

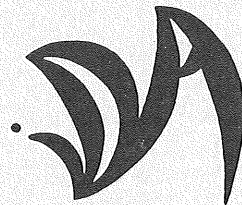
**Reports from the project**

**Individual Development and Adaptation**

**SELF-PERCEIVED PSYCHOLOGICAL HEALTH  
AMONG SWEDISH TEENAGE GIRLS**

**2. Time trends in frequencies of adjustment problems  
between 1970 and 1996**

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**The research program Individual Development and Adaptation (IDA) was initiated by David Magnusson in 1964 and was led by him until 1996 when Lars R. Bergman became the principal investigator.**

**Reports from the project Individual Development and Adaptation published from 2000 and onwards:**

- No. 70 Bergman, L.R. Women's health, work, and education in a life-span perspective. Technical report 1: Theoretical background and overview of the data collection. (*January 2000*)
- No. 71 Isaksson, K., Johansson, G., Lindroth, S., & Sverke, M. Women's health, work, and education in a life-span perspective. Technical report 2: The coding of work biographies. (*November 2000*)
- No. 72 Publications 1961 - 2000. (*December 2000*)
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- No. 78 Crafoord, K., & Magnusson, D. Symptom questionnaire: Early adolescence. Female version. (*December 2001*)
- No. 79 Wångby, M., Magnusson, D., & Stattin, H. Self-perceived psychological health among Swedish teenage girls: 2. Time trends in frequencies of adjustment problems between 1970 and 1996. (*March 2002*)

## **Foreword**

This report concerns the self-perceived psychological health among Swedish teenage girls, compared between 1970 and 1996. The data collections behind this study have taken the efforts of many people. Foremost, I want to thank David Magnusson, who initiated and led the IDA-program for over 30 years until 1996 and Håkan Stattin who was responsible for the collection of the 1996 data.

Stockholm, March 27, 2002

Lars R. Bergman  
Professor

### **Abstract**

This is the second report from a research project aimed at studying change and stability over the past decades in self-perceived psychological health among Swedish teenage girls. Data are taken from two surveys among all girls in Grade 8 (approximately 15 years of age) in the Swedish town Örebro, carried out by professor David Magnusson and Karin Crafoord in 1970, and by professor Håkan Stattin in 1996. The first survey was part of the Swedish longitudinal research program Individual Development and Adaptation (IDA). The second survey was designed as an exact replication of the first. Data were collected with the Symptom Questionnaire that was developed for the first survey by Crafoord and Magnusson. Eight different areas of adjustment were covered: psychosomatic symptoms, emotional disturbances, disturbances in self-esteem, antisocial behaviors, disturbances in relation to parents, teachers and peers, and sexuality.

In most of these areas the prevalence of adjustment problems in 1996 was rather similar to the prevalence found in 1970. Significant shifts that occurred in single items did not appear to be part of any general trend in either direction. More consistent changes were mainly limited to two areas: Problems with self-esteem, especially concerning appearance, became more common over the time period studied, whereas some problems in peer relations became less common. In addition, important shifts occurred in girls' attitudes towards sexuality and their intimate relationships with boys.

## Introduction\*

This is the second report from a research project aimed at studying change and stability over the past decades in self-perceived psychological health among Swedish teenage girls. Data for the comparison are taken from two surveys of self-perceived psychological health among 15-year-old girls. These surveys were carried out in the same community, using the same measurement procedure, but with 26 years in between.

In the early 70s, Karin Crafoord, Licentiate of Philosophy, and professor David Magnusson made a survey of self-perceived psychological health among all Grade-8 girls in Örebro, a middle-sized Swedish town. That survey was part of the longitudinal research program *Individual Development and Adaptation* (IDA) and data from that survey have been presented in several publications from the IDA program (Bergman & Wångby, 1995; Crafoord, 1972, 1986; Magnusson, Zetterblom & Dunér, 1975; Stattin & Magnusson, 1990).

A second survey of all Grade-8 girls in Örebro was made in the mid-90s by professor Håkan Stattin. This screening was designed as an exact replication of the first survey, using the same instruments and procedures as had been used 26 years earlier.

The first report from this project presented frequencies of adjustment problems at the item level for the 1996 cohort (Wångby & Stattin, 2001). Frequencies at the item level for the 1970 cohort were presented by Crafoord (1972). After a review of the literature, the following report presents a 26-year-comparison of the frequencies at the item level for the two surveys.

### Literature review

During the 90s, an increasing interest has been focused on the question whether the widespread social changes in society during past decades have caused changes - in either direction - in levels of psychosocial disturbances among children and adolescents (Cohen, Slomkowski & Robins, 1999a; Rutter & Smith, 1995). The identification of such changes is of high concern and has important implications for public health policies and the planning of prevention and intervention efforts (Achenbach & Howell, 1993; Fombonne, 1995a).

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\* This research was supported by grants to Håkan Stattin from the Axel and Margaret Ax:son Johnson's Foundation and to Margit Wångby from the Swedish Council for Social Research. This study was made possible by access to data from the longitudinal research program *Individual Development and Adaptation*. The scientific leader is Lars R. Bergman. Responsible for the planning, implementation and financing of the collection of data was David Magnusson. The data collection was supported by grants from the Swedish National Board of Education, the Swedish Committee for the Planning and Coordination of Research, The Bank of Sweden Tercentenary Foundation, and the Swedish Social Research Council. The authors are grateful to prof. Lars R. Bergman for valuable viewpoints on the study.

Observations of differences in the distribution of psychopathology over time and place might be translated into etiologic hypotheses (Cohen, Slomkowski & Robins, 1999b). Cohen et al. state, for example, that when incidence rates are stable over time and across populations, we are prompted to expect an underlying biological etiology and relatively small environmental impact. When, on the other hand, change in incidence rates occurs rapidly within a locale there is less possibility of a genetic explanation, and potential explanations has to be sought among social or biological historical events. Rutter (1995) argued that causal explanations can be formulated to account for secular trends in psychosocial disorders and can be tested through the application of well-established scientific principles.

To identify and measure time trends in psychosocial disturbances, there are mainly two types of study designs that are preferable: the *prospective longitudinal study of multiple birth cohorts*, which provides unbiased estimates of incidence and age of onset; and *repeated cross-sectional surveys of community samples* which supply time series of point prevalences for specific age groups (Fombonne, 1995a). Information on time trends from these types of studies is still scarce, however (Rutter & Smith, 1995). Repeat surveys have been performed in a few countries, but few of them cover the broad problem spectrum of psychological disturbances among young people. Among these are a study by Cederblad and co-workers in Sudan (Cederblad, 1968; Rahim & Cederblad, 1984), a study in the USA by Achenbach and Howell (1993) and a study in the Netherlands by Verhulst, van der Ende, & Rietbergen (1997). The two most recent of these studies will be reviewed here.

#### *Achenbach and Howell (1993)*

Achenbach and Howell (1993) compared parental ratings of multicohort general population samples obtained in 1976 and 1989 on the Child Behavior Checklist (CBCL). The samples were drawn from the same general geographical regions. The 1989 subjects were matched to 1976 subjects for gender and age, and as closely as possible for SES and ethnicity. The children were 7 to 16 years of age when rated by their parents.

The researchers found that problem scores were higher and competence scores were lower in 1989 than in the earlier assessment. Significant differences between 1976 and 1989 were found for 46 of the 118 CBCL problem item mean scores, and all of these significant differences reflected higher scores in 1989 than in 1976. The changes were not concentrated to any particular area, but concerned diverse problems, syndromes and competencies. Neither did they differ significantly by age, gender, socioeconomic status nor ethnicity. Most of the differences accounted for only 1% of the variance, and no differences approached Cohen's (1988) criterion for medium effects. The authors conclude, however, that the consistency of the findings suggests real differences between parents' perceptions of their children over the 13-year period.

Achenbach and Howell also compared teachers' ratings of multicohort samples obtained in 1981 to 1982 and 1989 on the Teacher's Report Form (TRF). As for the CBCL samples, the TRF samples were drawn from the same general geographical regions, and 1989 subjects were matched to 1981/82 subjects for gender and age and as closely as possible for SES and ethnicity. The children were 7 to 16 years of age when rated by their teachers.

The TRF findings showed increases in problem scores and decreases in competence scores. The TRF differences were smaller, and this might be attributable to the time interval being shorter (7.5 years as compared to 13 years for the CBCL comparison). The authors concluded that the failure of the changes to be concentrated in a particular area and the smaller changes in teacher ratings over a shorter period suggested that no single cause operating at a particular point in time was responsible.

*Verhulst, van der Ende and Rietbergen (1997)*

Studying Dutch children and adolescents, however, Verhulst et al. (1997) did not find evidence for a clear secular increase in malfunctioning. They compared problems and competencies rated on the CBCL and the TRF for two random samples of Dutch children aged 4 to 16 years. The first sample was rated in 1983 and the second sample was rated in 1993. No significant differences between 1983 and 1993 samples were found on the CBCL or TRF total problem scores. A few differences indicating an increase in problems were found for the CBCL somatic complaints, delinquent behavior and thought problem scales and for TRF attention problem scale. However, the magnitude of these differences was very small (accounting for 1% or less of the variance). The authors concluded that their results did not support the conclusion by Achenbach and Howell (1993) that problems among children in the general population are getting worse. This indicates possible cultural differences in societal change and its effects on mental health of children and adolescents.

*Rutter and Smith (1995)*

In 1990, Academia Europaea established a Study Group to consider the scientific evidence on whether psychosocial disorders in young people have become more, or less, frequent over the last 50 years. The objective was to gather together the available information on cross-national time trends in five different types of psychosocial disorders: crime, suicide and suicidal behavior, depression, eating disorders (anorexia nervosa and bulimia), and abuse of alcohol and psychoactive drugs. These are disorders that all tend to rise or peak in frequency during the teenage years. The objective of the Study Group was also to provide a careful analysis of problems of definition and method that could create misleading impressions regarding trends in these psychosocial disorders.

The results from the work of this study group have been presented in a volume edited by Michael Rutter and David J. Smith (1995). The overall conclusion of the Study Group is that for all of the disorders, except eating disorders, there is unmistakable evidence of an increase since the Second World War in nearly all developed countries. Here we will consider some of the evidence they found, with a specific focus on trends for females.

*Crime.* Concerning crime, three types of measures are available for comparisons: self-reports, official records and victim surveys (Smith, 1995). Since around 1950 there has been a substantial increase in recorded crime rates. Because crime is so much more common among young males than among other groups, this increase largely reflects an upward trend in offending by young males. At the same time, however, recorded crime statistics show that the sex difference in rate of offending in many countries has



narrowed. This implies that the crime rate among young females has risen very substantially. Still, the male preponderance remains very great.

*Alcohol and drug abuse.* Concerning alcohol, there are measures of consumption, and of specific harms associated with alcohol (traffic accidents, cirrhosis of the liver, violent crime; Silbereisen, Robins & Rutter, 1995). For illicit drugs a number of indirect measures have to be used, such as seizures by customs, addicts notified to the authorities, drug-related deaths, studies of clinic populations, and recorded drug offences.

Alcohol consumption increased markedly from about 1950 and reached a plateau around 1980. It is also clear that there has been a massive increase in drug use and abuse during the same period. After 1980, however, there is conflicting evidence about trends in use of illicit drugs. The use of cannabis may have declined or leveled off around 1980, but this is not necessarily paralleled by changes in other drugs. Interpol statistics for eight European countries show substantial increases in drug-related deaths since 1980 (Silbereisen et al., 1995; Smith & Rutter, 1995).

With the exception of tobacco, boys use more of all substances than girls. As with crime, however, there is some evidence of a trend towards convergence in levels of use between the sexes.

*Depressive disorders.* Concerning depressions, there are no official statistics, and it is only in recent years that general population surveys have been carried out that provide estimates of their prevalence (Fombonne, 1995a; Smith & Rutter, 1995). There are five kinds of evidence of an increase in depression during the postwar period: "family studies" of relatives of people diagnosed with mental illness, cross-sectional general population surveys, links between depression and suicide, some repeat surveys and studies of hospital admissions data. The Study Group concluded that on balance the evidence from the different types of studies supports the view that there has been an increase in depressive conditions in the most recent birth cohorts. The rise in depressive disorders probably have been more marked in men than in women, which means that the difference in rates between the sexes is possibly gradually reducing over time.

Crucial to the conclusion of a rise in depressive conditions are the results of a number of cross-sectional general population surveys, of which the US Epidemiological Catchment Area Study (ECA; Robins, Locke & Regier, 1991, cited from Fombonne, 1995a) is the most important. The results of this survey were used to calculate lifetime prevalence rates for depression and other disorders. If the risk of disorder is equal for successive age cohorts, then lifetime prevalence rates should increase with age. For depression, however, the opposite pattern was found. This suggests that the risk is higher for younger than for older respondents.

Since the ECA data on subjects' earlier depressions are retrospective, there is a possibility that the results might be related to recall effects. This was discussed in detail by Fombonne (1995a). His conclusion, and also the conclusion of the Academia Europaea Study Group, however, is that recall effects are not likely to be the main explanation for the increase of depressive disorders in younger age cohorts.

*Eating disorders.* Both anorexia nervosa and bulimia are rare conditions and this means that differences between age groups in community surveys are sensitive to

sampling biases and errors. Therefore it is difficult to obtain good information about time trends in these disorders. The conclusion of the Study Group was that there is no clear evidence whether there has been an increase in incidence of either disorder (Fombonne, 1995b; Smith & Rutter, 1995).

*Suicide.* In the case of suicide, the core evidence comes from official records of causes of death (Diekstra, Kienhorst & de Wilde, 1995). The rate of suicide among young males increased markedly in many European countries in the postwar period up to the mid-1980s. For young females, the time trends have been much less consistent. In about half the countries there was some rise, but in the other half the rates tended to fall or remained fairly stable. Since the early to mid-1980s, the suicide rates in young people have leveled off or even decreased. The suicide rate is 2 to 3 times as high among young males as among young females, which means that the effect of these recent trends is to increase the gap (Smith & Rutter, 1995).

*Suicidal behavior.* Data on suicidal behavior, short of suicide, are less reliable than on suicides, and mainly derived from hospital admission data. The evidence show a marked increase from early 1950s to the mid 1970s or early 1980s, followed by a decline that possibly has been more marked among women than men. Since the rate of suicidal behaviors is much higher among females than among males, this has brought the male and female rates closer together (Diekstra et al., 1995; Smith & Rutter, 1995).

#### *Some Swedish findings*

Next some evidence on time trends in studies confined to Swedish conditions will be considered. Several of these studies are included among the studies reviewed by the Academia Europaea Study Group.

*Crime.* In Sweden, the number of female suspects has doubled between 1975 and 1995 (BRÅ, 1999). The female *share* of the total number of suspects has also increased. With a few exceptions (robbery, receiving stolen goods and narcotics offences) this is true for all types of crimes, even violent crimes.

*Alcohol and drug abuse.* In Sweden, there have been annual surveys among high school students (Grade 9) since 1971, performed by the Swedish Council for Information on Alcohol and Other Drugs (CAN, 1998). Concerning alcohol consumption, girls increased their consumption during the first half of the 1970s. Medium beer was prohibited in 1977, and the total beer consumption went down. From 1979 to 1981 consumption of all types of alcohol decreased, and consumption has remained fairly stable since then. The trends in the tendency for school students to get intoxicated resemble the consumption trends: After a peak in 1976/77, the likelihood for teenagers to drink themselves intoxicated decreased and stabilized at the lower level in 1981. Since the beginning of the 1990s, however, there has been a tendency to an increase, especially among girls. In spite of this tendency in intoxication, the Council concluded that a total assessment of the alcohol consumption habits of school-aged youth in Sweden suggests that they have been fairly stable in recent years.

Data from the same surveys show that at the beginning of the 1970s a fairly large proportion of Swedish Grade-9 students (about 14%) had tried drugs at some time (CAN, 1998). This proportion decreased and was 7-9% in 1982 and around 3-4% through 1991. After that, however, the proportion of 9th year students who have tried

drugs has roughly doubled. The surveys usually show that about two-thirds of those who have experimented with drugs have tried cannabis only.

