RESILIENCE: THE ART OF ADJUSTMENT

Scientific analysis was done on the data of
Health Behaviour in School-aged Children
a WHO-collaborative Cross-National Study
HBSC

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RESILIENCE: THE ART OF ADJUSTMENT

PROJECT REPORT

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C O N T E N T S

INTERNATIONAL COMPARISON OF YOUTH'S ADJUSTMENT LIVING IN NON-INTACT OR LOW SES FAMILIES ACROSS EU-MEMBER STATES BASED ON HEALTH BEHAVIOUR IN SCHOOL-AGED CHILDREN (HBSC) STUDY

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EXECUTIVE SUMMARY

The aim of this project was to analyse the international data from the 2001/2002 survey of the Health Behaviour in School-aged Children (HBSC) study based on resilience approach. For this purpose we identified a group of students characterised by good adjustment pattern in spite of their detrimental living circumstances. Disadvantageous status was defined by living in non-intact or low income families. Then it was attempted to identify those psychosocial factors that predict good adjustment in spite of detrimental status. Finally, cross-national comparison has been made to examine whether the findings differ across EU-Member states that participated the 2001/2002 HBSC survey, and to test the possible impact of some macro-level country-features (as indicated by GDP, Gini, and Expenditure on Social Protection).

The rate of students living in non-intact families (one or both biological parents are absent) is 21.1% in the total sample, whilst the rate of those living in low income families (according to tercilis of Family Affluence Scale by countries) is 33.1%.

Good adjustment was defined on the basis of several parallel criteria: 1/ at least 6 points on the life satisfaction scale; 2/ no more than one health complaint experienced at least once a week; 3/ good or very good school achievement; 4/ non-smoking; 5/ have not been drunk yet; and 6/ being involved no more than once in bullying (either as a bully or as a victim).

Almost 30% of the total sample has been proved to be well adjusted according to all of the six criteria. The rate decreases with age. In the risk groups this proportion is around 20%. The odds for good adjustment are about 50% (for 11-year-olds) and 80% (for 15-year-olds) higher among students living in intact families compared to those living in non-intact families. The odds are about 30% higher for those living in at least moderately wealthy families. The latter relationship is significantly weaker

for young people living in Austria, Denmark, Finland, Ireland, Slovenia and Sweden, and stronger for youths living in Estonia, Italy, Lithuania and Portugal. GDP, Gini and Expenditure on Social Protection significantly influence the relationship of family affluence on adjustment in some age-groups: the lower the GDP and the Expenditure on Social Protection, and the higher the Gini, the stronger this relationship. GDP and Gini are significant predictors also for resilience in some age- and risk-groups: in general, higher GDP is associated with higher odds of resilience, whilst higher Gini is related to lower odds of resilience.

According to multilevel logistic regression models, parent-child relation, school environment, and peer relations predict good adjustment (lower odds describe worse parent-child communication, negative perception of school, a lot time spending with peers, and a worse communication with friends). There were no significant cross-national differences in the effect of these psychosocial predictors.

Examining interactions among risk status variables and predictors some interesting findings emerged. In general, the impact of classmate support and school pressure is stronger for students in the risk-groups than for their more advantaged peers, indicating that the quality of school environment is especially important for adjustment of disadvantaged young people.

In order to disseminate knowledge about resilience 5 conferences were organized in the five largest cities of Hungary for representatives of related professions (e.g. teachers, school nurses and doctors, social workers, family care providers, etc.). Objectives of the conferences were to introduce experts the concept of resilience, to understand the applied research method, to talk about the possible protective and risk factors relevant to the Hungarian youths, and finally, to organize quality workshops elaborating resilience data and approach.

Results of the resilience analysis were also presented for the international research team on the HBSC Meeting in Lisbon. Discussion of findings by the international team contributed to formulating important policy implications of this project.

INTERNATIONAL COMPARISON OF YOUTH'S ADJUSTMENT LIVING IN NON-INTACT OR LOW SES FAMILIES ACROSS EU-MEMBER STATES BASED ON HEALTH BEHAVIOUR IN SCHOOL-AGED CHILDREN (HBSC) STUDY

I. **INTRODUCTION**

HEALTH BEHAVIOUR IN SCHOOL-AGED CHILDREN STUDY: A WHO-COLLABORATIVE CROSS-NATIONAL STUDY (HBSC)

The HBSC research study is a youth project, which was initiated by researchers from three countries (England, Finland and Norway) as an informal collaboration in 1982. The World Health Organization adopted the study soon after, and it has been a prominent project of the Regional Office for Europe since 1983. The study has been expanding continuously since the beginning. At present 41 member countries are involved: mainly from Europe (included all EU countries except Cyprus) as well as Canada, USA and Israel.

The aim of the HBSC study is to describe young people's health and health behaviour and to analyze how these outcomes are related to the social context. Cross-sectional surveys of 11-, 13- and 15-year-old children and adolescents are carried out every four years in a growing number of countries based on an internationally agreed protocol (Currie et al., 2001).

Due to the wide international coverage of the study comparison of countries with different state of development, and different social and cultural background is possible. It is based upon surveys conducted by the use of internationally developed research protocols accepted by all member countries. The data are collected in all participating countries and regions through school-based surveys. Data collection is nationaly representative in almost all countries. In the 2005/2006 school-year the seventh survey was carried out within the HBSC. A more detailed description of the aims and theoretical framework of the study can be found elsewhere (Currie et al., 2004; Currie et al., 2001; Roberts et al., 2007).

The HBSC study is a uniquely widespread project in reference to European school-aged children's life. And although its main focus is on health

and health behaviour, due to its effort to explore social context of health and development as well, it provides important and useful comparative data even for other life domains (e.g. family life, school environment). The relevance of HBSC study is confirmed by the fact, that international organizations use HBSC data as indicators in various reports (e.g. UNICEF, 2007; for the utilization of HBSC data as indicators of children's well-being see also Bradshaw et al., 2006).

Furthermore, this project focuses not only the research side but also the implementation of scientific results. As a part of this ambition an international WHO/HBSC policy-maker forum series on the socioeconomic determinants of adolescent health has been initiated in 2005. Interdisciplinary policy-makers, health promotion practitioners, education system specialists, youth group representatives and communications experts involved in the implementation of national strategies and interventions are invited to the forums. The goal of the forum series is to bring policy-makers, practitioners and researchers together to compare and learn from experiences in addressing the socioeconomic determinants of adolescent health. The Forum will allow country representatives to share their experiences with research on adolescent health, and explore how HBSC and other data sources can be drawn from when examining the health and health behaviour of adolescents and the social context in which such behaviour occurs (for more information see www.hbsc.org).

Questions about family background, as the most proximal context of development, is an important part of the survey. The assessment of family structure has been included into the survey since 1986. Social inequality in health of school-aged children is a seeded topic in HBSC study, and has been studied also since 1986. New method of measuring socio-economic position by adolescents has been developed by the team (Currie et al., 1997; Boyce et al., 2006), and several related studies have been published recently (Boyce & Dallago, 2004; Torsheim et al., 2004). A new ambition is to review and synthetize HBSC results, investigating SES-health relationship in school-aged children (Due et al., 2007).

THEORETICAL BACKGROUND
OF THE PRESENT STUDY

THE IMPORTANCE OF PERIOD OF ADOLESCENCE

Adolescence can be seen as a transition period between childhood and adulthood, with significant biological, cognitive, and social changes (Eccles et al., 1993; Eccles et al., 2003). During this period of life individuals must acquire and consolidate skills, attitudes, values needed to be prepared for the transition into adulthood (Eccles et al., 2003). This period of life is of great importance for having an impact on later life chances.

First, academic achievement and career choices strongly influence further education, later employment and position on labour market. Studies show that school failure at this age predict lower education. Furthermore low school achievement and risk behaviour is often correlated in cross-sectional studies (e.g. Piko & Fitzpatrick, 2002; Jessor et al., 1995). However, longitudinal studies proved that low school achievement could be a significant predictor of initiation and maintenance of substance use (Bergen et al., 2005), which in turn can reduce academic achievement as well (Bryant et al., 2003). In some cases no direct achievement effects on substance use were detected, but interactions indicated that achievement was protective when paired with having fun at school, high task value, and low levels of socioeconomic status (Ludden & Eccles, 2007).

Second, most health related habits and behaviours which are related to later health status, are established at this age. For example, the experimentation with health-compromising behaviours like smoking, alcohol- and drug consumption emerge at this age. But, although the majority of adolescents experiment with alcohol or tobacco before high school graduation, relatively few teenagers will develop drinking problems (Hughs et al., 1992).

Third, the growing influence of peer relationship in adolescence play an intensive role in providing an important context in which to learn various emotional, social, and even cognitive skills (Berndt, 1992; Parker et al., 1995). Peer relationships serve to meet a variety of children's needs. Peers provide emotional security, opportunities for intimacy, self-disclosure and self-evaluation (Gifford-Smith & Brownell, 2003).

An additional important issue in adolescence is achieving independency from parents to establish a degree of autonomous functioning in social world, and the formulation of identity to be able to make decision about

own future, for example about choice of career and profession (Erikson, 1985; Zimmer-Gembleck & Collins, 2003).

As a transitional period, adolescence is marked by rapid and often dramatic intra-individual changes and also by transformations in the major contexts in which children spend time – the family, the peer group, and school. For many adolescents these processes can lead to emergence of emotional and behavioural problems. The vulnerable nature of this period is apparent in the fact, that many affective and behavioural problems appear or show a significant increase in prevalence during this period (Steinberg et al., 2005).

Adolescence development is strongly embedded into a complex set of social contexts and both into cultural and historical settings (Bronfenbrenner, 1986). Repeated exposure to developmentally inappropriate and unsupportive social contexts during these years can undermine the coping skills and the healthy development of youths (Grant et al., 2003; Repetti et al., 2002). The two presumably most common conditions having a potential negative impact on adolescence development and thus causing a disadvantage are 1/ living in a non-intact (e.g. single- or stepparent) family, and 2/ living in poverty with a low SES family background.

NON-INTACT FAMILIES

In the last few decades one of the several significant social changes that has occurred throughout Europe and North America is the rise in the number of stepfamilies and one-parent families (Eurostat Yearbook, 2006-2007a). The ratio of children born to unmarried mothers rose from around one in five births in 1995 to almost one in three births by 2004, in addition there is a decrease in the rate of marriages (Eurostat Yearbook, 2006-2007a). The number of divorces in the EU-25 was estimated at 2.1 per 1000 inhabitants in 2004. Every 4 out of 10 marriages in the EU results in divorce, with relative few divorces in Greece, Spain, Ireland, Italy, Cyprus and Malta (where divorce is not legal), and more than 6 divorces for each 10 marriages in Belgium, the Czech Republic, Estonia and Lithuania (Eurostat Yearbook, 2006-2007a).

ADJUSTMENT OF ADOLESCENTS LIVING IN NON-INTACT FAMILIES

Research into the impact of marital breakdown has shown that children experiencing family disruption are at greater risk for emotional and behavioural disorders (Amato & Keith, 1991; Aro & Palosaari, 1992; Cuffe et al., 2005; Garnefski & Diekstra, 1997; Lipman et al., 2002), and for lower school achievement (Allison & Furstenberg, 1989; Hetherington & Clingempeel, 1992; Lansford et al., 2006). Some studies also show a relationship between marital breakdown and substance use like smoking (Glendinning et al., 1997; Griesbach et al., 2003; Pedersen et al., 2004), and alcohol use (Shucksmith et al., 1997). These adverse impacts can also last long into adulthood (Aro & Palosaari, 1992). For example, young adults coming from non-intact families have lower life satisfaction and higher depressive mood, than those, who didn't have such experience (Spruijt et al., 2001). Adolescents living in non-intact families are at risk for lower self-esteem (Capaldi & Patterson, 1991 by boys; Garnefski & Diekstra, 1997), for social impairment (Lipman et al., 2002) and worse subjective health state, as well (Montgomery et al., 2005).

HBSC study findings also show that family structure seems to affect health. Self-rated health and non-smoking is associated with family structure, as more students with good or excellent self-rated health live with both biological parents than with a single parent or in a stepfamily, and fewer non-smoking young people live with a single parent or in a stepfamily than with both parents (Pedersen et al., 2004).

When explaining how family disruption can lead to adverse outcomes in children and adolescents several concepts emerge. For example children living in a single-parent family or stepfamily can face multiple adversity, like economic hardship, lower education of the parents, overcrowding (Amato & Keith, 1991; Kerr & Beaujot, 2002; Hetherington et al., 1998). Other theories emphasize that the adverse impact of family disruption on children's adjustment is mediated by destruction of family functioning and parent-child relationship (Kim & Brody, 2005; Kurdek & Fine, 1993). Children living in non-intact families can experience lower parental monitoring and control, lower parental involvement (Hetherington et al., 1982; Hetherington, 2003; Lipman et al., 2002), and more physical punishment, and in some cases also maltreatment (Berger, 2004.; Eamon & Zuehl, 2001).

LOW SES FAMILIES

SES is a complex term including social, economic and work status, but is often defined by indicators of education, income, and/or occupation (Adler et al., 1994). Prestige-based measures (e.g. education) indicate the status a family has within the society, and resource-based measures (e.g. income or wealth) indicate the assets that a family possesses (Krieger et al., 1997), a lot of studies include both measures. Generally, SES influences the life-chances of people, affecting their social position in the society and the access to the possibilities related to that position (Andorka, 1996). Socioeconomic data proved to be an important indicator in international studies as well, because growing international inequalities in wealth have an effect on the growing international inequalities in health (Krieger et al., 1997).

Statistical data show that some of 16% of the EU-25 population were at risk of poverty in 2004. In 2005, about 10% of the EU-25 population aged up to 17 years lived in unemployed households (Eurostat yearbook, 2006-2007b). The proportion of affluent families in the 2001/2002 HBSC Study (measured by the Family Affluence Scale, Currie et al., 1997) are higher in Northern and Western Europe, furthermore these countries are also more likely to have few families with low affluence. A higher proportion of low family affluence was found in Eastern Europe, results of the southern countries (Italy, Spain) were in the middle of the range (Boyce & Dallago, 2004).

CONSEQUENCES OF POVERTY AND LOW SOCIO-ECONOMIC STATUS

There are well-established socioeconomic disparities in health (discussed below). Magnitude of relationship between SES and health may vary with age (Chen et al., 2006), and may be dependent on the applied health-related measures (Mullan & Currie, 2000). Besides the strong support for the link between poor socioeconomic conditions and ill health among adults (Adler et al., 1993; Adler et al., 1994; Adler & Ostrove, 1999), a similar relationship was also found for children and adolescents for various health conditions and outcomes (Goodman et al., 2005; Goodman et al., 2003; Montgomery et al., 1996; Starfield et al., 2002). Mediators between SES and health-related variables (Adler & Ostrove, 1999), and moderators should be also taken into account to explain socioeconomic and ill-health gradient (Adler & Ostrove,

1999). Revealing protective factors acting in good adjustment among (resilient) youth coming from a low SES family has important implications for intervention planning.

In the HBSC study consistent gradient was found for self-rated health in association with family affluence across most countries and regions both in the 2001/2002 survey and in earlier HBSC research as well (Holstein et al., 2004; Torsheim et al., 2004). Among both boys and girls, there is a relatively clear gradient for most countries and regions, showing a decreasing proportion of those reporting poorer self-rated health as family affluence increases. There is no statistically significant gradient in a small number of cases: Greenland, Norway, Spain, Switzerland and The former Yugoslav Republic of Macedonia for boys, and Denmark, Greenland and Latvia for girls (Holstein et al., 2004).

In contrast, for subjective health complaints, a consistent SES gradient (measured by the Family Affluence Scale, Currie et al., 1997) is found in most countries for girls but only about half for boys (Holstein et al, 2004). The findings on smoking in association with FAS, however, show very little consistency. For girls, weekly smoking is clearly associated with FAS in 13 countries and regions. Similarly, the pattern of declining smoking prevalence and higher FAS scores can be seen for boys, although the association is statistically significant only in seven countries and regions (Canada, Croatia, England, Poland, TFYR Macedonia, USA, Wales) (Holstein et al., 2004).

When data collection procedures, sampling, and measurement are standardized, the SES-health relationships are highly uniform across HBSC countries (Torsheim et al., 2004). Findings of the analysis prepared on the 1997/98 HBSC data show a developmental pattern in health inequalities, which could be labeled as "reduction of inequalities". Relationships between material deprivation and self-rated health were significantly reduced after taking psychosocial factors, health behaviour, and perceived affluence into account. However even when individual levels of material deprivation and other compositional differences were taken into account, adolescents living in relatively deprived countries had a higher risk for self-rated poor health during early adolescence than those in less-deprived countries (Torsheim et al., 2004).

According to the analysis of HBSC data by Richter et al. (2006) socioeconomic circumstances of the family had only a small effect on repeated drunkenness in adolescence. For girls only in one out of 28 countries was found a significant association between family affluence and repeated drunkenness, while boys from low and/or middle affluent families in nine

countries faced a lower risk of drunkenness than boys from more affluent families. Compared to family affluence, which was positively related to risk of drunkenness, a decreasing occupational status predicted an increasing risk of drunkenness for boys in nine countries, for girls in six countries.

Children and adolescents living in low SES families are also at increased risk for having emotional and behavioural problems (Goodman & Huang, 2002; McLoyd, 1998; Ritsher et al., 2001). Consistent evidence indicates moreover that low socio-economic status acts as an important stressor and vulnerability factor for children's school learning (Patterson et al., 1990; McLoyd, 1998; Starfield et al., 2002; White, 1982). Explanations of the link between academic performance and family social background emphasize the different opportunities and socialization processes that exist across socioeconomic status levels (Coleman, 1988).

Results of prospective longitudinal studies show that parental SES has an enduring and cumulative impact on children's psychological adjustment (Ritsher et al., 2001) which can be detected from birth to adulthood (Schoon et al., 2003).

Socioeconomic adversity is associated with a variety of factors that pose risk for adaptive development. As in case of family disruption living in low SES families is also linked with elevated level of stress (Finkelstein et al., 2007; Goodman et al., 2005) and with further environmental adversities, e.g. worse physical and social environment (Evens, 2004). Poverty can affect all aspects of family life, such as quality of parenting (Berger, 2004), quality of housing, access to health and educational services, availability of leisure time possibilities (Wilson, 1987). Thus youth living in poverty face multiple stressors and adversities including crowded housing, poor-quality schools and inadequate nutrition (Sampson, Morenoff, Earls, 1999).

Even if these two conditions, namely living in non-intact and low SES families are associated with higher risk of adverse developmental outcomes, not all children and adolescents who face them show signs of maladaptation or problems.

THE RESILIENCE APPROACH

This approach – emerged from research on developmental psychopathology – focuses on successful adaptation and competence despite risk and adversity (Garmezy et al., 1984; Rutter, 1985; Werner & Smith, 1992). The first studies which had contributed to birth of this approach examined out-

comes of children at risk for psychopathology. A main recognition that raised from these early studies was that many of the children at significant risk done well despite the adversity they experienced (Garmezy, 1981; Garmezy et al., 1984; Masten & Powell, 2003; Rutter, 1985; Werner & Smith, 1992). According to this result the construct resilience[1] can be defined through answering two questions (*see Figure 1*) 1/ Is there any adversity, stress, risk or disadvantage present in the life of the child or adolescent? 2/ Is the child/adolescent doing well despite of it? (Masten & Powell, 2003).

Figure 1. Defining resilience

Outcome		Adversity / Risk	
		low	high
	favorable	competence	resilience
	unfavorable	–	vulnerability

Adopted from: Tiet & Huizinga, 2002

To give answer to these questions adversity and adjustment both have to be defined. Adversity refers to conditions or events which are risk factors for development because there is good evidence that these experiences predict higher rates of negative outcomes (Masten & Powell, 2003). Risk in resilience research is often defined and operationalized as major life event and as minor daily hassles (Luthar, 1991; Wyman et al., 1999; for review see Luther & Zigler, 1991). On the other hand many studies focus on specific life stresses and risk conditions, like maltreatment (Cicchetti & Rogosch, 1997; Bolger & Patterson, 2003), parental mental illness or drug dependence (Hammen, 2003; Seifer, 2003; Zucker et al., 2003), death or divorce of parents (Sandler et al., 2003; Hetherington & Elmore, 2003), discrimination and violence (Gorman-Smith & Tolan, 2003; Szalacha et al., 2003; Punamäki et al., 2001), and other sociodemographic risks like poverty and low SES (Luthar, 1991; Owens & Show, 2003; Seidman & Pedersen, 2003).

