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HELSINKI UNIVERSITY DEPARTMENT OF PUBLIC HEALTH

HEALTH STUDY OF ADOLESCENT TWINS

FAMILY QUESTIONNAIRE

In this form we ask questions about issues dealing with the birth, childhood development, growth, and health of your twins. The questions on the first two pages deal with events during the pregnancy and are thus best answered by the mother. With the rest of the questions the father of the twins and also other people involved in their upbringing can help in answering them.

[page 3]

FIRST WE ASK ABOUT THINGS CONNECTED WITH YOUR PREGNANCY WITH THE TWINS

1. Has your (extended) family had other twins?

- 1 not as far as I know
- 2 yes, my close relatives have. (e.g., mother, sisters, or sisters of parents)
- 3 other relatives

2. Have there been twins in the family of the father of your twins?

- 1 not as far as I know
- 2 yes, father's close relatives, e.g., mother, sisters, or parent's sisters).
- 3 other relatives

3. Have you been pregnant before your twin pregnancy?

- 1 no
- 2 yes, \_\_\_\_\_ times

Have you been pregnant with twins before?

- 1 no
- 2 yes, year \_\_\_\_\_

4. Were you on contraceptive pills before your twin pregnancy?

- 1 never
- 2 yes, I used them a total of \_\_\_\_\_ years, and quit \_\_\_\_\_ years and \_\_\_\_\_ months before the twin pregnancy began.

5. Did you use any other form of hormone treatment before your twin pregnancy?

- 1 never
- 2 yes, I did for \_\_\_\_\_ years and quit the use \_\_\_\_\_ years and \_\_\_\_\_ months before the beginning of the twin pregnancy

Name of preparation

6. How many weeks into the pregnancy did you find out that you were expecting twins?

\_\_\_\_\_ weeks

[ ] I found out only during the delivery.

[page 3 con't]

[ ] cannot remember

7. Did you have to go to the hospital due to a twin pregnancy or another disturbance connected to that?

1 no

2 yes, I was in the hospital beginning on my \_\_\_\_ week of pregnancy for a total of \_\_\_\_ weeks

[page 4]

8. During the pregnancy, did you experience the following symptoms or illnesses?  
(Please circle "No" if you didn't have the symptom in question)

	Yes	No
Nausea lasting over 3 months or requiring hospital treatment	1	2
Sugar in urine	1	2
Protein in urine	1	2
Urinary tract infection	1	2
Elevated blood pressure	1	2
Anemia (due to iron deficit)	1	2
Premature contractions	1	2
Vaginal bleeding	1	2
Jaundice or itching	1	2

9. On which week of the pregnancy were the twins delivered?

week \_\_\_\_\_

10. How many minutes elapsed between the births of child A and child B?  
(with child A we mean the twin born first and with child B the twin born second)

\_\_\_\_\_minutes

1 I cannot recall

11. Were the twins delivered through a cesarean section?

1 no

2 yes

3 yes, only child B

12. What kind of placenta did the twins have?

1 joint

2 separate

3 I don't know

13. What was the status of the amniotic sac?

1 all the membranes were shared

2 amniotic membrane was separate

[page 4 con't]

- 3 both membranes were separate
- 4 both membranes and placentas were separate
- 5 I don't know

[page 5]

(We need translation of paragraph preceding item 14. This paragraph defines identical vs. fraternal twins).

14. In the hospital, were you told, based on the amniotic membranes or other medical evidence, the identity of twins??
  - 1 the twins are of opposite sexes → skip to the following page.
  - 2 nothing was mentioned about the twins' identity
  - 3 I was told that it could not be determined whether the twins were identical
  - 4 I was told it was certain the twins were not identical
  - 5 I was told it was certain the twins were identical
  - 6 I cannot say
  
15. Do the twins have the same eye color?
  - 1 eyes are clearly of different color
  - 2 the color differs a little bit
  - 3 eyes are exactly the same color
  
16. Do the twins share the same hair color?
  - 1 the color is exactly the same
  - 2 the color differs a little bit
  - 3 the color of hair is clearly different
  
17. Do the twins share the same quality of hair (thickness, curly or straight hair and so on)?
  - 1 exactly the same kind of hair
  - 2 the quality differs a little bit
  - 3 the quality of hair is clearly different
  
18. Do the twins have the same features?
  - 1 clearly different features
  - 2 some minor differences exist in features
  - 3 the features are very alike
  
19. What is your opinion on whether the twins are identical?
  - 1 the twins are identical
  - 2 the twins are not identical
  - 3 I am not sure

**IN THE FOLLOWING WE WILL ASK QUESTIONS RELATED TO THE GROWTH AND DEVELOPMENT OF THE TWINS.**

**BY CHILD A WE MEAN THE ONE BORN FIRST, WITH CHILD B THE ONE BORN SECOND.**

1. The Christian names of your twins Child A: \_\_\_\_\_  
 Child B: \_\_\_\_\_

	<b>Child A</b>	<b>Child B</b>
2. weight at birth	_____ gr	_____ gr
3. height at birth	_____ cm	_____ cm
4. Apgar points	_____	_____