*Depressive disorders.* One of the few prospective epidemiological studies that have supplied evidence concerning change over time in the incidence of depression is the Swedish Lundby Study. The Lundby Study started in 1947 with a psychiatric examination of every inhabitant in a delimited area in Sweden. This population was followed up in 1957 and 1975, and all three examinations were carried out in an identical manner (Hagnell, Lanke, Rorsman & Öjesjö, 1982). The probability of suffering a depression with mild or moderate but not severe impairment increased during the 25-year period for both sexes. However, young men (20-39 years) in particular contributed to the increase of depressive disorders during the 25-year period studied.

*Suicide.* In Sweden no upward trend in suicide was shown for young females between 1970 and 1980 (Fig. 13.7c in Diekstra et al., 1995). The suicide rates appear to have been somewhat lower in 1980 and 1988 than in 1970. The frequency of suicides among Swedish females aged 15 to 24 years appears to have continued to decrease somewhat between 1987 and 1996 (SCB, 1999).

#### *The WHO Collaborative Study Health Behaviour in School-Aged Children*

Since the 80s, a WHO Collaborative Study named Health Behaviour in School-Aged Children has been carried out in an increasing number of European countries (Marklund, 1997). The aim of the study is to increase the knowledge of such living conditions that are of importance for health in children, and to compare the development of these conditions in different countries. Data collections have been carried out in four-year intervals, starting in 1985/86. The self-report questionnaire includes questions about alcohol-, drug and eating habits, physical activities, somatic complaints, and relations to school, peers and parents. At least 3000 children are participating from each country. School classes are selected for participation in a way that makes the children representative of their respective country.

Sweden has been part of this project since 1984. Data collections are carried out in Swedish school-grades 5, 7 and 9 (approximately at age 12, 14 and 16). Results from the first three of the Swedish data collections showed that somatic complaints increased during the ten-year period, as did the number of children who were tired when heading for school in the mornings. Alcohol consumption also increased, especially among girls. However, more children in Sweden than in any of the other countries found themselves being healthy and enjoying life (Marklund, 1997).

#### *Summary*

In conclusion, the Academia Europaea Study Group did find evidence of an increase in psychosocial disorders such as crime, alcohol and drug abuse, depressive disorders, suicide and suicidal behavior among young people in nearly all developed countries since the Second World War. There is also evidence of closing gender gaps for several disorders, such as crime, substance use, depression and suicidal behaviors, but not for suicide, where the trend is towards divergence.

As concerns time trends in problem behaviors in the general population of children, two cross-sectional time-point prevalence studies, one from the USA and one

from the Netherlands, arrive at different conclusions. Achenbach et al. (1993) found increasing problem scores and decreasing competence scores among representative samples of American children from the mid-70s to the late 80s. These findings could not be corroborated in a similar study on Dutch children, however, which indicates that there might be cultural differences in societal change and its effects on mental health of children and adolescents (Verhulst et al., 1997).

Considering the evidence reviewed by the Academia Europaea Study Group, the methodological difficulties of establishing time trends appear to be particularly troublesome for disorders with a female preponderance. Evidence on increases in depression is largely based on retrospective data, evidence on increases in suicidal behavior is mainly confined to hospital admissions data, and evidence on eating disorders is too weak for any conclusions to be drawn. This means that the need for prospective longitudinal studies of multiple birth cohorts and for repeat surveys of the general population is specifically urgent for tracking time trends in female disturbances and disorders. These are often of an internalizing type and leave few traces in official statistics.

Repeat surveys of the general population of youth are also essential to get a picture of changes in subclinical problems with psychological health and well-being. So far, these types of surveys often have had a focus on alcohol and drug abuse, but WHO has increased the scope of their surveys on children's' living conditions to include eating habits, physical activity, psychosomatic problems, and relations to school, peers and parents.

One way of increasing the knowledge of time trends in young people's adjustment problems and psychological well-being is to repeat earlier cross-sectional studies, originally not intended as repeated screenings. To supply one piece of a largely missing puzzle, this study will compare data from a broad survey of self-experienced symptoms and adjustment problems among Swedish teenage girls made in 1970 and a repeat survey made in the same community in 1996.

## **Method**

### **Samples**

Data from two Swedish school-cohorts were used in the present study. The 1996 school-cohort included all adolescent girls attending Grade 8 in Örebro in the spring term 1996. The 1970 school-cohort included all adolescent girls attending Grade 8 in Örebro in the spring term in 1970. The girls in the 1970 school-cohort were all enrolled in the Swedish longitudinal research program Individual Development and Adaptation (IDA; Magnusson, 1988). A detailed description of the 1970 investigation is given by Crafoord (1972) and by Magnusson et al. (1975). In Sweden, children are on average 15 years of age when attending Grade 8.

The two school-cohorts of girls are described in Table 1. The 1996 school cohort included 602 girls, and for 529 (87.9%) of them data were collected. The 1970 school cohort included 590 girls, and for 522 (88.5%) of them data were collected. The others were absent from school when the data collection took place. For both cohorts, the participation rates are rather high.

Table 1. Cohort, sample and dropout in 1970 and 1996.

	Number of girls		Percent of cohort	
	1970	1996	1970	1996
Cohort	590	602	100.0	100.0
Sample	522	529	88.5	87.9
Drop-out	68	73	11.5	12.1

### Instrument

Teenage girls' adjustment problems were documented with a self-report questionnaire constructed by the investigators of the IDA research program (Crafoord, 1972; Magnusson et al., 1975). This inventory includes 122 questions about different adjustment problems, eight (1970: six) questions documenting socio-demographic data and four "questions about the questions" concerned with how the subjects had experienced filling out the questionnaire. Eight different areas are covered by the adjustment-problem part of the questionnaire: (1) *psychosomatic symptoms*, (2) *emotional disturbances*, (3) *disturbances in self-esteem*, (4) *antisocial behaviors*, (5) *disturbances in relations to parents*, (6) *disturbances in relations to teachers*, (7) *disturbances in relations to peers*, (8) *sexuality*, and (9) *unclassified items* (Table 2).

The 122 symptom and problem items were formulated in concrete and behavior-related terms. Fixed reply alternatives were provided, and the categories usually comprised frequency statements since these were found to be more reliable than intensity ratings (Magnusson et al., 1975). Most items have five response choices scored from 1 to 5. The scales are ordinal. For this presentation, all items have been turned so that a high score indicates poor adjustment, while a low score indicates good adjustment or, at least, the absence of adjustment problems.

#### *Differences in item content between the 1970 and 1996 versions of the questionnaire*

Although the symptom survey performed in 1996 on the whole was aimed to be an exact replication of the 1970 survey, a few minor differences occurred between the two versions of the questionnaire.

*Item 94.* In the original questionnaire the girls were asked about thumb-sucking. In 1996, this question was considered as too childish for 15-year-olds, and was replaced by a new item concerning stealing money at home. Neither of these items was included in the 26-year comparison.

*Item 102.* This item concerns running away from home. By mistake the fourth scale step on the five-point scale was left out in the 1970 version of the questionnaire. This item was not included in the 26-year comparison.

*Country of birth.* Two questions about country of birth for the girl herself and for each of her parents were added to the living-conditions section in the 1996 version of the questionnaire.

Table 2. The Symptom Questionnaire: Initial symptom categorization and number of items.

Content	Number of items	
	1970	1996
Symptoms and adjustment problems	122	122
Psychosomatic symptoms	15	14
Emotional disturbances	14	14
Disturbances in self-esteem	13	13
Antisocial behaviors	16	17
Disturbances in relations to parents	23	23
Disturbances in relations to teachers	7	7
Disturbances in relations to peers	16	16
Sexuality	11	11
Other items	7	7
Questions about living conditions	6	8
Questions about the questions	4	4
Total	132	134

*Questions about the questions, item 4.* This item concerned how many of the questions the girls had found difficult to answer in an honest way. By mistake the last scale step on the five-point scale was left out in the 1996 version of the questionnaire. This item was not included in the 26-year comparison.

### Results

For each item ratings of 1, 2, and 3 on the five-point item scales were considered as *absence of a problem* and recoded as "0"; and ratings of 4 and 5 were considered as *presence of a problem* and recoded as "1". For three items with four-point scales (item 55 in the mother-relations category, item 85 in the sexuality category, and item 107 in the psychosomatic-symptoms category) ratings of 1 and 2 were recoded as "0" and ratings of 3 and 4 were recoded as "1". The problem frequencies of each item are presented in figures 1 to 9. To increase the readability of the figures, the items in each category have been sorted into subgroups of relevance for the specific category. Within subgroups, items are ordered according to descending frequencies for the 1996 sample.

The significance of changes in problem prevalences between 1970 and 1996 has been tested with  $\chi^2$ . A large number of significance tests have been performed, however, and the significance of changes in frequencies of individual symptoms has to be interpreted with caution.

Frequencies for the full distributions of single symptoms in the 1970 and 1996 school cohorts are presented in Appendix, tables A1 to A9. The tables also include means and standard deviations for each item. Although the focus of this study is on changes in adjustment *problems*, (i.e., the negative end of the distributions), the significances of shifts in the full distributions have also been tested with  $\chi^2$ , and are presented in tables A1 to A9.

### **Psychosomatic symptoms**

Frequencies of psychosomatic symptoms in 1970 and 1996, counting ratings of 4 or 5 as presence of a symptom, are presented in Figure 1. (Items rated with a scale from “never” to “many times a week” are presented in the first item group; items rated with a scale from “never” to “very often” are presented in the second item group.) The full frequency distributions for psychosomatic symptoms are presented in Appendix, Table A1.

Most psychosomatic symptoms were approximately as common in 1996 as in 1970, and changes that occurred were not all in the same direction. Chi-square tests with the full distributions showed that significant shifts occurred for six of the 14 items. In three cases, the shifts in the overall distributions were towards a less good adjustment: *1. Headache*; *13. Restlessness*; and *56. Allergy*. Significant increases in the frequencies of symptoms (ratings 4 or 5) were found for two of these items: *1. Headache* and *56. Allergy*.

For three items, the shifts in the full distributions were more or less towards better adjustment: *50. Difficulties falling asleep*; *58. Tenseness in new situations*; and *67. Tired, lazy and irritable*. Symptoms in two of these items, *58. Tenseness in new situations* and *67. Tired, lazy and irritable*, were significantly less common in 1996 than in 1970.

### **Emotional disturbances**

Most emotional disturbances were approximately as common in 1996 as in 1970. Only two significant changes in prevalences of disturbances were found: *worries about homework* (item 22) were twice as common in 1996 as in 1970 (Fig. 2). *Loneliness* (item 89), on the other hand, decreased over the time period.

Significant shifts in the overall frequency distributions were found in five additional items. Among these, the shift towards better adjustment in item 11, *fear*, might be noted. This shift was most pronounced in the “positive” end of the distribution, with an increase in the percentage of girls who reported “seldom” having feelings of fear, and a decrease in the percentage of girls who reported that it had happened “a few times” (Table A2).

### **Disturbances in self-esteem**

While psychosomatic symptoms and emotional disturbances were approximately as common in 1996 as in 1970, several problems connected with a low self-acceptance significantly increased over the same period (Fig. 3 and Table A3). The largest increase was found for not being *satisfied with looks* (item 54); the percentage of girls who only a few times or almost never were satisfied with their looks increased from 22% in 1970 to 37% in 1996. Four of the five core items for a low acceptance of self (second group

# Psychosomatic symptoms

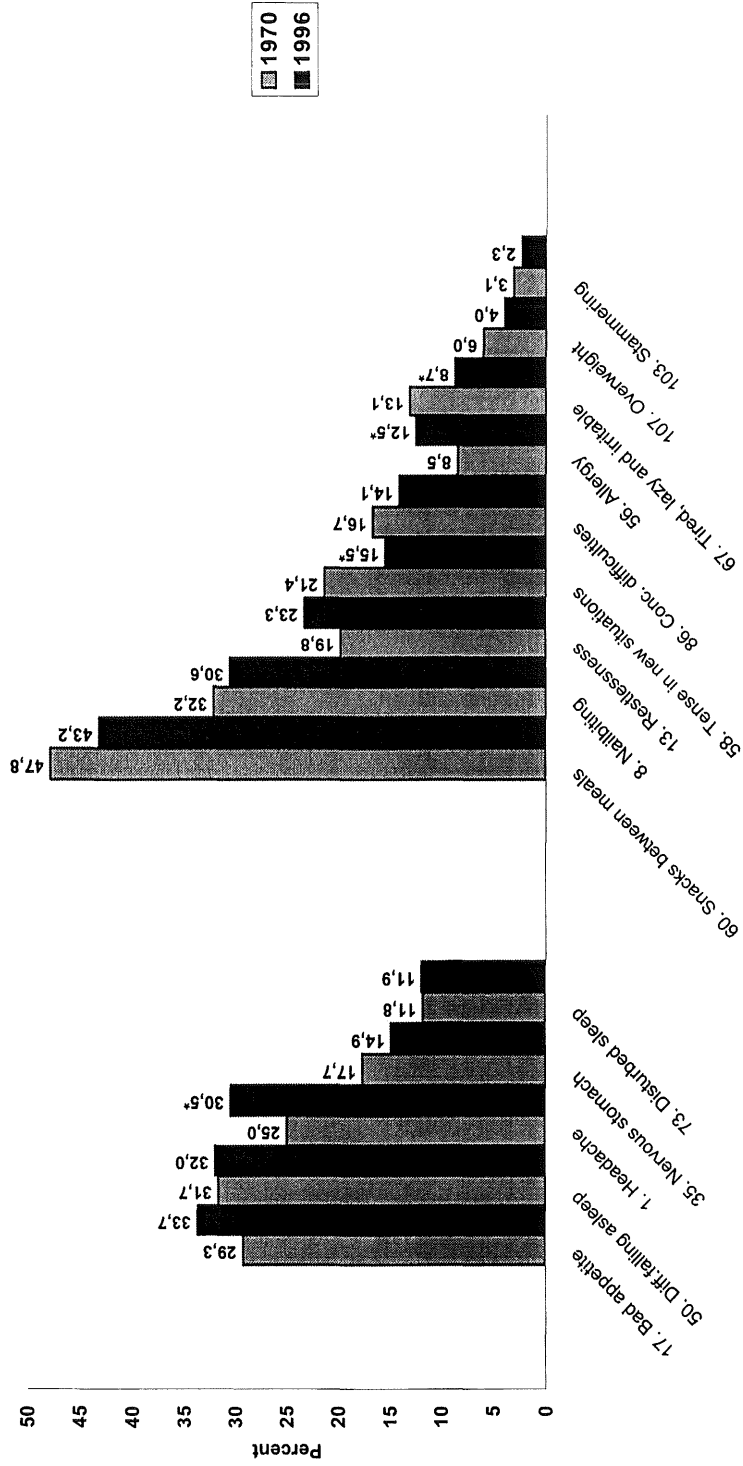


Figure 1. Comparison between frequencies of psychosomatic symptoms in 1970 and 1996.