Successful adaptation is also usually defined in various ways in these studies: for example as the absence of mental symptoms, disorders and behaviour problems, or as competence and fulfilling major developmental tasks (Olsson et al., 2003; Masten & Coatsworth, 1998). Major develop-

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[1] Note, that the term „resilience" is also used to describe a personality trait (Jacelon, 1997), but in this study we use it in a different meaning for a broader phenomenon.

mental tasks are universal tasks of adaptation in a given age, their fulfill-ment is a key criteria by which adjustment in society is assessed. Thus this concept reflects in adolescence a good academic achievement, forming close relationships with peers, and forming a coherent sense of self (identity) (Allport, 1968; Erikson, 1985; Masten & Coatsworth, 1998).

For assessing the absence of psychopathology and maladaptive behavior the measure of action-oriented „externalizing" symptoms (e.g. aggression, acting-out) and thought-oriented „internalizing" ones (e.g. depression, anx-iety) is the most common (Luthar & Zigler, 1991).

There is an agreement in resilience research that many aspects of func-tioning have to be considered when defining resilience (Masten & Powell, 2003). Luthar and Zigler (1991) argue that despite competence on be-havioural indices, individuals may have other kind of psychological difficulties, such as depression or anxiety, what is supported by empirical findings as well (Hetherington, 2003; Luthar, 1991).

One of the main goals of resilience research is to identify protective fac-tors or processes that contribute to good adjustment despite of significant risks. Some psychosocial factors consistently turned out to be correlates or predictors of resilience. These can be classified into the following categories:

- *Intrapsychic or personal factors* such as good cognitive, attention and problem-solving skills, effective emotional and behaviour regulation, positive self-perceptions (self-efficacy, self-esteem, self-confidence), hope-fulness, religious faith, and beliefs that life has a sense;
- *Family factors* such as close relationship to caring parent figure, authoritative-reciprocal parenting, connection to extend supportive fa-mily networks;
- *Factors related to extrafamilial context* such as connections to other competent and caring adults outside the family, prosocial friends, attend-ing effective schools, bonding to school, attending organised prosocial activities (Masten & Coatsworth, 1998; Masten, 2004; Olsson et al., 2003).

However many of this factors are not only correlated with good adjust-ment despite risk, but are general conditions of good adjustment even in normative population, and thus may constitute a general human adaptation system (Masten, 2004; Masten & Powell, 2003).

There are also some context-specific protective factors, that show different impact on adjustment depending on the social and individual condition and the particular situation of the child (Wyman, 2003). In a group of socially disadvantaged maltreated children for example personal features of

the child (e.g. ego-resilience and ego-control) predicted good adjustment, while in the group of similarly disadvantaged but non-maltreated children besides ego-resilience and IQ social contextual factors played a significant role (Cicchetti & Rogosch, 1997; Flores et al., 2005). The identification of such risk-specific protective factors can contribute to developing risk-specific interventions (Reynolds & Ou, 2003; Rutter, 1987).

Although results of resilience research can provide new consideration for understanding developmental risk, there are some critical theoretical and methodological issues emerged in this field. One of the most crucial problems is the wide interpretation of the construct resilience, which results in different definition and operationalisation of risk, adjustment and resilience across studies (Heller et al., 1999; Luthar, Zelazo, 2003; Olsson et al., 2003). This makes it more difficult to draw general conclusion from the results.

RESILIENCE OF ADOLESCENTS LIVING IN NON-INTACT OR LOW SES FAMILIES

There are some – however few – studies which found no difference in adjustment of children and adolescent living in intact versus non-intact families (Blechman, 1982; Pike, 2003), and some results indicate that a child's competence can be developed or fostered as a result of parental separation or divorce (Hetherington, 2003). For example, Pike (2003) found in an Australian sample of adolescents that those living in single-parent families had similar school achievement and self-esteem as those living in intact families with both biological parents. The author suggests that other factors such as family income or residential parent's socioeconomic status, social support, parental coping or interparental conflict might be more strongly correlated with children's self-esteem than family type.

Other studies show that there is greater variability in the adjustment of children from divorced and remarried families than those from non-divorced families. Cluster analysis of Hetherington (1993) and Hetherington & Kelly (2002, cited by Hetherington, 2003) indicates that children, adolescents and young adults who had experienced marital transitions are overrepresented in both multiproblem clusters and in high competency clusters (Hetherington, 2003; Hetherington & Elmore, 2003). In this study 50% of adolescents living in divorced or remarried family were presented in a „good-enough" cluster, scoring around average on internalizing, externalizing, social and cognitive competence, and self-esteem. On the other hand a sub-

group of girls in divorced, mother-headed families forming the „competence at a cost" cluster were especially likely to be very well adjusted and socially responsible, but they experienced lower self-esteem and elevated anxiety and depression (Hetherington, 1993). This result shows that the good adjustment in these at-risk groups in some cases can be a sign of compensatory efforts of the children, what than has its „cost".

Parent-child relationship mediates children's post-divorce adjustment. Nurturing parental environment characterized by warm, supportive parenting with consistent and firm control and monitoring promote positive adjustment and protect against developing internalizing and externalizing problems (Hetherington & Elmore, 2003; Sandler et al., 2003). Social support from adults outside the family and from children's friends is related to children's adjustment following divorce (Barnes, 1999; Greef & Van Der Merwe, 2004), whereas peer rejection seems to exacerbate the negative consequences associated with divorce (Hetherington & Elmore, 2003). School environment characterized by defined rules and regulation, and by the use of warm, consistent discipline is associated with better social and cognitive functioning in children from divorced and remarried families (Hetherington & Elmore, 2003). The stability and especially the improvement of school cohesion moderated the effect of deteriorating family environment on youths' depression (Botcheva et al., 2002).

The risk resulting from adverse socioeconomic position of the family can also be modified by a variety of psychosocial factors. For example, positive parental behaviour, (e.g. responsiveness, acceptance, warmth) are linked with social and behavioural adjustment among impoverished children (Owens & Shaw, 2003; Wyman et al., 1999; Wyman, 2003). Teacher's positive expectations for the teenager to continue further education, own educational motivation, and parental involvement and aspirations play an important role in reducing the impact of that risk on academic potential (Schoon et al., 2004). In the disadvantaged group the level of secondary school adjustment had a stronger relationship with adult work and health status than in the more advantaged group. The result of Finn and Rock (1997) also show that minority adolescents coming from low-income homes, who succeeded at school, were more engaged in school work. Antisocial peer affiliations predicted youth's problem behaviour in a high risk group (experiencing high level of poverty, and chronic family disruptions), whereas more involvement in structured, prosocial activities (e.g. organized sports, volunteer work) predicted lower levels of behaviour problems (Wyman, 2003). In a sample of impoverished adolescents those who had prosocial and engaging

peer relationships were at lower risk for depression, and had higher self-esteem (Seidman & Pedersen, 2003).

Some have argued that resilience research can contribute to developing new strategies of intervention and prevention for children at risk, which focuses on positive assets-strengthening instead of focusing only on problem-identification (Blum, 1998; Alvord & Grados, 2005). Although resilience research seems to provide important results, and new ways of prevention and intervention, it hasn't been yet applied for larger, international community samples of adolescents. Nor do we know any study which would have made a comparison of the EU Member States using this framework. Applying a uniform methodology and definition of resilience enables us to compare countries. HBSC study provides a good possibility to make such a comparison.

II. THE STUDY

AIMS

Aims of this project were:

1/ Identifying „resilient" adolescents living in non-intact (single parent or step-) families or in low SES families, who show good adjustment patterns; and

2/ identifying psychosocial factors that predict good adjustment in this disadvantaged sample by using the 2001/2002 HSBC data of the EU Member States.

For achieving these goals the following research questions have been formulated:

1. How can good adjustment be defined by using HBSC data?

2. Have youths living in non-intact families or in low SES families a lower chance to be well adjusted across the EU Member States? Are these two conditions risk factors for unfavourable adjustment?

3. If there are differences in the impact of family structure and low SES on adjustment between countries, can these differences be explained by macro-level characteristics (GDP, Gini, and Expenditure on Social Protection) of the countries?

4. What is the prevalence rate of resilience by adolescents living in non-intact and in low SES families in the EU Member States?

4.1. If there are differences in the odds of resilience between the EU-countries, can these differences be explained by macro-level characteristics (GDP, Gini, and Expenditure on Social Protection) of the countries?

5. Which characteristics of the social context (family, school, peers) predict resilience in the at-risk groups?

METHODS

The analysis was carried out on data of the 2001/2002 HBSC survey, that included a total of 35 countries from Europe and North America.

SAMPLE

In line with the study aims target countries from the international data file have been selected. The following EU-Member States or regions in EU Member States participated in the 2001/2002 HBSC study (the present EU membership was considered): Austria, Belgium (with two regions), Czech Republic, Germany (with regional samples for Berlin, Hessen, North Rhine-Westphalia and Saxony), Denmark, Estonia, England, Finland, France, Greece, Hungary, Ireland, Italy, Lithuania, Latvia, Malta, The Netherlands, Poland, Portugal, Slovenia, Scotland, Sweden, Wales[2]. Because of missing data on one major indicator the French speaking Belgium, Greece and Malta had to be excluded from the analysis.

Students were selected using clustered sampling design, where the initial sampling unit was the school class. Approximately 1500 respondents in each of the three age groups (i.e. 11-, 13- and 15-year-olds) were targeted in every country. Detailed documentation on the level of consent by school, parental and student level across countries can be found in International Report (Currie et al., 2004). The present analysis is based on 105870 studenst from 22 EU countries and regions (*Table 1*).

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[2] UK states are studies separately within the HBSC.

Table 1. Demographic data of the sample

Country	N	Gender (%)		Age categories (years old) (%)		
	Total	Boys	Girls	11	13	15
1. Austria	4472	50.1	49.9	35.0	35.8	29.2
2. Belgium (Flemish)	6289	47.6	52.4	34.2	33.5	32.3
3. Czech Republic	5012	48.1	51.9	33.7	33.1	33.1
4. Germany[1]	5650	49.3	50.7	37.2	31.9	30.9
5. Denmark	4672	48.4	51.6	36.0	34.2	29.8
6. Estonia	3979	49.8	50.2	32.3	35.8	31.9
7. England	6081	48.4	51.6	36.7	34.0	29.2
8. Finland	5388	50.4	49.6	35.3	32.1	32.6
9. France	8185	49.5	50.5	32.6	35.4	31.9
10. Hungary	4164	44.4	55.6	32.5	35.2	32.3
11. Ireland	2875	45.3	54.7	35.2	32.8	32.0
12. Italy	4386	48.4	51.6	34.7	37.3	28.0
13. Lithuania	5645	51.1	48.9	33.1	33.2	33.7
14. Latvia	3481	46.9	53.1	34.3	33.5	32.2
15. Netherlands	4268	49.7	50.3	34.6	35.6	29.8
16. Poland	6383	50.2	49.8	32.9	33.4	33.7
17. Portugal	2940	48.3	51.7	39.8	32.9	27.3
18. Scotland	4404	51.0	49.0	39.6	34.3	26.1
19. Sweden	3926	50.4	49.6	38.2	30.6	31.3
20. Slovenia	3956	50.5	49.5	37.3	35.8	26.9
21. Spain	5827	49.3	50.7	36.1	33.7	30.2
22. Wales	3887	51.6	48.4	34.7	35.3	30.0
TOTAL	*105870*	*49.1*	*50.9*	*35.2*	*34.0*	*30.8*

[1] (Berlin, Hessen, North Rhine-Westphalia and Saxony)

In the further part of the study, sample size shows some variation because only those students were included into each analysis who had no missing data on any variable used in the given analysis. Actual sample size is always indicated.

INSTRUMENT AND VARIABLES

The data were collected by means of standardized questionniares, administered by trained personnel, teachers and school nurses in school classrooms according to standard instructions. The questionnaire consisted of a number of mandatory questions, which were the same in all participating countries, and several optional items, which allowed participating countries to include additional questions of national interest. In this analysis mandatory items are used so as to make cross-national comparison between the participating EU countries possible. For more detail about instrument and variables used in this analysis see the International Research Protocol (Currie et al., 2001).

As resilience as a phenomenon itself can not be measured directly, but is inferred based on direct measurement of the two component constructs, namely risk and adjustment (Luthar & Zelazo, 2003), for defining resilience first these two contructs have to be defined.

1. RISK

As mentioned earlier, a life condition might be qualified as a risk indicator if it is significantly linked with children's subsequent maladjustment in important life domains (Luthar & Zelazo, 2003; Masten & Powell, 2003). There are several empirical evidences as discussed above that living in non-intact familes, and in low SES families are related with higher risk of maladjustment in various domains of functioning. Thus, in this study these two risk conditions were examined.

1.1. Living in non-intact family
The items listed the possible family members to indicate those whom the child lives togehter with: parents, stepparents, siblings and members of the extended family or other adults (Currie et al., 2001; Pedersen et al., 2004). Indicating the foster home or children's home was an option but based on a professional decision these youngsters were excluded from the analysis.

With focus on resilience in our current analysis, three family structure categories were composed: 1/ Intact family=living with both biological parents, 2/ Single-parent family=living with only one biological parent (either with mother or with father), and 3/ Stepfamily= living with one

biological parent and with a stepparent. Distribution of these three categories by country can be found in *Table 1.* in Appendix.

Children living without any biological parents represent a small but special proportion of the sample, as these children may have experienced a more severe risk condition, as children, who live with at least one biological parent. For these reason this group (N=1550; 1.5%) was excluded from the analysis.

As according to empirical data children living either in single-parent family or in stepfamily are at higher risk for adverse developmental outcomes these two categories were combined to represent a „non-intact family" category.

It is important to note, that this variable refers only to the actual composition of the family. In case a parent is missing, the reason for it remain unknown. For example, someone who indicated to live only with a single parent, could have experienced divorce, or death of a parent, or had never lived with both biological parent. Nor do we know the time and frequency of possible family transitions, while these features of the family structure may have an important influence on adjustment of children. It follows from the forgoing that our „non-intact family" group can be heterogeneous in this respect, that has to be taken into consideration.

1.2. Living in low SES family

For assessing low SES the Family Affluence Scale (FAS) was used (about validity and application see Currie et al., 1997; Currie et al., 2001; Torsheim et al., 2004; Boyce & Dallago, 2004; Boyce et al., 2006). The FAS is a measure of family wealth and material resources with the help of objective indiced and easy to answer questions. The scale consists of four items: *'Does your family own a car?' (0,1,2 or more); 'How many times did you travel away on holiday with your family during the past 12 months?' (0,1,2, 3 or more); 'Do you have your own bedroom for yourself?' (0,1); 'How many computers does your family own?'* (0,1,2, 3 or more).

A composite FAS score was calculated by summing the responses to these four items ranging from 0 to 9. As the aim of this study was to explore the relationship between low SES and adjustment within the countries (instead of comparing countries by socio-economic position), the FAS scores were recoded into terciles within each country, indicating high, middle, and low family affluence (for the distribution of the terciles in each country see *Table 1.* in Appendix).

Those adolescents being in the low FAS category in each country were considered to be in the most unfavorable socio-economic position in this

sample, so they constituted an at-risk group. It is important to note, that this risk variable doesn't measure poverty per se, but it is a broader category presumably including those youths who live in poverty, as well.

In the following sections of the study the „risk-group" or „risk-status" term is used to describe adolescents living in non-intact family or in low FAS family.

2. ADJUSTMENT

Adjustment refers to positive adaptation, which is substantially better than what could be expected when being exposed to a given risk condition (Luthar & Zelazo, 2003). When defining adjustment several considerations emerge. Constructs chosen to represent this dimension must be developmentally appropriate and conceptually relevant (Luthar & Zelazo, 2003). Accordingly it was important to cover many aspects of functioning relevant to this age-group (e.g. absence of behaviour and emotional problem, and competence). Thus indicators of risk behaviour (substance use, bullying), emotional well-being, and positive functioning in the school domain were chosen to define good adjustment (*Table 2*).

Table 2. Domains of functioning included into the definition of good adjustment

	Self	School	Peer
Behaviour problems:	substance use		involvement in bullying
Emotional health or problems:	subjective health complaints		
	life satisfaction		
Competence		academic achievement	

As the experimentation with substance use emerge in adolescence, tobacco smoking and alcohol use (drunkenness) were included too. Bullying is an indicator of aggression and interpersonal problems with peers (Pepler, 1994). School success is one of the developmental tasks which fulfillment is important in adolescence (Masten & Coatsworth, 1998). Many studies concluded that besides behavioural indicators the use of „internal" (emotional) indicator is also important (Luthar, 1991; Luthar & Ziegler, 1991), so

satisfaction with life and subjective health complaints were also included in the definition. To be able to make comparison between age-groups, the same definition with the same variables was used in the whole sample.

The selected constructs are operationalized in the HBSC-study the following way (for more details see the International Research Protocol, the distribution of each variable by age and country in the total sample, and in the two risk-groups can be found in *Tables 2.1–2.6* in Appendix):

2.1. Academic achievement

A single item measured academic achievement: *'In your opinion, what does your class teacher(s) think about your school performance compared to your class-mates?'* Response categories were: *Very good | Good | Average | Below average* (Samdal et al., 2004).

2.2. Smoking

For measuring the frequency of current smoking a single item was used: *'How often do you smoke tobacco at present?'* Response categories were: *I don't smoke | Every day | At least once a week, but not every day | Less than once a week* (Godeau et al., 2004).

2.3. Drunkenness

Frequency of drunkenness was assessed by asking whether the adolescents had ever had so much alcohol that they were really drunk. Possible answers were: *No, never | Yes, once | Yes, two to three times | yes, four to ten times | yes, more than ten times* (Schmid & Nic Gabhainn, 2004).

2.4. Subjective health complaints

A standard symptom checklist were used to measure subjective health complaints: *'In the last 6 months how often have you had the following: Headache | Stomach-ache | Back-ache | Feeling low | Irritability or bad temper | Feeling nervous | Difficulties in getting to sleep | Feeling dizzy'. Response options were: About every day | More than once a week | About every week | About every months | Rarely or never* (Torsheim et al., 2004). When a student indicated to have a complaint more than once a week or about every day, that complaint was considered as a frequent complaint.

2.5. Life satisfaction

Life satisfaction was derived from the measurement method known as the Cantril ladder (Canrtil, 1965). It is a 10-grade ladder: the top of the ladder indicates the best possible life, and the bottom, the worst possible life. Students were asked to indicate the step of the ladder at which they would place their present lives. The question was: *'Here is a picture of a ladder. The top of the ladder, 10, is the best possible life for you and the bottom, 0, is the worst possible life for you. In general, where on the ladder do you stand at the moment?'* A score of 6 or more is defined as a positive level of life satisfaction (Torsheim et al., 2004).

2.6. Bullying

Bullying and victimization reflect different types of involvement in violence during adolescence, and thus can be regarded as indicators of interpersonal peer relationship problems (Pepler, 1994). In the present study bullying were assessed by two items, which measure being bullied and bullying others in related fashion. After defining bullying behaviour two questions followed, one on being bullied and one on bullying others: *'How often have you been bullied at school in the past couple of months?"* and *"How often have you taken part in bullying another student(s) at school in the past couple of months?'* The response options for both were almost the same: I haven't been bullied or bullied another student(s) at school in the past couple of months | It has only happened once or twice | 2 or 3 times a month | About once a week | Several times a week* (Craig & Harel, 2004).
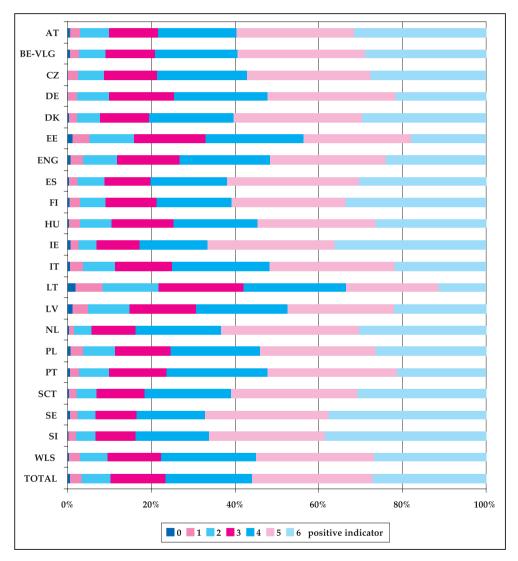
By each indicator response options were rated as indicating poor vs. good adjustment on a rationale basis (*Table 3*).

