsh, H. W., Ellis, L. A., Parada, R. H., Richards, G., & Heubeck, B. G. (2005). A short version of the self-description questionnaire II: Operationalizing criteria for short-form evaluation with new applications of confirmatory factor analyses. Psychological Assessment, 17, 81-102.

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

The items in this section can be used to measure child perceptions of parent relationships.

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

No revisions have been made.

## 15.2 Parent-child conflict

- 1. Name of original Scale:** Selected questions from the Parent-Child Conflict Scale; the Parental Environment Questionnaire

Q		Response options	Variable name
15.2			
	5. My parents criticise me	1- Never	UB75
	6. My parents irritate me	2- Now and then	UB76
	7. My parents hurt my feelings	3- Often	UB77
	8. My parents and I get into arguments	4- Almost all the time	UB78

- 2. Description of original instrument:** The Parent-Child Conflict Scale, the Parental Environment Questionnaire (PEQ)

The items are selected from the Parent-Child Conflict Scale in the Parental Environment Questionnaire, developed for use by the Minnesota Twin Family Study (MTFS; see Elkins, McGue and Iacono, 1997). The Parent-Child Conflict Scale comprised 12 items, of which 4 are selected for use in this section. Each item is evaluated on a 4-point Likert scale (1-4 points for replies from “never” to “almost all the time”).

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

Burt et al. (2006) examined 486 monozygotic twin pairs, assessed at ages 11, 14 and 17 years. The internal consistencies for this scale at age 11 years ranged between .81 and .88 for twin and parent informants.

*Base Reference/Primary Citation:*

Burt SA, McGue M, Iacono WG, Krueger, RF. Differential parent-child relationships and adolescent externalizing symptoms: Cross-lagged analyses within a monozygotic twin differences design. Dev Psychol. 2006; 42(6): 1289-1298.

Elkins IJ, McGue M, Iacono WG. Genetic and environmental influences on parent-son relationships: evidence for increasing genetic influence during adolescence. Dev Psychol. 1997; 33(2): 351-363.

- 3. Rationale for choosing the questions:**

The items in this section can be used to measure child perceptions of parent-child conflict.

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

No revisions have been made.

## 16-17. Eating Disorder

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

Q		Response options	Variable name
<b>16</b>	<b>Respond to each question:</b>		
	1. When you think about the <u>past 4 weeks</u> , how often have you been deliberately trying to limit the amount of food you eat to influence your shape or weight?	1-Never/rarely	UB79
	2. Over <u>the past 4 weeks</u> , 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)?	2-Sometimes	UB80
	3. Over <u>the past 4 weeks</u> , how often have you had a definite fear of losing control over eating?	3-Often	UB81
	4. Over <u>the past 4 weeks</u> , has thinking about food, eating or calories made it very difficult to concentrate on things you are interested in (for example, working, following a conversation, or reading)?	4-Very often	UB82
	5. Over <u>the past 4 weeks</u> , have you eaten secretly?		UB83
<b>17</b>	<b>How do you consider your own weight?</b>		
	6. How dissatisfied have you been with your shape (what you see in the mirror)? 7. How uncomfortable have you felt seeing your own body (for example seeing your shape in the mirror, while undressing, taking a bath or shower)? 8. How uncomfortable have you felt about others seeing your shape or figure (for example in communal changing rooms, when swimming or wearing tight clothes)?	1-Not at all 2-A little 3-A lot 4-Very much	UB84 UB85 UB86
		1- Too thin 2- Little too thin 3- Okay 4- Little too thick 5- Too thick	UB87

**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*

The last three questions 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:**

No revisions have been made.

## 18-20. Pain

### 1. Name of original questions: Questions about the child's pain

Q	Response options	Variable name
18	<b>During the past 4 weeks, how often have you had physical pain?</b>  1- Never 2- Less than weekly 3- Weekly, but not daily 4- Daily, but not all the time 5- All the time	UB88
	<b>If Q18 response was 2-5: For how long have you had such pain?</b>  1- less than 1 year 2- 1 year 3- 2-3 years 4- 4-5 years 5- 6-7 years 6- 8-9 years 7- 10 years or longer	UB89
	<b>If response was 'less than 1 year': How many months have you had such pain?</b>  1- less than 1 month 2- 1 month 3- 2-3 months 4- 4-5 months 5- 6-7 months 6- 8-9 months 7- 10-12 months	UB90
	<b>If Q18 response was 2-5: Where was your pain situated?</b>  Mark one or more boxes Head Neck/shoulders Back Chest Stomach Other places	UB91 UB92 UB93 UB94 UB95 UB96
	<b>If Q18 response was 2-5: How strong do you usually feel these pains?</b>  Choose from list; 0-10	UB97
19	<b>How often have you taken non-prescriptive analgesics (for instance Paracet or Ibux) during the past 4 weeks ?</b>	
	 1- Never 2- A few times 3- About once a week 4- 2-3 times a week 5- 4-5 times a week 6- 6-7 days a week	UB98
20	<b>Have you had recurrent headaches (headaches that come and go and which are not caused by colds or other illness) during the past 12 months?</b>	
	 1- No 2- Yes, less than one day a month 3- Yes, 1-3 days a month 4- Yes- 1-5 days a week 5- Yes, more than 5 days a week	UB99

### 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 physical pain among 14-year-old children.

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

No revisions have been made.