# Emotional disturbances

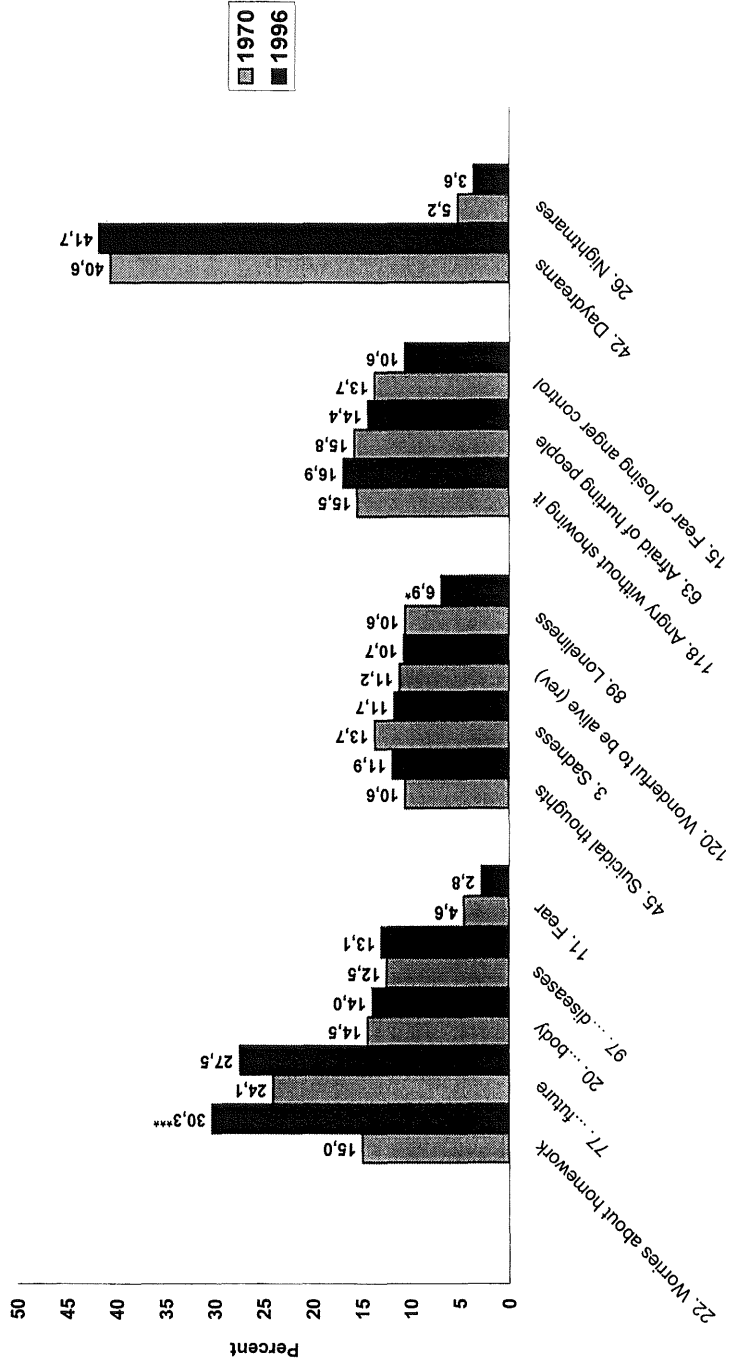


Figure 2. Comparison between frequencies of emotional disturbances in 1970 and 1996.

of items in Fig. 3) also increased significantly in prevalence: 31. *Desires change in self*; 71. *Self-accusations*; 88. *Wants to be someone else*; and 101. *Shame*.

Some trends in the opposite direction should be noted, however: there were significantly fewer girls who were not satisfied with *the way they act* (item 76) or with their *school work* (item 16). In addition, it might be noted that there was a significant shift in the overall distribution of item 37, *poor self-esteem*. The major shift in this distribution was in the “positive” end of the distribution, and concerned the percentage of girls who almost never thought that they were “no use at all”; this percentage increased from 25 to 37%.

### **Antisocial behaviors**

Twelve of fourteen items concerning antisocial behaviors were the same in the 1970 and 1996 versions of the questionnaire and could be compared over the 26-year period (see Method section).

A special case has to be made for item 6, *shoplifting*: The prevalence of girls who had shoplifted at least once increased from 31 to 43% (Table A4a); the prevalence of girls who had shoplifted four times or more, more than doubled over the 26-year period, from 8 to 18% (Fig. 4). No corresponding increases occurred for other types of theft outside the family, such as stealing things or money from peers or other persons (*Item 34*, Table A4b).

Three other items also increased in frequencies along the full distributions: The percentage of girls who had *evaded paying* (item 92) at least once increased from 13 to 23%; the percentage of girls who had *forged a signature* (item 30) at least once increased from 13 to 27%; and the percentage of girls who *loitered in town* (item 116) at least one evening per month increased from 30 to 42%.

As concerns *alcohol abuse* (item 21), the time trend was reversed: Significantly fewer girls had been drunk four or more times in 1996 than in 1970 (19 vs. 24%). The percentage of girls who never had been drunk increased from 44 to 60%. Abuse of *hashish* (item 51) and *other drugs* (item 61) than alcohol were very low-frequent phenomena both in 1970 and in 1996 (between 0.6 and 1.3%).

### **Disturbances in relations to parents**

Four different types of items concerning the girls’ relations to their parents were included in the questionnaire (Fig. 5 and 6; Table A5a): disturbances in relation to mother (six items); disturbances in relation to father (six items); the girl’s own feelings and attitudes towards her parents (five items); and the feelings and attitudes the girl perceived in her parents (five items). These four groups will be considered separately in the following.

#### *Mother*

Girls who felt frequent *anger or irritation with their mothers* (item 87) were significantly more in 1996 than in 1970 (20 vs. 13%). The percentage of girls who only seldom felt angry or irritated with their mothers dropped from 30 to 18%. A significant shift also occurred in the overall distribution of girls *quarreling with their mothers* (item

### Disturbances in self-esteem

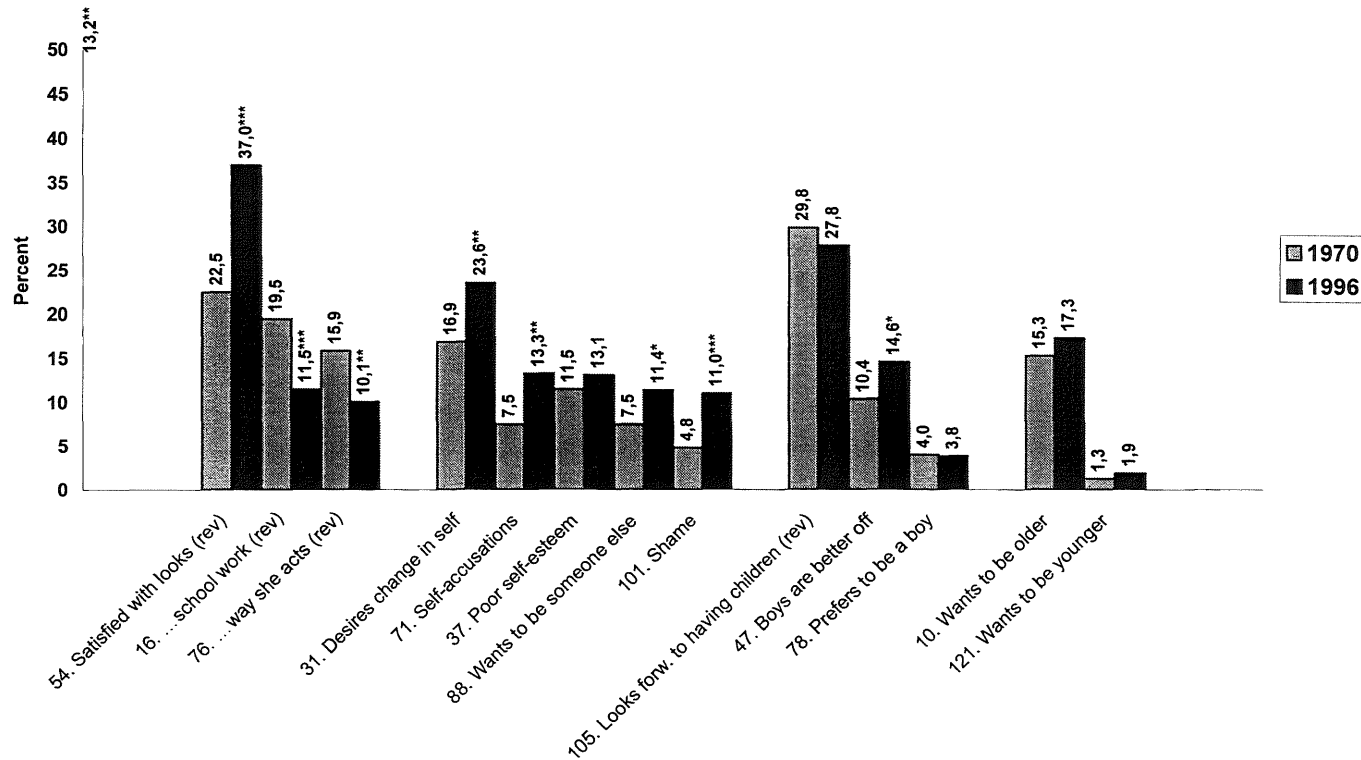


Figure 3. Comparison between frequencies of disturbances in self-esteem in 1970 and 1996.

## Antisocial behaviors

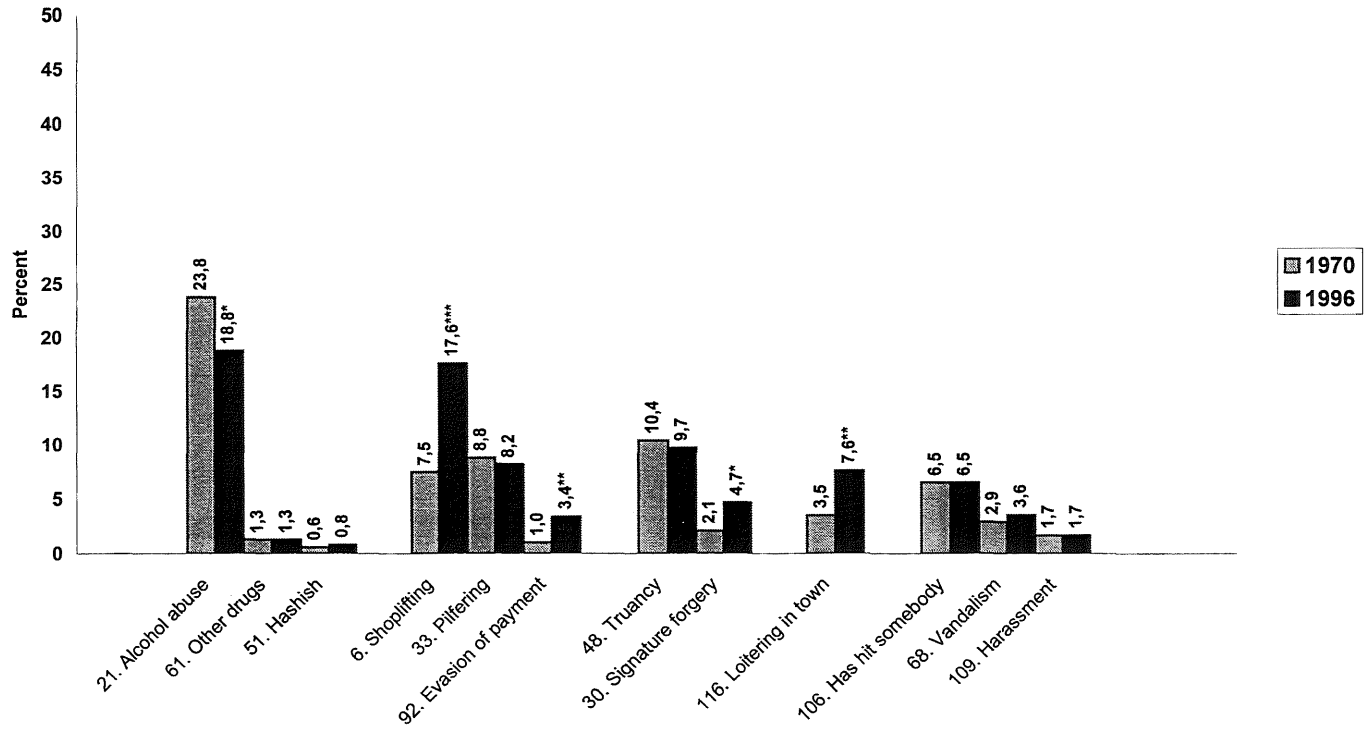


Figure 4. Comparison between frequencies of antisocial behaviors in 1970 and 1996.

79). The percentage of girls who almost never quarreled with their mothers (positive end of the distribution) dropped from 36 to 26%. Only a small, non-significant increase was found in the negative end of the distribution.

#### *Father*

As for mothers, the percentage of girls who felt frequent *anger or irritation with their fathers* (item 43) increased significantly, from 16 to 21%. The percentage of girls who seldom felt angry or irritated with their fathers did not change over the period, however. The percentage of girls who almost never *quarreled with their fathers* (item 93) dropped, from 53 to 45%, while no significant increase occurred in girls often quarreling with their fathers.

In addition it might be noted that the percentage of girls who very little or not at all *wanted to be similar to their fathers as adults* (item 90) dropped significantly from 51 to 43%.

#### *Feelings and attitudes towards parents*

Of five items measuring the girls' feelings and attitudes towards their parents, three showed significant shifts in their distributions, but in somewhat contrasting directions. There was a trend towards increased independence of parents: More girls in 1996 than in 1970 *wanted to defy their parents* (item 19; 27 vs. 16%). In addition, fewer girls *wanted their parents to decide much for them* (item 46; 2 vs. 5%), and the percentage of girls who wanted their parents to decide very little for them increased from 33 to 53%.

However, there were no significant shifts in the distribution of item 82 that asked about actually *doing the opposite of what one's parents wanted*. And there was an increase in the reports of affection for one's parents: There were fewer girls in 1996 than in 1970 who seldom or only a few times felt that they *loved their parents most* (item 70; 20 vs. 31%); and the percentage of girls who felt this very often increased from 10 to 19%.

#### *Girls' perceptions of their parents' feelings*

The final group of parental items considered how the girls perceived their parents' feelings and attitudes towards them. The percentages of girls who perceived frequent negative feelings and attitudes from their parents were low and very similar between 1970 and 1996, mostly varying around 4 - 6%. The changes that occurred appeared at the positive end of the distributions: The percentage of girls who seldom felt that their parents were *angry and irritated* with them increased from 32 to 42% (item 24); the percentage who seldom felt that their parents were *disappointed* in them increased from 46 to 61% (item 57); the percentage that almost never felt *criticized* by their parents increased from 54 to 67% (item 113); and the percentage that almost never felt as a *bother at home* increased from 59 to 68% (item 7).

#### **Disturbances in relations to teachers**

Only one significant change in the prevalence of disturbances in relation to teachers occurred over the period, and that was the percentage of girls who felt that most of their

### Disturbances in relations to mother and father

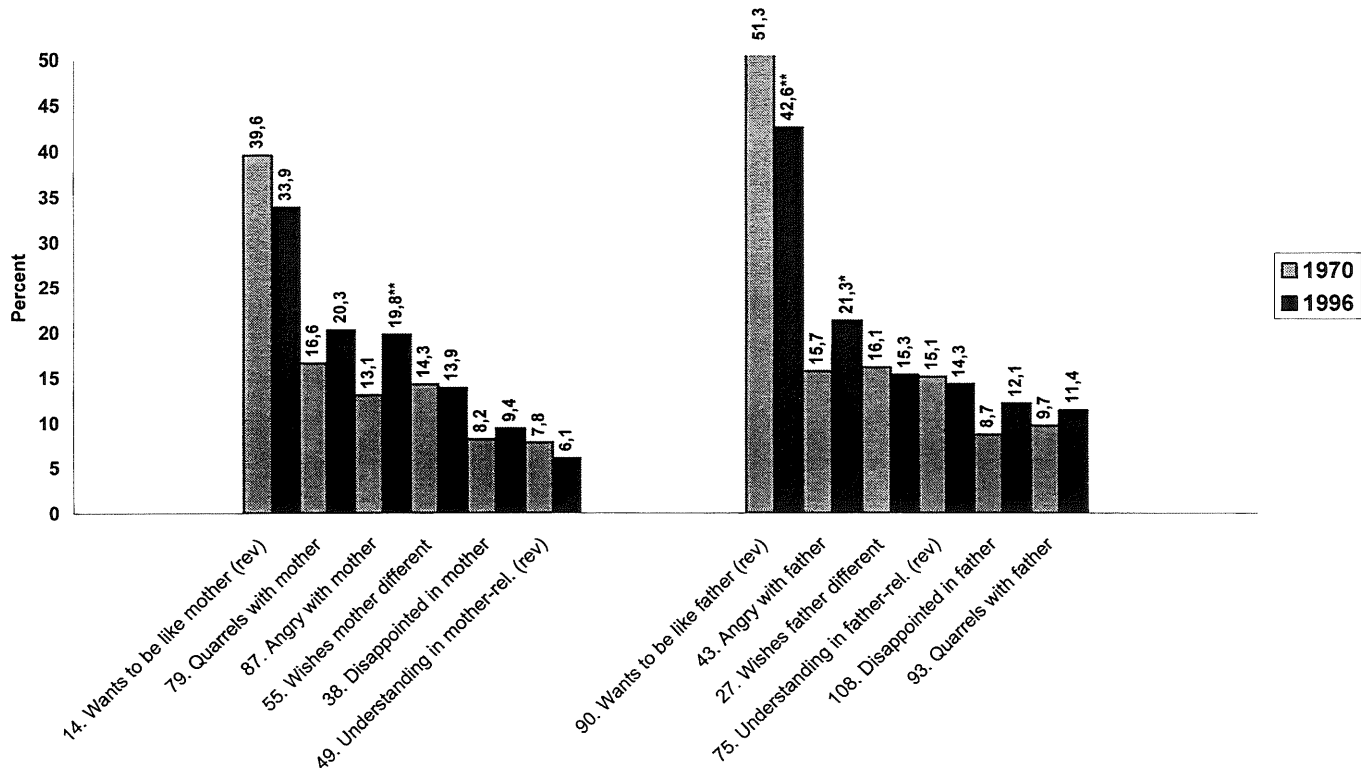


Figure 5. Comparison between frequencies of disturbances in relations to mother and father in 1970 and 1996.