5. did either of them have to remain in the hospital for care after the birth?	1 no 2 yes	1 no 2 yes
If yes, why?	_____	_____

6. Have your twins later been hospitalized due to illness or injury?	1 no 2 yes	1 no 2 yes
If yes, why?	_____	_____

7. Have your twins been diagnosed as having any of the following congenital diseases or handicaps?

	Only Child A	Only Child B	Both	Neither
Congenital heart defect	1	2	3	4
Cleft lip or palate	1	2	3	4
Hernia	1	2	3	4
Undescended testicle	1	2	3	4

[page 6 con't]

Have they been diagnosed with some other congenital disease or handicap?

Child A \_\_\_\_\_

Child B \_\_\_\_\_



[page 7]

8. Do the twins wear glasses?

**Child A**

**Child B**

1 Doesn't wear

1 doesn't wear

2 Has worn for  
nearsightedness since  
\_\_\_\_\_years of age

2 has worn for nearsightedness  
since \_\_\_\_\_years of age

3 wears glasses  
for other reasons

3 wears glasses  
for other reasons

9. Have the twins exhibited speech defects or developmental delays?

	A-child only	B-child only	both	neither
late development of letters (like r or s)	1	2	3	4
stammering	1	2	3	4
other speech disorders	1	2	3	4

10. Have your twins been diagnosed with any of the following diseases?

	A-child only	B-child only	both	neither
A Hay fever	1	2	3	4
B Allergic rash	1	2	3	4
C Asthma	1	2	3	4
D Recurring respiratory tract infections (cold, cough, fever)	1	2	3	4
E Recurring ear infections (more than five during a single year)	1	2	3	4
F Fever seizures	1	2	3	4
G Diabetes	1	2	3	4
H Cross-eyed	1	2	3	4

[PAGE 8]

Have they been diagnosed with any other long-term illness? If so, what?

Child A: \_\_\_\_\_

Child B: \_\_\_\_\_

**NEXT WE WILL ASK ABOUT THE TWINS' GROWTH AND DEVELOPMENT. FIRST WE'LL ASK ABOUT EVENTS PRIOR TO SCHOOL AGE. IN OTHER QUESTIONS WE ASK YOU TO COMPARE THE TWINS TO ONE ANOTHER.**

The children's development prior to school age (0-6 years old)

1. At what age did your children learn to:

	A-child	B-child
a) walk without support	___yr___mo	___yr___mo
b) speak words	___yr___mo	___yr___mo

2. Did you think one of the twins was ahead of the other before school age in:

	A-child	B-child	no difference	cannot say
a) fine motor control (e.g. pottering)	1	2	3	4
b) other motor skills development	1	2	3	4
c) intellectual development	1	2	3	4
d) in "maturing" (emotional development, adaptation etc.)	1	2	3	4

[page 9]

3. Often children don't develop at an identical pace; one can develop faster than the other. We know it can often be difficult to remember the age at which a child learned various skills. Therefore we don't ask you to remember when your children learned them, but rather whether there were differences between the children. Which of them learned the following skills first?

Skill:	A-child first	B-child first	At the same time (within 2 months from one another)	Cannot recall
A turned over on stomach (as a baby)				
B stood without support				
C could walk up stairs				
D could eat with a spoon without help				
E could ride a tricycle				
F could undress without help				
G could cut paper with scissors				
H could tie his/her own shoelaces				

4. How did your twins generally get along together before school age?

- 1 very well
- 2 rather well
- 3 rather poorly
- 4 hardly at all
- 5 cannot say

5. Which one would have been the leader in their play back then?

- 1 almost always child A
- 2 most often child A
- 3 they took turns

[page 9 con't]

- 4 most often child B
- 5 almost always child B
- 6 cannot say

[page 10]

6. Was their behavior similar to one another before school age?

- 1 very similar
- 2 rather similar
- 3 rather different
- 4 very different
- 5 cannot say

7. Were they interested in the same things at that time?

- 1 exactly same things
- 2 mostly same things
- 3 mostly different things
- 4 hardly any common interests
- 5 cannot say

8. Was it difficult to less familiar people to tell the twins apart, because they looked so alike?

- 1 never or rarely
- 2 sometimes
- 3 often

**THESE WERE THE LAST QUESTIONS ABOUT DEVELOPMENT BEFORE SCHOOL AGE.**

THE CHILDREN'S DEVELOPMENT DURING THEIR SCHOOL YEARS (AGE 7-12)

1. Have your twins gone to?

	Child A	Child B
normal primary school	1	1
special education	2	2
if special education, which?	_____	