## 21-29. Sleeping problems

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

Q	Response options	Variable name	
Questions about sleeping and sleep problems over the past month			
21 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	UB100	
22 How often have you woken up repeatedly during the night?		UB102	
23 How often do you feel tired or sleepy during the day?		UB104	
		Version B	Version A
<i>If q21 = 2-6: For how long have you had difficulties falling asleep at night?</i>	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	UB101	1- less than 1 month 2- 1-2 months 3- 3-6 months 4- more than 6 months
<i>If q22 = 2-6: for how long have you woken up repeatedly during the night?</i>	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	UB103	UB301
<i>If q23 = 2-6: for how long have you felt tired or sleepy during the day?</i>	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	UB105	UB302
24 What time do you normally go to sleep on weekdays?	Choose time		
25 How long time does it normally take from going to bed to sleep, until you actually fall asleep on weekdays?			
26 For how long are you awake during the night (after you have first fallen asleep) on weekdays?			
27 What time do you normally get up in the morning on weekdays?			
28 How often do you use electronic devices (e.g. mobile phone, tablet, pc/mac, tv, etc.) in the bedroom during the last hour before you go to sleep?	1- Never 2- 1-2 evenings a week 3- 3-6 evenings a week 4- Every evening	UB110	
29 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	UB111	

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

*Psychometric Information:*

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 questions:

The first 3 items are core symptoms of insomnia, the most common sleep disorder in adolescents and adults. Virtually all insomnia instruments in 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 26 only appears in version B

# School

## 30. School Belonging

### 1. Name of original scale: Students' sense of school belonging

Q		Response options	Variable name
30	<b>What do you think about your school? Tell how much you agree with these statements</b>		
	1. I like being at school	1-Completely agree	UB112
	2. I feel safe at school	2-Agree a little	UB113
	3. I feel I belong to this school	3-Disagree a little	UB114
	4. Teachers at my school are fair to me	4-Completely disagree	UB115
	5. I am proud to go to this school		UB116

2. **Description of original scale:** The measure of students sense of school belonging was selected from the Norwegian PIRLS 2016 questionnaire <https://www.idunn.no/file/pdf/67034010/klar-framgang.pdf>. The English version is found here: PIRLS questionnaires (Progress in Reading Literacy Study; <http://timssandpirls.bc.edu/pirls2016/international-results/pirls/school-climate/student-sense-of-belonging/>). Five questions are rated on a 4-point scale from 'completely agree' to 'completely disagree'.

*Psychometric Information:*

Not relevant

*Base Reference/Primary Citation:*

PIRLS Norway: <https://www.idunn.no/file/pdf/67034010/klar-framgang.pdf>

*Added references*

Wang, M.T. & Degol, J.L. (2016). School Climate: A Review of the Construct, Measurement, and Impact on Student Outcomes. *Educational Psychology Review*, 1–38.

Thapa, A., Cohen, J., Guffey, S. & Higgins-D'Alessandro, A. (2013). A Review of School Climate Research. *Review of Educational Research*, 83(3), 357–385.

TIMSS: <http://timss2015.org/timss-2015/mathematics/school-climate/students-sense-of-school-belonging/?tab=2>

### 3. Rationale for choosing the instrument:

Questions were included to measure the adolescents' sense of belonging to the school, which is often found to relate to both academic and social-emotional outcomes in adolescence (Thapa, Cohen, Guffey & Higgins-D'Alessandro, 2013; Wang & Degol, 2016)

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

This scale only appears in version B.

## 31. Academic Engagement

- 1. Name of original scale:** Elementary Social Behaviour Assessment – Academic Engagement Subscale.

Q		Response options	Variable name
31	<b>How do you usually behave at school?</b>		

1. I listen intently when the teacher talks or gives directions  
 2. Follow the teacher's directions (e.g. find the necessary materials, starts quickly with the tasks, do what I am told without lingering)  
 3. Show good work effort (e.g. do my best, am engaged, stick to the task, do one thing at a time)  
 4. Sit in my seat and work when it is expected (e.g. complete tasks, work with concentration)  
 5. Ask for help in an appropriate way (e.g. raise my hand or show signs of needing help, seek the teacher, wait my turn)  
 6. Behave as expected in the classroom  
 7. Follow the rules even though when encouraged by peers to break them

1-	Rarely/never	UB117
2-	Sometimes	UB118
3-	Almost always	UB119
		UB120
		UB121
		UB122
		UB123

- 2. Description of original scale:** Elementary Social Behaviour Assessment.

The Scale was defined to identify specific, observable prosocial skills and behaviours that predict students' learning and school adjustment. The original scale consists of 12 items concerning social skills within the classroom, and has been validated in the US (Pennefather & Smolkowski, 2015). The scale was translated and adapted to the Norwegian setting, and were assessed to measure two factors: 'academic engagement' and 'peer social relations' (Arnesen et al, 2017). The scale was developed for teachers to rate their students on three levels: skill mastered (almost always); needs improvement (sometimes); and cause for concern (rarely/never). This section uses a version of the Academic Engagement factor of the scale, adapted to fit self-rating by the student.

*Psychometric Information:* The Academic engagement scale showed excellent score- (.92) and test-retest reliability (.78) in elementary school. The scale correlated with the social skills subscale of the Social Skills Rating Scale at both two time points, and for both early elementary and late elementary school (range r=.60 to r=.68) indicating adequate criterion validity (Arnesen et al., 2017).

*Base Reference/Primary Citation:*

Arnesen, A., Smolkowski, K., Ogden, T., & Melby-Lervåg, K. (2017). Validation of the Elementary Social Behavior Assessment: Teacher Ratings of Students' Social Skills. Emotional and Behavioural Difficulties. doi: 10.1080/13632752.2017.1316473

Pennefather, J., and K. Smolkowski. 2015. "Validation of the Elementary Social Behavior Assessment: A Measure of Student Prosocial School Behaviors." *Assessment for Effective Intervention* 40: 143–154. doi:10.1177/1534508414557562.

- 3. Rationale for choosing the instrument:**

The scale was chosen as a brief measure of academic engagement in the classroom setting, relevant for learning and school adjustment.

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

This scale only appears in version B

## 32-34. School performance

### 1. Name of original scale: Single MoBa specific questions

Q		Response options	Variable name
	<b>Which grade did you get in your previous half-year assessment (term grade)?</b>		
32	In Norwegian		UB124
33	In mathematics	Marks (1-6)	UB125
34	In English		UB126

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

*Psychometric Information/Base Reference/Primary Citation:*

Not relevant

*Base Reference/Primary Citation:*

Not relevant

### 3. Rationale for choosing the instrument:

Included to get information about the adolescents' grades in three main subjects.

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

This question only appears in version B.