Table 3. Defining good adjustment: response options defining good or poor adjustment

Indicators	Good adjustment	Poor adjustment
Academic achievement	Very good / Good	Average / Below average
Tobacco smoking	Doesn't smoke	Less than once a week / at least once a week / every day
Drunkenness	Never	Once / 2-3 times / 4-10 times / more than 10 times
Subjective health complains	Having maximum one frequent health complaint	Having more than one frequent health complaint
Life satisfaction	6 or more score	0-5 score
Bullying	Being involved never or once (either as a bully or as a victim)	Being involved more than once

Subsequently the number of variables indicating good adjustment by each respondent was counted. The proportion of students being classified as well adjusted on 0-6 indicators are shown in *Figure 2* by country.

Figure 2. Proportion of adolescents by number of positive indicators of adjustment by country in the total sample (N=97984)

Applying the resilience definition the following terms were used to describe the adjustment of adolescents in this study:

1. 'Good adjustment' refers to adolescents generally showing good adjustment pattern in every six indicators in the total sample

2. 'Resilience' refers to at-risk group adolescents (with low FAS and nonintact family) showing good adjustment in every six indicators

3. PSYCHOSOCIAL PREDICTORS OF GOOD ADJUSTMENT

Features of the most significant social contexts – family, peers and school – of adolescents' life were assessed, which presumable are related to overall good adjustment. Distribution of the psychosocial variables by age and country in the total sample, and in the two risk-groups can be seen in *Table 3.1-3.5* in Appendix.

3.1. Communication with parents

The question on communication with parents is a good measure of the quality of parent-child relations (Pedersen et al., 2004). This item focuses on how easy or difficult it is for children to talk to the parents. The question is: *'How easy is it for you to talk to the following persons about things that really bother you?' Father | Stepfather (or mother's boyfriend | Mother | Stepmother (or father's girlfriend.* Response categories are: *Very easy | Easy | Difficult | Very difficult | Don't have or see this person.*

We transformed the questions about parents into one variable, which indicates whether the adolescent has any parental figure at home, with whom he or she can talk easily or very easily. Thus the two categories are: 1/ Youths who have at least one parent (biological or stepparent) with whom he/she can talk easily or very easily about his/her problems. 2/ Youths who don't have any parental figure to talk easily or very easily about the problems.

3.2. Time spent with friends

Frequency of contact with friends was measured by two items on meeting with friends in the afternoon and in the evening: *„How many days a week do you spend time with friends right after school?"* Response options ranged from 0 days to 5 days (or 6 days, depending on the country's schooling system).

The second question was: „*How many evenings a week do you usually spend out with your friends?*". Response options ranged from 0 evenings to 7 evenings. These questions focused on exposure to peers (Settertobulte & Gaspar de Matos, 2004).

In the present analysis we combined the two questions to form the following categories: 1/ Youths who spend 0-3 days with friends after school and evenings during the week; 2/ Youths who spend 4 or more days with friends either after school or in the evenings. In case the focus is on those who spend most days of the week with friends either after school or evenings.

3.3. Communication with friends

Being liked and accepted by peers is crucial to the healthy development of adolescents. The quality of friendships was measured similarly to the quality of parent-child relations. So the question is: *"How easy is it for you to talk to the following persons about things that really bother you? Best friend / Friend(s) of the same sex / Friend(s) of the opposite sex"* Response categories are: *Very easy / Easy / Difficult / Very difficult / Don't have or see this person.*

The three items have been transformed into one variable, which shows whether the adolescent has answered very easy or easy to at least one of these three questions. The composite variable contains two categories: 1/ The youth has any friend (best friend, or friends of the same or the opposite sex) to whom he or she can talk easily or very easily; 2/ The youth hasn't got any friend (best friend, or friends of the same or the opposite sex) to whom he or she can talk easily or very easily.

3.4. Classmates' support

Peer support in the school was measured using the following three items in the form of statements, with which respondents were asked to agree or disagree. *'The students in my class(es) enjoy being together. Most of the students in my class(es) are kind and helpful. Other students accept me as I am.'* Response options were: *Strongly agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree* (Samdal et al., 2004).

By applying principal component analysis one main factor emerged. According to this the items were added to form the "Classmate support" scale. The scores range from 0-15. Cronbach-alpha for this scale was 0.71.

3.5. School pressure

A single item was applied to measure perceived school pressure: *'How pressured do you feel by the schoolwork you have to do?'* Response categories were: *Not at all / A little / Some / A lot (Samdal et al., 2004).* Perceived pressure as an additional stress for at-risk youths can play a significant role in predicting adjustment. The categories were combined into two categories: *1/ Not at all / A little; 2/ Some / A lot.*

4. Macro variables / aggregated country-level variable

By explaining cross-country differences macro-level variables, characterizing the economic state and the expenditure on social protection in the country, have been used in the analysis.

Gross domestic product (GDP) is the standard measure of the value of the goods and services produced by a country during a period. Per capita GDP is a broad indicator of economic living standards. Each country calculates GDP in its own currency. Comparisons of real GDP between countries can best be made using purchasing power parities (PPPs) to convert each country's GDP into a common currency (OECD Factbook, 2007).

The Gini index is an indicator of inequality of income and wealth distribution. It can be used to compare income distribution across different countries. Using the Gini can help to quantify differences in welfare and compensation policies.

Social protection encompasses all action by public or private bodies to relieve household and individuals of the burden of defined set of risks or needs associated with old age, sickness, childbearing and family, disability, unemployment, etc. Expenditure on social protection concerns: social benefits, which consits of transfers, in cash or in other kind; administration costs, which represent the costs charged to the scheme for its management and administration; other expenditure, which consits of miscellaneous expenditure by social protection schemes (payment of property income and other) (Eurostat, 2006/2007b). In this analysis the 2001-year data were used (Expenditure on social protection, % of GDP).

As the above mentioned indicators are different in post-socialist countries every analyses including these indicators were controlled for post-socialist country status, Austria, Belgium (Flemish), Germany, England, Spain, Finland, France, Denmark, Ireland, Italy, the Netherlands, Portugal, Scotland, Sweden, and Wales being non-postsocialist countries, while the Czech

Republic, Estonia, Hungary, Lithuania, Latvia, Poland, and Slovenia being post-socialist countries. In case of Germany there were no means to differentiate between its post-socialist and non-post socialist parts.

For statistical analyses macro-level variables have been standardised. GDPs, Ginis and Expenditure on social protection scores of each country are in the Appendix (*Table 4*).

STATISTICAL ANALYSIS

Multilevel statistical methods have been used during the analysis (Snijders & Bosker, 1999; Rabe-Hesketh, 2005). Multilevel analysis enables us to take the clustered structure of the data into account by allowing for a variance component on each measurement level. When treating groups as random samples on each level, more accurate estimates and standard errors can be obtained. Thus contextual variables might be more properly handled in these models, as compared to ordinary regression models.

Estimating a fixed average intercept, random intercept models are hierarchical models that also estimate the cross-national variation of the intercepts; random coefficient models allow for the estimation of fixed average effects of certain factors on the outcome variable and the cross-national variation around this fixed average effect.

In our current analysis individuals can be aggregated by schools, while schools can be grouped by countries. As the school identifier was missing in case of one country, we have applied only the country as a grouping variable; as such, country level variables have been introduced in our models as contextual variables.

Due to resilience being a binary outcome variable, we had to perform a series of multilevel logistic regression analyses: first, random intercept models have been used to detect whether there are international differences in the odds of resilience, and to what extent individual variables (risk factors and protective factors) and country-level contextual variables account for these differences. Second we have performed random coefficients models to analyse the average fixed effect of risk factors and protective factors on resilience, and the cross-national variation in the relationship between risk factors and resilience, and protective factors and resilience.

The statistical analyses have been carried out with MLwiN 1.10.0007. (Rasbash et al., 2000), by using 2nd Order Penalized Quasi-Likelihood

Estimates, that are suggested to perform better then the 1st order marginalized likelihood, when the number of higher level units is relatively small as compared to the number of lower level units.
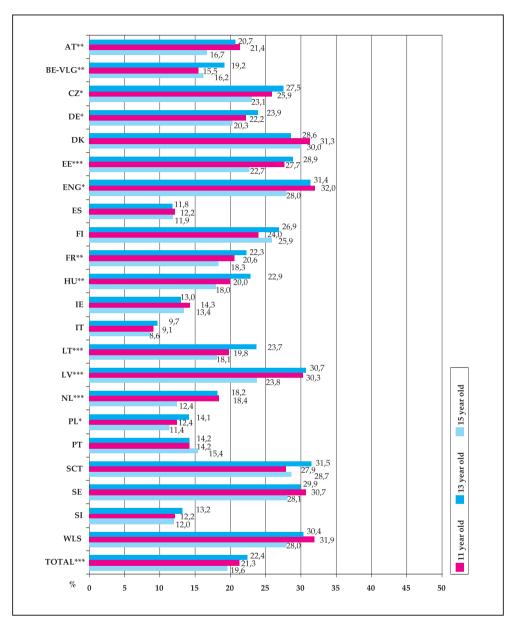
Because of significant age-differences in the proportion of risk and resilience, multilevel analyses were carried out separate for 11-, 13- and 15-year-old adolescents. The significance-levels were set at 95%.

III. RESULTS

1. PROPORTION OF ADOLESCENTS AT RISK: RATE OF YOUTHS LIVING IN NON-INTACT FAMILY AND IN LOW FAS FAMILY
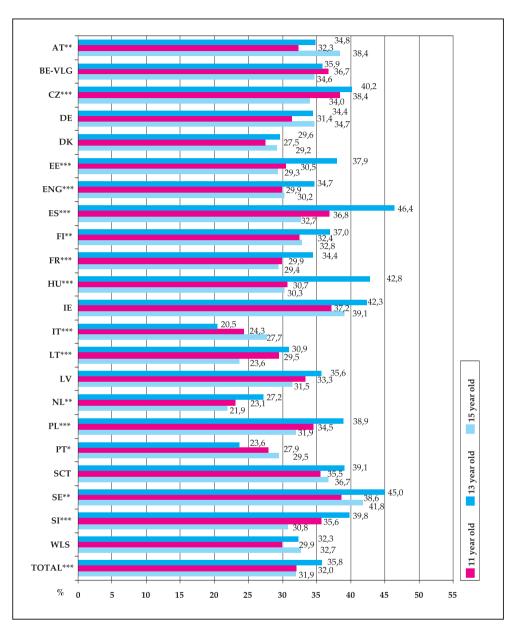
Approximately one out of five students lives in non-intact family: 13.0% lives with a single parent, 8.0% live in a stepfamily. In 12 countries there is a significant age difference, showing a lower proportion of youths living in non-intact family in the older age group (*Figure 3*). Because of using the lowest tercile of the FAS scale to define low SES risk-status in every country, nearly one third of students (33.2 % in the total sample) were classified to be at-risk by living in a low SES family (*Figure 4*). In 15 countries there is a significant age difference in the proportion of adolescents living in low FAS family, but it doesn't show a consistent pattern.

Figure 3. Rate (%) of adolescents living in non-intact family by age and by country
(N=35414 for 11-year-olds; N=34590 for 13-year-olds; N=31358 for 15-year-olds)

* p<0.05; ** p<0.01; *** p<0.001 significant age differences
Note: AT=Austria, BE-VLG=Belgium (Flemish), CZ=Czech Republic, DE=Germany, DK=Denmark,
EE=Estonia, ENG=England, ES=Spain, FI=Finland, FR=France, HU=Hungary, IE=Ireland, IT=Italy,
LT=Lithuania, LV=Latvia, NL=Netherlands, PL=Poland, PT=Portugal, SCT=Scotland, SE=Sweden,
SI=Slovenia, WLS=Wales

Figure 4. Rate (%) of adolescents living in low FAS family by age and country
(N=35666 for 11-year-olds; N=35002 for 13-year-olds; N=31939 for 15-year-olds)

* p<0.05; ** p<0.01; *** p<0.001 significant age differences.
Note: AT=Austria, BE-VLG=Belgium (Flemish), CZ=Czech Republic, DE=Germany, DK=Denmark, EE=Estonia, ENG=England, ES=Spain, FI=Finland, FR=France, HU=Hungary, IE=Ireland, IT=Italy, LT=Lithuania, LV=Latvia, NL=Netherlands, PL=Poland, PT=Portugal, SCT=Scotland, SE=Sweden, SI=Slovenia, WLS=Wales

Studies show that family structure and family wealth aren't independent (e.g. Amato & Keith, 1991). The proportion of adolescents experiencing one or both or non-risk status is presented in *Table 4.*

Table 4. Proportion of adolescents experiencing non, either or both risk factors (N=99454)

Country	Risk categories			
	Non	**Only low FAS**	**Only non-intact family**	**Both**
Austria	53.4	27.4	11.6	7.6
Belgium (Flemish)	56.2	27.0	8.8	8.0
Czech Republic	48.5	25.9	14.2	11.3
Germany[1]	53.1	25.1	13.5	8.2
Denmark	52.8	17.4	18.8	11.1
Estonia	53.3	20.2	14.4	12.1
England	51.2	18.7	17.7	12.3
Finland	52.9	21.5	13.6	11.9
France	56.7	23.1	12.4	7.8
Hungary	54.0	25.7	11.6	8.7
Ireland	53.9	32.5	6.7	6.9
Italy	69.0	39.4	6.8	2.2
Lithuania	59.8	19.6	12.3	8.3
Latvia	51.4	20.5	15.8	12.4
Netherlands	65.7	18.2	10.5	5.6
Poland	58.1	29.2	6.9	5.8
Portugal	63.8	21.7	9.0	5.5
Scotland	48.1	23.0	15.0	13.8
Sweden	44.1	27.0	14.1	14.8
Slovenia	58.8	28.9	6.5	5.8
Spain	55.2	32.8	6.7	5.3
Wales	50.0	20.1	18.6	11.3
TOTAL	*55.1*	*24.1*	*12.0*	*8.8*

[1] (Berlin, Hessen, North Rhine-Westphalia and Saxony)

Because of this relationship between the two risk-status in the further analyses we have controlled for each others' impact to find out the separate impact of the given risk-status.

2. PROPORTION OF ADOLESCENTS SHOWING GOOD ADJUSTMENT
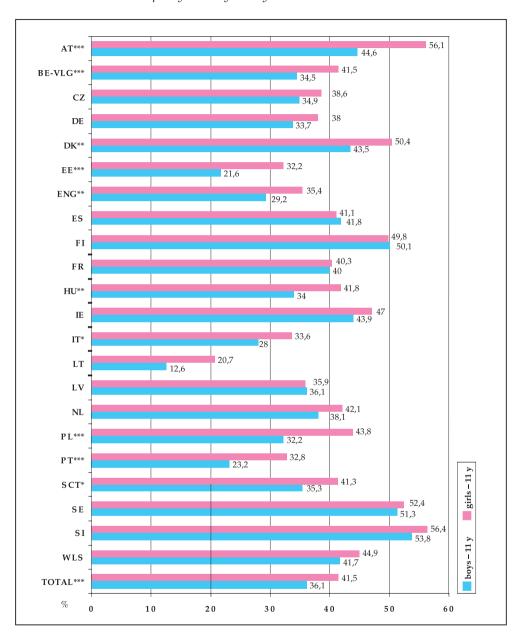
In the total sample 27.2% of the students show overall good adjustment. The proportion of students showing good overall adjustment based on our definition in the given age-groups are shown in *Figure 5-7* by gender.

There is a significant difference in the proportion of good adjustment among the age-groups in every country in both genders except for boys in Portugal. There is a higher proportion of younger students showing good adjustment than older students.

When examining the total sample, more girls than boys show overall good adjustment (28.5% vs. 25.8%, χ^2=88.515; p<0.001). Gender difference decreases with age, and in the sample of 15-year old students it is not significant anymore (11-year-olds girls: 41.5% boys: 36.1%; 13-year olds girls: 28.2%, boys: 25.4%; 15-year-olds girls: 15.3%, boys: 14.6%).
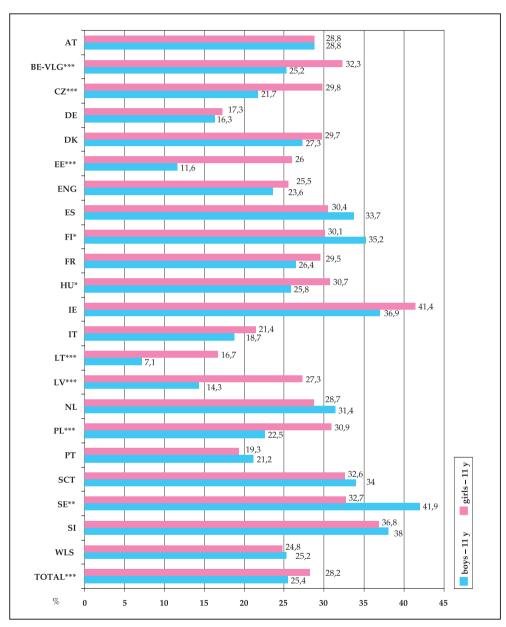
When examining the gender differences in countries some significant results emerge (see *Figure 5-7*). In most cases a higher rate of well adjusted students can be found in girls, than in boys, but in some cases a converse pattern appears (for 13-year-olds in Finland and Sweden, for 15-year-olds in Portugal and in Scotland).

Figure 5. Rate (%) of boys and girls showing overall good adjustment
in the total sample by country – 11-year-olds (N=33293)

Country	boys – 11 y	girls – 11 y
AT***	44,6	56,1
BE-VLG***	34,5	41,5
CZ	34,9	38,6
DE	33,7	38
DK**	43,5	50,4
EE***	21,6	32,2
ENG**	29,2	35,4
ES	41,8	41,1
FI	50,1	49,8
FR	40	40,3
HU**	34	41,8
IE	43,9	47
IT*	28	33,6
LT	12,6	20,7
LV	36,1	35,9
NL	38,1	42,1
PL***	32,2	43,8
PT***	23,2	32,8
SCT*	35,3	41,3
SE	51,3	52,4
SI	53,8	56,4
WLS	41,7	44,9
TOTAL***	36,1	41,5

* p<0.05; ** p<0.01; p<0.001 Significant gender difference
  Note: AT=Austria, BE-VLG=Belgium (Flemish), CZ=Czech Republic, DE=Germany, DK=Denmark, EE=Estonia, ENG=England, ES=Spain, FI=Finland, FR=France, HU=Hungary, IE=Ireland, IT=Italy, LT=Lithuania, LV=Latvia, NL=Netherlands, PL=Poland, PT=Portugal, SCT=Scotland, SE=Sweden, SI=Slovenia, WLS=Wales

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*Figure 6. Rate (%) of boys and girls showing overall good adjustment
in the total sample by country – 13-year-olds (N=33373)*

Figure 7. Rate (%) of boys and girls showing overall good adjustment in the total sample by country – 15-year-olds (N=30785)

* p<0.05; ** p<0.01; ***p<0.001 Significant gender difference
Note: AT=Austria, BE-VLG=Belgium (Flemish), CZ=Czech Republic, DE=Germany, DK=Denmark, EE=Estonia, ENG=England, ES=Spain, FI=Finland, FR=France, HU=Hungary, IE=Ireland, IT=Italy, LT=Lithuania, LV=Latvia, NL=Netherlands, PL=Poland, PT=Portugal, SCT=Scotland, SE=Sweden, SI=Slovenia, WLS=Wales

3. THE RELATIONSHIP OF FAMILY STRUCTURE AND FAMILY AFFLUENCE WITH OVERALL GOOD ADJUSTMENT: HAVE YOUTHS LIVING IN NON-INTACT FAMILIES OR IN LOW SES FAMILIES A LOWER CHANCE TO BE WELL ADJUSTED ACROSS THE COUNTRIES IN THIS STUDY?

First the proportion of well adjusted adolescents were compared across countries in intact vs. non-intact families, and in low FAS vs. middle/high FAS families using χ^2 – tests (*Table 5*). The rate of well adjusted adolescents living in intact families is higher than in non-intact families in every country. There is a significant difference in the rate of well adjusted students living in low vs. middle/high FAS family in most of the countries. Lower rate of adolescents in low FAS families show good adjustment, than their peers in more affluent families, expect for Austria, Germany, Denmark, Ireland, Lithuania, Netherlands, and Sweden, where no significant difference was found.