## Disturbances in relation to parents

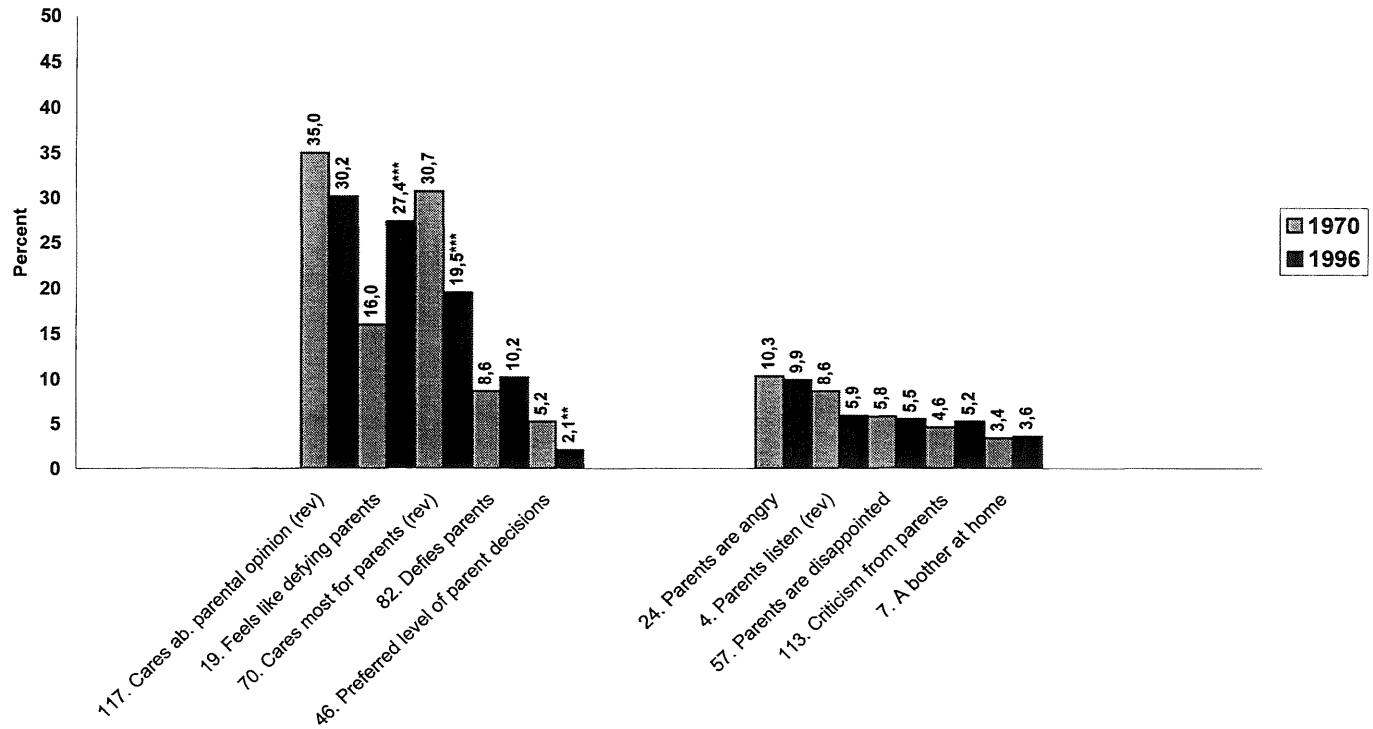


Figure 6. Comparison between frequencies of disturbances in relations to parents in 1970 and 1996.

*teachers were against them* (item111), which decreased from 4 to 2% (Fig. 7). Some changes occurred in the positive parts of the distributions (Table A6): the percentage of girls who felt that none of their teachers were against them increased from 36 to 45%; the percentage of girls who hardly *felt defiant* against any of their teachers increased from 53 to 67% (item 23); and the percentage of girls who thought that almost all of their *teachers liked them* increased from 7 to 21% (item 72).

### Peer relations

Five of the 16 items showed a significant reduction in the percentage of girls with a poor adjustment (Fig. 8): 2. *Understanding in peer relations* (reversed; 3.8 vs. 1.5%); 28. *Trust in peers* (rev.; 11 vs. 6%); 12. *Shy around peers* (6 vs. 3%); 95. *Peers like her* (rev.; 8 vs. 3%), and 74. *Difficulties making friends* (8 vs. 4.5%).

For several items with significant shifts in the overall distributions, the percentages of girls reporting the highest level of good adjustment appeared to have increased (Table A7): The percentage of girls who seldom were *displeased with their peers* increased (from 17 to 29%; item 83) and so did the percentage of girls who trusted their peers totally (from 12 to 37%; item 28), who seldom felt shy around their peers (from 42 to 64%; item 12), who almost never thought their *peers were against them* (from 44 to 54%; item 104), who thought their peers liked them much (from 3 to 28%; item 95), and who thought they and their peers understood each other very well (26 to 46%; item 2).

Some other changes were towards less good adjustment, however. The prevalence of girls who (fairly or very) often were *afraid that their peers would get tired of them* increased significantly (from 5 to 9%; item 112). There was also a significant shift in the overall distribution of item 52. *Best friend*. The percentage of girls who had a best friend both now and before decreased from 81 to 72%; and the percentage of girls who never had had a best friend increased significantly from 2.3 to 4.6%. Finally, the percentage of girls who did not find it at all *important that their peers agreed to do things they suggested* dropped from 17 to 7%; and the percentage who found it important or very important increased from 2.5 to 10% (item 80; whether this should be considered as a negative development could be questioned).

### Sexuality

#### *Relations to boys*

Five of the 11 items concerning sexuality were questions about the girl's experiences in relations to boys (Fig. 9, first item group and Table A8). A substantial increase occurred in the percentage of girls who thought they were very little or not at all *popular among boys* (item 110), which increased from 35% in 1970 to 50% in 1996. Intimate contacts with the opposite sex also seemed to be less common among fifteen-year old girls in 1996 than in 1970: Fewer girls had had a *boyfriend* (52 vs. 65%; item66) and fewer girls reported having had *sexual intercourse* (15 vs. 22%; item 84). The percentage of girls who had had *sexual intercourse with a boy the first time they met him* (item 85), which has to be considered as a risk behavior, also decreased somewhat (4 vs. 6%, *ns*).



### Disturbances in relation to teachers

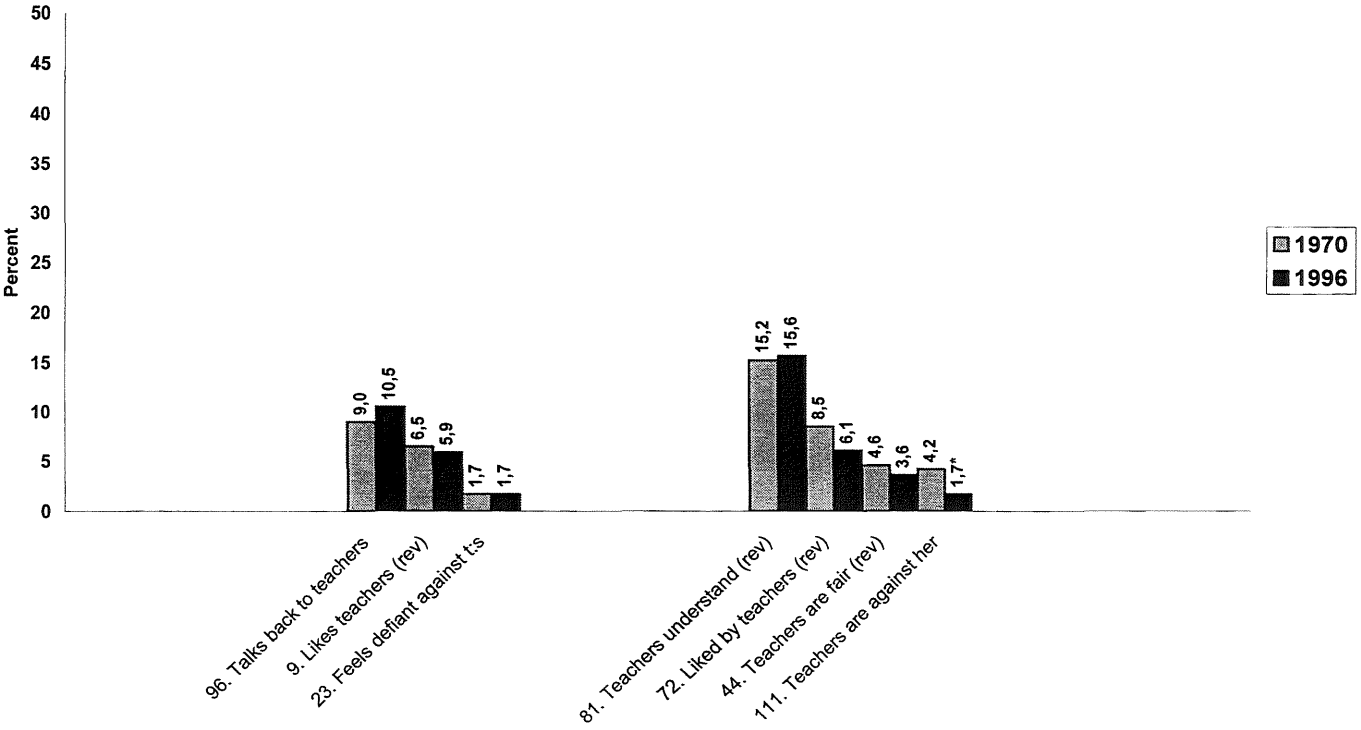


Figure 7. Comparison between frequencies of disturbances in relation to teachers in 1970 and 1996.

### Disturbances in relation to peers

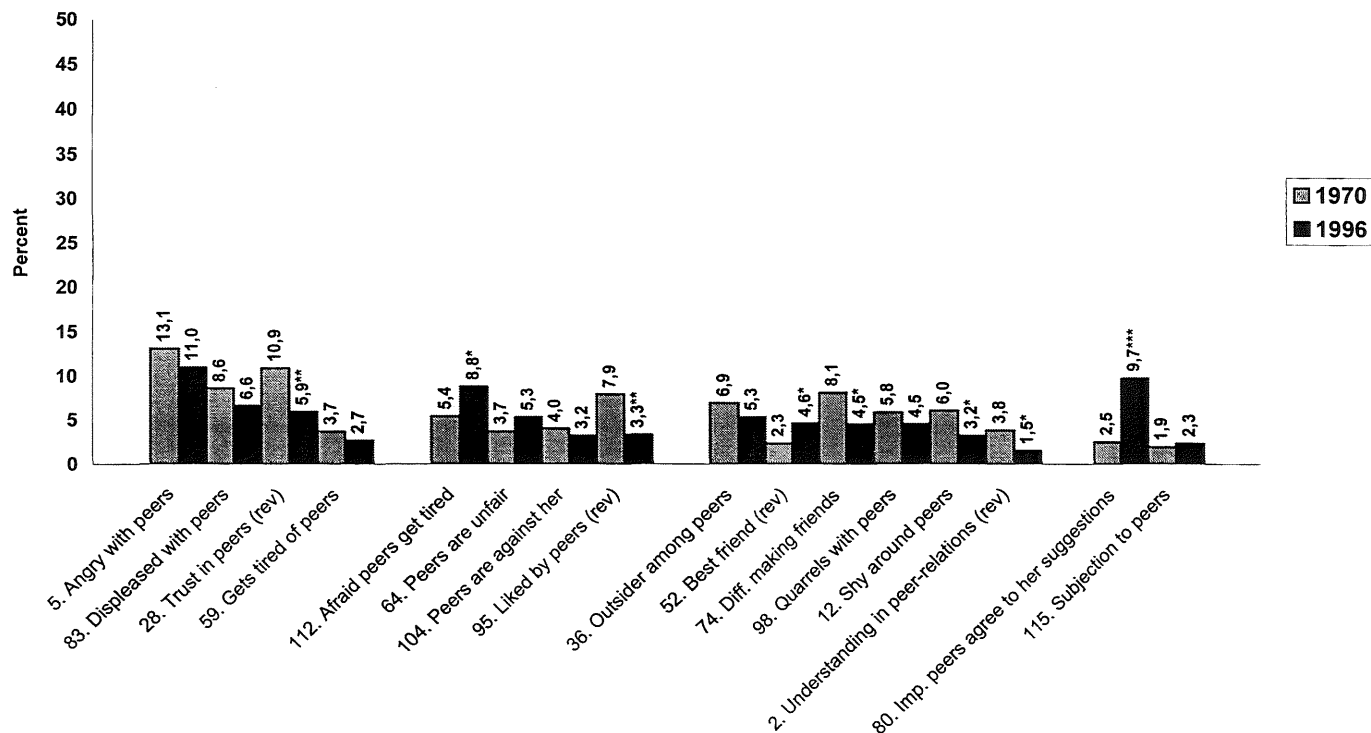


Figure 8. Comparison between frequencies of disturbances in relations to peers in 1970 and 1996.

### *Sexuality problems*

The remaining six questions covered the girls' concerns over sexual matters (second item group in Fig. 9). Three significant changes occurred among these items: The percentage of girls who thought they *needed to know more about sexual issues* (item 25) decreased from 13 to 3% over the 26-year period. The percentage of girls who thought they hardly needed to know anything more (ratings 1 and 2) increased from 48 to 70%. The percentage of girls who (fairly or very) often were *afraid of going further sexually than they wanted to* (item 91) decreased from 5 to 3%, and the percentage who almost never had those fears increased from 54 to 69%.

At the same time, however, the percentage of girls who thought *sex was frightening and unpleasant* increased significantly (from 2 to 7%; item 53) and those who not at all thought this decreased from 62 to 52%.

A further analysis of changes in girls' sexual attitudes and opposite sex relations over the 26-year period was presented by Chris Magnusson (2001).

### *Biological maturation*

No differences were found in biological maturation between the cohorts in 1996 and 1970 (Table A9). The majority in both cohorts had had their *menarche* between 12 and 13 years of age (39 vs. 41%; item 40). In 1996, 11% of the girls had had their menarche before age 11, while 5% had not reached menarche at the time of the data collection; the corresponding figures in 1970 were 10% and 6%.

The girls that had gotten their first period also reported on *how much pain they had in connection with their periods*. The percentages of girls who reported fairly much pain or very much pain decreased from 32 to 25% ( $p < .05$ ; item 41), while the percentage of girls reporting some pain increased.

### **Other items**

Among the unclassified items, two additional shifts in overall frequency distributions should be noted. The first occurred for item 65, which concerned *how important it was for the girls to do well at school*. The percentage of girls who found it not at all important or not especially important decreased from 14 to 8% ( $p < .01$ ). The percentage of girls who found it very important increased from 18 to 26%.

The second shift occurred for item 122, which concerned whether the girls ever wanted to *talk to an outsider about their problems*. Those who almost never felt this increased from 43 to 61%, while those who felt this fairly or very often decreased from 11 to 6% ( $p < .01$ ).