**Q30-Q34 were included only in version B, replacing the following two questions about school functioning and school bonding in version A:**

### (version A) School functioning

- 1. Name of original Scale:** The School Functioning Scale from the Nord-Trøndelag Health Study (HUNT)

Q	Response options	Variable name
<b>How are you at school? How common is this for you?</b>		
1. Have difficulty concentrating in class		UB303
2. Think gym or art is fun		UB304
3. Think mathematics is fun		UB305
4. Think Norwegian is fun		UB306
5. Quarrel with your teacher		UB307
6. Look forward to going to school	1- Never	UB308
7. Understand what is being taught	2- Once in a while	UB309
8. Have fun during recess/break time	3- Often	UB310
9. Are satisfied with your test results	4- Very often	UB311
10. Get into fights		UB312
11. Get reprimanded by your teacher		UB313
12. Don't manage to be calm in class		UB314
13. Become bored or dissatisfied		UB315
14. Get help with reading- and writing difficulties		UB316

- 2. Description of original questions:** The School Functioning Scale from the Nord-Trøndelag Health Study (HUNT)

The 14-item School Functioning Scale was developed at the Norwegian Institute of Public Health for the Nord-Trøndelag Health Study (HUNT; see e.g. Størksen et al. 2006 and Torvik et al., 2011, for more detailed description of the study). The three factor analysis (labelled ‘academic,’ ‘conduct’ and ‘dissatisfaction’) was adopted in Størksen et al (2006). Torvik et al. (2011) embraced a four factor analysis with an additional factor labelled ‘attention.’

*Psychometric Information:*

Cronbach alphas based on standardized items for the three factors (‘academic,’ ‘conduct’ and ‘dissatisfaction’) were 0.67, 0.64 and 0.57 respectively (Størksen et al., 2006); Cronbach alphas for the four factors (‘attention’, ‘academic,’ ‘conduct’ and ‘dissatisfaction’) were 0.60, 0.59, 0.64 and 0.56 respectively (Torvik et al., 2011).

*Base Reference/Primary Citation:*

Størksen, I., Røysamb, E., Holmen, T. L. & Tambs, K. (2006). Adolescent adjustment and well-being: Effects of parental divorce and distress. Scandinavian Journal of Psychology, 47, 75–84.

Torvik FA, Rognmo K, Ask H, Røysamb E, and Tambs K. Parental alcohol use and adolescent school adjustment in the general population: Results from the HUNT Study. BMC Public Health 2011, 11:706.

*Modifications:*

One item in the original scale ‘Think other classes are fun’ were replaced with two more specific items in this section, namely ‘Think mathematics is fun’ and ‘Think Norwegian is fun’. Two items from the original scale were deleted. One is ‘Skip school’, the other is ‘Being bullied by other students’. An additional item was added into this section, i.e. ‘Get help with reading- and writing difficulties.’

- 3. Rationale for choosing the questions:**

The items can be used as a measure of school functioning, including factors like attention, academic, conduct, and dissatisfaction.

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

This scale only appears in version A. Was replaced because of poor psychometric properties in MoBa.

**(version A) School bonding**

**1. Name of original Scale:** Selective questions from an instrument related to school bonding

<b>Q</b>	<b>How are you at school? How common is this for you?</b>	<b>Response options</b>	<b>Variable name</b>
	15. Think that school is a prison	1- Never 2- Once in a while 3- Quite often 4- Very often	UB317
	16. Feel that you like your teacher		UB318
	17. Think that your teacher is unfair		UB319
	18. Are sure that your teacher likes you		UB320

**2. Description of original questions:** Selective questions from an instrument about school bonding

The instrument about school bonding was originally developed in Swedish by Liljeberg et al. (2011). The construct of school bonding comprised 4 dimensions: school attachment (3 items), school commitment (2 items), teacher attachment (3 items), and teacher defiance (2 items). 4 items were selected for MoBa. The questions were rated on 4-point scales.

*Psychometric Information:*

Reliability was measured at two points (8<sup>th</sup> and 9<sup>th</sup> grade). Cronbach's alpha for school attachment is T1 0.73, T2 0.77 for school commitment T1 0.69, T2 0.78 for teacher attachment T1 0.78, T2 0.81 and for teacher defiance, T1 0.74, T2 0.74 (Liljeber et al., 2011).

*Base Reference/Primary Citation:*

Liljeber JF, Eklund JM, Fritz MV, af Klinteberg B. Poor school bonding and delinquency over time: Bidirectional effects and sex differences. Journal of Adolescence 2011 34: 1-9.

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

The items can be used as a brief measure of school bonding.

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

This scale only appears in version A.

## 35. 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
35	<b>Have you joined in or done any of this the past year?</b>	
	1. Bullied, threatened or intimidated others	UB127
	2. Initiated physical fights	UB128
	3. Been physically cruel to others	UB129
	4. Harassed or injured animals physically	UB130
	5. Stolen items of nontrivial value without confronting a victim (e.g. shoplifting)	UB131
	6. Deliberately destroyed other's property	UB132
	7. Been truant from school	UB133
	8. Used an object that can cause serious physical harm to others (e.g. a bat, stone, knife, heavy toy)	UB134

### 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 8 items related to CD were selected into use in Q-14aar and correspond to the items in the mother rated questionnaire. Each item was rated on a six-point scale adapted for MoBa to obtain more variance (compared to the original 4 point scale).

#### *Psychometric Information/Base Reference/Primary Citation:*

There was a significant correlation between parent and teacher ratings CD:  $r=.61$ . The alphas for parent and teacher ratings were .78 and .81, respectively. 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.

#### *Modifications*

Some questions (e.g. 'has forced someone into sexual activity', 'has deliberately engaged in fire setting with the intention of causing serious damage') which are not age-appropriate were removed.