Table 5. Rate (%) of well adjusted students (who score 6 on the aggregated adjustment index) by family structure (N=94593) and by FAS categories (N=95910)

Country	Students living in					
	Intact family	Non-intact family	χ^2	High/ middle FAS	Low FAS	χ^2
Austria	33.6	24.1	26.557***	31.3	31.9	0.164
Belgium (Flemish)	32.2	16.2	98.507***	31.0	24.9	24.453***
Czech Republic	30.2	20.7	40.408***	30.2	23.4	25.117***
Germany[1]	23.1	16.5	22.017***	22.5	20.2	3.124
Denmark	31.7	23.3	27.038***	30.3	27.8	2.707
Estonia	19.3	14.7	10.658**	20.0	13.5	24.452***
England	27.3	16.7	63.726***	25.7	20.2	17.431***
Spain	31.7	25.9	8.693**	33.5	26.0	34.297***
Finland	37.3	23.4	78.942***	36.4	27.6	38.619***
France	30.9	19.0	81.436***	31.3	21.1	79.785***
Hungary	28.1	21.3	14.473***	28.9	21.3	26.228***
Ireland	37.6	27.4	12.924***	37.5	34.2	2.982
Italy	23.5	10.2	33.130***	23.4	17.3	16.407***
Lithuania	12.4	7.8	17.452***	13.8	5.5	68.229
Latvia	24.2	18.4	11.344**	24.1	18.0	14.783***
Netherlands	32.6	21.2	32.405***	31.0	29.1	1.168
Poland	27.6	18.6	27.488***	30.1	19.4	80.525***
Portugal	23.2	13.5	17.347***	23.9	13.8	31.879***
Scotland	34.8	22.0	63.808***	33.8	26.0	26.692***
Sweden	40.9	31.0	29.912***	38.7	36.3	2.126
Slovenia	39.8	27.8	23.763***	41.9	31.8	35.756***
Wales	30.5	18.6	51.467***	28.2	22.5	11.585**
TOTAL	*29.5*	*19.8*	*737,007****	*29.1*	*23.4*	*354.054****

[1] (Berlin, Hessen, North Rhine-Westphalia and Saxony)
** p< 0.01; *** p<0.001

In order to examine the relationship between the risk factors and good adjustment multilevel logistic regression analyses have been carried out. As preliminary results on the cross-national variation of good adjustment levels suggested, random intercept and random coefficient models were used to test the effect of family structure and socio economic status on good adjustment. Separate analyses were done for the two risk statuses and for

the three age groups (the latter justified by significant interaction effects between age and risk factors). The first model was controlled for gender and for the other risk variable. In a second model we controlled for the impact of selected psychosocial variables (talking to parent, time spent out with friends, talking to friends, school pressure and classmate support).

Adolescents living in intact families have significantly higher chance to be well adjusted in each age-group than children living in non-intact families (controlled for FAS) (*Table 6*). The results showed no significant differences in the relationship of family structure on adjustment between countries.

Table 6. Odds ratios of family structure and of FAS for overall good adjustment for 11-, 13- and 15-year-old students

Age-groups	Living in intact family[1] Model 1.	Living in intact family[2] Model 2.	Living in middle/high FAS family[3] Model 1.	Living in middle/high FAS family[4] Model 2.
	Odds Ratios [95% CI]			
11 year olds (N=26055)	1.53 [1.43-1.63]	1.43 [1.33-1.53]	1.37 [1.26-1.49]	1.31 [1.21-1.41]
13 year olds (N=27548)	1.69 [1.58-1.82]	1.60 [1.48-1.72]	1.33 [1.20-1.48]	1.30 [1.17-1-44]
15 year olds (N=26925)	1.86 [1.69-2.05]	1.75 [1.59-193]	1.31 [1.17-1.46]	1.25 [1.11-1.40]

[1] Separate analysis for the age-groups, random intercept model controlled for gender and for FAS
[2] Separate analysis for the age-groups, random intercept model, controlled for gender, FAS and psychosocial variables
[3] Separate analyis for the age-groups, random slope model, controlled for gender and for family structure
[4] Separete analysis for the age-groups, random slope model, controlled for gender, family structure, and Psychosocial variables

Adolescents living in middle or high FAS families have also higher chance to be well adjusted in each age-group than youths living in low SES families (*Table 6*). Significant country-level differences were found in the relationship between FAS and adjustment for the 11-year-olds (Wald-test, 2df=8.14). This relationship is significantly weaker than the average relation for young people living in Austria, Denmark, Finland, Ireland, Slovenia and Sweeden, and stronger for youths living in Estonia, Italy, Lithuania and Portugal.

Figure 8 shows the country departures (with 95% confidence intervals) from the average effect of FAS. For a given country, the interval's upper limit being below 1 indicates a FAS effect significantly weaker than the average. Conversely, the upper limit being above 1 suggests a significantly stronger relationship between FAS and good adjustment.

Figure 8. The difference of the country-specific effect from the average effect of FAS, 11-year-old adolescents (Odds ratios, 95%CI; N=26055)

Note: AT=Austria, BE-VLG=Belgium (Flemish), CZ=Czech Republic, DE=Germany, DK=Denmark, EE=Estonia, ENG=England, ES=Spain, FI=Finland, FR=France, HU=Hungary, IE=Ireland, IT=Italy, LT=Lithuania, LV=Latvia, NL=Netherlands, PL=Poland, PT=Portugal, SCT=Scotland, SE=Sweden, SI=Slovenia, WLS=Wales

Relationships of the two risk factors with adjustment could reflect the effect of several possible individual level contextual factors (see below), thus we have also examined the robustness of the relationships by controlling for these variables. The effect of risk factors remained significant also in these models.

It might be reasonable to examine the influence of country-level contextual variables on the effect of FAS. Although the above analysis showed no country-level differences except for the 11-year-olds, due to power characteristics of the applied method testing for cross-level interaction effects could be carried out. The impact of GDP, Gini and Expenditure on social protection was examined separately for the three age-groups, controlled for gender, psychosocial factors (talking with parents, talking with friends, time spent with friends, classmates' support and school pressure), and family structure. In order to avoid here the threat of country-

level variables reflecting only the post-socialist – non-post socialist dichotomy, the model was also controlled for a variable indicating this difference. Interaction between a macro-level variable and FAS was calculated by using random intercept model.

The impact of GDP is in all age-groups significant. The lower the GDP, the stronger the relationship between family affluence and adjustment of adolescents. Gini and Expenditure on social protection have a significant interaction with FAS among 13-year-olds: the higher the Gini coefficient, and the lower the expenditure on social protection, the stronger the relationship. Results are shown in *Table 7*.

Table 7. Interactions between macro-level variables and FAS
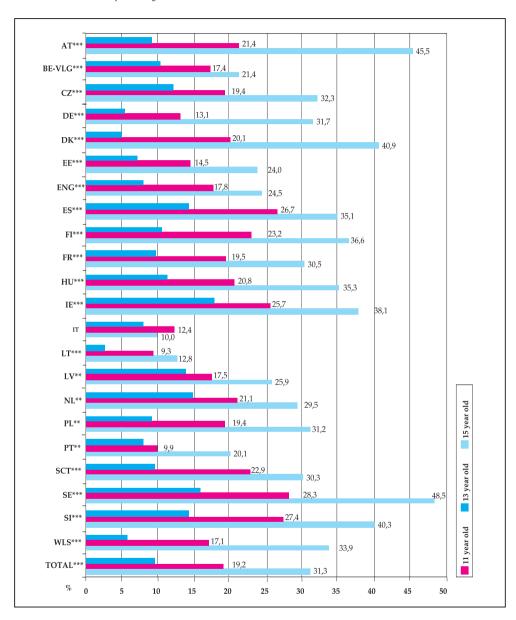
Age-groups	Macro-level variables	Macro-level variable x FAS interaction	standard error
11 year olds (N=26055)	GDP*	-0.08	0.03
	Gini	0.06	0.03
	Expenditure on Social Protection	-0.05	0.03
13 year olds (N=27548)	GDP*	-0.16	0.04
	Gini*	0.07	0.03
	Expenditure on Social Protection*	-0.09	0.05
14 year olds (N=26925)	GDP*	-0.12	0.04
	Gini	0,06	0,04
	Expenditure on Social Protection	-0,03	0,04

[1] Coefficient of interaction term in the regression equation for the log odds of resilience. Models controlled for gender, family structure, psychosocial variables, and post-socialist country status
*Factor significant at the $p<0.05$ level.

4. PROPORTION OF RESILIENT ADOLESCENTS
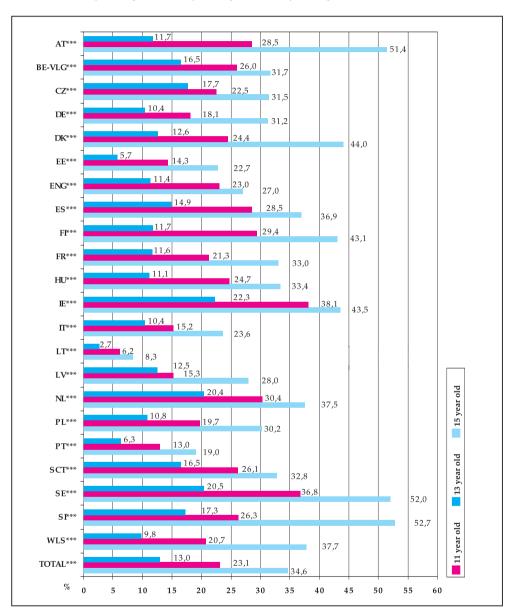
After analyzing the effect of risk factors in the whole sample we restricted the scope of our analysis to the children living in non-intact families, or in low FAS families. The proportion of resilient adolescents living in non-intact families is 19.8%, for those who live in low FAS family it is 23.4%. There is a significant decrease in the proportion of resilient adolescents by age in every country for both risk status, expect for Italy, where there isn't any significant difference among the age groups in the proportion of resilient students living in non-intact families (*Figure 9-10*).

Figure 9. Rate (%) of resilient adolescents among those living in non-intact families by age and by country (N=6207 for 11- year-olds; N=6792 for 13-year-olds; N=6623 for 15-year-olds)

** p<0.01; ***p<0.001 Significant difference between age-groups
Note: AT=Austria, BE-VLG=Belgium (Flemish), CZ=Czech Republic, DE=Germany, DK=Denmark, EE=Estonia, ENG=England, ES=Spain, FI=Finland, FR=France, HU=Hungary, IE=Ireland, IT=Italy, LT=Lithuania, LV=Latvia, NL=Netherlands, PL=Poland, PT=Portugal, SCT=Scotland, SE=Sweden, SI=Slovenia, WLS=Wales

Figure 10. Rate (%) of resilient adolescents among those living in low FAS family by country (N= for 11-y olds; N= for 13-y olds; N= for 15-y olds)

*** p<0.001 Significant difference between age-groups
Note: AT=Austria, BE-VLG=Belgium (Flemish), CZ=Czech Republic, DE=Germany, DK=Denmark, EE=Estonia, ENG=England, ES=Spain, FI=Finland, FR=France, HU=Hungary, IE=Ireland, IT=Italy, LT=Lithuania, LV=Latvia, NL=Netherlands, PL=Poland, PT=Portugal, SCT=Scotland, SE=Sweden, SI=Slovenia, WLS=Wales

When examining all countries together, no differences emerge in the rate of resilient boys and girls considering any risk-conditions. When examining gender differences separately for countries, significant difference was found in the rate of resilient students living in non-intact family in the following countries: Czech Republic, Estonia, Lithuania, Latvia, Poland, and Portugal (*Table 8*). In Austria, Belgium, Denmark, Estonia, Spain, Finland, Greenland, Lithuania, Latvia, Poland, and Sweden the rate of resilient boys and girls living in low FAS families differs significantly.

Table 8. Rate (%) of resilient adolescents by risk status
and by gender in countries
(N=19813 for non-intact families; N=31672 for low FAS families)

	Intact family			Intact family		
	boys	girls	χ^2	boys	girls	χ^2
	%			%		
Austria	24.7	23.5	0.144	29.1	34.0	3.862*
Belgium (Flemish)	14.3	17.8	2.131	22.8	26.6	4.090*
Czech Republic	17.5	23.3	6.037*	22.2	24.4	0.141
Germany[1]	16.0	16.8	0.130	21.7	19.1	1.694
Denmark	22.2	24.4	0.775	24.2	30.3	5.547*
Estonia	11.1	17.1	8.756**	10.7	15.7	6.594*
England	16.4	17.0	0.069	20.2	20.2	0.000
Finland	24.1	22.7	0.324	30.1	25.3	4.686*
France	19.2	18.8	0.034	20.9	21.2	0.035
Hungary	21.6	21.1	0.026	21.9	20.9	0.202
Ireland	22.8	31.0	0.094	34.8	33.8	0.106
Italy	11.4	9.4	0.399	17.3	17.4	0.004
Lithuania	5.2	10.0	8.302**	4.1	6.5	3.863*
Latvia	12.9	22.0	10.807**	15.0	20.0	4.288*
Netherlands	21.4	21.2	0.007	26.9	30.6	1.558
Poland	13.0	23.2	12.949***	14.5	23.4	26.881***
Portugal	17.7	10.2	4.381*	15.3	12.8	0.957
Scotland	23.6	20.6	1.547	26.6	25.4	0.269
Sweden	33.5	28.8	2.572	40.2	32.8	8.386**
Slovenia	27.5	28.0	0.014	30.9	32.6	0.452
Spain	27.5	24.8	0.608	28.4	24.0	5.069*
Wales	20.0	17.2	1.391	23.4	21.9	0.354
Total	*19.1*	*20.3*	*3.937***	*22.9*	*23.7*	*2.346*

* p<0.05; ** p< 0.01; *** p<0.001

5. DIFFERENCES IN THE RATE OF RESILIENT ADOLESCENTS ACROSS COUNTRIES. ARE THERE ANY MACRO-CONTEXTUAL FACTORS TO EXPLAIN FOR THE DIFFERENCES?
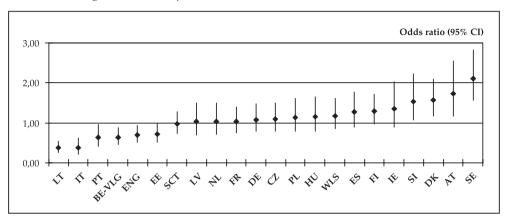
Differences in the odds of resilience across countries might be related to different individual and contextual factors. In order to examine how different factors contribute to cross-national differences in the level of resilience, a set of random intercept models have been tested. First, the empty model containing only the resilience variable was tested. Second, the model was enlarged with the effect of gender and one social background variable (family structure in case of low-FAS students, and the effect of FAS for children living in non-intact families). Third, psychosocial predictors (talking to parents, school pressure, classmate support, time out with friends, talking to friends) were added to the model. Fourth, contextual variables, GDP per capita, Gini index measuring social inequalities and expenditure on social protection were also introduced. In preliminary models we have tested whether there are interactions between psychosocial factors and age groups and gender respectively. These results showed that interactions exist with age groups, but not with gender. Thus we run our models in parallel in all age-groups.

Running the empty model enables us to examine country-level effects on the odds of resilience. *Figures 11, 13, 15, 17, 19* and *21* show country departures from the overall odds, with 95% confidence interval bands, in the two risk and three age groups. These confidence intervals allow for testing whether a country-effect differs significantly from 0: a confidence interval not overlapping 1 indicates a significant effect. Confidence bands being below 1 show that the estimated odds of resilience is significantly lower in the given country compared to the average odds; similarly, confidence intervals having their lower limits above 1 show a significantly higher estimated odds in the given country. For a more detailed statistical output (with random intercept variances and intraclass correlation coefficients) see the Appendix.

After running the empty model we have also added individual variables such as gender, the other risk variable and psychosocial factors as explanatory variables. Comparing the country level departures estimated by the latter with those of the earlier models, it is possible to trace the contribution of these individual level variables to country differences. Our results show that the inclusion of these variables modified only at a moderate level these

cross national effects, suggesting that cross national differences in the odds of resilience might not be accounted for the effect of these individual level variables (*Figures 12, 14, 16, 18, 20* and *22*)

Figure 11. Differences across countries in odds of resilience 11-year-old students living in non-intact families (N=5002)

Note: AT=Austria, BE-VLG=Belgium (Flemish), CZ=Czech Republic, DE=Germany, DK=Denmark, EE=Estonia, ENG=England, ES=Spain, FI=Finland, FR=France, HU=Hungary, IE=Ireland, IT=Italy, LT=Lithuania, LV=Latvia, NL=Netherlands, PL=Poland, PT=Portugal, SCT=Scotland, SE=Sweden, SI=Slovenia, WLS=Wales

Figure 12. Differences across countries in odds of resilience for 11-year-olds living in non-intact families, after controlling for gender, FAS, and psychosocial variables (N=5002)

Note: AT=Austria, BE-VLG=Belgium (Flemish), CZ=Czech Republic, DE=Germany, DK=Denmark, EE=Estonia, ENG=England, ES=Spain, FI=Finland, FR=France, HU=Hungary, IE=Ireland, IT=Italy, LT=Lithuania, LV=Latvia, NL=Netherlands, PL=Poland, PT=Portugal, SCT=Scotland, SE=Sweden, SI=Slovenia, WLS=Wales
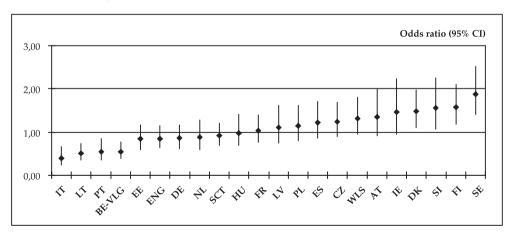
Figure 13. Differences across countries in odds of resilience 13-year-old students
living in non-intact families (N=5790)

Note: AT=Austria, BE-VLG=Belgium (Flemish), CZ=Czech Republic, DE=Germany, DK=Denmark, EE=Estonia, ENG=England, ES=Spain, FI=Finland, FR=France, HU=Hungary, IE=Ireland, IT=Italy, LT=Lithuania, LV=Latvia, NL=Netherlands, PL=Poland, PT=Portugal, SCT=Scotland, SE=Sweden, SI=Slovenia, WLS=Wales
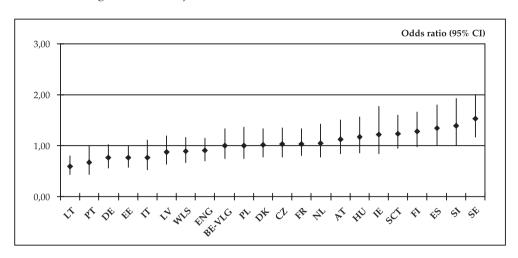
Figure 14. Differences across countries in odds of resilience for 13-year-olds
living in non-intact families, after controlling for gender, FAS,
and psychosocial variables (N=5790)

Note: AT=Austria, BE-VLG=Belgium (Flemish), CZ=Czech Republic, DE=Germany, DK=Denmark, EE=Estonia, ENG=England, ES=Spain, FI=Finland, FR=France, HU=Hungary, IE=Ireland, IT=Italy, LT=Lithuania, LV=Latvia, NL=Netherlands, PL=Poland, PT=Portugal, SCT=Scotland, SE=Sweden, SI=Slovenia, WLS=Wales
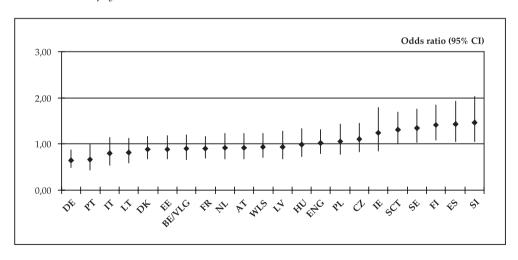
Figure 15. Differences across countries in odds of resilience 15-year-old students living in non-intact families (N=5917)

Note: AT=Austria, BE-VLG=Belgium (Flemish), CZ=Czech Republic, DE=Germany, DK=Denmark, EE=Estonia, ENG=England, ES=Spain, FI=Finland, FR=France, HU=Hungary, IE=Ireland, IT=Italy, LT=Lithuania, LV=Latvia, NL=Netherlands, PL=Poland, PT=Portugal, SCT=Scotland, SE=Sweden, SI=Slovenia, WLS=Wales
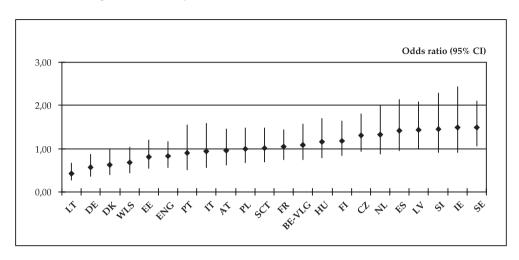
Figure 16. Differences across countries in odds of resilience for 15-year-olds living in non-intact families, after controlling for gender, FAS, and psychosocial variables (N=5917)