### **Number of problems in each problem category**

Some statistics concerning number of problems in each problem category for the 1970 and 1996 samples are presented in Table 3. A few items were excluded from the problem count since they would not easily fit into the good-poor adjustment dimension. This concerns item 117 in the parental category, and items 18, 66 and 84 concerning sexuality.

## Sexuality

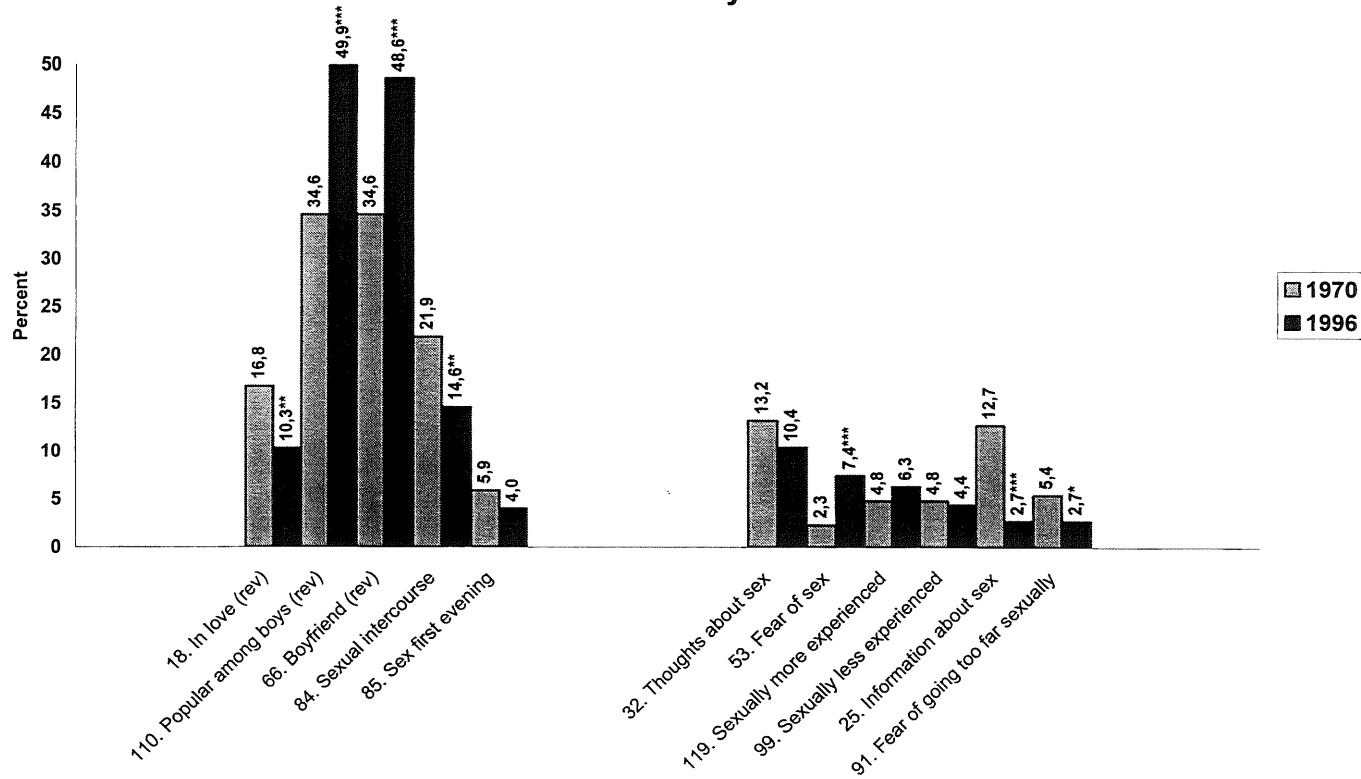


Figure 9. Comparison between frequencies of experiences and problems concerning sexuality in 1970 and 1996.

Table 3. Statistics on number of problems in each problem category for the 1970- (N=522) and 1996- (N=529) samples.

Problem category	Number of items	Year	M	sd	Number of problems			$\chi^2$
					0	1-3	$\geq 4$	
Internalizing								
Psychosom. sympt.	14	1970	2.83	2.36	15.3	54.2	30.5	ns
		1996	2.76	2.14	13.8	55.4	30.8	
Emotional dist.	14	1970	2.07	2.22	30.1	47.5	22.4	ns
		1996	2.15	2.16	25.0	52.7	22.3	
Dist. in self-esteem	13	1970	1.66	1.78	28.7	58.0	13.2	7.51*
		1996	1.96	2.05	26.8	53.7	19.5	
Externalizing								
Antisocial behaviors	12	1970	0.70	1.30	64.6	31.2	4.2	ns
		1996	0.84	1.61	65.6	27.6	6.8	
Relational								
Mother	6	1970	0.98	1.43	51.0	41.6	7.5	ns
		1996	1.03	1.50	52.6	39.1	8.3	
Father	6	1970	1.11	1.52	45.2	45.6	9.2	ns
		1996	1.15	1.62	47.8	41.4	10.8	
Parents	9	1970	0.92	1.43	51.7	42.3	5.9	ns
		1996	0.89	1.45	57.7	36.1	6.2	
Teachers	7	1970	0.50	1.01	71.1	26.2	2.7	ns
		1996	0.45	0.95	73.9	23.4	2.6	
Peers	16	1970	0.94	1.84	63.8	28.2	8.0	ns
		1996	0.82	1.72	63.1	31.0	5.9	
Sexuality	8	1970	0.83	0.87	41.2	58.2	0.6	ns
		1996	0.87	0.82	36.1	63.3	0.6	

Both in 1970 and in 1996, the largest mean numbers of problems were found for psychosomatic symptoms (2.83 and 2.76, respectively), followed by the two other types of internalizing problems, emotional disturbances and disturbances in self-esteem (mean number of problems between 1.66 to 2.15). Antisocial problems were not as common as the different types of internalizing problems (0.70 and 0.84 in 1970 and 1996, respectively). The same is true for the different kinds of relational problems, but the

comparison with the relational categories is somewhat problematic since most of these categories contain a smaller number of items.

The percentages of girls with no problems, one to three problems, and four or more problems within each category are also presented in Table 3. Generally it might be concluded that only a minority of the girls (between 14 and 30%) were free from problems in the internalizing categories, while the majority of girls did not report any problems (as defined here) in the antisocial category or most of the relational categories. The exception is problems in relation to father, which are somewhat more common than other types of relational problems.

Of greatest interest here, however, is that no significant shifts have occurred in the distributions of number of adjustment problems in any of the categories, with one exception: While the percentage of girls without disturbances in self-esteem was approximately the same in 1996 as in 1970, the percentage of girls reporting a few problems have decreased and the percentage of girls reporting multiple problems with self-esteem has increased in 1996.

### **Living conditions**

#### *Family situation*

Over the 26-year period that this investigation covers, the prevalences of different family constellations have changed in Sweden. In 1996, 69% of the girls reported living with both mother and father, as compared to 83% in 1970 (Table A10). In 1996, 18% reported living with a single mother and 8% with their mother and a stepfather, as compared to 10 and 3%, respectively, in 1970. This means that significantly more girls did not live with their biological father in 1996 than in 1970 ( $p < .001$ ).

The contacts with the absent parent were more frequent among girls with divorced parents in 1996 than in 1970. Of the children in 1996 whose parents were divorced 53% saw the absent parent at least every second week, while 24% saw the absent parent once each semester or less. The corresponding figures in 1970 were 21 and 54%, respectively. Out of all girls, however, the same percentage in 1996 as in 1970, 7%, saw an absent parent once each semester or less.

#### *Immigration*

Since 1970 immigration into Sweden has increased considerably. In the 1996 sample, 14% of the girls had a mother and/or a father born in a non-Nordic country. Eight percent had both parents born in a non-Nordic country. For five percent of the sample both parents were born in a non-Nordic country and they were themselves born abroad.

To check whether differences found between the distributions of adjustment problems in 1970 and 1996 were related to the new composition of the population in 1996, all analyses comparing number of problems in 1970 and 1996 were run again, excluding all 1996 girls with a father and/or a mother born in a non-Nordic country. However, to a large extent the same results appeared from these new analyses as from the analyses with immigrants included. Out of 38 significant changes identified for the 105 adjustment problems included in Table 3, 31 (82%) were significant also when comparing the 1970 sample with the reduced 1996 sample. Five additional significant

changes were found in the latter comparison, which means that 31 out of 36 (86%) significant changes in the comparison with the reduced 1996 sample also were significant when comparing with the full 1996 sample.

### **Attitudes towards the questionnaire**

Two things might be noted in Table A11, presenting how the girls in the two cohorts felt about filling out the symptom questionnaire. First, the majority of the girls in both cohorts found it fairly or very easy to answer the questions, and this majority was even larger in 1996 (83%) than in 1970 (71%;  $p < .001$ ).

The second thing to note is item 2 in this part of the questionnaire, asking the girls about reasons for difficulties in filling out the questionnaire: In 1970 more than one third of the girls stated that it had been difficult to answer the questions because these concerned matters they had not thought about; in 1996 this percentage had decreased to less than half (from 37 to 16%,  $p < .001$ ; the partial drop-out for this question was rather large, however, especially in 1970). This suggests an increased awareness of psychological issues among 15-year-old girls over the 26-year period.

### **Summary and discussion**

In this report the change over 26 years in the occurrence of various symptoms and adjustment problems among teenage girls was analyzed in two ways: as changes in percentages with a poor adjustment for the different items and as changes in the full distributions. Eight different areas of adjustment were covered: psychosomatic symptoms, emotional disturbances, disturbances in self-esteem, antisocial behaviors, disturbances in relation to parents, teachers and peers, and sexuality.

In general, the data suggest that in most areas the prevalences of adjustment problems in 1996 are rather similar to the prevalences found in 1970. Significant shifts that have occurred in single items do not appear to be part of any general trend in either direction. Of the 105 items considered as signifying adjustment problems (see Table 3), 21 (20%) were found to be significantly more common in 1996 than in 1970 and 17 (16%) were found to be significantly less common.

This means that the small but consistent secular trend of slightly deteriorating adjustment, generalized over the whole problem panorama, that was identified for American children and adolescents (Achenbach and Howell, 1993) apparently did not apply to our samples of Swedish girls in their mid-teens. It should be noted that the Swedish samples were compared over a twice as long time period as the American samples (26 vs. 13 years). Our results are more in line with the results presented by Verhulst et al., who did not find evidence for any clear secular increase in malfunctioning among Dutch children and adolescents over a 10-year period. Verhulst and van der Ende suggest that the differences between the Dutch and the American findings indicate possible effects of cultural differences in societal change on mental health of children and adolescents. The Swedish and Dutch societies are culturally closer to each other than to the American society, and secular trends in these two Western European countries could be expected to be more similar.

The few more consistent changes that were found in the present study were limited to specific domains and they were not all in a negative direction: Self-esteem,

especially in relation to appearance, have changed for the worse for Swedish girls in their mid-teens. Some problems in relations to peers, on the other hand, seem to have become less common over the time period. Some important shifts also appeared concerning attitudes towards sexuality and the girls' intimate relations to boys. The findings will be commented on in some detail below:

#### *Psychosomatic symptoms*

Most psychosomatic symptoms covered by our study were approximately as common in 1996 as in 1970. Frequent headaches (once a week or more) and allergies were the only somatic symptoms showing a significant increase over the 26-year period. Significant shifts in single items have to be interpreted with caution, however, due to the large number of significance tests that were performed.

The WHO Collaborative Study Health Behavior in School-Aged Children found that somatic complaints increased among school-aged children in Sweden during the ten-year period after 1984, when Sweden first participated in the WHO study (Marklund, 1997). This increase is not reflected in the data analyzed in the present study. The data analyzed in the present study, however, can only tell us whether the frequencies are comparable in 1970 and 1996; they do not tell us what the time trends have looked like within this period.

Only three somatic complaints are included in both the WHO study and the present study: headaches, stomach problems (in the WHO study: stomach aches), and difficulties falling asleep. Moreover, comparisons of frequencies for these items are difficult both due to the questions being differently formulated and to the use of different scales. With these reservations, a comparison between the WHO data for girls in grades 7 and 9 in 1993/94 and our Örebro data for girls in grade 8 in 1996 show that somatic complaints are somewhat more common in the WHO study than in our data from Örebro (headaches at least once a week: WHO 41-46% and Örebro 30%; stomach aches/problems: 26% and 15%, respectively; and difficulties falling asleep: 36-39% and 32%, respectively). This might indicate that somatic complaints were somewhat less common among teenage girls in Örebro than among teenage girls in Sweden generally in the middle of the 90s.

The lack of increasing time trends in somatic complaints in our study is somewhat surprising also from another point of view. If there has been an increase in depressive disorders during the last decades, as was indicated in the review by the Academia Europaea Study Group (see the Introduction section), one might expect some increase also in frequencies of somatic symptoms related to depressive conditions, such as loss of appetite and disturbances of sleep, for example. This will be considered in the next section.

#### *Emotional disturbances*

As described in the Introduction section, much evidence suggests that depression is becoming more prevalent in younger birth cohorts. In most cases this has been found for depressive *disorders*, although perhaps not the most severe forms (see Hagnell et al., 1982). The present comparison only concerns prevalences of *single adjustment problems*. Still, we had expected the alleged increase in depressive disorders to be



reflected in the frequencies of depressive symptoms reported by our younger school-cohort. This was not the case here: In both cohorts about 11-14% of the girls reported depressive feelings such as sadness and thoughts about not wanting to live anymore. Reports of frequent feelings of loneliness actually decreased over the time period. However, increases in depressive conditions do not have to be reflected in increases in frequencies of single symptoms, but might appear as shifts in the multivariate distributions of these symptoms (see below).

### *Self-esteem*

One important finding in this study is the increase in poor self-esteem that appears to have occurred in the 26-year-period studied. A substantial increase in the percentage of girls who seldom are satisfied with their looks (37 vs. 22%) is accompanied by significant and consistent increases in prevalences of negative feelings about self, such as wanting to change oneself (24 vs. 17%), self-accusations (13 vs. 8%), wanting to be someone else (11 vs. 8%) and feeling ashamed of oneself (11 vs. 5%). As will be considered in the concluding remarks, one explanation for this might be that girls today live with a much higher level of exposure to messages in mass media concerning the ideal female body.

### *Antisocial behaviors*

Between 1970 and 1996, the number of girls who reported having shoplifted at least four times more than doubled. Evasion of paying also increased somewhat, but other types of theft outside the family did not. According to statistics from the Swedish National Council for Crime Prevention (BRÅ, 1999) no other crime than shoplifting has such a high proportion of female suspects; about one third of all suspects are women. For both males and females the number of suspects increased by 250% between 1975 and 1985, and then remained constant. This means that the female proportion of number of suspects have been constant during the period between 1975 and 1995.

Alcohol abuse, measured as the number of times the girls had drunk themselves intoxicated, was less frequent in 1996 than in 1970 in the present study. Statistics from the Swedish Council for Information on Alcohol and Other Drugs (CAN, 1998; see the Introduction section) suggest that the figures from 1970 and 1996 both might be parts of upward trends: There was an upward trend in the tendency to get oneself intoxicated until the middle of the 1970s, and then a decreasing trend leveling off in 1981. Since the beginning of the 1990s there has been a new tendency towards an increase, especially among girls.

### *Parents*

More girls in 1996 than in 1970 reported frequent feelings of anger and irritation with their mother and father. Increases in actual quarrels with either parent were mainly notable on the low-frequent side of the distributions: the percentages of girls who reported almost never quarreling with mother or with father dropped substantially.

There were also signs of increased strivings for independence: There was a substantial increase in the percentage of girls who wanted their parents to decide very little for them concerning personal matters such as clothes, leisure activities, choice of

friends etc. More girls in 1996 than in 1970 also reported that they often wanted to defy their parents – although there were no increases in their reports of actually doing this.

The percentages of girls who reported often feeling that their parents were the persons they cared most about also increased, however, and there were other signs of improved relations between the girls and their parents: The percentage of girls who seldom felt that their parents were angry, criticizing or disappointed in them increased, as did the percentage of girls who almost never felt as a bother at home. Overall, this might suggest that the increases in the girls' angry feelings are part of an otherwise improved picture of parental relations. One interpretation could be that relations to parents are more relaxed today and that girls more easily can cope with angry feelings in these relations.