### 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.

## 36. The International Personality Item Pool (IPIP) Big-Five factor markers

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

Q		Response options	Variable name
36	<b>Describe yourself the way you usually are</b>		
	1. Am the life of the party		UB135
	2. Sympathize with others' feelings		UB136
	3. Get chores done right away		UB137
	4. Have frequent mood swings		UB138
	5. Have a vivid imagination		UB139
	6. Don't talk a lot	1-Strongly disagree	UB140
	7. Am not interested in other people's problems	2-Disagree somewhat	UB141
	8. Often forget to put things back in their proper place	3-Neither nor	UB142
	9. Am relaxed most of the time	4-Agree somewhat	UB143
	10. Am interested in abstract ideas	5-Strongly agree	UB144
	11. Talk to a lot of different people at parties		UB145
	12. Feel others' emotions		UB146
	13. Like order		UB147
	14. Get upset easily		UB148
	15. Have difficulty understanding abstract ideas		UB149
	16. Keep in the background		UB150
	17. Am not really interested in others		UB151
	18. Make a mess of things		UB152
	19. Often feel blue		UB153
	20. Do not have good imagination		UB154

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

The IPIP Big-Five factor markers (Goldberg, 1999) consist of a 50 or 100-item inventory. The 20-item Mini-IPIP was developed from the 50-item scale (Donnellan, Oswald, Baird & Lucas, 2006), and consists of 4 items for each of the Big-Five personality factors: Extraversion (items 1, 6r, 11, 16r), Agreeableness (items 2, 7r, 12, 17r), Conscientiousness (items 3, 8r, 13, 18r), Emotional Stability (items 4r, 9, 14r, 19r) and Intellect (items 5, 10, 15r, 20r). Participants were requested to read each of the 20 items and then rate how well they believed it described them on a 5-point scale ('strongly disagree' to 'strongly agree'). R means the item should be reversed scored.

### *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 20-item version showed acceptable psychometric properties of internal reliability and test-retest reliability, in addition to comparable convergent-, discriminant- and criterion validity to the full 50-item version (Donnellan et al., 2006). The IPIP Big-Five factor markers have also been validated in a Croatian sample (Mlacic & Goldberg, 2007).

### *Base Reference/Primary Citation:*

Donnellan, M. B., Oswald, F. L., Baird, B. M., & Lucas, R. E. (2006). The mini-IPIP scales: tiny-yet-effective measures of the Big Five factors of personality. *Psychological assessment*, 18(2), 192.

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.

Baldasaro, R. E., Shanahan, M. J., & Bauer, D. J. (2013). Psychometric properties of the Mini-IPIP in a large, nationally representative sample of young adults. *Journal of personality assessment*, 95(1), 74-84.

Cooper, A. J., Smillie, L. D., & Corr, P. J. (2010). A confirmatory factor analysis of the Mini-IPIP five-factor model personality scale. *Personality and Individual Differences*, 48(5), 688-691.

*Modifications:*

Item 10 and 19 were originally phrased 'I am not interested in abstract ideas' and 'seldom feel blue', but were reversed in the current questionnaire due to confusion with double negations (e.g. 'strongly disagree' that 'I am not interested')

**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:**

No revisions have been made.

## 37. Youth psychopathic traits

- 1. Name of original scale:** Selective items from the Youth Psychopathic Traits Inventory-Short child version (YPI-CV)

Q		Response options	Variable name
37	<b>Describe yourself the way you usually are</b>		
	1. It's easy for me to make other people do things that suit me well	1-Strongly disagree	UB155
	2. I can fool others by acting extra nice and sweet		UB156
	3. I am good at getting people to believe in what I make up	2-Disagree somewhat	UB157
	4. It's weak to feel guilty when you have hurt others		UB158
	5. It's weak to feel nervous or worried		UB159
	6. Feelings are less important to me than they are for others	3-Neither nor	UB160
	7. It often happens that I do things without thinking ahead		UB161
	8. It often happens that I talk first and think later	4-Agree somewhat	UB162
	9. I think of myself as someone who does things suddenly		UB163
	10. I get angry at myself when I make mistakes	5-Strongly agree	UB164
	11. I get upset when there is a single mistake in my work		UB165

- 2. Description of original instrument:** Youth Psychopathic Traits Inventory-Short child version (YPI-CV)

The Youth Psychopathic Traits Inventory-child version (YPI-CV; van Baardewijk et al. 2008) is an age-appropriate adaptation of the original YPI (Andershed et al., 2002). The composition of the YPI-CV is identical to YPI, comprising 50 items that combine into 10 subscales. These subscales manifest in a 3 factor structure consisting of (1) a Grandiose-Manipulative dimension (GM, including the subscales dishonest charm, grandiosity, lying, and manipulation), (2) a Callous-Unemotional dimension (CU, including the subscales callousness, unemotionality, and remorselessness), and (3) an Impulsive-Irresponsible dimension (II, including the subscales impulsiveness, thrill-seeking, and irresponsibility). The short version of YPI-CV (van Baardewijk et al. 2010) consists of 18 items, 6 items for each of the 3 factor. Each item is scored on a 4-point Likert scale ranging from *Does not apply at all* to *Applies very well*. 9 items (1-9) were selected into use in this section; items 10-11 are selected from Child and Adolescent Perfection Scale (Flett, et al., 2000).

*Psychometric Information:*

Internal consistencies for the factors are: 0.69 for CU, 0.71 for GM, 0.70 for II, 0.80 for total score. Correlations with original YPI factors and total score: 0.90 for CU, 0.88 for GM, 0.84 for II, 0.93 for total score.

*Base Reference/Primary Citation:*

Andershed H, Kerr M, Stattin H & Levander S. (2002). Psychopathic traits in nonreferred youths: Initial test of a new assessment tool. In E.S. Blaauw & L. Sheridan (Eds.), *Psychopaths: Current international perspectives* (pp. 131–158). The Hague: Elsevier.

Flett, G. L., Hewitt, P. L., Boucher, D. J., Davidson, L. A., & Munro, Y. (2000). The Child-Adolescent Perfectionism Scale: Development, validation, and association with adjustment. Unpublished manuscript, York University, Toronto, Ontario, Canada.

Van Baardewijk, Y., Stegge, H., Andershed, H., Thomaes, S., Scholte, E., & Vermeiren, R. (2008). Measuring psychopathic traits in children through self-report. The development of the Youth Psychopathic Traits Inventory – Child Version. *The International Journal of Law and Psychiatry*, 31, 199–209.

Van Baardewijk, Y., Andershed, H., Stegge, H., Nilsson KW., Scholte, E., & Vermeiren, R. (2010). Development and tests of short versions of the Youth Psychopathic Traits Inventory and the Youth

Psychopathic Traits Inventory – Child Version. *European Journal of Psychological Assessment*, 26, 122–128.

*Modifications:* item 9 was in the original scale phrased ‘I think of myself as someone who does things suddenly, without thinking’ (Andershed et al., 2002).