Note: AT=Austria, BE-VLG=Belgium (Flemish), CZ=Czech Republic, DE=Germany, DK=Denmark, EE=Estonia, ENG=England, ES=Spain, FI=Finland, FR=France, HU=Hungary, IE=Ireland, IT=Italy, LT=Lithuania, LV=Latvia, NL=Netherlands, PL=Poland, PT=Portugal, SCT=Scotland, SE=Sweden, SI=Slovenia, WLS=Wales
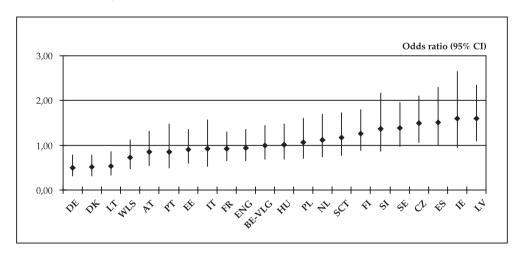
*Figure 17. Differences across countries in odds of resilience for 11-year-olds
living in low FAS families (N=8018)*

Note: AT=Austria, BE-VLG=Belgium (Flemish), CZ=Czech Republic, DE=Germany, DK=Denmark,
EE=Estonia, ENG=England, ES=Spain, FI=Finland, FR=France, HU=Hungary, IE=Ireland, IT=Italy,
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SI=Slovenia, WLS=Wales
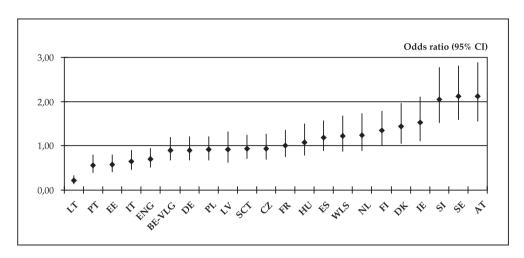
*Figure 18. Differences across countries in odds of resilience for 11-year-olds
living in low FAS families, after controlling for gender,
family structure and psychosocial variables (N=8018)*

Note: AT=Austria, BE-VLG=Belgium (Flemish), CZ=Czech Republic, DE=Germany, DK=Denmark,
EE=Estonia, ENG=England, ES=Spain, FI=Finland, FR=France, HU=Hungary, IE=Ireland, IT=Italy,
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SI=Slovenia, WLS=Wales
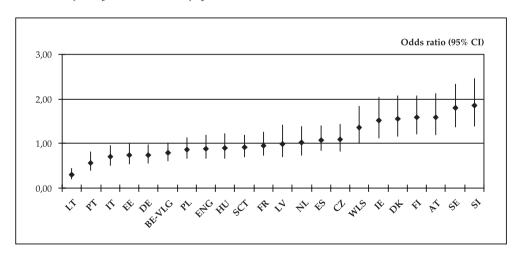
Figure 19. Differences across countries in odds of resilience for 13-year-olds living in low FAS families (N=8610)

Note: AT=Austria, BE-VLG=Belgium (Flemish), CZ=Czech Republic, DE=Germany, DK=Denmark, EE=Estonia, ENG=England, ES=Spain, FI=Finland, FR=France, HU=Hungary, IE=Ireland, IT=Italy, LT=Lithuania, LV=Latvia, NL=Netherlands, PL=Poland, PT=Portugal, SCT=Scotland, SE=Sweden, SI=Slovenia, WLS=Wales
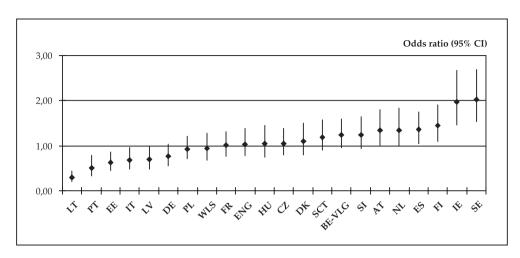
Figure 20. Differences across countries in odds of resilience for 13-year-olds living in low FAS families, after controlling for gender, family structure and psychosocial variables (N=8610)

Note: AT=Austria, BE-VLG=Belgium (Flemish), CZ=Czech Republic, DE=Germany, DK=Denmark, EE=Estonia, ENG=England, ES=Spain, FI=Finland, FR=France, HU=Hungary, IE=Ireland, IT=Italy, LT=Lithuania, LV=Latvia, NL=Netherlands, PL=Poland, PT=Portugal, SCT=Scotland, SE=Sweden, SI=Slovenia, WLS=Wales
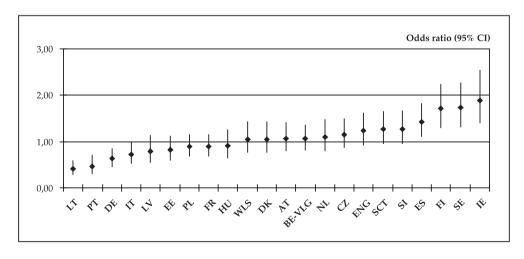
Figure 21. Differences across countries in odds of resilience for 15-year-olds living in low FAS families (N=9438)

Note: AT=Austria, BE-VLG=Belgium (Flemish), CZ=Czech Republic, DE=Germany, DK=Denmark, EE=Estonia, ENG=England, ES=Spain, FI=Finland, FR=France, HU=Hungary, IE=Ireland, IT=Italy, LT=Lithuania, LV=Latvia, NL=Netherlands, PL=Poland, PT=Portugal, SCT=Scotland, SE=Sweden, SI=Slovenia, WLS=Wales
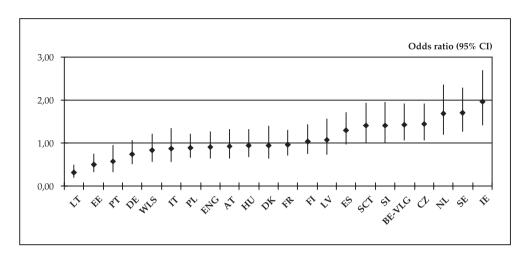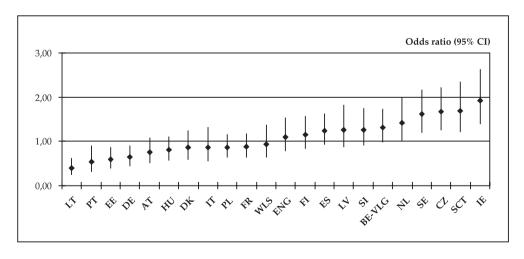
Figure 22. Differences across countries in odds of resilience for 15-year-olds living in low FAS families, after controlling for gender, family structure and psychosocial variables (N=9438)

Note: AT=Austria, BE-VLG=Belgium (Flemish), CZ=Czech Republic, DE=Germany, DK=Denmark, EE=Estonia, ENG=England, ES=Spain, FI=Finland, FR=France, HU=Hungary, IE=Ireland, IT=Italy, LT=Lithuania, LV=Latvia, NL=Netherlands, PL=Poland, PT=Portugal, SCT=Scotland, SE=Sweden, SI=Slovenia, WLS=Wales

Besides individual level variables, country level contextual factors (GDP, Gini, Expenditure on social protection) might also contribute to differences among the rates of resilient children in the at risk groups.

For examining whether these macro-level variables can explain differences between countries in the rate of resilience separate multilevel random intercept models were tested for each macro-variable in each age group. The models consisted of the following predictors: the risk variables (non-intact family and low FAS family), gender, psychosocial predictors (talking to parents, school pressure, classmate support, time out with friends, talking to friends), the given macro variable (GDP or GINI or Expenditure on social protection), controlled for post-socialist country status. As in the models discussed above, in order to avoid the threat of country-level variables reflecting only the post-socialist – non-post socialist dichotomy, the model was also controlled for a variable indicating this difference. These models informed us on the influence of contextual variables on the level of resilience. Odds ratios for each macro-variable are presented in *Table 9.*

Table 9. Odds ratios of macro-level variables for resilience of 11-, 13- and 15-year-old students living in non-intact, and in low FAS family

Odds Ratio and [95% CI] for:	Students in non-intact families			Students in low FAS families		
	11 years olds N=5002	13 years olds N=5790	15 years olds N=5917	11 years olds N=8018	13 years olds N=8610	15 years olds N=9438
GDP (per capita)[1]	1.57* [1.05-2.34]	1.27 [0.92-1.75]	1.14 [0.72-1.79]	1.77* [1.26-2.48]	1.61* [1.16-2.25]	1.60* [1.09-2.36]
Gini[1]	0.84 [0.70-1.01]	0.93 [0.81-1.07]	1.01 [0.83-1.23]	0.84* [0.71-0.99]	0.88 [0.75-1.04]	0.90 [0.74-1.08]
Expenditure on social protection[1]	1.14 [0.88-1.48]	1.01 [0.83-1.23]	0.86 [0.66-1.11]	1.19 [0.94-1.51]	1.03 [0.82-1.29]	1.01 [0.79-1.31]

[1] Separate analysis for the age-groups in the two risk-groups, controlled for gender, the other risk variable, the psychosocial predictors, and for post-socialist country status
*Factor significant in the models at the p=0.05 level.

In case of students in non-intact families, only GDP per capita has a significant effect for 11-year-old students. One point increase in the standardized GDP (that is 7232 point increase in the GDP per capita) results in around 60% percent increase in the odds of resilience.

For students in low FAS families GDP has a significant effect in all three age groups, the odds ratios being 1.8 for the 11-year-olds and 1.6 for the 13- and 15-year-olds. For 11-year-olds in low FAS families also the coefficient of Gini proved to be significant: one point increase in the standardized GINI (an increase of 4.5 in the raw variable) results in a 15% decrease in the odds of resilience.

6. THE RELATIONSHIP OF PSYCHOSOCIAL PREDICTORS WITH OVERALL GOOD ADJUSTMENT IN THE TWO RISK GROUPS (NON-INTACT FAMILIES AND FAMILIES WITH LOW AFFLUENCE)

To examine whether certain psychosocial variables are related to resilience separate multilevel regression analyses (random intercept models) were carried out for each psychosocial variable in the two risk groups in all age groups. The models consisted of the following predictors: the psychosocial variables (talking to parents, school pressure, classmate support, time out with friends, talking to friends), gender, and the other risk-status variable.

Talking to parents, school pressure, classmates support, and time spent with friends emerged as significant predictors of resilience for both risk status and in every age-group (*Table 10*). Talking with friends is significant only for 11- and 13-year-old adolescents living in non-intact family, and for 11-year-old students living in low FAS family. The variables having the strongest effect on resilience are talking to parents and school pressure variables in both risk and age groups: the effect of the former increases with age from an odds ratio of 2.20 to 3.38 for children living in non-intact families, and from 2.12 to 2.64 for children living in low FAS families. The odds of resilience is between 2.41 and 2.68 times greater for 11- and 13-year-old children not perceiving pressure in school; this ratio is around 1.7 for the 15-year-olds in both risk groups. The time spent with friends was also revealed as an important factor related to resilience, decreasing the odds of resilience with a rate between 11% and 62%. Support from classmates also shows a strong relationship with resilience: 1 point change on the 16 grade scale causing a 22%-25% change in the odds of resilience among the 11-year-olds, which effect decreases to a 13-14% change for the 15-year-olds.

The relationship between psychosocial variables and resilience have shown a similar pattern in the two risk groups: major differences were

detected only in the case of talking to parents among the 13- and 15-year-olds, school pressure for the 11-year-olds, and time spent out with friends among the 15-year-olds.

The direction of relationships remains similar but a bit smaller in magnitude even after controlling for the other psychosocial predictors, expect for talking to friends, that turned into non-significant in this case.

Table 10. *Odds Ratios of predictor variables for resilience for 11-, 13- and 15-year-old students living in non-intact families and for 11-, 13- and 15-year-old students living in low FAS families*

Predictors[1]	Odds Ratio and [95% CI] for:					
	Students in non-intact families			Students in low FAS families		
	11 years Olds N=5002	13 years Olds N=5790	15 years Olds N=5917	11 years Olds N=8018	13 years Olds N=8610	15 years Olds N=9438
Talks easily to parents (ref: hasn't got any parental figure to talk easily)	2.20 [1.73-2.80]	2.47 [1.94-3.13]	3.38 [2.37-4.81]	2.12 [1.76-2.55]	2.52 [2.11-3.01]	2.64 [2.16-3.24]
No pressure in school (ref: some or lot pressure in school)	2.68 [2.29-3.14]	2.57 [2.20-3.01]	1.73 [1.43-2.09]	2.47 [2.18-2.79]	2.41 [2.14-2.71]	1.77 [1.56-2.02]
Classmates' support (scale: higher score indicates higher support)	1.25 [1.21-1.29]	1.16 [1.13-1.20]	1.14 [1.09-1.18]	1.22 [1.19-1-25]	1.17 [1.14-1.20]	1.13 [1.09-1.16]
Spends 4 or more days weekly out with friends (ref: spends 0-3 days weekly with friends after school or in the evenings)	0.89 [0.78-1.00]	0.63 [0.55-0.72]	0.38 [0.32-0.46]	0.84 [0.76-0.93]	0.66 [0.59-0.73]	0.55 [0.48-0.62]
Talks easily to friends (ref: hasn't got any friends to talk easily)	1.29 [1.11-1.49]	1.25 [1.04-1.50]	0.91 [0.70-1.18]	1.27 [1.14-1.42]	1.12 [0.98-1.28]	0.97 [0.81-1.16]

[1] Separate analysis for each predictor, for the age-groups in the two risk-groups, controlled for gender and the other risk variable

To examine whether the impact of psychosocial variables is the same for all age groups, interaction of age with predictors was tested subsequently for each psychosocial factor controlling for the effect of family structure or FAS among children living in low FAS families or non-intact families,

respectively. A significant age-interaction was found for all of the five psychosocial factors. The impact of talking to parents, and time spent with friends become stronger with age, the impact of school pressure, the support of classmates and talking to friends on the other hand become weaker with age.

We were also interested in whether there are cross-national differences in the effect of these psychosocial factors. Thus, random coefficient models were applied to test for these differences: in each age and risk group a separate model was run for each psychosocial dimension allowing for its cross-national variation. These models were controlled for age, for the possible effects of FAS or family structure, and for the psychosocial factors. According to our results, there were no significant cross-national differences found in these models.

7. TESTING RISK-SPECIFIC IMPACT OF PREDICTORS

To examine whether predictors have similar effects also in the non-risk groups interactions were tested between risk-status and psychosocial factors predicting good adjustment. These analyses were also run separately for the three age groups, controlled for gender, and the other risk-status variable.

Among 11-year-olds the impact of classmate support is significantly different for students living in intact vs. non-intact families: in the latter group it is slightly stronger. For 13-year-old students a similar relationship has been found between classmate support and FAS: the impact of this predictor is slightly stronger for students living in low FAS families than for those in more affluent families. The impact of school pressure on resilience is stronger in both risk-groups than in the non-risk groups among 13-year-old student. For 15-year-old students the effect of time spent with friends differs across risk-status, but the direction is diverse for family structure and fa-mily affluence: it is stronger in non-intact family than in intact family, and it is weaker in low FAS family than in middle/high FAS family (*Table 11*). The other predictors have similar effects in the risk and non-risk groups.

Table 11. Significant risk – predictor interactions

Predictors	Odds Ratio [95% CI]
11-year-olds: High classmate support (scale) **N=26055**	
in intact families	1.21 [1.19-1.22]
in non-intact families	1.25 [1.22-1.29]
13-year-olds: High classmate support (scale) **N=27548**	**Odds Ratio**
in middle/high FAS families	1.14 [1.12-1.16]
in low FAS families	1.17 [1.15-1.20]
13-year-olds: No pressure in school **N=27548**	**Odds Ratio**
in intact families	1.98 [1.85-2.11]
in non-intact families	2.53 [2.17-2.95]
in middle/high FAS	1.91 [1.78-2.05]
in low FAS families	2.51 [2.23-2-82]
15-year-olds: Spends 4 or more days weekly out with friends **N=26925**	**Odds Ratio**
in intact families	0.50 [0.47-0.54]
in non-intact families	0.39 [0.32-0.47]
in middle/high FAS	0.46 [0.42-0.50]
in low FAS families	0.55 [0.49-0.63]

IV. DISCUSSION AND LIMITATIONS

The goal of this analysis was to explore resilience of young people living in non-intact or in low SES families using data of the 2001/2002 HBSC survey. For that purpose we tried to define good adjustment including several domains of functioning of adolescents measured within the HBSC survey.

Presumably, because of using rather strict criteria for defining good adjustment, our results show, that overall adjustment is not at all common in adolescence, moreover it becomes less and less characteristics in older age groups. Even among youths living in intact and more affluent families the rate of well adjusting students is only about 30 percent. Highest proportion (nearly 40%) of well adjusted students can be identified among 11-year-old girls, while 15-year-old boys show the lowest rate (14.5%). This result is in line with the notion that considers adolescence to be a vulnerable period of life, because of rapid and often dramatic changes at this age in nearly every domain of young people's life (Steinberg et al., 2005). Most adolescents cope successfully with these developmental demands and do not show extremes of maladaptation, nonetheless adolescence typically can be characterized by more turmoil than either childhood or adulthood (Resnick et al., 1997). For example, mood disruptions and increased risk taking are not atypical during this period of development. Thus, the boundaries between normal and abnormal things become less clear in adolescence (Cicchetti & Rogosch, 2002). It follows from the forgoing that our criteria for good adjustment, especially for older students are too strict. Experimentation with some substances (e.g. with tobacco and alcohol) can be regarded as normative for 15-year-olds.

On the other hand in this study we focused only on the impact of two risk factors, namely living in non-intact family and living in less affluent family.

It is conceivable that students classified as being not at-risk might have experienced other kinds of risk or stresses (e.g. negative life events) not examined in this study, that could have adversely influenced their adjustment. It has been also suggested that problematic but intact families are more deteriorative for youths' adjustment, than well functioning non-intact families (Noak et al., 2001; Spruijt et al., 2001). However there is some evidence that young people who are well adjusted as adolescent, and exhibit no behavioural or mental problems are likely to show good adjustment even later in life (Aquilino & Supple, 2001; Werner & Smith, 1992).

In line with the literature living in non-intact family (e.g. Amato & Keith, 1991; Garnefski & Diekstra, 1997; Hetherington, 1993) or living in less affluent family (McLoyd, 1998; White, 1982) proved to be related to lower chance of good adjustment in our study, even if the impact of certain psychosocial factors were controlled. Thus, the relationship between living in non-intact or low SES family and adjustment cannot be completely explained for example by quality of parent-child relationship, that is supposed to be one of the mediators of this relationship (e.g. Berger, 2004; Kim & Brody, 2005; Kurdek & Fine, 1993).

The relationship of family structure and adjustment is robust across countries. Living in less affluent family is also related to less positive adjustment, whereas the magnitude of this relationship differed significantly across the European countries in this study. Some macro-level features of the countries (economic position, income inequality and expenditure on social services) proved to influence the impact of family affluence on good adjustment. Evidently, the better the economic situation of the country and the lower the income inequality, the weaker the impact of family affluence on good adjustment. With higher national expenditure on social care this impact also decreases, that refers to a possible positive impact of policy efforts to provide high quality social services. On the other hand, countries with higher GDP are presumably in a situation to be able to spend more on social care, although this association hasn't been tested in this study.

Nearly one out of five students living in non-intact families and one out of four students living in less affluent families have been classified as showing resilient adaptation by our criteria. Some characteristics of family, school and peer environment, examined in this study are related to good adjustment, and their impact seems to be similar in both risk-groups. Talking to one of the parents as an indicator of child-parent relationship quality is related to resilience. If disadvantaged students have a parent, to whom they can easily talk about their problems, they have a higher chance to be

resilient. Positive emotional relationship with parents has been identified in several studies as protective factor for adjustment of young people either in at-risk, or in normative samples (Beyers & Goossens, 1999; Heaven et al., 2004; Jacobson & Crockett, 2000; Hetherington & Elmore, 2003; Shucksmith et al., 1995; Werner & Smith, 1992, 2001; Wilkinson & Walford, 2001).

It is also well documented that school environment has a strong influence on physical, emotional, and social well-being, and acts on other aspects of adjustment, as well (Garnefski & Diekstra, 1996; Lerner & Galambos, 1998; Roeser et al., 1996). Our results are in line with this, namely high classmate support and low pressure in school are related to higher level of resilience. Moreover, there is some evidence that positive (e.g. authoritative) school environment can compensate for the negative impact of adverse family background under some conditions (Hetherington, 1993; Werner & Smith, 1992). In our study school pressure had a stronger impact for at-risk groups. This underpins the fact that for disadvantaged adolescents it is more important not to experience school demands as highly stressful.