What has not changed is also of interest here. The small percentages of girls who perceived their parents to be critical and disappointed in them and who did feel that they were a bother at home remained constant over the time period. These reports from a small percentage of girls might reflect family conditions that are separate in quality from more normal family conditions and not very open to influences of time trends. Combined with the findings of increasing percentages of girls reporting positive adjustment in parental relations, this points towards a polarization among girls with good and poor adjustment in parental relations (see below).

#### *Peers*

Several problems that girls may experience in relation to peers were found to be less common in 1996 than in 1970: Less than half as many girls in 1996 as in 1970 thought that their peers did not like them (3 vs. 8%). Fewer girls reported often having difficulties making friends (4.5 vs. 8%) and there were fewer girls who did not trust their peers (6 vs. 11%). In addition, fewer girls reported that there was a poor understanding between them and their peers (1.5 vs. 4%).

For some items the changes were in the opposite direction: For example, more girls in 1996 than in 1970 were afraid that their peers would get tired of them (9 vs. 5%). Overall, however, the general picture still suggests that there has been a decrease in self-perceived peer problems among girls in their mid-teens. This is further supported by the finding that fewer girls today than 26 years ago reported frequent feelings of loneliness (7 vs. 11%), and that fewer girls reported that they often felt the need of talking about their problems with an outsider (6 vs. 11%).

However, the possibility must be considered that the Swedish word "kamrat" that is used for "peer" in the peer questions might be somewhat less natural for teenagers to use today than in 1970. It cannot be decided from available data whether the girls have thought of comparable groups of friends and peers when answering the questions in 1996 and in 1970.

#### *Sexuality*

The increased percentage of girls not being satisfied with their looks might be of relevance when considering another finding: the increased number of girls who felt they were not very popular among boys. Every second girl in 1996 stated that she was very little or not at all popular among boys, as compared to every third girl in 1970.

Beside the decrease in perceived popularity, there are also indications of changes in prevalences of intimate relations between girls and boys. Fewer girls in 1996 than in 1970 reported having or having had a permanent relationship with a boy: in 1970 two in three grade-eight girls had had a permanent relationship, compared to every second girl in 1996. Fewer girls had had sexual intercourse (15 vs. 22%) and fewer girls reported having had sex with a boy at first date (4 vs. 6%; ns). Chris Magnusson (2001) suggests that some of these changes might be related to the introduction of Youth Centers all around Sweden to help adolescents and inform them about sexually transmitted diseases. The emergence of HIV probably also has decreased early sexuality. While sexual experiences and intimate relations with boys have become less common among teenage girls compared to 26 years ago, knowledge and information about sexual matters appear to be more common today: The percentage of girls who felt they ought to know more about sex dropped from 13 to 3%.

#### *Concluding remarks*

Our main finding that Swedish girls in their mid-teens today report approximately similar levels of symptoms and problems as did girls in their mid-teens 26 years ago, is rather surprising if one considers the extensive changes in living conditions that has taken place during the same period. The difference in economic standard between the two cohorts is reflected in the fact that in 1970, 30% of the girls reported not having a room of their own, while this was reduced to 6% in 1996. The type of families the girls have been brought up in also differ between the two cohorts: Significantly fewer girls in 1996 than in 1970 were still living with both their parents at 15 years of age (69 vs. 83%); it has become more common to live with a single mother (18 vs. 10%) or with a mother and stepfather (8 vs. 3%).

Perhaps the most profound difference between the two cohorts concerns their pre-school period: In the 50s, when the children in the older cohort were in their pre-school years, day care was rare. In the 80s, when the children in the younger cohort were in their pre-school years, day care was a common experience for the majority of children. While most mothers in the 50s were housewives, most mothers in Sweden today are working outside their homes. The social experiences that most children nowadays receive in day care – probably of a high quality in the 80s due to a favorable economic situation - might be one explanation for the small but rather consistent drop in the number of children with different types of peer problems. At the same time one has to consider the possibility that children today also are more referred to the company of other children as grown-ups (mothers) have become less available than 26 years ago, and that peer relations thereby have become more important.

Cohen et al. (1999) suggested that observations of differences in the distribution of psychopathology over time and place might be translated into etiologic hypotheses. When incidence rates are stable over time and across populations, for example, Cohen et al. suggest that we are prompted to expect an underlying biological etiology and relatively small environmental impact. Girls' reports of frequent negative and critical attitudes from their parents might be suggested as an example of a low-frequent phenomenon showing stability during a period of great changes in family functioning. This might indicate that parents' capabilities of conveying mainly positive and

supporting feelings towards their teenage daughters is not something that is easily impaired by changing family patterns.

The decreases in girls' self-esteem – most probably related to a decreasing satisfaction with appearance – is an example of the opposite. The changes in girls' self-esteem has to be related to societal influences – most likely to cultural ideals concerning beauty and body images, and to an increased impact from various media broadcasting these ideals. We might have a tendency to consider it as a "natural" developmental phase for many young girls to feel insecure about their looks and their attractiveness, but these findings suggest that there is nothing really "natural" about it. Rather, it is something that is highly influenced by messages sent to these girls. The question is why it should be accepted that so many girls suffer the consequences of these messages.

Most analyses in this study have concerned possible changes in the frequencies of problems as they are reflected on the cohort level. However, time trends might look different in different sub-groups of the population. One example of this was the results concerning the girls' perceptions of negative attitudes from their parents: In the negative part of the distributions, no significant shifts appeared. In the positive part of the distributions, however, the girls who fairly seldom experienced negative reactions from their parents, appeared to experience these to an even lesser extent in 1996 than in 1970. As already suggested, this might be an example of polarization.

Finally, it should also be noted that even if most frequencies are approximately the same in 1970 and 1996 when single adjustment problems are studied, shifts might have occurred in how these problems are distributed among individuals. So far, we have tested this with simple counts of number of problems within each problem category, and these distributions are also remarkably similar between the two cohorts. The tendencies for various adjustment problems to form syndromes, however, will be further analyzed and compared over time in a forthcoming study.

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## Appendix

Table A1. Psychosomatic symptoms: Frequencies, means, standard deviations and significant shifts in the full distributions ( $\chi^2$ ) among girls from the 1970 (top row) and 1996 (bottom row) school-grade cohorts.

Ratings					M	sd	$\chi^2$	N
1	2	3	4	5				
1. How often have you had a headache during this school year?								
never	about once / semester	about once / month	about once / week	several times / week				
12.1	28.8	34.2	19.4	5.6	2.8	1.1	10.97*	521
8.1	25.9	35.4	20.8	9.7	3.0	1.1		528
8. Do you bite your nails?								
never or almost never	it's happened a few times	some- times	fairly often	very often				
33.3	14.9	19.5	14.2	18.0	2.7	1.5	ns	522
36.6	15.9	16.9	14.8	15.7	2.6	1.5		527
13. How often are you restless and find it difficult to keep still?								
seldom	it's happened a few times	some- times	fairly often	very often				
22.5	33.6	24.2	15.0	4.8	2.5	1.1	20.76***	521
14.2	29.4	33.0	16.3	7.0	2.7	1.1		527
17. How often do you have a bad appetite?								
never	about once / semester	about once / month	about once / week	several times / week				
24.1	22.9	23.7	21.0	8.3	2.7	1.3	ns	515
18.6	22.8	24.9	23.8	10.0	2.8	1.3		522

*table continues*

Ratings					M	sd	$\chi^2$	N
1	2	3	4	5				
35. How often have you had a “nervous” stomach during this school year (for example stomach ache, stomach cramp, anxious stomach, feeling sick, wind, constipation or diarrhea)?								
never	about once / semester	about once / month	about once / week	several times / week				
17.1	33.1	32.0	12.1	5.6	2.6	1.1	ns	519
21.4	35.5	28.2	9.0	5.9	2.4	1.1		524
50. How often during this school year have you had difficulties falling asleep?								
never	about 1 evening / semester	about 1 evening / month	about 1 evening / week	several evenings / week				
15.0	17.7	35.6	20.6	11.2	3.0	1.2	10.60*	520
15.9	24.2	27.8	21.4	10.6	2.9	1.2		528
56. Do you have problems with allergy (for example asthma. hay-fever. eczema etc.)?								
never	it's happened a few times	some-times	fairly often	very often				
65.0	18.3	8.3	5.6	2.9	1.6	1.0	10.36*	520
57.4	18.2	11.9	8.9	3.6	1.8	1.2		528
58. Do you feel tense and anxious together with new people?								
seldom	it's happened a few times	some-times	fairly often	very often				
20.5	29.2	29.0	16.2	5.2	2.6	1.1	9.54*	518
19.9	29.7	34.8	10.4	5.1	2.5	1.1		528
60. Do you usually have snacks between meals?								
seldom	it's happened a few times	some-times	fairly often	very often				
6.2	16.8	29.3	30.8	17.0	3.4	1.1	ns	519
6.8	16.5	33.5	27.1	16.1	3.3	1.1		528

*table continues*



Ratings					M	sd	$\chi^2$	N
1	2	3	4	5				
67. Do you feel tired, lazy and irritable?								
seldom	it's happened a few times	some- times	fairly often	very often				
15.6	35.7	35.5	10.8	2.3	2.5	1.0	18.43**	518
25.4	34.1	31.8	7.6	1.1	2.2	1.0		528
73. How often has it happened during this school year that you have slept anxiously and woken up during the night?								
never	about 1 night / semester	about 1 night / month	about 1 night / week	several nights / week				
22.4	32.9	32.9	8.3	3.5	2.4	1.0	ns	519
25.2	37.1	25.8	8.5	3.4	2.3	1.0		528
86. Is it difficult for you to concentrate?								
seldom	it's happened a few times	some- times	fairly often	very often				
12.1	32.6	38.7	13.0	3.6	2.6	1.0	ns	522
16.2	30.0	39.7	11.0	3.0	2.5	1.0		526
103. How often do you stammer when you talk?								
never	it's happened a few times	some- times	fairly often	very often				
58.0	32.6	6.3	2.3	0.8	1.6	0.8	ns	521
54.5	37.7	5.5	1.9	0.4	1.6	0.7		525
107. Do you weigh too much according to your school nurse, your school doctor, or another doctor's opinion?								
no	yes, a little too much	yes, somewha t too much	yes, much too much					
83.9	10.1	4.5	1.6		1.2	0.6	ns	515
87.7	8.2	2.5	1.5		1.2	0.5		522

Note. \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Table A2. Emotional disturbances: Frequencies, means, standard deviations and significant shifts in the full distributions ( $\chi^2$ ) among girls from the 1970 (top row) and 1996 (bottom row) school-grade cohorts.

Ratings					M	sd	$\chi^2$	N
1	2	3	4	5				
3. Do you feel unhappy and depressed without knowing why?								
seldom	it's happened a few times	some- times	fairly often	very often				
23.5	26.2	36.7	10.4	3.3	2.4	1.1	ns	520
26.8	29.1	32.3	8.7	3.0	2.3	1.1		529
11. Do you ever feel afraid without knowing why?								
seldom	it's happened a few times	some- times	fairly often	very often				
55.9	26.3	13.2	3.6	1.0	1.7	0.9	21.87***	521
69.3	16.9	11.0	2.5	0.4	1.5	0.8		527
15. Are you afraid of doing something really stupid when you get angry?								
seldom	it's happened a few times	some- times	fairly often	very often				
39.3	25.4	21.6	9.6	4.0	2.1	1.2	ns	519
43.3	22.7	23.4	6.0	4.5	2.1	1.1		529
20. Do you worry about there being something wrong with your body, that it doesn't function as it should?								
seldom	it's happened a few times	some- times	fairly often	very often				
33.5	24.9	27.2	10.6	3.9	2.3	1.1	9.62*	519
26.7	32.4	26.9	9.7	4.4	2.3	1.1		528
22. Do you worry that you will not manage to get your homework done properly?								
seldom	it's happened a few times	some- times	fairly often	very often				
29.6	27.3	28.1	11.0	4.0	2.3	1.1	70.15***	520
12.1	23.5	34.1	21.8	8.5	2.9	1.1		528

*table continues*

Ratings					M	sd	$\chi^2$	N
1	2	3	4	5				
26. Do you have nightmares?								
almost never	it's happened a few times	some- times	fairly often	very often				
46.9	28.5	19.3	4.2	1.0	1.8	0.9	ns	522
44.0	30.2	22.2	3.0	0.6	1.9	0.9		527
42. Do you fantasize and daydream?								
seldom	it's happened a few times	some- times	fairly often	very often				
11.2	15.6	32.7	25.8	14.8	3.2	1.2	17.63**	520
9.9	15.2	33.2	18.2	23.5	3.3	1.3		527
45. Have you ever felt as if you didn't want to go on living?								
never	it's happened a few times	some- times	fairly often	very often				
31.7	40.5	17.3	7.9	2.7	2.1	1.0	ns	521
39.0	34.3	14.8	8.3	3.6	2.0	1.1		528
63. Are you usually afraid of saying things that can hurt people?								
never or almost never	it's happened a few times	some- times	fairly often	very often				
16.0	35.8	32.4	11.2	4.6	2.5	1.0	ns	519
18.4	37.1	30.1	7.6	6.8	2.5	1.1		528
77. Do you worry about what will happen to you in the future?								
never or almost never	it's happened a few times	some- times	fairly often	very often				
15.5	26.4	33.9	16.5	7.7	2.7	1.1	ns	522
14.2	26.7	31.6	18.2	9.3	2.8	1.2		528

*table continues*

Ratings					M	sd	$\chi^2$	N
1	2	3	4	5				
89. Do you feel lonely?								
seldom	it's happened a few times	some- times	fairly often	very often				
37.6	28.0	23.8	7.7	2.9	2.1	1.1	10.39*	521
45.4	28.3	19.4	4.6	2.3	1.9	1.0		520
97. Do you worry about getting dangerous diseases?								
never or almost never	it's happened a few times	some- times	fairly often	very often				
35.6	26.8	25.0	9.4	3.1	2.2	1.1	11.52*	519
27.5	28.2	31.3	8.3	4.7	2.3	1.1		528
118. Do you ever feel angry but not show it?								
seldom	it's happened a few times	some- times	fairly often	very often				
8.3	33.0	43.2	13.6	1.9	2.7	0.9	9.70*	521
12.9	28.1	42.1	13.5	3.4	2.7	1.0		527
120. How often do you think that it is really wonderful to be alive?								
very often	fairly often	some- times	it's happened a few times	seldom				
17.9	40.6	30.4	8.5	2.7	2.4	1.0	ns	520
22.9	41.0	25.5	8.2	2.5	2.3	1.0		525

Note. \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Table A3. Disturbances in self-esteem: Frequencies, means, standard deviations and significant shifts in the full distributions ( $\chi^2$ ) among girls from the 1970 (top row) and 1996 (bottom row) school-grade cohorts.