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

The short version of the YPI-CV is a practical and valid alternative for the original YPIs for measuring psychopathic traits in youths.

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

No revisions have been made

### 38.1 Screen for Child Anxiety Related Disorders (SCARED)

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

Q		Response options	Variable name
38.1	<b>Children and youth might be anxious at times, or be bothered by strange thoughts. Consider the <u>past months</u> and mark each item the way that best applies to you</b>		
	1. I have been really frightened for no reason at all	1-Not true 2- Sometimes true 3- Very true	UB166
	2. I have been afraid to be alone in the house		UB167
	3. People have told me that I worry too much		UB168
	4. I have been scared to go to school		UB169
	5. I have been shy		UB170

**2. Description of original scale:** Screen for Child Anxiety Related Disorders (SCARED): Child 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 symptom. 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). Children rate how true the statements describe them 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 the 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

## 38.2 Self-disturbances and psychotic tendencies

**1. Name of original scale:** questions from the Examination of Anomalous Self-Experience (EASE).

Q		Response options	Variable name
38.2	<b>Children and youth might be anxious at times, or be bothered by strange thoughts. Consider the past months and mark each item the way that best applies to you</b>		
Version B	6. I ruminate so much and intensely about myself and the world around me, that it bothers me a lot and ruins a lot for me	1-Not true 2- Sometimes true 3-True	UB171
	7. I feel, or the world around me feels, so alien and unreal that it bothers me a lot and ruins a lot for me		UB172
	8. Thoughts suddenly enter my head out of nowhere which are so alien, weird and disturbing that it bothers me a lot and ruins a lot for me		UB173
Version A	6. I sometimes ruminate so intensely about myself or other things that I get completely bogged down	1-Not true 2-Sometimes true 3-True	UB323
	7. I have sometimes felt that I seem, or the world around me seems, very alien or unreal		UB324
	8. Sometimes, out of the blue, alien, disturbing or racing and disjointed thoughts have appeared in my head out of nowhere		UB325

**2. Description of original scale: Examination of Anomalous Self-Experience (EASE)**

The EASE is a symptom checklist for semi-structured interviews to identify people on the schizophrenic spectrum (Parnas et al., 2005). The three questions used in MoBa were based on the EASE interview, and were all combinations of two items from EASE: Question 6 stems from items 1.6- *Ruminations and obsessions* and 2.6 – *hyperreflectivity*; question 7 stems from items 2.1 – *diminished sense of basic self* and 2.5 – *derealisation*; question 8 stems from items 1.1 – *thought interference* and 1.2 – *loss of thought ipseity* (Parnas et al., 2005). Finally, “that it bothers me a lot and ruins a lot for me” was added for each question in version B.

*Psychometric Information:*

The EASE interview showed good to excellent internal consistency across two raters (Cronbach's alpha above 0.87) and an overall inter-rater correlation above 0.80 (Spearman's rho, p < 0.001) (Møller, Haug, Raballo, Parnas & Melle, 2011).

*Base Reference/Primary Citation:*

Parnas, J., Møller, P., Kircher, T., Thalbitzer, J., Jansson, L., Handest, P., & Zahavi, D. (2005). EASE: examination of anomalous self-experience. *Psychopathology*, 38(5), 236.

Møller, P., Haug, E., Raballo, A., Parnas, J., & Melle, I. (2011). Examination of anomalous self-experience in first-episode psychosis: interrater reliability. *Psychopathology*, 44(6), 386-390.

*Added references*

Værnes, T. G., Røssberg, J. I., & Møller, P. (2019). Anomalous self-experiences are strongly associated with negative symptoms in a clinical high-risk for psychosis sample. *Comprehensive psychiatry*, 93, 65-72.

Haug, E., Lien, L., Raballo, A., Bratlien, U., Øie, M., Andreassen, O. A., ... & Møller, P. (2012). Selective aggregation of self-disorders in first-treatment DSM-IV schizophrenia spectrum disorders. *The Journal of nervous and mental disease*, 200(7), 632-636.

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

The questions help identify individuals at risk of psychosis.

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

The question phrases were changed from version A to B.

## 39. Rosenberg Self Esteem Scale (RSES)

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

Q	Response options	Variable name
39	<b>How do you feel about yourself?</b>	
	1. I have a positive attitude toward myself	1-Strongly disagree
	2. I feel completely useless at times	2-Disagree
	3. I feel that I do not have much to be proud about	3-Agree
	4. I feel that I am a valuable person, as good as anyone else	4-Strongly agree

### 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 0.82 to 0.88. Cronbach's alpha ranges from 0.77 to 0.88 (Blascovich and Tomaka, 1993; Rosenberg, 1986). Alpha-reliability for the whole 10-item scale was 0.88 in a Norwegian sample of 250 youths (Ystgaard, 1993).

The four-item short version correlated 0.95 with the score based on the original 10-item scale, and the alpha reliability was estimated at 0.80 (Tambs, 2004).

#### *Base Reference/Primary Citation:*

Blascovich, J. and Tomaka, J. (1993). Measures of self-esteem, pp. 115-160 in J.P.

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. Sørgaard. Ubevisst sjellev og bevisst samfunnsliv. Psykisk hele i en sammenheng. Festschrift til Tom Sørensen på hans 60-års dag, 217-229. Nittedal: Nordkyst Psykiatrisk AS.

Ystgaard, 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 in the questions.

## 40. Differential Emotional Scale (DES), Enjoyment Subscale

### 1. Name of original scale: Differential Emotional Scale (DES), Enjoyment Subscale

Q		Response options	Variable name
40	Think about the past two weeks. How often have you experienced this?		
	1. Felt glad about something	1-Rarely or never 2-Hardly ever 3-Sometimes 4-Often 5-Very often	UB178
	2. Felt happy		UB179
	3. Felt joyful, like everything was going your way		UB180

### 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 subscale 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. Blumberg & Izard, 1985; Kotsch, *et al.*, 1982). For DES-IV, Alpha coefficients range from .56 to .85 (mean = .74). Internal reliability is .83 for Enjoyment (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 represents one of the 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. The DES-subscale was considered well-established measures of emotional tendencies.