2. Which of the twins first learned to read?

- 1 Child A
- 2 Child B
- 3 at the same time (within a month from one another)
- 4 I cannot say

[page 11]

3. Did you think one of the twins was more skilful than the other at the age of 7-12:

	A-child clearly superior	A-child somewhat better	equal	B-child somewhat better	B-child clearly superior
A in agility	1	2	3	4	5
B in strength	1	2	3	4	5
C in verbal skills	1	2	3	4	5
D in emotional development and social adaptability	1	2	3	4	5
E in musical skills	1	2	3	4	5

4. Has one of the twins acted as a "leader" in strength and physical tasks?

- 1 A-child always led
- 2 A-child often led
- 3 they led equally often
- 4 B-child often led
- 5 B-child always led
- 6 I cannot say

5. Has one of the twins acted as a "leader" in intellectual matters (like opinions, school subjects etc.)?

- 1 A-child always led
- 2 A-child often led
- 3 they led equally often
- 4 B-child often led
- 5 B-child always led
- 6 I cannot say

6. Did one of the twins act as the "spokesman" when dealing with things?

- 1 A-child always did
- 2 A-child often did
- 3 both did equally often
- 4 B-child often did
- 5 B-child always did
- 6 I cannot say

[page 12]

7. Was your A-child dependent on her/his twin at that time?
  - 1 very dependent
  - 2 somewhat dependent
  - 3 sometimes dependent
  - 4 not at all dependent
  - 5 I cannot say
  
8. Was your B-child dependent on his/her twin at that time?
  - 1 very dependent
  - 2 somewhat dependent
  - 3 sometimes dependent
  - 4 not at all dependent
  - 5 I cannot say
  
9. Was their behavior similar during primary school age?
  - 1 very similar
  - 2 rather similar
  - 3 rather different
  - 4 very different
  - 5 I cannot say
  
10. Did the twins look so alike that it was difficult for the teachers to tell them apart?
  - 1 no
  - 2 yes
  - 3 I cannot say
  
11. Were they interested in the same things?
  - 1 exactly same things
  - 2 mostly same things
  - 3 mostly different things
  - 4 almost no common interests
  - 5 I cannot say
  
12. Did they have the same friends and acquaintances during primary school?
  - 1 almost same friends
  - 2 several same friends
  - 3 mostly different friends
  - 4 no common friends
  - 5 I cannot say

[page 13]

13. How much of their time awake did the twins spend together at their school age (primary school)?
- 1 nearly always together
  - 2 mostly together
  - 3 mostly with other children or siblings
    - a. fits A-child
    - b. fits B-child
  - 4 spends much time alone
    - a. fits A-child
    - b. fits B-child
14. Did your twins attend the same primary school?
- 1 they were in the same school all through primary school years
  - 2 they went to the same school for \_\_\_\_\_ years total
  - 3 they went to different schools during all primary school years → skip to Q16
15. Have they been in the same class in primary school (that is: did they have a common teacher)?
- 1 they have always been in different classes
  - 2 they were on the same class for \_\_\_\_\_ years total
16. Who had the better average grade in the sixth grade?
- 1 A-child
  - 2 B-child
  - 3 no difference
  - 4 I cannot say

THE TWINS' DEVELOPMENT DURING HIGHER GRADES, 13-15 YEARS OF AGE

1. Was their behavior similar during higher grades?
- 1 very similar
  - 2 rather similar
  - 3 rather different
  - 4 very different
  - 5 I cannot say



[page 14]

2. Did they have shared interests?
  - 1 they had all the same interests
  - 2 several shared interests
  - 3 only some shared interests
  - 4 hardly any shared interests
  - 5 I cannot say
  
3. During higher grades, did they have the same friends and acquaintances?
  - 1 almost all the friends were shared
  - 2 several shared friends
  - 3 mostly separate friends
  - 4 no shared friends
  - 5 I cannot say
  
4. Did your twins attend the higher grades in the same school?
  - 1 they went to the same school through all the higher grades
  - 2 they went to the same school together for \_\_\_\_\_years total
  - 3 they went to different school through all the higher grades
  
5. Which of them had the better grade average in their last grade reports?
  - 1 A-child
  - 2 B-child
  - 3 no difference
  - 4 I cannot say

Next you can present additions or clarifications in case our questions have not covered some aspects of your twins' or your family's health

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[page 15]

(This page needs new translation -- it has been altered to request info on multiple siblings of twins)

Do the twins have elder siblings?

For this research it would be beneficial if other relatives of the twins could also participate in it. Therefore we would request that you ask whether one of the older sisters or brothers of the twins would be willing to participate in the study. If one of them is willing, we would send them a questionnaire which has the same content as the twin's questionnaire.

The twins have no older siblings

Name of the older sibling: \_\_\_\_\_

Address: \_\_\_\_\_

WE THANK YOU FOR CONTRIBUTING TO THIS STUDY