Ratings					M	sd	$\chi^2$	N
1	2	3	4	5				
10. Would you like to be older than you are?								
seldom	it's happened a few times	some- times	fairly often	very often				
27.3	27.3	30.2	11.2	4.1	2.4	1.1	16.76**	517
27.2	18.9	36.6	9.9	7.4	2.5	1.2		525
16. Are you satisfied with your schoolwork?								
most often	fairly often	some- times	it's happened a few times	almost never				
14.6	27.0	38.9	12.1	7.5	2.7	1.1	37.23***	522
26.3	31.6	30.6	8.3	3.2	2.3	1.0		529
31. How much would you like to change yourself?								
not at all	not much	some	fairly much	very much				
12.9	27.5	42.7	11.0	6.0	2.7	1.0	17.13**	520
7.9	31.9	36.5	13.8	9.8	2.9	1.1		529
37. How often do you think you are no use at all?								
almost never	it's happened a few times	some- times	fairly often	very often				
25.3	34.2	29.0	9.2	2.3	2.3	1.0	25.28***	521
37.5	27.7	21.8	8.5	4.5	2.2	1.2		528
47. Do you sometimes think that boys are better off than girls?								
never or almost never	it's happened a few times	some- times	fairly often	very often				
41.0	22.9	25.6	7.3	3.1	2.1	1.1	12.58*	519
31.4	23.8	30.2	9.8	4.7	2.3	1.2		529

*table continues*

Ratings					M	sd	$\chi^2$	N
1	2	3	4	5				
54. Are you satisfied with your looks?								
most often	fairly often	some-times	it's happened a few times	almost never				
14.6	24.2	38.8	14.0	8.4	2.8	1.1	45.68***	521
13.5	27.3	22.2	26.2	10.8	2.9	1.2		527
71. Do you blame yourself for things you know you really cannot help?								
never or almost never	it's happened a few times	some-times	fairly often	very often				
30.5	33.3	28.7	6.3	1.1	2.1	1.0	11.48*	522
25.4	32.6	28.8	10.4	2.8	2.3	1.1		528
76. Are you satisfied with the way you typically act?								
most often	fairly often	some-times	it's happened a few times	almost never				
17.0	27.8	39.3	11.9	4.0	2.6	1.0	24.61***	522
20.0	38.2	31.7	5.9	4.2	2.4	1.0		526
78. Do you ever think that you'd rather be a boy?								
never or almost never	it's happened a few times	some-times	fairly often	very often				
69.3	17.0	9.6	2.9	1.1	1.5	0.9	ns	522
62.1	22.0	12.1	3.0	0.8	1.6	0.9		528
88. Do you ever wish you were someone else than you are?								
seldom	it's happened a few times	some-times	fairly often	very often				
52.8	22.3	17.5	6.1	1.3	1.8	1.0	36.02***	521
34.9	30.6	23.1	8.0	3.4	2.1	1.1		527

*table continues*

Ratings					M	sd	$\chi^2$	N
1	2	3	4	5				
101. Do you ever feel ashamed of yourself?								
seldom	it's happened a few times	some- times	fairly often	very often				
29.8	36.7	28.7	4.0	0.8	2.1	0.9	19.10***	520
24.9	33.4	30.7	7.0	4.0	2.3	1.0		527
105. Do you look forward to having and bringing up children?								
very much	fairly much	some	only a little	not at all				
23.4	23.0	23.8	20.2	9.6	2.7	1.3	ns	521
31.0	22.1	19.2	17.9	9.9	2.5	1.4		526
121. Would you like to be younger than you are?								
seldom	it's happened a few times	some- times	fairly often	very often				
86.7	6.5	5.4	1.2	0.2	1.2	0.6	ns	520
80.8	11.0	6.3	1.1	0.8	1.3	0.7		527

Note. \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Table A4a. Antisocial behaviors: Frequencies, means, standard deviations and significant shifts in the full distributions ( $\chi^2$ ) among girls from the 1970 (top row) and 1996 (bottom row) school-grade cohorts.

Ratings					M	sd	$\chi^2$	N
1	2	3	4	5				
6. Have you ever taken goods from a store, kiosk or shop without paying?								
never	once	2 - 3 times	4 - 10 times	more than 10 times				
69.1	13.8	9.6	4.6	2.9	1.6	1.0	29.59***	521
57.1	14.6	10.8	8.3	9.3	2.0	1.4		529
21. Have you drunk so much beer, spirits or wine that you felt drunk?								
never	once	2 - 3 times	4 - 10 times	more than 10 times				
44.5	14.8	16.9	11.5	12.3	2.3	1.4	27.97***	521
60.4	8.9	11.9	8.7	10.0	2.0	1.4		528
30. Have you ever forged someone else's signature in order to get some kind of benefit, for example written a certificate of illness or something similar?								
never	once	2 - 3 times	4 - 10 times	more than 10 times				
86.9	7.1	3.8	1.9	0.2	1.2	0.6	35.19***	520
72.8	13.6	8.9	3.0	1.7	1.5	0.9		529
33. Have you on purpose taken things or money that you knew belonged to someone else?								
never	once	2 - 3 times	4 - 10 times	more than 10 times				
48.6	21.7	20.9	5.8	3.1	1.9	1.1	ns	521
51.2	22.4	18.2	3.8	4.4	1.9	1.1		527
48. Have you been away from school without permission during this school-year (played truant)?								
never	once	2 - 3 times	4 - 10 times	more than 10 times				
54.2	16.2	19.2	7.5	2.9	1.9	1.1	ns	520
60.6	14.4	15.3	6.6	3.0	1.8	1.1		528

*table continues*



Ratings					M	sd	$\chi^2$	N
1	2	3	4	5				
51. Have you smoked hashish?								
never	once	2 - 3 times	4 - 10 times	more than 10 times				
94.8	3.3	1.3	0.4	0.2	1.1	0.4	a	520
96.4	1.5	1.3	0.6	0.2	1.1	0.4		529
61. Have you used other drugs than hashish?								
never	once	2 - 3 times	4 - 10 times	more than 10 times				
96.3	1.5	0.8	0.6	0.8	1.1	0.5	ns	519
94.9	2.1	1.7	0.8	0.6	1.1	0.5		527
68. Have you deliberately destroyed or helped to destroy things not belonging to you (windows, cars, telephone booths, benches, gardens, etc.)?								
never	once	2 - 3 times	4 - 10 times	more than 10 times				
78.8	12.1	6.2	2.5	0.4	1.3	0.7	ns	519
78.9	9.5	8.0	2.7	1.0	1.4	0.8		526
92. Have you avoided paying (e.g. at a cinema, café, train, bus or elsewhere)?								
never	once	2 - 3 times	4 - 10 times	more than 10 times				
86.9	8.3	3.8	0.8	0.2	1.2	0.5	21.80***	521
76.7	12.0	7.8	2.1	1.3	1.4	0.8		524
106. Have you hit somebody?								
never or almost never	it's happened a few times	some- times	fairly often	very often				
41.7	32.5	19.2	5.6	1.0	1.9	1.0	9.52*	520
48.0	29.7	15.8	4.0	2.5	1.8	1.0		525

*table continues*

Ratings					M	sd	$\chi^2$	N
1	2	3	4	5				
109. Have you ever taken part in teasing and tormenting small children or old people?								
never	once	2 - 3 times	4 - 10 times	more than 10 times				
81.9	10.2	6.2	1.2	0.6	1.3	0.7	11.49*	518
87.6	8.4	2.3	1.3	0.4	1.2	0.6		523
116. Do you usually wander about town in the evening, hang out on street corners or in the square?								
never	about 1 evening / month	about 1 evening / week	a number of evenings / week	every evening				
69.6	19.6	7.3	2.9	0.6	1.5	0.8	19.19***	520
57.7	24.6	10.1	6.3	1.3	1.7	1.0		525

Note. \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ . <sup>a</sup> Chi-square is not computed because of expected frequencies  $< 1$ .

Table A4b. Follow-up questions to some antisocial behavior items: frequencies and significant shifts in the full distributions ( $\chi^2$ ) among girls from the 1970 (top row) and 1996 (bottom row) school-grade cohorts.

Ratings						$\chi^2$	N
1	2	3	4	5	6		
34. If so, from whom and what? (see item 33)							
never taken anything	from mother	from father	from brothers or sisters	from peer	from somebody else		
49.2	32.9	4.6	5.6	2.4	5.2	38.12***	498
49.8	20.2	10.0	12.7	2.3	5.0		480
62. In what way? (cf. item 61)							
never done	sniffed	eaten	with syringe	smoked			
94.9	2.9	1.0	0.2	1.0		<sup>a</sup>	511
94.3	1.6	1.2	0	2.9			512
69. Have you destroyed things yourself or have you only participated in destroying things? (cf. item 68)							
neither of them	only participated	did it myself	both of them				
72.7	19.4	3.7	4.3			18.52***	516
77.5	10.7	4.5	7.4				516

Note. \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ . <sup>a</sup> Chi-square is not computed because of expected frequencies  $< 1$ .

Table A5a. Disturbances in relations to mother/father/parents: Frequencies, means, standard deviations and significant shifts in the full distributions ( $\chi^2$ ) among girls from the 1970 (top row) and 1996 (bottom row) school-grade cohorts.

Ratings					M	sd	$\chi^2$	N
1	2	3	4	5				
<i>Mother</i>								
14. How much would you as adult like to be similar to your mother?								
very much	fairly much	some-what	very little	not at all				
5.8	15.7	38.8	25.4	14.2	3.3	1.1	ns	515
6.3	16.8	43.0	22.1	11.8	3.2	1.0		525
38. How often do you feel disappointed in your mother?								
almost never	it's happened a few times	some-times	fairly often	very often				
45.9	24.3	21.6	7.3	1.0	1.9	1.0	13.62**	510
43.5	30.7	16.4	6.3	3.1	1.9	1.1		524
49. How well do you think that you and your mother understand each other?								
very well	fairly well	neither well nor badly	fairly badly	very badly				
36.4	39.3	16.5	6.0	1.8	2.0	1.0	ns	514
36.2	38.5	19.2	4.2	1.9	2.0	0.9		527
55. Do you wish your mother were different?								
never or almost never	it's happened a few times	fairly often	very often					
43.8	42.0	9.8	4.5		1.8	0.8	ns	512
45.2	41.0	9.3	4.6		1.7	0.8		527
79. Do you and your mother quarrel with each other?								
almost never	it's happened a few times	some-times	fairly often	very often				
35.7	24.4	23.4	11.9	4.7	2.3	1.2	13.74**	513
26.2	23.7	29.8	14.0	6.3	2.5	1.2		527

*table continues*

Ratings					M	sd	$\chi^2$	N
1	2	3	4	5				
87. How often do you feel angry or irritated with your mother?								
seldom	it's happened a few times	some- times	fairly often	very often				
29.6	27.7	29.6	10.5	2.5	2.3	1.1	29.39***	513
18.1	30.9	31.2	12.2	7.6	2.6	1.1		525
<i>Father</i>								
27. Do you wish your father were different?								
never or almost never	it's happened a few times	some- times	fairly often	very often				
41.3	24.6	18.1	9.3	6.7	2.2	1.2	ns	504
42.2	25.6	17.0	5.7	9.5	2.1	1.3		524
43. How often do you feel angry or irritated with your father?								
seldom	it's happened a few times	some- times	fairly often	very often				
29.6	28.8	26.0	11.7	4.0	2.3	1.1	ns	497
28.7	25.1	24.9	13.2	8.0	2.5	1.3		522
75. How well do you think that you and your father understand each other?								
very well	fairly well	neither well nor badly	fairly badly	very badly				
22.7	38.4	23.9	9.6	5.4	2.4	1.1	ns	498
24.1	37.6	24.1	7.5	6.7	2.4	1.1		519
90. How much would you as adult like to be similar to your father?								
very much	fairly much	some- what	very little	not at all				
4.6	12.5	31.6	27.2	24.1	3.5	1.1	11.89*	497
5.6	15.9	36.0	26.3	16.2	3.3	1.1		517

*table continues*

Ratings					M	sd	$\chi^2$	N
1	2	3	4	5				
93. Do you and your father quarrel with each other?								
almost never	it's happened a few times	some- times	fairly often	very often				
53.4	20.0	16.8	7.3	2.4	1.9	1.1	9.88*	494
44.9	24.6	19.1	7.0	4.4	2.0	1.2		517
108. How often do you feel disappointed in your father?								
seldom	it's happened a few times	some- times	fairly often	very often				
54.3	24.5	12.5	6.0	2.6	1.8	1.0	ns	497
49.3	23.9	14.6	7.1	5.0	1.9	1.2		519
<i>Parents</i>								
4. Do you think that your parents listen to what you have to say and care about what you think?								
most often	fairly often	some- times	it's happened a few times	seldom				
44.9	27.4	19.0	5.8	2.9	1.9	1.1	ns	521
52.2	26.8	15.1	4.0	1.9	1.8	1.0		529
7. Do you feel that you are in the way or a bother at home?								
never or almost never	it's happened a few times	some- times	fairly often	very often				
59.2	26.2	11.1	2.1	1.3	1.6	0.9	11.08*	522
68.2	18.9	9.3	2.7	0.9	1.5	0.8		528
19. Do you ever feel like doing the opposite of what your parents want?								
seldom	it's happened a few times	some- times	fairly often	very often				
11.2	35.2	37.7	9.8	6.2	2.6	1.0	35.81***	520
10.2	21.2	41.2	15.3	12.1	3.0	1.1		529

*table continues*

Ratings					M	sd	$\chi^2$	N
1	2	3	4	5				
24. Do you think your parents are angry or irritated with you?								
seldom	it's happened a few times	some- times	fairly often	very often				
32.3	30.8	26.7	8.1	2.1	2.2	1.0	11.36*	517
41.9	24.7	23.5	7.4	2.5	2.0	1.1		527
46. How much do you want your parents to make decisions for you, for example concerning clothes, make-up, leisure activities, choice of friends, summer- and occupational plans and so on?								
very little	not much	some	fairly much	very much				
33.5	30.2	31.2	4.8	0.4	2.1	0.9	60.81***	520
53.4	28.5	16.0	1.3	0.8	1.7	0.8		526
57. Do you think your parents are disappointed in you?								
seldom	it's happened a few times	some- times	fairly often	very often				
45.7	30.8	17.6	3.1	2.7	1.9	1.0	27.33***	516
61.4	21.5	11.6	3.2	2.3	1.6	1.0		526
70. How often do you feel that your parents are the persons that you care for most of all right now?								
very often	fairly often	some- times	it's happened a few times	seldom				
9.8	23.5	36.0	18.4	12.3	3.0	1.1	31.22***	511
19.3	27.5	33.7	12.0	7.5	2.6	1.1		523
82. Do you often do the opposite of what your parents want?								
seldom	it's happened a few times	some- times	fairly often	very often				
28.2	35.1	28.2	6.5	2.1	2.2	1.0	ns	522
32.1	30.4	27.2	7.9	2.3	2.2	1.0		529

*table continues*

Ratings					M	sd	$\chi^2$	N
1	2	3	4	5				
113. Do you feel criticized by your parents?								
almost never	it's happened a few times	some- times	fairly often	very often				
53.7	26.5	15.2	2.9	1.7	1.7	0.9	21.10***	521
66.7	17.8	10.3	3.4	1.7	1.6	0.9		522
117. How often is what your parents think the thing that you care about most of all?								
very often	fairly often	some- times	it's happened a few times	seldom				
4.7	19.4	40.9	23.4	11.6	3.2	1.0	ns	509
8.9	21.1	39.8	18.9	11.4	3.0	1.1		493

Note. \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Table A5b. Follow up-question to a parental-relation item: frequencies and significant shift in the full distribution ( $\chi^2$ ) among girls from the 1970 (top row) and 1996 (bottom row) school-grade cohorts.

Ratings				$\chi^2$	N
1	2	3	4		
114. Do you think their criticism is (cf. item 113)					
I don't feel criticized	fair	unfair	sometimes fair, sometimes unfair		
36.7	14.0	9.5	39.8	18.96***	515
49.9	11.2	8.8	30.1		511

Note. \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$



Table A6. Disturbances in relations to teachers: Frequencies, means, standard deviations and significant shifts in the full distributions ( $\chi^2$ ) among girls from the 1970 (top row) and 1996 (bottom row) school-grade cohorts.