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

No revisions have been made in the questions.

## 41. Life events

**1. Name of original questions:** 13 questions about life events

Q	41 Have you experienced any of these statements? Mark one or two boxes for each question	Response options/ Variable name		
		No	Yes, in last year	Yes, earlier
1.	Have been seriously ill	UB181	UB182	UB183
2.	Have been involved in a serious accident	UB184	UB185	UB186
3.	Have changed schools	UB187	UB188	UB189
4.	A friend has become seriously ill or injured	UB190	UB191	UB192
5.	Have lost contact with your best friend	UB193	UB194	UB195
6.	Have changed homes	UB196	UB197	UB198
7.	Have been beaten, assaulted or badly humiliated	UB199	UB200	UB201
8.	Have had something valuable stolen from you	UB202	UB203	UB204
9.	Have experienced problems or conflicts with friends	UB205	UB206	UB207
10.	Have experienced conflicts with your family	UB208	UB209	UB210
11.	Have lost someone close to you	UB211	UB212	UB213
12.	Have you any experienced mental health problems in the family	UB214	UB215	UB216
13.	Have you experienced suicide or suicide attempts in the family	UB217	UB218	UB219

- 2. Description of original questions:** the first 5 items were selected from the Danish 11-year questionnaire; item 6 was adapted from a similar question from the Danish 11-year questionnaire; items 7-9 were taken from the TOPP Study; the last four are MoBa specific questions

*Psychometric Information/Base Reference/Primary Citation:*

No relevant psychometric information about this section has been found.

*Base Reference/Primary Citation:*

Not relevant.

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

The selected items were chosen because they were believed to address life events that supposedly affect the child.

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

Item 12 and 13 only appear in version B.

## 42-48. Pubertal development

**1. Name of original scale:** Self-rating Scale for Pubertal Development; question about height and weight of the child; and gender identity

Q		Response options	Variable name	
42	What is your current height in centimetres (cm)?	Cm	Version B	UB220
			Version A	UB321
43	What is your current weight in kilograms (kg)?	Kg	Version B	UB221
			Version A	UB322
44	You are now at an age when your body has started to change to become more like the body of an adult. Here are some questions about bodily changes that happens at your age.			
	1. When you are a teenager, you may periodically grow fast. Have you noticed that your body has grown quickly (become taller)?	1-Not yet started 2-Barely started 3-Definitely started 4-Already complete		UB222
	2. And how about the growth of your body hair (e.g. under your arms)? Would you say that your body hair has started to grow?			UB223
	3. Have you begun to have blemished skin, e.g. pimples?			UB224
45	Are you a boy or girl?			
	Girl			UB225
	Boy			UB226
	<i>if boy</i>			
	1. Has your voice started to become deeper?	1-Not yet started 2-Barely started 3-Definitely started 4-Already complete		UB227
	2. Have you begun to grow hair on your face?			UB228
	<i>if girl</i>			
	1. Have your breasts begun to grow?	1-Not yet started 2-Barely started 3-Definitely started 4-Already complete		UB229
	2. Have you begun to menstruate?			UB230
	<i>If yes</i>	3.how old were you when you first started to menstruate?	Years of age	UB231
46	Which of the following alternatives best describe your current gender identity?			
		1- Girl		UB232
		2- Boy		UB233
		3- Trans person*		UB234
		4- Don't know		UB235
		5- Do not wish to answer		UB236
47	I behave like the opposite gender	1- Not true 2- Sometimes true 3- True often or all the time 4- Do not wish to answer		UB237
48	I wish I were the opposite gender			UB238

\* in version A it was phrased “trans”

**2. Description of original instrument:** Self-rating Scale for Pubertal Development (PDS)

Self-rating Scale for Pubertal Development (PDS; Carskadon & Acebo, 1993) is an adaptation of an interview-based puberty-rating scale by Petersen et al. (1988). Items cover growth spurt, body hair development, skin changes, and gender specific items (voice changes and facial hair for boys, and breast development and menstruation for girls). Response options are: not yet started, barely started, definitely started, seems complete and I don't know. The Norwegian formulation for the scale as used in this section was taken from *Ung I Norge* (Strand & von Soest, 2008)

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

Using a sample of 698 5<sup>th</sup>- and 6<sup>th</sup>-grade students and their parents and teachers, Carskadon, et al. (1993) showed that 5<sup>th</sup> grad students rated themselves and were rated by parents as less mature than 6<sup>th</sup> graders. Significant correlations were found between parents and students for all of the measures for 6<sup>th</sup>-graders and 5<sup>th</sup>-grade girls and several measures for 5<sup>th</sup>-grade boys. Cronbach's Alpha values ranged from 0.67 to 0.70 for the student version.

*Base Reference/Primary Citation:*

Carskadon MA & Acebo C (1993). A self-administered rating scale for pubertal development. *Journal of Adolescent Health*, 14, 190-5.

Petersen AC, Crockett L, Richards M & Boxer A (1988). A self-report measure of pubertal status: reliability, validity, and initial norms. *Journal of Youth and Adolescence*, 17, 117-133.

Strand, N. P., & von Soest, T. (2008). Young in Norway—Longitudinal. Documentation of design, variables, and scales. *Oslo, Norway: NOVA, NTNU*.

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

Self-rating Scale for Pubertal Development is a useful tool for assessing pubertal status in settings that require non-invasive measures.

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

## 49-51. Smoking/snusing

**1. Name of original questions:** Questions about the child's smoking/snusing habits

Q			Response options	Variable name
49	<b>Do you smoke?</b>			
			1- Have never smoked 2- Have tried 3- smoke now and then 4- Smoke daily	UB239
	If 'smoke now and then':	How many cigarettes do you smoke per week?	No. of cigarettes	UB240
	If 'smoke daily':	How many cigarettes do you smoke per day?	No. of cigarettes	UB241
50	<b>Do you use 'snus'?</b>			
			1- Have never tried snus 2- Have tried 3- Use snus now and then 4- Use snus daily	UB242
	If 'use snus now and then' or 'use snus daily':	How many boxes of snus do you use monthly?	No. of boxes	UB243
51	<b>Do you use any of the following?</b>			
	E-cigarettes with nicotine		1- Never 2- Have tried 3- Occasionally 4- Daily	UB244
	Nicotine chewing gum			UB245
	Other nicotine preparations			UB246

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

By 'Snus', we refer to the moist snuff usually placed between your 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 the child's smoking/snusing habits.