Relationship with peers play a crucial role in adolescence: acceptance and love of friends is fundamental for healthy development at this age (Berndt, 1992; Gifford-Smith & Brownell, 2003). However, association between peer relationship and adjustment is rather complex (Cohen, 1979; Nic Gabhainn & Francois, 2002; Settertobulte, 2002). Our results show, that spending much time with friends after school or in the evening is related to lower chance to be resilient. Presumably, spending too much time with friends in this case refers to spending time without adult supervision in an unstructured way or in the company of deviant peers (Mahoney & Stattin, 2000; Sussman et al., 2007). Significant but diverse risk-predictor interactions were found between the two risk status and time spent with friends. Students from non-intact families who spend much time with friends have lower chance to show resilient adaptation, than their peers from intact-families. Studies focusing on adolescents experiencing divorce and remarriage of their parents show, that when disengagement from family relationships is connected with increased involvement with delinquent peers, adolescents are at greater risk for developing problems (Hetherington & Elmore, 2003; Neher & Short, 1998). Interestingly, in case of FAS we found an inverse relationship: for students living in more affluent families this variable seems to be a stronger predictor than for students living in less affluent families. Time spent with friends may have a different meaning or purpose in these two groups. For disadvantaged students from less affluent families time spent with friends outside home may be a way of escaping from poor home environment.

The impact of the psychosocial factors tends to be robust, showing similar effects in all countries and in both risk-groups, that supports the notion about general human adaptation system, which states that some factors (e.g. positive relationship with parents, positive, supportive and stress-free school environment) are central sources of positive adaptation (Masten & Coatsworth, 1998; Masten & Powell, 2003).

An age-dependent variation in the association of pychosocial predictors and resilience was found in both risk-groups. The impact of talking to parents and time spent with friends become stronger with age, the impact of school pressure, the support of classmates, and talking to friends on the other hand become weaker with age. These findings are in line with results showing that although the importance of peer groups increases dramatically over adolescence, the quality of parent-child relationships remain also significant for adolescents' functioning (Eccles et al., 2003). On the other hand, studies show that in this life cycle there is a typical decline in parent-adolescent closeness, and especially, in the amount of time adolescents and parents spend together (Jackson et al., 1998; Lynch & Cicchetti, 1997; Paikoff & Brooks-Gunn, 1991; Steinberg & Morris, 2001). If, despite of this tendency the parent-child relationship remains stable and close for disadvantaged adolescents, it can provide support and possibility for these youth to discuss very important issues of life arising in this period (e.g. questions related identity, career choices, romantic relationships) with parents. These findings implicate that by adequately timing interventions for given age groups specific domains of psychosocial environment can be targeted.

LIMITATIONS

Defining good adjustment isn't an easy objective, and it is a constant target of discussion in resilience research (Heller et al., 1999; Luthar & Zelazo, 2003). Some authors emphasize the importance of considering age-specific features by defining adjustment and competence, because the salience and appearance of developmental tasks, which have to be fulfilled, vary across different developmental periods (Masten & Coatsworth, 1998; Obradovic et al., 2006). For example, Arthur et al. (2007) apply a different definition for positive behaviour related to substance use for 6th grade students than for older student, in later case accepting experimentation, as well. In accordance with this notion the adjustment definition used in this study could have been also more age-specific in this respect. By choosing a unified definition

in every country and in every age group the comparison was possible. A second limitation relating the definition of good adjustment is that other domains of functioning could have also been considered. For example, peer competence was measured in this study only indirectly, namely by bullying. In this respect our opportunities were a bit limited as only mandatory items of the 2001/2002 HSBC survey could have been used. Still a complex and comprehensive index of good adjustment covering many aspects of adolescents' functioning was created in this study. It is important to note, that success in particular domains of functioning examined here cannot be assumed to generalize to other important areas.

Some authors argue that resilience should rather be regarded as a continuous than a dichotomic feature. Applying a person-focused approach by classifying student as resilient (Masten et al., 1999) enabled us to compare prevalence rate of actually resilient individuals, that was one of our main goal. However, although we use the adjective "resilient" for students, it refers not to a personality trait but rather to a profile or trajectory at a given time.

By conceptualizing and operationalizing risk status, family structure and low family affluence were used. Both conditions are relatively common and prevalent (e.g. low FAS per definition), affecting many adolescents' life. In addition, we couldn't measure this risk condition more in details, thus our risk groups might be rather heterogeneous. For example, students in non-intact families live either in a single-parent or in a stepfamily. In case a parent is missing, it is not possible to identify its background (divorce, death of a parent, or having never lived with both biological parent). Nor do we know the time and frequency of possible family transitions, while these features of the family structure may have an important influence on adjustment of children. The low FAS group is also diverse, presumably including not only families living in deep poverty, but even families of bit better financial condition.

Though we found some important associations between resilience and certain psychosocial factors, other predictors may also be significant. Many studies have confirmed the relevance of certain personality factors (e.g. optimism, self-efficacy, good self-regulation skills, etc.) in predicting good adjustment and resilience (for review see Masten & Coatsworth, 1998; Masten & Powell, 2003). This study was limited to mandatory variables used in HBSC, thus examining the impact of such personality dimensions was not possible. One major advantage of HBSC study is the broad examination of many contexts of adolescents' life, but it has its cost: it is impossible to examine the single domains in deep details. That's why robust and general associations could have been detected.

As the study groups were representative samples of students, any adolescent who dropped out of school or did not attend school at all remained unrepresented. So it is unclear to what extent the findings are generalizable to such a drop-out group. This missing group is of big importance relating our research theme, because drop-outs may carry an elevated risk for emotional and behavioural problems.

Another limitation is that data were collected by use of only a self-reported questionnaire, so there were no independent ratings, for example by parents or by teachers. And finally, the cross-sectional design doesn't allow us to conclude about causality.

CONFERENCES AND WORKSHOPS ON RESILIENCE

I. IN GENERAL

In order to disseminate knowledge about resilience 5 conferences were organized in the five largest cities of Hungary (Budapest, Szeged, Miskolc, Győr, Pécs) with the following objectives:

- To introduce experts the concept of resilience
- To understand the applied research method
- To talk about the possible protective and risk factors relevant to the Hungarian youths
- To organize quality workshops elaborating resilience data and approach

The participants of the conferences were school doctors, nurses, teachers, school psychologists, higher education teachers, health educators, social workers, family care providers, social care professionals and special education teachers. All the events were held in comfortable and quality conference venues allowing experts to work in a pleasant environment. The conference script was the same in all cases taking the possible unique features of the audience into account.

II. THE PRESENTATIONS

All of the five conferences started with an introduction and some forewords. It was followed by four presentations gradually introducing the resilience approach and the research results.
- First presentation by *Ágota Örkenyi* (psychologist, National Institute of Child Health, ELTE University of Budapest, Faculty of Social Sciences) outlined the resilience concept itself, its origins and the main theoretical background, as well as the basic studies in the resilience field and the protective factors according to the developmental stages.
- Next presentation was by *Ágnes Németh* Ph.D. (human biologist, PI for the Hungarian HBSC, National Institute of Child Health) informing the audience about the research data set (the HBSC study) and the survey method as well as quoted the descriptive data of resilience risk variables namely the distribution of FAS, SES and family structure variables.
- The third presenter was *Dora Várnai* (psychologist, National Institute of Child Health, 'Kaesz Gyula' Technical School for Wood Industry) about the 2005/2006 descriptive HBSC data on risk behaviour (e.g. tobacco

smoking, alcohol consumption, drug use and bullying) and their relation to the FAS and family structure).

- The last presentation by *Gyöngyi Kökönyei* (psychologist, National Institute of Child Health, ELTE University of Budapest, Department of Personality and Health Psychology) discussed briefly the typical features of adolescence, the main mental health indicators in the light of resilience variables as well as the result of the resilience model (e.g. the risk and resilience criteria, the outcome variables and the predictors).

III. THE WORKSHOPS

The presentations were followed by one and half hour-workshops. The participants were organised into five parallel workshops with five facilitators. The workshops were well-structured and participants were provided with a workshop exercise book.

The objectives of the workshops were as follows:

- To include some redundant information about resilience – to repeat some relevant data from different aspects that may help the information to deepen.
- To develop an understanding towards the attitude and concepts of those experts working in the field.
- To stimulate a dialogue between theory, research and practice.
- To mix individual exercise, pair work and small group work in order to help experts working in the same area to communicate with each other.
- To enjoy the workshops.

The workshop structure was the following after a short warm-up group building exercise.

- *Exercise 1.:* to collect things (e.g. behaviour, symptom, etc.) that refer to good adjustment vs. maladjustment – individual exercise.
- *Exercise 2.:* to divide the identified adjustment signs according social/ education/health/individual assets/domains – pair work.
- *Exercise 3.:* to discuss the result of the pair work together with the group and visualize it on a flipchart.

- *Exercise 4.:* HBSC quiz – empty charts, scales, diagrams and quiz questions on the most important lifestyle variables – individual work and the solutions were distributed on a separate sheet.
- *Exercise 5.:* Case study – in small group participants should have presented a carrier of a resilient or non resilient adolescent/child from their own practice, first they should remember and collect cases, select one from them and choose a rapporteur.

The conference was closed with a short feedback from the workshop, summary and some future possibilities.

IV. THE LESSONS OF THE WORKSHOPS

Participants were generally very active, interested and had many questions.

- Participants identified various signs, features of resilience (see below) emerging from their experience in the field work. Sometimes it was hard to distinguish between signs of resilience or resilient behaviour (e.g. lack of psychosomatic complaint) or background variable (e.g. good communication within the family).
- Often there is an overlap between the health/individual/social/ education domain and it is hard to categorize certain indicators.
- It was a recurrent issue how we can determine adjustment and how adjustment can be applied in different domains in life, e.g. a student can be well adjusted in school but inadequate in peer relationships.
- Resilience is a dynamic process, it changes over lifetime: in some situations individuals prove to be resilient at other life events they cannot show resilience
- The solid basis of resilience is a well balanced self esteem that can be facilitated by adequate feedback, by concentrating on successes etc.
- Issues about the moral character of resilience emerged: e.g to adjust real world challenges sometimes involves placing self-interest over public or social interest.
- Another interesting question is the resilience of disabled, mentally retarded or chronic ill children.
- Experts often determined the key issue of resilience the ability to seek for support. Sometimes professionals are ready to help, offer their service but individuals do not accept it.

- The main difficulties when working with disadvantaged populations are lack of experts (e.g. well trained psychologist), unclear competencies, lack of funding, teamwork often fails.
- In the case studies participants were able to identify resilient as well as non resilient careers. The success was often attributed to effective cooperation of the social care system or indefinable factors like luck.
- The issue of resilience of teacher, health and social care workers as well as burnout emerged.

Some factors of resilience mentioned by the workshop participants:

ADJUSTMENT	MALADJUSTMENT
HEALTH	
stress tolerance, smiling, beauty, neatness healthy lifestyle, good hygiene, health conscious behaviour, fitness, lack of mental problems, balance, body satisfaction, physical activity, subjective well being, self acceptance, resistant body, fulfilment of developmental tasks adequate to age, regular meals, attends GP when needed, takes a good care of him/herself, good immunity	anxiety, depression, chronic illness, ADHD, substance use (smoking, drinking, drugs), obesity, suicide attempt, psychosomatic complaints, aggression, eating disorders, low compliance, computer dependency, disease orientation - frequent consultancy with doctors, attends school when sick, enuresis, encopresis, undue medication, teenage pregnancy, sleeping disorders, too early sexual life, doesn't attend screening examination, delayed motor and verbal development in childhood, obstipation, rejection of immunization
EDUCATION	
good observing skills, stamina, talent, good school achievement, independence, goal orientation, attention can be concentrated, good communication skills, task orientation, even distribution of school achievement over a time period, liking school and learning, being interested, success orientation, likes reading, values culture, literacy, active in school, motivated, positive attitude towards teachers, school, classmates, participation in school activities, information seeking, intelligence, competency, higher education aspirations, diligency	bad school achievement, hard to handle, overly withdrawn, opponent, resistant, disorganised, uninterested, disruptive, uneven school achievement, truancy, absenteeism, norm violation, learning disorders, cursing, worse achievement than expected based on abilities, negative attitude towards teachers, misbehaviour, non adequate career choice, unmotivated, lack of concentration, dyslexia, dysgraphia, memory problems, school failure

SOCIAL	
conformist, friendly, initiative, open minded, good at conflict management, calm, helpful, curious, honest, tolerant, attachment needs, good relations to peers, family members, teachers, good communication skills, cooperative, participation in household activities, religious, has relation to relatives, participation in social activities, has a hobby, respect for others, is able to organise leisure time, fairness, adjustment to social norms	aggression, easy to influence, delinquent behaviour, conduct disorder, bullying, victimization, gang, social isolation, theft, impairment of the physical environment, mendacity, dating violence, prostitution, dysfunctional family attachment, withdrawn, overly introverted, loneliness, overly assertive or narcissist, too strong desire to fill the requirements, relationship problems, youth cultures, separation, problematic peer relations, self-pity, low verbality, early leaving of the family, lack of responsibility, crime-homicide

INDIVIDUAL	
realistic self evaluation, has her/his opinion, is able to say 'no', is able to cope with failures, overall satisfaction, well balanced, conflict management, tolerance, politeness, has an example in life, cheerful, is able to accept help or support, creative, emotional control, religious, is able to talk about problems, altruism, self determined, optimism, planning, readiness to compromise, good verbality, autonomy, realistic about the life, assertive, moral values, empathy, problem solving skills, talkative, loving, decision skills, positive attitude in the life, patience, skills to harmonize expectations and possibilities, will power, self reflection, impulsion control, generosity, wisdom, flexibility, sense of humour, to be individual and unique, to be able to accept criticism, solid value system	lack of self esteem, unrealistic self evaluation, pessimism, dissatisfaction, impulsive, lack of future orientation, insensitivity, envious, touchiness, oversensitivity, indecisiveness, unrealistic expectations from life/from self, is unable to adopt changes in life, irritability, boredom, bitterness, mistrustful, lack of insight, repression, passivity, lack of will power, is unable to feel happiness, bored of life, non adequate expressionof emotions, sensory seeking, misinterpretation of information, overly self criticism

POLICY IMPLICATIONS

As we had data comparing different countries with different socio-cultural and socio-economic background we can formulate our recommendations both on international and national levels.

Recommendations on the international level

- GDP, Gini, Expenditure on Social Protection and life circumstances – including wealth and structure of family and social support from the family, peers, and the school environment – influence adjustment so reducing inequalities and spending on health, education and social affairs, particularly among those in disadvantaged circumstances, remains a priority for international and national policies.
- Intersectoral approach, communication and partnerships between various sectors involved in inequalities (social, welfare, labour, education, health etc.) is more likely to be effective even if it is hard to realize.
- The reduction of health inequalities, support of adjustment and improvement of health can only be successful by concreted efforts at several levels (international, national, regional, local).
- Regarding prevention and intervention it is useful to consider both risk focused models (aim is to eliminate factors that increase the risk for problems) and protective focus models (identify factors that protect against the problem) and develop comprehensive approach that is varied by personality, age and context with focus on proven risk and protective processes (e.g. academic achievement, child abuse, depression, suicide, juvenile delinquency).
- Prevention strategies should take media influences into account and facilitate school attachment and support in coping with school failure.

- At the international level, networking is important so that countries with poor health and health behaviour can learn from the experience of those in which improvement have been made.
- Reducing inequalities should start with the family planning, and later on with parent education and family support.
- Youth participation: there is an urgent need to place more importance on the experience of young people themselves in decision making on the most appropriate and effective means of action.
- Current national and international policies emphasise community based approaches – sources of support coming from the extended family, neighbourhood and local community – to empower the groups at particular risk and ensure the participation of target groups.

Recommendations on the national level – (considering international level recommendations too)

- The controlling system (local municipalities) for implementation of those elaborated in school health promotion plans should be developed and given more emphasis.
- Schools from disadvantaged regions should be supported in attaining financial resources at tendering (establishment of adequate tendering system).
- According to the Enactment the health promotion normative support for schools should be included when planning the budget.
- Prevention of tobacco smoking, alcohol consumption and drug abuse should be handled together based on the background personality variables.
- Certain broadcasting policies should be restructured in their content.
- It is recommended to ease the administration burden of teachers and provide protection from burnout in order to facilitate positive school climate as a possible setting to counterbalance adverse family effects.
- Early development therapies should be available for all children especially those living in disadvantaged financial or family environment to ensure basic developmental stages and tasks to be fulfilled at a proper age.
- Continuation of national programs targeting childhood social inequalities, child and adolescent health as well as early development.
- Support of the NGOs and regional cooperation.

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APPENDIX

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1. RISK VARIABLES

Table 1. Rates of students by family structure and FAS tertiles*

Country	Family structure					FAS categories (%) (tertiles by country)			
	N Total	%			N Total	%			
		Intact	Single-parent	Step-family		Low	Middle	High	
Austria	4326	80.5	12.6	6.9	4284	35.1	41.3	23.6	
Belgium (Flemish)	6040	83.1	9.3	7.6	6089	35.7	40.1	24.2	
Czech Republic	4885	74.5	13.6	11.9	4934	37.5	22.0	40.5	
Germany[1]	5520	78.0	13.0	9.0	5475	33.5	38.7	27.8	
Denmark	4030	69.9	16.7	13.4	4565	28.8	42.3	29.0	
Estonia	3909	73.5	17.8	8.6	3936	32.4	39.6	27.9	
England	5807	69.6	17.5	12.9	5823	31.5	42.7	25.8	
Finland	5168	74.4	14.7	10.9	5269	34.0	42.3	23.7	
France	7933	79.6	11.2	9.3	8036	31.2	39.7	29.2	
Hungary	4046	79.8	13.7	6.5	4089	34.6	36.0	29.4	
Ireland	2814	86.4	10.4	3.2	2849	39.5	20.8	39.7	
Italy	4194	90.9	7.1	2.0	4311	24.5	40.0	35.5	
Lithuania	5512	79.5	13.7	6.8	5427	28.1	32.8	39.1	
Latvia	3219	71.8	19.4	8.8	3401	33.5	34.0	32.4	
Netherlands	4176	83.7	10.8	5.4	4183	23.9	42.7	33.4	
Poland	6292	87.3	10.3	2.4	6348	35.2	37.4	27.3	
Portugal	2713	85.4	10.1	4.5	2846	27.4	36.9	35.7	
Scotland	4289	70.8	16.8	12.4	4233	36.9	21.6	41.4	
Sweden	3788	70.6	17.0	12.5	3839	42.0	20.8	37.2	
Slovenia	3853	87.6	8.7	3.6	3926	35.0	21.8	43.2	
Spain	5668	88.0	9.2	2.8	5741	38.2	20.2	41.6	
Wales	3746	69.9	15.8	14.3	3602	31.6	42.4	26.1	
TOTAL	*101928*	*79.0*	*13.0*	*8.0*	*103206*	*33.2*	*34.9*	*31.9*	

[1] (Berlin, Hessen, North Rhine-Westphalia and Saxony)

* Note, that these percentages are related only to those living with at least one biological parent, whilst those living without any biological parents are excluded (1.5%).