Ratings					M	sd	$\chi^2$	N
1	2	3	4	5				
9. Do you like your teachers?								
all or almost all	most of them	some of them	hardly anyone	none				
9.4	41.3	42.8	6.3	0.2	2.5	0.8	ns	521
13.8	39.3	41.0	5.5	0.4	2.4	0.8		529
23. Do you feel defiant against your teachers?								
hardly anyone	against some of them	against most of them	against almost all	against all				
52.6	43.8	1.9	1.5	0.2	1.5	0.6	25.92***	521
67.0	28.8	2.5	1.3	0.4	1.4	0.6		521
44. Do you think your teachers are fair to you?								
all or almost all	most of them	some of them	hardly anyone	none				
27.2	47.0	21.2	3.9	0.8	2.0	0.8	ns	519
30.1	44.4	21.9	3.4	0.2	2.0	0.8		529
72. Do you think your teachers like you?								
all or almost all	most of them	some of them	hardly anyone	none				
7.3	30.3	53.9	7.7	0.8	2.6	0.8	69.55***	518
20.9	39.7	33.3	4.9	1.1	2.3	0.9		526
81. Do you think that your teachers understand you?								
all or almost all	most of them	some of them	only someone	none				
8.9	33.9	42.0	12.5	2.7	2.7	0.9	ns	519
12.0	32.0	40.4	12.2	3.4	2.6	1.0		525

*table continues*

Ratings					M	sd	$\chi^2$	N
1	2	3	4	5				
96. Do you usually talk back to your teachers?								
seldom	it's happened a few times	some- times	fairly often	very often				
35.4	31.2	24.4	7.7	1.3	2.1	1.0	ns	520
31.7	31.2	26.6	6.8	3.6	2.2	1.1		526
111. Do you think that your teachers are against you in particular?								
none	hardly anyone	some of them	most of them	all or almost all				
35.9	44.9	15.0	2.9	1.3	1.9	0.9	15.51**	521
44.7	39.8	13.8	1.7	0	1.7	0.8		523

Note. \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Table A7. Disturbances in relations to peers: Frequencies, means, standard deviations and significant shifts in the full distributions ( $\chi^2$ ) among girls from the 1970 (top row) and 1996 (bottom row) school-grade cohorts.

Ratings					M	sd	$\chi^2$	N
1	2	3	4	5				
2. How well do you and your peers understand each other?								
very well	fairly well	neither well nor badly	fairly badly	very badly				
25.9	57.7	12.6	3.6	0.2	1.9	0.7	a	522
46.2	42.8	9.5	1.5	0	1.7	0.7		528
5. How often do you feel angry and irritated with your peers?								
seldom	it's happened a few times	some-times	fairly often	very often				
11.3	39.9	35.7	11.5	1.5	2.5	0.9	ns	521
14.6	34.7	39.8	9.1	1.9	2.5	0.9		528
12. Do you feel shy and uncertain when you are with your peers?								
seldom	it's happened a few times	some-times	fairly often	very often				
42.0	29.9	22.1	4.6	1.3	1.9	1.0	60.96***	521
64.4	23.1	9.3	2.5	0.8	1.5	0.8		528
28. Do you trust your peers?								
totally	quite a lot	some	not much	not at all				
11.7	47.2	30.1	9.2	1.7	2.4	0.9	106.03***	521
36.8	42.9	14.4	4.9	0.9	1.9	0.9		527
36. Do you feel like an outsider when you are together with your peers?								
seldom	it's happened a few times	some-times	fairly often	very often				
46.9	28.7	17.5	4.4	2.5	1.9	1.0	ns	520
50.9	32.1	11.8	3.2	2.1	1.7	0.9		527

*table continues*

Ratings					M	sd	$\chi^2$	N
1	2	3	4	5				
52. Do you have or have you ever had a best friend?								
both have had before and have now	have now, but have not had before	have had before, but do not have now	have never had, but want to have	have never had and do not want to have			13.90**	520
80.6	5.2	11.9	1.3	1.0				522
71.6	6.3	17.4	1.7	2.9				
59. Do you usually get tired of your peers quickly?								
seldom	it's happened a few times	some- times	fairly often	very often			ns	519
48.6	33.9	13.9	2.7	1.0	1.7	0.9		528
53.6	31.1	12.7	1.9	0.8	1.7	0.8		
64. Do you think that your peers are unfair to you?								
seldom	it's happened a few times	some- times	fairly often	very often			ns	518
42.3	35.1	18.9	2.5	1.2	1.9	0.9		528
49.1	31.8	13.8	3.6	1.7	1.8	0.9		
74. Is it usually difficult for you to make friends?								
seldom	it's happened a few times	some- times	fairly often	very often			13.35**	521
47.8	23.2	20.9	6.7	1.3	1.9	1.0		528
43.8	31.1	20.6	3.2	1.3	1.9	0.9		
80. Is it important for you that your peers agree to do things that you have suggested?								
not import- ant at all	not so important	fairly important	important	very important			64.80***	518
17.2	56.4	23.9	2.1	0.4	2.1	0.7		525
6.5	47.4	36.4	8.0	1.7	2.5	0.8		

*table continues*

Ratings					M	sd	$\chi^2$	N
1	2	3	4	5				
83. How often are you displeased with your peers?								
seldom	it's happened a few times	some- times	fairly often	very often				
17.3	43.4	30.7	7.3	1.3	2.3	0.9	22.73***	521
28.9	40.8	23.6	5.1	1.5	2.1	0.9		529
95. Do you think your peers like you?								
much	fairly much	some	not much	not at all				
3.1	30.6	58.4	7.7	0.2	2.7	0.7	238.56***	519
27.8	48.5	20.5	2.1	1.1	2.0	0.8		522
98. How often do you quarrel with your peers?								
seldom	it's happened a few times	some- times	fairly often	very often				
29.9	42.4	22.0	5.2	0.6	2.0	0.9	ns	519
30.1	43.6	21.8	4.4	0.2	2.0	0.8		528
104. Do you think that your peers are "against" you?								
never or almost never	it's happened a few times	some- times	fairly often	very often				
44.0	36.1	15.9	3.5	0.6	1.8	0.9	13.59**	521
54.2	32.3	10.3	2.9	0.4	1.6	0.8		526
112. Are you afraid that your peers will get tired of you?								
seldom	it's happened a few times	some- times	fairly often	very often				
37.2	36.1	21.3	4.2	1.2	2.0	0.9	ns	521
41.0	31.9	18.3	6.1	2.7	2.0	1.0		524

*table continues*

Ratings					M	sd	$\chi^2$	N
1	2	3	4	5				
115. Have you ever done something you would really have preferred not to do only to be together with your peers?								
seldom	it's happened a few times	some- times	fairly often	very often				
52.6	35.1	10.4	1.7	0.2	1.6	0.8	ns	521
48.6	38.1	11.0	1.5	0.8	1.7	0.8		525

Note. \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ . <sup>a</sup> Chi-square is not computed because of expected frequencies  $< 1$ .

Table A8. Questions about sexuality: Frequencies, means, standard deviations and significant shifts in the full distributions ( $\chi^2$ ) among girls from the 1970 (top row) and 1996 (bottom row) school-grade cohorts.

Ratings					M	sd	$\chi^2$	N
1	2	3	4	5				
18. Have you ever really been in love?								
never	once	several times						
16.8	44.7	38.5			2.2	0.7	12.24**	512
10.3	43.0	46.7			2.4	0.7		523
25. Do you think you need to know more about sexual issues?								
nothing more at all	hardly anything more	some more	a fair amount more	very much more				
12.5	35.2	39.6	10.8	1.9	2.5	0.9	71.29***	520
20.3	50.1	26.9	1.9	0.8	2.1	0.8		527
32. How often do you think about sexual issues?								
seldom	it's happened a few times	some- times	fairly often	very often				
22.0	28.4	36.4	12.3	1.0	2.4	1.0	ns	522
23.7	33.6	32.3	8.7	1.7	2.3	1.0		527
53. Do you think sex seems frightening and unpleasant?								
not at all	only a little	some	fairly much	very much				
62.5	24.6	10.6	1.7	0.6	1.5	0.8	34.56***	517
52.3	33.5	6.8	7.2	0.2	1.7	0.9		526
66. Do you have or have you ever had a steady relation to a boy?								
have now, and have had before	have now but have not had before	have had but do not have now	have never had but want to have	have never had and do not want to have				
19.7	5.2	40.4	31.5	3.1			33.83***	517
10.6	8.1	32.8	44.0	4.6				521

*table continues*

Ratings					M	sd	$\chi^2$	N
1	2	3	4	5				
84. Have you had sexual intercourse?								
no	once	a number of times						
78.1	7.3	14.6			1.4	0.7	13.53**	520
85.4	2.9	11.8			1.3	0.7		526
85. If you have had sexual intercourse, have you ever slept with someone the first time you met him?								
have not had sexual inter- course	no	yes, once	yes, a number of times					
76.4	17.8	4.1	1.8				ns	512
80.0	16.0	2.6	1.4					499
91. Are you afraid that you will go further sexually than you really want to?								
never or almost never	it's happened a few times	some- times	fairly often	very often				
54.0	21.5	19.0	4.0	1.3	1.8	1.0	29.76***	520
69.4	17.1	10.8	2.3	0.4	1.5	0.8		520
99. Do you feel sexually less experienced than your peers?								
never	it's happened a few times	some- times	fairly often	very often				
52.9	29.0	13.3	3.5	1.3	1.7	0.9	ns	520
52.6	27.2	15.9	2.5	1.9	1.7	0.9		523
110. Do you feel that you are popular among boys?								
very much	fairly much	some	very little	not at all				
1.7	16.9	46.7	23.3	11.3	3.3	0.9	30.27***	520
1.7	9.0	39.3	33.0	16.9	3.5	0.9		521

*table continues*



Ratings					M	sd	$\chi^2$	N
1	2	3	4	5				
119. Do you feel sexually more experienced than others of your age?								
never	it's happened a few times	some- times	fairly often	very often				
60.8	22.3	12.1	2.1	2.7	1.6	1.0	ns	520
63.7	21.8	8.2	3.4	2.9	1.6	1.0		523

Note. \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Table A9. Other items: frequencies among girls from the 1970 (top row) and 1996 (bottom row) school-grade cohorts.

Ratings						M	sd	$\chi^2$	N
1	2	3	4	5	6				
29. How many evenings a week do you usually spend at home?									
all	5-6	3-4	1-2	none					
7.7	20.5	39.5	26.1	6.3		3.0	1.0	ns	522
9.0	26.7	35.0	24.6	4.8		2.9	1.0		525
39. Have you gotten your first period?									
yes	no								
94.2	5.8							ns	520
95.0	5.0								525
40. When did you get your first period?									
before 10 years of age	between 10-11 years of age	between 11-12 years of age	between 12-13 years of age	after the age of 13	have not gotten one yet				
1.0	8.8	23.1	41.2	20.2	5.8	3.9	1.0	ns	520
0.8	9.9	25.5	39.2	19.4	5.1	3.8	1.0		525
41. How much pain do you have in connection with your periods?									
no pain at all	not much pain	some pain	fairly much pain	very much pain	have not gotten my first period yet				
13.1	30.1	21.1	19.8	10.0	6.0	2.8 <sup>a</sup>	1.2 <sup>a</sup>	ns <sup>a</sup>	521
12.9	31.7	28.1	15.2	8.5	3.7	2.7 <sup>a</sup>	1.1 <sup>a</sup>		520
65. How important is it for you to do well at school?									
very import- ant	fairly import- ant	some	not especial- ly import- ant	not at all import- ant					
17.8	49.1	19.3	10.8	2.9		2.3	1.0	17.45**	517
25.8	48.8	17.8	6.3	1.3		2.1	0.9		527
100. With whom do you prefer to spend your leisure time?									
parents	brothers and sisters	friends	nobody	other, who?					
6.9	4.2	73.9	1.6	13.3				ns	495
4.0	3.4	79.1	2.3	11.1					522

*table continues*

Ratings						M	sd	$\chi^2$	N
1	2	3	4	5	6				
122. Do you ever want to talk to an outsider about your problems?									
never or almost never	it's happen- ed a few times	some- times	fairly often	very often					
43.0	25.1	21.3	8.4	2.1		2.0	1.1	38.35***	521
61.1	15.4	17.5	4.2	1.7		1.7	1.0		525

Note. \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ . <sup>a</sup> Girls who had not gotten their first period yet were excluded from the computation.

Table A10. Questions about living conditions: frequencies among girls from the 1970 (top row) and 1996 (bottom row) school-grade cohorts.

Ratings							$\chi^2$	N
1	2	3	4	5	6	7		
1. Which adult(s) do you live with?								
both mother and father	father and step- mother	mother and step- father	mother	father	foster parents	another who?		
83.3	0.8	3.1	10.4	1.2	0.6	0.6	31.86***	491
68.8	1.9	8.2	17.7	1.3	1.3	0.8		526
2. How many sisters do you have?								
none	1	2	3	4 or more than 4				
39.1	36.2	16.2	3.5	5.1			ns	489
32.2	40.2	18.7	4.2	4.8				525
3. How many brothers do you have?								
none	1	2	3	4 or more than 4				
40.1	39.9	13.1	5.3	1.6			13.13*	489
30.8	42.9	19.5	5.0	1.7				522
4. Are your parents divorced?								
yes	no							
13.1	86.9						36.66***	488
28.7	71.3							523
5. If your parents are divorced, how often do you see the parent you are not living with?								
about once / week	about once / two weeks	about once / month	about once / semester	less than once / semester	are not divorced			
1.3	1.5	3.4	3.0	4.3	86.5		23.06*** <sup>a</sup>	466
9.7	6.5	6.9	3.2	4.1	69.7			465

*table continues*

Ratings							$\chi^2$	N
1	2	3	4	5	6	7		
70:6 / 96:8. Do you have your own room?								
No	Yes							
29.7	70.3						102.48***	
5.7	94.3						491	
							526	
6:96. Are you born in Sweden?								
yes	no, in...							
-	-							
90.6	9.4						522	
7:96. Where are your parents born?								
Mother								
in Sweden	in another Nordic country	in another country						
-	-	-						
87.4	2.5	10.1					517	
Father								
in Sweden	in another Nordic country	in another country						
-	-	-						
85.3	2.2	12.5					511	

Note. \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ . <sup>a</sup> Girls with non-divorced parents were excluded from the computation.

Table A11. Questions about the questions: frequencies among girls from the 1970 (top row) and 1996 (bottom row) school-grade cohorts.

		Ratings				$\chi^2$	N
		1	2	3	4		
<b>1. How difficult do you think the questions were to answer?</b>							
<i>1. imp</i>	possible	quite difficult	fairly difficult	fairly easy	very easy		
	0	7.0	21.8	56.9	14.4	33.84***	473
	1.0	4.4	11.3	60.8	22.6		523
<b>2. Why was it difficult to answer the questions?</b>							
<i>37.5</i>	not difficult to answer the questions	it was difficult to understand them	dealt with too "personal" things	dealt with things you have not thought about	because you do not like to answer such questions		
		9.7	13.3	36.8	2.8	86.23***	435
<i>66.5</i>		8.4	7.8	16.3	1.0		502
<b>3. What did it feel like to answer the questions?</b>							
<i>I felt nothing special</i>	I felt uneasy	it was nice	it was boring	it was unpleasant			
		2.3	19.8	3.0	3.6	15.24**	470
<i>71.3</i>		4.8	13.3	5.2	2.3		520
<i>74.4</i>							
<b>4. How many questions do you think were difficult to answer honestly?</b>							
<i>all</i>	almost all	some	one or a few	none at all			
		3.2	17.1	37.8	39.3		473
<i>2.5</i>		2.5	18.9	75.5	<sup>a</sup>		523
<i>3.1</i>							

Note. \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ . <sup>a</sup> By mistake this scale step was left out in the 1996 questionnaire.

Table A11. Questions about the questions: frequencies among girls from the 1970 (top row) and 1996 (bottom row) school-grade cohorts.

Ratings					$\chi^2$	N
1	2	3	4	5		
1. How difficult do you think the questions were to answer?						
impossible	quite difficult	fairly difficult	fairly easy	very easy		
0	7.0	21.8	56.9	14.4	33.84***	473
1.0	4.4	11.3	60.8	22.6		523
2. Why was it difficult to answer the questions?						
it was not difficult to answer the questions	it was difficult to understand them	dealt with too "personal" things	dealt with things you have not thought about	because you do not like to answer such questions		
37.5	9.7	13.3	36.8	2.8	86.23***	435
66.5	8.4	7.8	16.3	1.0		502
3. What did it feel like to answer the questions?						
I felt nothing special	I felt uneasy	it was nice	it was boring	it was unpleasant		
71.3	2.3	19.8	3.0	3.6	15.24**	470
74.4	4.8	13.3	5.2	2.3		520
4. How many questions do you think were difficult to answer honestly?						
all	almost all	some	one or a few	none at all		
2.5	3.2	17.1	37.8	39.3	a	473
3.1	2.5	18.9	75.5			523

Note. \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ . <sup>a</sup> By mistake this scale step was left out in the 1996 questionnaire.