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

No revisions have been made.

## 52-53. Alcohol and drugs

**1. Name of original questions:** 4 questions about the child's experience with alcohol and use of drugs

Q		Response options	Variable name
52	<b>Have you ever been drinking alcohol (more than just a sip)</b>		
		1- No 2- Yes	UB247
If yes	How old were you the first time?	Choose	UB248
53	<b>At any time during the past 12 months, have you...</b>		
	Drunk so much alcohol that you have obviously been intoxicated (drunk)? (if yes to Q52)	1- No, never 2- Once	UB249
	Used hashish/weed or marijuana?	3- 2-5 times 4- 6-10 times	UB250
	Used other drugs to become intoxicated?	5- More than 10 times	UB251

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

*Psychometric Information:*

Not relevant.

*Base Reference/Primary Citation:*

No relevant.

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

The questions were developed to get information about the child's experience with alcohol and drugs.

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

No revisions have been made.

## 54-69. Positive psychotic-like symptoms

**1. Name of original scale:** Questions on positive psychotic-like symptoms Community Assessment of Psychic Experiences (CAPE-15)

Q		Response options/Variable name
		<i>How often...</i> 1- Never 2- Sometimes 3- Often 4- Nearly always
		<i>How much distress...</i> 1- Not at all 2- A little 3- Quite 4- Very much
<b>54</b>	Do you ever feel as if things in magazines or on TV were written especially for you?	UB252      UB253
<b>55</b>	Do you ever feel as if you are being persecuted in any way?	UB254      UB255
<b>56</b>	Do you ever feel as if there is a conspiracy against you?	UB256      UB257
<b>57</b>	Do you ever feel as if electrical devices can influence the way you think?*	UB258      UB259
<b>58</b>	Do you ever feel as if the thoughts in your head are not your own?	UB260      UB261
<b>59</b>	Have your thoughts ever been so vivid that you were worried other people would hear them?	UB262      UB263
<b>60</b>	Do you ever feel as if you are under the control of some force or power other than yourself?	UB264      UB265
<b>61</b>	Do you ever hear voices when you are alone (not radio or TV)?	UB266      UB267
<b>62</b>	Do you ever see objects, people or animals that other people cannot see?	UB268      UB269
<b>63</b>	Have you ever had the feeling as if people drop hint about you, or say things with a double meaning?	UB270      UB271
<b>64</b>	Do you ever feel as if some people are not what they seem to be?	UB272      UB273
<b>65</b>	Do you ever feel that people look at you oddly because of your appearance?	UB274      UB275
<b>66</b>	Have you ever felt as if the thoughts in your head are being taken away from you?	UB276      UB277
<b>67</b>	Do you ever feel as if your own thoughts were being echoed back to you?	UB278      UB279
<b>68</b>	Do you ever hear voices talking to each other when you are alone?	UB280      UB281
<b>69</b>	Have you ever felt as if a double has taken the place of a family member, a friend or an acquaintance?	UB282      UB283

\*in version A the question was phrased "...electrical devices such as computers...".

**2. Description of original scale:** Questions on positive psychotic-like symptoms Community Assessment of Psychic Experiences (CAPE)

The CAPE-42 was developed by Jim van Os, H Verdoux and Hélène Verdoux and Manon Hanssen, and is based on the Peters Delusions Inventory-21 (PDI-21; Peters et al., 1999). It consists of 18 items of positive psychotic symptoms, 14 items on negative symptoms, and 8 items on depression. Each item required ticking only two dimensional scales the first scale on the frequency of the experience (on a four-point scale of 'never', 'sometimes' 'often' and 'nearly always', to avoid 'ticking the middle box' bias), the second scale on the degree of distress ('not distressed', 'a bit distressed', 'quite distressed' and 'very distressed'). The selected items for MoBa represent the CAPE-15 (Capra, Kavanagh, Hides & Scott, 2013) comprising 'persecutory ideation' (questions 55, 56, 63, 64 and 65), 'bizarre experiences' (questions 57, 58, 59, 60, 66, 67 and 69) and 'perceptual abnormalities' (questions 61, 62 and 68) from the positive psychotic symptoms. Question 54 is originally from CAPE-9.

### *Psychometric Information:*

The CAPE-15 showed good factor structure with three subscales. The total internal consistency was

high (alpha = .79), and each subscale also had good internal consistency (range= .66- .69) (Capra et al., 2013). The factor structure was explored in a youth sample aged 13-18 years (Núñez, Arias, Vogel & Gómez, 2015), corresponding to other studies of CAPE-positive Mark & Toulopoulou, 2015). For validation, the correlations between the complete CAPE-15 and measures of social withdrawal and schizotypal personality ranged from moderate to high (.034 and .070 respectively) (Núñez et al., 2015).

A three-factor model of separate depressive, positive and negative dimensions provided a better fit to the data than either a two-factor or unidimensional model. All three dimensions were correlated with each other, but also showed good discriminant validity in relation to established scales, confirming their relative independence (Stefanis, 2002). Konings et al. (2006) reported the validity and reliability of the CAPE. Baseline self-reported dimensions of psychosis were specifically and independently associated with their equivalent interview-based dimension at follow-up (standardized effect sizes of 0.4-0.5) and with their equivalent self-reported measure (standardized effect sizes of 0.6-0.8).

*Base Reference/Primary Citation:*

Capra, C., Kavanagh, D. J., Hides, L., & Scott, J. (2013). Brief screening for psychosis-like experiences. *Schizophrenia research*, 149(1-3), 104-107.

Mark, W., & Toulopoulou, T. (2016). Psychometric properties of “community assessment of psychic experiences”: review and meta-analyses. *Schizophrenia bulletin*, 42(1), 34-44.

Núñez, D., Arias, V., Vogel, E., & Gómez, L. (2015). Internal structure of the Community Assessment of Psychic Experiences—Positive (CAPE-P15) scale: *Evidence for a general factor*. *Schizophrenia research*, 165(2-3), 236-242.