2. INDICATORS OF GOOD ADJUSTMENT

*Table 2.1. Rates of students having very good/good academic achievement by age
in the total sample and in the two risk groups*

Country	Total sample				Non-intact families				Low FAS families			
	N	%			N	%			N	%		
		11-y	13-y	15-y		11-y	13-y	15-y		11-y	13-y	15-y
Austria	4334	82.9	59.4	47.1	821	78.6	48.0	41.3	1466	81.1	57.3	45.7
Belgium (Fl.)	6255	64.9	52.8	49.8	1012	53.0	42.7	43.7	2158	59.5	50.6	48.9
Czech Rep.	4969	55.2	53.5	54.0	1233	52.1	49.2	47.1	1838	50.2	47.3	48.0
Germany[1]	5483	63.1	41.2	36.8	1182	59.8	38.5	29.5	1797	60.2	37.6	35.1
Denmark	4494	81.6	64.7	55.3	1161	78.6	56.8	46.5	1266	78.8	59.5	49.5
Estonia	3969	52.0	45.3	39.6	1033	49.7	42.7	32.6	1275	52.8	42.8	35.7
England	5986	66.5	62.1	60.5	1737	59.2	53.9	50.9	1801	64.6	61.1	59.4
Finland	5261	68.7	56.8	49.6	1299	57.1	47.3	39.4	1756	63.3	49.2	42.6
France	8099	66.6	51.4	42.1	1602	59.0	42.1	35.1	2480	57.6	41.6	35.4
Hungary	4024	61.6	52.3	35.1	790	56.9	45.5	34.7	1368	56.2	44.4	31.0
Ireland	2827	67.6	64.7	60.4	373	66.9	51.2	46.5	1104	66.8	59.1	52.5
Italy	4318	62.9	50.2	40.0	373	47.9	39.3	28.9	1039	56.2	39.8	35.0
Lithuania	5622	51.4	49.0	45.1	1128	44.5	45.2	37.1	1513	39.3	40.3	35.3
Latvia	3430	66.7	48.6	44.2	898	64.6	44.4	41.4	1125	63.9	43.2	40.9
Netherlands	4218	61.1	57.0	47.7	672	59.0	49.3	39.4	987	57.7	55.8	45.0
Poland	6274	72.2	62.0	52.9	783	63.5	50.8	45.6	2195	67.3	55.6	48.4
Portugal	2902	54.2	47.1	40.3	392	46.6	34.4	42.5	767	41.8	37.2	26.0
Scotland	4356	63.9	71.5	67.1	1236	57.8	64.0	57.1	1556	61.9	67.8	63.8
Sweden	3855	77.5	66.6	58.6	1102	73.0	59.9	51.6	1579	76.3	66.2	55.4
Slovenia	3899	88.3	71.4	56.6	471	84.1	53.6	51.9	1351	86.8	64.9	55.1
Spain	5775	82.6	64.2	48.5	673	77.0	57.1	44.8	2171	79.4	60.8	45.1
Wales	3706	75.3	67.7	64.6	1077	66.3	61.5	57.7	1108	69.5	66.3	62.3
TOTAL	*104056*	*67.7*	*56.9*	*49.4*	*100274*	*61.4*	*49.6*	*42.9*	*101635*	*64.0*	*52.2*	*45.4*

[1] (Berlin, Hessen, North Rhine-Westphalia and Saxony)

*Table 2.2. Rates of non-smoking students by age in the total sample
and in the two risk groups*

Country	Total sample				Non-intact families				Low FAS families			
	N	%			N	%			N	%		
		11-y	13-y	15-y		11-y	13-y	15-y		11-y	13-y	15-y
Austria	4346	95.8	85.3	55.0	822	95.9	79.3	48.6	1463	95.9	85.5	51.4
Belgium (Fl.)	6260	97.3	86.3	67.7	1019	95.8	79.0	57.1	2164	97.8	85.4	64.0
Czech Rep.	5008	96.1	81.3	64.3	1245	94.8	74.4	54.6	1850	94.8	80.3	63.1
Germany[1]	1730	94.9	77.3	60.4	1207	92.2	66.7	52.8	1825	94.7	77.0	58.9
Denmark	4560	97.9	88.6	72.7	1187	97.6	85.4	63.9	1283	97.6	85.4	73.4
Estonia	3971	94.9	82.3	68.9	1031	92.3	78.2	61.3	1275	95.4	78.0	69.8
England	5972	95.5	80.8	68.5	1730	94.3	73.4	59.5	1798	94.7	80.0	65.5
Finland	5331	98.2	80.7	60.3	1311	96.4	75.8	53.3	1774	98.2	79.1	57.6
France	8155	96.1	87.5	66.8	1611	93.2	81.8	56.6	2494	95.0	87.0	63.1
Hungary	4045	94.2	82.3	61.2	796	93.9	81.0	57.1	1372	93.8	82.6	61.2
Ireland	2853	95.3	90.0	73.5	379	90.1	86.3	68.4	1120	94.3	88.8	71.1
Italy	4341	96.6	85.9	67.6	377	96.7	82.3	60.3	1044	95.1	84.3	63.4
Lithuania	5635	96.3	85.2	61.2	1127	94.5	79.1	53.8	1520	95.4	83.1	62.7
Latvia	3434	96.9	83.3	66.8	898	96.1	80.7	62.4	1127	98.9	84.5	66.8
Netherlands	4254	98.1	86.5	70.8	676	96.1	79.0	61.2	1000	98.1	86.7	71.2
Poland	6301	94.6	83.7	70.0	787	91.0	77.0	62.8	2203	93.6	81.4	68.8
Portugal	2905	95.2	80.1	71.1	395	93.8	70.6	63.0	733	95.1	79.0	68.9
Scotland	4387	97.9	88.3	76.6	1242	97.5	83.3	68.8	1555	97.4	87.0	72.1
Sweden	3870	98.9	88.6	76.2	1099	98.2	81.1	69.1	1583	98.8	86.5	77.4
Slovenia	3907	97.7	91.7	63.2	470	94.1	87.3	63.7	1358	98.6	82.6	63.2
Spain	5799	95.9	86.8	64.5	677	93.0	86.3	57.9	2182	95.2	88.5	64.1
Wales	3862	96.3	84.5	73.2	1122	94.1	78.4	63.5	1130	96.1	83.4	69.0
TOTAL	104801	96.4	84.8	66.8	21208	94.9	78.9	59.2	33893	96.1	84.0	65.3

[1] (Berlin, Hessen, North Rhine-Westphalia and Saxony)

Table 2.3. Rates of students who haven't ever been drunk by age in the total sample and in the two risk groups

Country	Total sample				Non-intact families				Low FAS families			
	N	%			N	%			N	%		
		11-y	13-y	15-y		11-y	13-y	15-y		11-y	13-y	15-y
Austria	4344	92.4	81.2	46.3	823	91.1	74.7	36.2	1464	93.7	81.6	45.3
Belgium (Fl.)	6246	88.3	77.9	49.9	1016	82.3	67.4	41.1	2160	88.4	79.7	49.5
Czech Rep.	4997	92.9	77.2	48.3	1243	89.5	72.9	37.5	1847	93.2	78.0	49.5
Germany[1]	5593	92.0	74.1	43.1	1203	88.7	67.8	34.8	1821	91.1	76.8	44.4
Denmark	4558	88.1	66.3	21.7	1186	85.4	58.0	16.3	1283	89.7	65.8	29.6
Estonia	3975	87.9	63.6	33.1	1032	86.1	59.3	26.3	1276	91.1	65.2	33.6
England	5997	75.5	53.1	29.7	1742	67.8	43.0	22.5	1803	73.9	57.1	33.0
Finland	5301	96.1	72.2	35.6	1305	92.8	64.4	25.1	1764	96.5	71.4	31.0
France	8072	95.2	88.0	66.9	1593	92.4	83.7	58.7	2474	95.3	89.8	67.5
Hungary	4046	90.1	78.1	48.0	797	90.3	75.8	41.2	1371	90.4	80.8	46.4
Ireland	2203	94.8	83.5	53.1	377	93.9	76.0	46.2	1112	95.6	83.7	56.5
Italy	4330	88.8	78.5	63.9	373	85.5	78.0	54.8	1041	87.0	77.3	65.3
Lithuania	5630	79.7	56.3	26.8	1128	76.0	54.2	22.3	1517	77.5	54.6	25.5
Latvia	3425	87.5	67.9	42.3	897	88.8	62.7	39.5	1123	87.8	69.7	43.2
Netherlands	4217	93.7	80.3	55.2	667	88.0	73.9	47.8	994	94.9	88.0	61.2
Poland	6268	91.1	74.3	49.0	783	89.6	71.0	43.8	2197	90.2	76.6	49.7
Portugal	2892	90.1	76.3	61.5	394	90.0	62.4	49.5	766	91.0	76.4	66.8
Scotland	4354	83.6	61.6	31.8	1236	77.9	50.4	24.0	1545	84.0	60.4	31.6
Sweden	3866	96.6	82.1	50.8	1097	94.9	73.7	42.9	1581	97.1	82.2	52.6
Slovenia	3895	84.3	73.0	40.4	470	80.5	67.5	31.9	1352	86.6	70.4	43.0
Spain	5781	97.3	87.9	58.2	674	97.1	85.8	52.7	2180	97.5	88.5	57.4
Wales	3854	79.9	47.3	24.3	1119	75.2	38.8	16.5	1128	81.1	46.5	23.5
TOTAL	*104478*	*89.4*	*73.1*	*45.0*	*21155*	*85.8*	*64.5*	*35.1*	*33799*	*89.9*	*74.4*	*45.9*

[1] (Berlin, Hessen, North Rhine-Westphalia and Saxony)

Table 2.4. Rates of students having no more than one frequent health complaint by age in the total sample and in the two risk groups

Country	Total sample				Non-intact families				Low FAS families			
	N	%			N	%			N	%		
		11-y	13-y	15-y		11-y	13-y	15-y		11-y	13-y	15-y
Austria	4251	78.3	77.1	79.6	801	76.8	69.2	75.7	1432	80.1	75.9	77.5
Belgium (Fl.)	6154	74.8	74.6	72.2	997	69.8	68.7	66.9	2141	72.2	69.3	70.0
Czech Rep.	4924	71.6	66.1	69.8	1223	68.0	63.1	65.1	1821	68.4	63.5	64.9
Germany[1]	5412	81.3	80.6	81.6	1167	76.0	77.8	76.1	1750	75.4	79.2	77.4
Denmark	4493	74.6	76.2	78.6	1162	69.2	71.1	71.9	1262	72.1	74.1	75.3
Estonia	3968	71.0	67.7	61.2	1032	68.3	60.1	58.2	1275	63.3	61.3	57.1
England	5666	62.7	64.8	63.7	1645	59.7	61.2	58.2	1684	59.2	61.9	59.2
Finland	5257	79.8	74.1	72.3	1290	74.2	66.9	65.5	1744	76.9	70.9	70.1
France	7775	66.6	67.3	64.8	1549	60.5	59.5	58.6	2349	64.7	63.2	59.6
Hungary	3995	72.1	66.2	60.7	787	73.0	60.1	57.1	1359	72.2	63.0	55.1
Ireland	2799	79.1	73.7	66.5	366	74.8	64.1	60.9	1094	75.7	72.7	63.4
Italy	4313	53.8	54.4	48.1	376	46.3	51.1	33.6	1035	47.4	49.6	39.1
Lithuania	5516	67.1	63.9	59.1	1098	60.1	60.7	53.3	1484	58.7	52.6	48.5
Latvia	3252	66.7	71.2	65.2	856	63.2	70.3	59.8	1060	62.5	63.3	61.4
Netherlands	4160	72.4	72.3	76.6	660	62.3	65.5	65.6	972	69.6	69.6	72.4
Poland	6206	64.8	64.8	60.6	781	58.5	61.2	56.2	2175	59.7	57.3	52.3
Portugal	2810	70.9	71.3	65.2	384	65.2	63.7	63.8	747	63.0	61.4	55.5
Scotland	4340	70.9	69.8	69.3	1229	64.8	64.5	64.4	1540	65.0	63.8	64.5
Sweden	3736	69.1	63.5	61.9	1063	69.1	55.1	55.8	1525	70.3	60.6	57.7
Slovenia	3842	78.3	75.1	73.9	462	67.7	69.3	73.3	1339	75.3	73.3	70.3
Spain	5670	57.4	59.7	57.5	662	55.6	56.7	50.8	2138	54.2	56.6	54.0
Wales	3819	71.7	69.3	66.8	1106	64.9	63.5	64.9	1110	66.6	67.2	64.8
TOTAL	*102358*	*70.3*	*68.9*	*66.9*	*20696*	*66.2*	*64.0*	*62.1*	*33036*	*67.1*	*64.8*	*62.2*

[1] (Berlin, Hessen, North Rhine-Westphalia and Saxony)

Table 2.5. Rates of students having 6 or more scores in the life satisfaction scale by age in the total sample and in the two risk groups

Country	Total sample				Non-intact families				Low FAS families			
	N	%			N	%			N	%		
		11-y	13-y	15-y		11-y	13-y	15-y		11-y	13-y	15-y
Austria	4307	91.4	86.0	86.8	812	92.8	82.5	81.3	1450	90.2	80.1	84.9
Belgium (Fl.)	6210	90.8	87.9	84.6	1008	86.5	83.7	76.6	2148	88.8	85.2	81.1
Czech Rep.	4974	86.0	81.0	83.0	1235	85.9	73.1	78.1	1840	83.5	73.6	79.1
Germany[1]	5449	86.0	84.4	85.7	1169	86.5	83.8	83.2	1765	86.4	84.6	85.6
Denmark	4536	89.0	85.7	88.0	1176	85.3	81.9	82.0	1277	86.0	82.0	83.9
Estonia	3965	81.3	79.1	69.6	1029	79.7	75.3	64.8	1272	73.5	70.6	59.8
England	5514	84.8	84.0	81.0	1591	77.6	79.9	73.9	1644	79.4	79.2	72.8
Finland	5251	94.3	91.4	89.2	1286	89.2	87.8	84.5	1742	90.7	88.1	85.4
France	8051	88.2	85.9	81.0	1592	81.8	77.0	72.3	2460	85.5	80.9	73.2
Hungary	3974	84.9	87.9	79.9	781	82.1	83.9	75.4	1346	79.7	79.9	74.8
Ireland	2837	89.8	86.3	83.2	377	85.3	77.3	76.7	1107	87.1	84.8	79.4
Italy	4315	86.5	87.2	82.0	375	74.2	78.4	69.8	1035	81.2	79.2	74.4
Lithuania	5416	77.6	76.3	71.4	1088	74.0	73.3	63.2	1460	63.4	63.7	56.3
Latvia	3356	79.6	76.0	74.7	884	75.8	72.2	68.3	1095	73.9	65.8	63.4
Netherlands	4213	96.6	93.6	92.5	666	93.7	85.5	84.7	984	95.1	88.7	88.9
Poland	6172	86.3	81.7	72.2	770	84.0	70.8	60.0	2150	79.9	71.7	58.7
Portugal	2851	85.6	81.3	73.9	389	82.9	75.4	59.0	755	76.4	67.5	51.1
Scotland	4370	89.1	84.6	84.3	1240	83.1	78.4	79.3	1547	86.1	77.9	79.9
Sweden	3848	91.9	86.0	80.4	1092	87.5	80.8	75.7	1569	91.6	83.4	76.8
Slovenia	3824	90.4	84.5	82.4	458	88.3	71.0	80.6	1328	87.6	78.7	74.0
Spain	5704	90.9	87.5	84.8	663	88.1	81.2	77.8	2131	87.5	83.9	81.8
Wales	3826	86.9	82.8	82.3	1112	82.5	79.2	79.0	1118	84.2	77.0	72.5
TOTAL	*102963*	*87.8*	*84.8*	*81.5*	*20793*	*83.8*	*79.1*	*75.1*	*33223*	*84.2*	*78.8*	*74.8*

[1] (Berlin, Hessen, North Rhine-Westphalia and Saxony)

Table 2.6. Rates of students having been involved no more than once in bullying by age in the total sample and in the two risk groups

Country	Total sample				Non-intact families				Low FAS families			
	N	%			N	%			N	%		
		11-y	13-y	15-y		11-y	13-y	15-y		11-y	13-y	15-y
Austria	4319	77.2	66.9	71.0	816	72.7	60.3	68.6	1449	78.0	69.6	68.6
Belgium (Fl.)	6225	77.8	80.1	79.7	1012	72.1	76.0	80.1	2149	75.0	79.3	79.6
Czech Rep.	4970	92.7	90.7	90.4	1238	91.3	88.7	87.4	1842	91.7	90.3	91.2
Germany[1]	5539	79.9	69.4	70.9	1196	77.5	64.5	67.4	1803	79.5	71.8	73.8
Denmark	4550	80.6	77.2	81.9	1188	79.0	73.2	79.3	1276	80.7	75.7	80.8
Estonia	3976	74.1	71.0	76.5	1033	72.9	70.5	75.5	1277	68.0	69.6	73.8
England	5809	82.4	80.7	86.7	1671	81.8	79.6	85.3	1756	82.5	79.5	86.6
Finland	5267	86.3	84.4	87.9	1297	80.3	80.6	86.5	1760	84.6	83.5	87.7
France	8070	81.8	79.3	77.9	1600	75.4	76.6	75.2	2477	81.5	78.9	77.9
Hungary	4032	87.8	88.3	94.3	794	86.2	87.9	94.1	1366	86.9	89.3	94.6
Ireland	2802	87.4	87.4	90.5	368	82.8	85.3	91.9	1094	86.0	87.2	91.3
Italy	4317	81.5	77.7	83.8	378	74.4	76.6	83.6	1036	78.6	74.6	84.4
Lithuania	5625	54.2	44.4	44.6	1127	47.7	40.0	44.5	1518	43.6	40.8	42.9
Latvia	3391	74.6	65.2	70.2	888	68.9	61.6	68.3	1108	72.2	65.3	71.1
Netherlands	4208	82.9	81.1	85.2	677	73.2	73.9	80.5	987	79.8	79.2	85.8
Poland	6253	81.8	79.0	78.9	770	77.2	79.7	80.1	2187	80.8	78.1	78.6
Portugal	2892	73.8	72.7	85.2	395	72.0	72.8	87.2	763	75.5	73.7	89.6
Scotland	4328	86.3	86.1	90.0	1229	82.2	83.3	89.0	1535	83.6	84.3	89.2
Sweden	3766	94.8	91.1	91.9	1077	93.4	89.1	89.0	1543	94.6	91.4	91.2
Slovenia	3869	89.3	88.3	89.5	467	85.5	87.9	89.7	1346	89.4	88.2	89.7
Spain	5763	87.5	84.1	82.6	672	82.8	81.5	84.0	2170	86.4	84.3	85.2
Wales	3793	86.7	85.3	91.3	1103	83.1	82.2	90.1	1106	85.9	82.1	91.1
TOTAL	*103764*	*81.7*	*78.3*	*80.6*	*20996*	*78.4*	*75.6*	*79.3*	*33549*	*80.8*	*78.2*	*81.4*

[1] (Berlin, Hessen, North Rhine-Westphalia and Saxony)

3. PSYCHOSOCIAL PREDICTORS

Table 3.1. Rates of students having at least one parent with whom they can talk easily by age in the total sample and in the two risk groups

Country	Total sample				Non-intact families				Low FAS families			
	N	%			N	%			N	%		
		11-y	13-y	15-y		11-y	13-y	15-y		11-y	13-y	15-y
Austria	4023	88.9	85.2	79.4	759	82.5	84.4	77.1	1343	88.3	82.8	76.2
Belgium (Fl.)	6097	88.8	83.1	76.5	985	87.3	84.5	82.1	688	87.6	80.5	77.3
Czech Rep.	4633	84.8	81.9	80.9	1120	84.7	83.1	80.4	1719	80.7	78.6	76.8
Germany[1]	5271	90.1	87.6	81.0	1133	88.9	87.1	80.7	1684	90.3	87.7	76.6
Denmark	4370	88.9	81.1	77.9	1126	90.5	85.8	85.0	1217	84.1	78.7	73.5
Estonia	3863	89.1	83.2	77.1	980	86.2	78.1	75.5	1238	84.3	76.6	71.5
England	5801	92.0	89.2	85.3	1692	93.2	87.6	85.2	1727	92.7	85.7	81.5
Finland	1654	92.7	86.8	82.6	1236	91.6	87.3	83.6	1672	89.1	85.5	79.1
France	7782	92.6	89.2	83.9	1528	91.8	88.8	81.9	2362	92.1	87.1	78.9
Hungary	3467	96.8	93.8	91.4	763	96.8	94.2	89.5	1178	95.4	91.0	90.9
Ireland	2682	87.7	82.9	78.2	354	84.4	84.6	80.7	1047	87.3	83.0	76.4
Italy	4213	91.8	84.1	78.2	372	90.9	82.6	80.5	1006	89.1	84.5	76.8
Lithuania	5414	87.5	80.8	73.4	1059	84.1	76.3	68.0	1442	83.5	78.5	63.3
Latvia	3131	89.2	84.3	84.9	808	85.1	81.1	77.7	1018	84.6	81.6	75.1
Netherlands	4138	96.3	93.1	91.3	661	93.7	84.2	93.6	962	95.3	88.7	87.8
Poland	6097	97.5	96.0	90.5	752	95.0	93.9	87.9	2124	96.2	94.1	87.2
Portugal	2738	90.5	83.8	82.8	368	90.0	74.3	76.2	714	88.1	79.0	72.6
Scotland	4219	91.3	85.8	81.2	1192	91.8	82.6	83.0	1489	89.4	84.7	81.4
Sweden	3728	95.9	91.2	86.5	1058	95.0	88.2	90.8	1526	96.2	87.6	85.8
Slovenia	3798	97.8	95.2	93.7	458	95.7	93.8	92.5	1318	97.2	94.2	90.5
Spain	5719	89.5	84.0	81.9	655	87.4	84.6	80.7	2142	86.8	82.3	80.5
Wales	3632	90.7	83.9	78.7	1059	87.0	84.1	78.4	1046	89.5	84.1	76.3
TOTAL	*99865*	*91.6*	*86.8*	*82.4*	*19767*	*74.0*	*82.0*	*86.8*	*30949*	*72.4*	*80.7*	*85.6*