Peters, E. R., Joseph, S. A. & Garety, P. A. (1999). Measurement of delusional ideation in the normal population: introducing the PDI (Peters et al. Delusions Inventory). *Schizophrenia Bulletin* 25, 553-576.

Konings M, Hanssen M, van Os J, Krabbendam L. (2006). Validity and reliability of the CAPE: a self-reported instrument for the measurement of psychotic experiences in the general population. *Acta Psychiatr Scand.*, 114:55-61.

Stefanis NC, Hanssen M, Smirnis NK, Avramopoulos DA, Evdokimidis IK, Stefanis CN, Verdoux H, Van Os J (2002). Evidence that three dimensions of psychosis have a distribution in the general population. *Psychological Medicine* 32: 347–358.

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

These items can be used as a brief measure of positive psychotic-like symptoms.

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

In version B, the scale was extended from CAPE-9 to CAPE-15 (Q.64-Q.69) due to better validity and reliability. One item from CAPE-9 (Q.54) is not in the original CAPE-15, but was kept in the questionnaire for compatibility with version A, and with the fathers' questionnaire in 2015.

## 70.1. The Perceived Stress Scale (PSS-4)

### 1. Name of original scale: The Perceived Stress Scale 4

Q		Response options	Variable name
70.1	<b>How are you typically as a person? Over the past month, how often have you felt...</b>		
	... That you were unable to control the important things in life?	1- Never	UB284
	... Confident about your ability to handle your personal problems?	2- Almost never	UB285
	... That you succeeded with everything?	3- Sometimes	UB286
	... Difficulties were piling up so high that you could not overcome them?	4- Quite often	UB287
		5- Very often	

### 2. Description of original scale: Perceived Stress Scale – 4.

The PSS was developed to assess the person's perceived stress (Cohen, Kamarck & Mermelstein, 1983). The 4 item scale is a short version of the original 14 item scale, including the four items which correlated the highest with the full 14 item scale (Cohen, et al., 1983). The items are scored using a 5 point scale from 'never' to 'very often'. Scoring of items 2 and 3 are reversed.

#### *Psychometric Information/Base Reference/Primary Citation:*

The coefficient alpha for reliability for the 4-item scale was .72, and the test-retest reliability over two months intervals was .55 (Cohen, Kamarck & Mermelstein, 1983). PSS-4 correlated negatively with perceived health status, and with social support, and shows satisfactory psychometric properties when administered across countries (Warttig, Forshaw, South & White, 2013).

#### *Base Reference/Primary Citation:*

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of health and social behavior*, 385-396.

Warttig, S. L., Forshaw, M. J., South, J., & White, A. K. (2013). New, normative, English-sample data for the short form perceived stress scale (PSS-4). *Journal of health psychology*, 18(12), 1617-1628.

#### Additional references:

Leung, DY, Lam, TH, Chan, SS (2010) Three versions of Perceived Stress Scale: Validation in a sample of Chinese cardiac patients who smoke. *BMC Public Health* 10: 513–520.

Herrero, J, Meneses, J (2006) Short Web-based versions of the perceived stress (PSS) and Center for Epidemiological Studies-depression (CESD) Scales: A comparison to pencil and paper responses among Internet users. *Computers in Human Behavior* 22: 830–846.

#### *Modifications:*

In the original scale, item 3 was phrased "... that things were going your way"

### 3. Rationale for choosing the instrument:

The PSS-4 is a short and easily administered scale to measure the perceived stress of the adolescents.

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

No revisions have been made

## 70.2. Grit

**1. Name of original scale:** The Short Grit Scale (Grit-S)

Q		Response options	Variable name
70.2			
	1. New ideas and projects sometimes distract me from previous ones		UB288
	2. Setbacks don't discourage me		UB289
	3. I have been obsessed with a certain idea or project for a short time but later lost interest		UB290
	4. I am diligent and work hard		UB291
	5. I often set a goal but later choose to pursue a different one		UB292
	6. I have difficulty maintaining my focus on projects that take more than a few weeks to complete		UB293
	7. I finish whatever I begin		UB294
	8. I am a hard worker and accurate		UB295

**2. Description of original scale:** The Short Grit Scale (Grit-S)

Grit (Duckworth et al., 2007) is a 12-item self-report measure of grit (i.e. trait level perseverance and passion for long-term goals). A two-factor structure has been identified for Grit: Interest and Effort. The Short Grit Scale (Grit-S; Duckworth & Quinn, 2009) retains the 2-factor structure with 4 fewer items: effort (items 2, 4 7 and 8) and interest (items 1, 3 5 and 6). Items are rated on a 5-point scale from 1 ‘not at all like me’ to 5 ‘very much like me’.

*Psychometric Information/Base Reference/Primary Citation:*

The 1-year test-retest stability of the Grit-S was:  $r=.68$ . Cronbach’s alphas was .82 and .84 respectively. Among adults, the Grit-S was associated with educational attainment and fewer career changes (Duckworth & Quinn, 2009). Among adolescents, the Grit-S longitudinally predicted GPA and inversely, hours watching TV. Grit related to Conscientiousness ( $r =.77$ ), to Neuroticism ( $r=.38$ ), Agreeableness ( $r=.24$ ), Extraversion ( $r=.22$ ), and Openness to Experience ( $r=.14$ ) (Duckworth et al., 2007).

*Base Reference/Primary Citation:*

Duckworth, A.L., Peterson, C., Matthews, M.D., & Kelly, D.R. (2007). Grit: Perseverance and passion for long-term goals. *Journal of Personality and Social Psychology*, 9, 1087-1101.

Duckworth, A.L., & Quinn, P.D. (2009). Development and validation of the Short Grit Scale (Grit-S). *Journal of Personality Assessment*, 91, 166-74.

*Modifications*

In the original Grit-S Item 4 was phrased: ‘I am diligent’; Item 8 was phrased: ‘I am a hard worker’; Item 6 was phrased ‘...projects that take more than a few months’ but was adjusted to a ‘few weeks’ to better fit adolescents.

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

The Grit-S is a brief and psychometric satisfactory measure of trait level perseverance and passion for long-term goals.

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

No revisions have been made.