[1] (Berlin, Hessen, North Rhine-Westphalia and Saxony)

Table 3.2. Rates of students spending no more than three afternoons or evenings with friends in a week by age in the total sample and in the two risk groups

Country	Total sample				Non-intact families				Low FAS families			
	N	%			N	%			N	%		
		11-y	13-y	15-y		11-y	13-y	15-y		11-y	13-y	15-y
Austria	4267	60.6	59.5	51.8	807	58.1	56.7	44.4	1434	61.8	60.5	54.0
Belgium (Fl.)	6126	74.8	61.0	53.5	1004	74.3	59.6	46.4	2119	76.3	62.3	54.4
Czech Rep.	5012	51.9	51.8	42.8	1245	51.0	52.4	37.5	1851	51.4	52.3	40.3
Germany[1]	5224	50.1	48.6	45.5	1127	51.2	41.2	39.2	1705	49.4	49.2	44.4
Denmark	4490	58.9	61.3	60.2	1166	55.9	56.7	57.8	1258	62.1	59.1	60.2
Estonia	3960	52.4	49.0	51.3	1027	44.4	54.6	45.5	1271	51.6	54.9	51.0
England	5975	54.3	50.1	50.6	1730	47.4	45.3	44.6	1797	54.2	51.5	50.8
Finland	5170	49.9	48.8	46.2	1258	45.0	40.5	38.1	1718	50.0	45.8	46.0
France	7932	72.4	67.8	60.7	1578	67.3	62.7	55.7	2434	71.8	68.2	57.1
Hungary	3932	61.3	60.6	52.3	767	59.3	58.1	49.8	1347	67.0	62.3	50.5
Ireland	2831	50.6	45.7	53.8	372	42.9	35.7	41.9	1113	54.0	47.2	54.0
Italy	4332	56.3	49.9	50.5	378	51.6	51.8	53.9	1036	59.8	47.6	51.6
Lithuania	5580	54.0	50.9	49.0	1122	49.8	50.3	45.3	1505	55.9	52.9	50.5
Latvia	3412	60.8	49.6	49.9	896	62.0	47.5	46.9	1119	68.2	57.7	52.9
Netherlands	4173	61.3	61.1	55.7	661	57.4	55.5	49.5	980	59.9	64.0	56.6
Poland	6262	53.5	55.1	53.5	779	50.0	53.4	48.6	2183	55.8	58.7	57.4
Portugal	2876	58.2	57.1	59.9	387	58.0	47.2	58.9	756	58.4	62.9	66.1
Scotland	4333	39.9	36.8	41.8	1236	36.9	26.4	34.3	1542	42.1	35.4	40.1
Sweden	3803	62.5	63.7	66.4	1077	59.6	55.1	58.6	1566	63.4	61.8	67.3
Slovenia	3890	54.6	60.3	49.6	470	56.5	53.6	45.6	1349	60.2	62.1	52.4
Spain	5743	54.0	52.2	53.3	666	55.6	46.5	48.2	2153	55.3	47.6	49.4
Wales	3805	48.3	42.4	53.7	1111	45.0	35.7	44.0	1106	48.4	44.9	51.0
TOTAL	*103128*	*43.2*	*45.5*	*47.8*	*20864*	*46.9*	*50.6*	*53.6*	*33342*	*41.8*	*44.8*	*47.9*

[1] (Berlin, Hessen, North Rhine-Westphalia and Saxony)

Table 3.3. Rates of students having friend(s) with whom they can talk easily by age in the total sample and in the two risk groups

Country	Total sample				Non-intact families				Low FAS families			
	N	%			N	%			N	%		
		11-y	13-y	15-y		11-y	13-y	15-y		11-y	13-y	15-y
Austria	3354	65.9	76.2	87.1	653	64.7	78.7	88.1	1126	66.9	76.0	85.0
Belgium (Fl.)	6046	68.8	78.7	84.8	980	70.1	82.8	85.2	2089	65.9	76.0	82.7
Czech Rep.	4412	68.7	77.7	84.5	1115	72.0	79.9	83.9	1634	62.6	76.8	83.2
Germany[1]	5047	70.3	82.8	85.4	1099	72.3	81.6	87.5	1621	65.9	80.1	85.8
Denmark	4114	73.6	80.2	83.8	1092	73.2	79.8	83.8	1133	66.8	79.4	82.6
Estonia	3968	64.0	69.9	78.0	1030	60.1	67.2	75.1	1273	59.6	64.3	70.0
England	5726	82.2	89.5	92.7	1689	80.4	88.9	92.4	1721	80.7	88.2	91.3
Finland	5101	77.3	83.3	86.3	1257	74.7	83.4	87.0	1688	74.1	79.2	85.9
France	6794	76.9	84.9	88.1	1387	74.5	84.4	87.5	2006	75.7	83.9	87.1
Hungary	3619	82.7	91.0	93.1	724	84.4	93.2	92.9	1208	78.9	89.9	91.8
Ireland	2595	75.4	82.2	88.3	349	73.1	79.2	87.6	996	71.1	81.4	85.5
Italy	4141	81.1	87.2	90.3	367	79.5	87.0	91.1	968	79.8	86.0	91.8
Lithuania	5552	61.8	69.5	78.2	1111	56.4	67.3	78.9	1497	52.7	60.9	70.7
Latvia	2711	61.3	70.4	79.2	730	60.1	73.9	78.1	881	56.5	67.0	76.5
Netherlands	3845	69.5	77.6	84.3	639	67.9	72.2	82.8	901	69.4	74.7	82.3
Poland	5888	84.8	88.4	91.0	734	80.2	84.2	89.2	2044	81.7	86.0	88.4
Portugal	2709	87.1	90.8	93.2	363	81.8	89.2	96.2	710	87.1	87.2	92.8
Scotland	4324	82.2	89.9	94.8	1218	82.8	87.7	95.0	1537	78.4	89.7	93.9
Sweden	3707	79.9	83.9	89.2	1054	77.4	85.4	87.0	1506	79.5	81.6	88.0
Slovenia	3602	88.4	92.0	95.7	444	86.3	92.9	97.7	1242	85.4	91.1	93.6
Spain	5493	74.6	87.5	91.6	640	71.5	86.0	91.4	2070	71.8	86.2	89.7
Wales	3779	78.9	85.6	90.1	1092	78.2	85.9	88.4	1098	74.8	85.7	88.6
TOTAL	*96527*	*75.5*	*82.8*	*87.5*	*20981*	*71.9*	*63.4*	*52.6*	*33650*	*73.7*	*63.7*	*53.7*

[1] (Berlin, Hessen, North Rhine-Westphalia and Saxony)

Table 3.4. Rates of students perceiving no/little school pressure by age in the total sample and in the two risk groups

Country	Total sample				Non-intact families				Low FAS families			
	N	% 11-y	13-y	15-y	N	% 11-y	13-y	15-y	N	% 11-y	13-y	15-y
Austria	4289	90.8	80.5	68.1	812	89.0	76.3	64.9	1450	90.4	80.2	66.9
Belgium (Fl.)	6268	81.0	71.5	66.9	1017	78.7	68.3	35.5	2165	81.3	73.1	66.5
Czech Rep.	4958	78.8	69.7	71.4	1240	76.0	66.2	71.8	1841	77.1	70.0	69.7
Germany[1]	5532	77.2	77.2	71.6	1190	74.9	76.2	71.0	1796	73.3	77.7	74.8
Denmark	4553	80.2	74.2	72.3	1183	77.9	70.1	65.1	1281	74.4	72.6	68.8
Estonia	3969	65.9	51.4	38.6	1033	64.6	50.3	35.1	1275	61.2	49.9	40.2
England	5880	65.3	59.0	35.1	1702	67.9	56.9	32.8	1770	67.4	62.8	34.2
Finland	5247	74.4	55.6	51.7	1290	68.9	53.8	48.6	1749	75.5	51.3	48.6
France	8132	80.3	75.0	74.3	1604	74.7	73.7	73.3	2487	76.9	75.9	72.5
Hungary	4044	84.0	74.8	69.9	796	79.0	74.9	68.1	1373	82.0	72.0	70.3
Ireland	2835	74.9	65.5	53.7	378	70.2	65.6	59.5	1110	70.9	67.9	54.2
Italy	4318	63.3	58.4	51.8	374	58.3	57.6	44.3	1040	58.4	54.7	50.6
Lithuania	5615	56.2	34.6	32.4	1125	55.8	32.6	33.6	1515	59.6	36.9	37.1
Latvia	3407	78.9	69.3	57.9	889	76.4	69.2	53.5	1119	79.4	65.4	56.7
Netherlands	4205	95.0	87.3	77.5	671	92.7	85.9	78.6	985	94.8	85.8	74.7
Poland	6236	66.7	50.4	37.2	779	65.4	48.8	34.9	2173	70.2	53.5	39.4
Portugal	2909	56.5	51.7	38.7	393	58.8	56.8	34.3	768	53.7	51.3	33.9
Scotland	4291	72.4	69.9	47.1	1213	68.0	37.2	44.0	1547	71.3	69.8	47.4
Sweden	3838	86.1	72.1	44.9	1096	83.8	68.2	43.2	1575	85.8	70.9	41.1
Slovenia	3871	67.9	44.5	46.6	466	64.1	46.0	44.9	1346	70.7	43.4	49.4
Spain	5774	70.9	51.2	38.6	673	68.2	51.7	38.1	2172	70.2	51.6	38.3
Wales	3642	65.4	60.6	32.1	1057	61.3	63.0	35.3	1113	65.1	63.6	33.5
TOTAL	*103840*	*74.2*	*63.9*	*54.3*	*20981*	*71.9*	*63.4*	*52.6*	*24016*	*73.7*	*63.7*	*53.7*

[1] (Berlin, Hessen, North Rhine-Westphalia and Saxony)

Table 3.5. Means and standard deviations (SD) of the classmate support scale by age in the total sample and in the two risk groups

Country	Total sample				Non-intact families				Low FAS families			
	N	Mean (SD)			N	Mean (SD)			N	Mean (SD)		
		11-y	13-y	15-y		11-y	13-y	15-y		11-y	13-y	15-y
Austria	4301	12.64 (2.05)	12.30 (2.12)	12.10 (2.08)	814	12.38 (2.16)	12.14 (2.22)	11.86 (2.00)	1449	12.60 (2.05)	12.13 (2.20)	12.06 (2.06)
Belgium (Fl.)	6243	12.19 (2.15)	11.75 (2.76)	11.21 (2.42)	1013	11.98 (2.08)	11.47 (2.45)	11.13 (2.47)	2155	12.00 (2.27)	11.63 (2.33)	11.16 (2.47)
Czech Rep.	4916	11.39 (2.40)	10.64 (2.34)	10.17 (2.36)	1227	11.13 (2.47)	10.40 (2.51)	9.99 (2.47)	1822	11.12 (2.46)	10.56 (2.36)	10.04 (2.22)
Germany[1]	5522	13.08 (2.03)	12.27 (2.31)	11.94 (2.27)	1180	13.05 (2.08)	12.08 (2.35)	11.92 (2.35)	1799	13.00 (2.14)	12.13 (2.45)	11.96 (2.32)
Denmark	4520	12.21 (2.23)	11.68 (2.20)	11.65 (2.12)	1177	11.90 (2.35)	11.59 (2.24)	11.47 (2.24)	1266	12.01 (2.21)	11.55 (2.22)	11.46 (2.20)
Estonia	3952	11.24 (2.14)	10.80 (2.19)	10.67 (2.36)	1027	11.38 (1.90)	10.55 (2.28)	10.79 (2.30)	1270	11.07 (2.27)	10.34 (2.33)	10.25 (2.47)
England	5951	10.86 (2.18)	10.46 (2.27)	10.58 (2.16)	1731	10.81 (2.18)	10.30 (2.30)	10.29 (2.28)	1797	10.70 (2.17)	10.33 (2.34)	10.44 (2.23)
Finland	5211	11.59 (2.28)	11.28 (2.14)	11.17 (2.23)	1283	11.24 (2.44)	11.09 (2.12)	11.11 (2.36)	1737	11.33 (2.35)	11.09 (2.15)	10.80 (2.38)
France	8022	11.61 (2.45)	11.23 (2.52)	10.91 (2.49)	1587	11.39 (2.59)	11.05 (2.61)	10.68 (2.57)	2445	11.54 (2.52)	10.94 (2.72)	10.78 (2.56)
Hungary	3947	12.21 (2.36)	11.88 (2.32)	11.51 (2.31)	773	12.13 (2.34)	11.44 (2.47)	11.48 (2.36)	1340	12.06 (2.40)	11.58 (2.48)	11.31 (2.32)
Ireland	2800	12.08 (2.13)	11.75 (2.12)	11.38 (2.24)	369	11.83 (2.05)	11.55 (2.10)	11.25 (2.03)	1096	12.03 (2.25)	11.67 (2.14)	11.17 (2.21)
Italy	4293	11.94 (2.24)	11.44 (2.36)	10.81 (2.44)	370	11.38 (2.45)	11.25 (2.59)	10.50 (2.70)	1036	11.62 (2.33)	11.12 (2.36)	10.57 (2.58)
Lithuania	5564	10.95 (2.55)	10.52 (2.49)	10.47 (2.29)	1114	10.53 (2.63)	10.21 (2.60)	10.20 (2.32)	1505	10.36 (2.59)	10.17 (2.57)	10.06 (2.47)
Latvia	3320	11.39 (2.21)	10.80 (2.21)	10.39 (2.18)	870	10.91 (2.44)	10.61 (2.22)	10.26 (2.19)	1086	10.98 (2.44)	10.44 (2.33)	10.11 (2.12)
Netherlands	4174	12.05 (2.05)	11.69 (2.21)	11.38 (2.07)	662	11.56 (2.29)	11.42 (2.29)	11.02 (2.35)	979	11.83 (2.22)	11.56 (2.21)	11.19 (2.08)
Poland	6237	12.02 (2.28)	11.43 (2.28)	11.07 (2.37)	780	11.84 (2.22)	11.05 (2.40)	10.75 (2.46)	2180	11.85 (2.35)	11.16 (2.28)	10.93 (2.36)
Portugal	2886	12.77 (2.17)	12.51 (2.17)	12.05 (2.12)	391	12.77 (2.33)	12.31 (2.42)	12.16 (2.02)	762	12.36 (2.37)	12.19 (2.16)	12.02 (2.01)
Scotland	4294	12.61 (2.17)	11.67 (2.52)	11.27 (2.46)	1220	12.40 (2.03)	11.57 (2.46)	11.16 (2.54)	1551	12.43 (2.22)	11.39 (2.78)	10.93 (2.57)
Sweden	3819	12.41 (1.98)	11.96 (1.96)	11.60 (2.21)	1081	12.04 (2.03)	11.83 (2.05)	11.30 (2.38)	1561	12.33 (2.05)	11.86 (1.94)	11.46 (2.41)
Slovenia	3858	12.20 (2.29)	11.59 (2.20)	11.65 (2.08)	465	11.87 (2.26)	11.13 (2.31)	11.76 (2.28)	1341	12.16 (2.17)	11.52 (2.19)	11.33 (2.23)
Spain	5761	12.63 (2.11)	11.95 (2.19)	11.54 (2.26)	670	12.22 (2.37)	11.77 (2.02)	11.29 (2.39)	2161	12.42 (2.17)	11.80 (2.28)	11.55 (2.19)
Wales	3690	11.77 (2.09)	11.19 (2.12)	11.34 (1.85)	1072	11.60 (2.14)	11.24 (2.16)	11.19 (1.92)	1118	11.55 (2.32)	11.13 (2.24)	11.24 (1.86)
TOTAL	*103281*	*11.98 (2.30)*	*11.45 (2.34)*	*11.17 (2.33)*	*20876*	*11.70 (2.37)*	*11.18 (2.41)*	*10.96 (2.41)*	*33456*	*11.83 (2.37)*	*11.26 (2.42)*	*11.00 (2.39)*

[1] (Berlin, Hessen, North Rhine-Westphalia and Saxony)

4. MACRO-LEVEL VARIABLES

Table 4. Macro-level variables by country

Country	GDP per capita (PPP US)[1] Data for 2001	Gini index[2] (survey year)	Total expenditure on social protection (% of GDP)[3] Data for 2001
Austria	26730	30.0 (1997)	28.6
Belgium	25520	25.0 (1996)	27.7
Czech Rep.	14720	25.4 (1996)	19.5
Germany	25350	28.3 (2000)	29.3
Denmark	29000	24.7 (1997)	29.2
Estonia	10170	37.2 (2000)	13.6
England	24160	36.0 (1999)	27.5
Finland	24430	26.9 (2000)	25.5
France	23990	32.7 (1995)	29.5
Hungary	12340	26.9 (2002)	19.8
Ireland	32410	35.9 (1996)	15.0
Italy	24670	36.0 (2000)	25.6
Lithuania	8470	31.9 (2000)	14.7
Latvia	7730	33.6 (1998)	14.3
Netherlands	27190	30.9 (1999)	26.5
Poland	9450	34.1 (2002)	21.5
Portugal	18150	38.5 (1997)	22.8
Scotland	24160	36.0 (1999)	27.5
Sweden	24180	25.0 (2000)	31.5
Slovenia	17130	28.4 (1998)	25.3
Spain	20150	32.5 (1990)	19.4
Wales	24160	36.0 (1999)	27.5

[1] Source: Human Development Reports 2003.
http://hdr.undp.org/en/media/hdr03_complete.pdf.
[2] Source: Human Development Reports 2005.
http://hdr.undp.org/en/media/hdr05_complete.pdf.
[2] EUROSTAT Yearbook 2006-2007b. 4. Living conditions and welfare.

5. ODDS OF RESILIENCE – STATISTICAL DETAILS

Table 5.1. Logistic random intercept models for the log odds of resilience

	M1: Empty model		M2: Model extended with gender and FAS/family structure		M3: Model extended with psychosocial variables	
Children in non-intact families (Sample size)	Country-level variance (S. E.)	Intraclass correlation	Country-level variance (S. E.)	Residual intraclass correlation	Country-level variance (S. E.)	Residual intraclass correlation
11-year-olds (N=5002)	0.212 (0.072)	0.060	0.223 (0.076)	0.064	0.183 (0.064)	0.053
13-year-olds (N=5790)	0.078 (0.032)	0.023	0.083 (0.033)	0.025	0.072 (0.030)	0.021
15-year-olds (N=5917)	0.149 (0.060)	0.043	0.160 (0.063)	0.046	0.157 (0.063)	0.045
Children in low FAS families (Sample size)	Country-level variance (S. E.)	Intraclass correlation	Country-level variance (S. E.)	Residual intraclass correlation	Country-level variance (S. E.)	Residual intraclass correlation
11-year-olds (N=8018)	0.263 (0.083)	0.074	0.265 (0.084)	0.075	0.185 (0.061)	0.053
13-year-olds (N=8610)	0.195 (0.064)	0.056	0.201 (0.066)	0.058	0.158 (0.053)	0.046
15-year-olds (N=9438)	0.204 (0.069)	0.058	0.202 (0.069)	0.058	0.183 (0.063)	0.053

Table 5.2. Cross national random intercept variance in the models extended with country-level contextual variables

Age group (Sample size)	Children living in non-intact families			Age group (Sample size)	Children living in low FAS families		
	Individual factors + contextual variable	Country-level variance S. E.	Residual correlation		Individual factors + contextual variable	Country-level variance S. E.	Residual correlation
11-year-old (N=5002)	GDPpcap*	0.145	0.042	**11-year-old (N=8018)**	GDPpcap*	0.111	0.033
		0.052				0.038	
	Gini	0.154	0.045		Gini*	0.143	0.042
		0.055				0.048	
	SocProt	0.172	0.050		SocProt	0.158	0.046
		0.060				0.052	
13-year-old (N=5790)	GDPpcap	0.069	0.021	**13-year-old (N=8610)**	GDPpcap*	0.100	0.030
		0.029				0.036	
	Gini	0.070	0.021		Gini	0.126	0.037
		0.030				0.044	
	SocProt	0.072	0.021		SocProt	0.140	0.041
		0.030				0.048	
15-year-old (N=5917)	GDPpcap	0.150	0.043	**15-year-old (N=9438)**	GDPpcap*	0.134	0.039
		0.060				0.048	
	Gini	0.151	0.044		Gini	0.164	0.048
		0.061				0.057	
	SocProt	0.139	0.041		SocProt	0.173	0.050
		0.058				0.060	

*Factor significant in the extended model at the p=0.05 level.