**Geschlecht – Allergien**

**Gender difference, sex hormones, and immediate type hypersensitivity reactions**

( Erster Teil siehe Block. )

* Atopic eczema:
* Some authors suggest that the natural history of AE points towards male predominance in childhood and female predominance from adolescence onwards (**12**). In a prospective cohort study of pregnant women and their offspring in USA, male gender was associated with increased risk of AE in the first 6 months of life (**13**).
* In a prospective, population-based case-control study of 2-year-old children from Sweden, more boys than girls had ongoing AE and positive IgE-sensitization was more common in boys than in girls with ongoing AE (**14**)
* The prevalence of AE among 2 –year-old children in Trondheim, Norway showed a higher prevalence in boys, without significant gender difference in disease severity (**15**)
* The point prevalence and the severity of AE in children younger than 4 years in central Netherlands also showed male preponderance particularly marked at the age younger than 2 years (**16**)
* Extrinsic AE was more common in boys while intrinsic AE was more common in girls (**17**)
* Similar results were found in preschool children aged 5-7 years from Germany, of them boys were more often atopic, whereas girls suffered significantly more often from non-atopic ´intrinsic´ eczema (**18**)
* In contrast, a prospective study of AE in children aged 0-42 months in England showed no gender difference in either the incidence or prevalence of the disease (**20**)
* Similar findings were observed in another case-control study of children at age 3,5 years in New Zealand (**21**)
* Male gender was a non-significant risk factor in a multiple logistic regression analysis of 3-5-year-old children from Italy (**23**)
* In a dermatologist-directed inspective survey of school children aged 6-11 years from Taiwan, no gender difference existed in the point prevalence of AE (**24**)
* A population-based cross-sectional study on children aged 5-7 and 9-11 years from Germany showed even more girls than boys suffering from AE (**25**)
* After puberty, there appears no more gender difference or even female predominance in adolescents with AE, as demonstrated in many recent ISAAC questionnaire-based surveys (**26,27**)
* In adults, limited studies showed a higher prevalence of eczema in female gender (**28-30**)
* Allergic asthma
* In childhood, boys are disproportionately more often affected by allergic asthma, while this difference disappears in pre-adolescence when females have a much higher incidence after puberty (**34-36**)
* In many studies using the ISAAC questionnaire, significantly more female than male students attending grades 7-12 reported asthma, wheezing, rhinitis, and hay fever (**37**)
* In a large cohort of subjects at age >\_ 12 years with severe or difficult-to-treat asthma, females reported obviously more asthma-control problems, lower asthma-related quality of life and more allergic comorbidities, such as allergic rhinitis and AE (**38**)
* In a self-reported longitudinal study throughout childhood into adult life in Finland, boys tended to have a higher incidence rate of asthma than girls in childhood before age 16 years, while gender preference was reversed at age 17-22 years, and in early adulthood at age 23-32 years, incidence rates were equal in both genders (**39**), and definitely greater in women aged 23-64 years (**40**)
* Allergic rhinoconjunctivitis
* In a questionnaire study on preschool children aged 3-5 years, male gender was one of the significant risk factors for rhinitis (**42**)
* The male gender was also prevalent for rhinitis among 6-7-year-old children from the western districts of Sao Paulo city, Brazil (**43**)
* In Finland, the incidence rate for allergic rhinitis in males at age 16-32 was 13,4/ per 1000 person-years, slightly greater than that in females with 11,4/per 1000 person-years (**39**)
* In another self-report questionnaire study on adults from Stockholm, Sweden, there were no statistically significant gender differences in the prevalence of either allergic or non-allergic symptoms (**44**)

**Gender differences in the perception of asthma and respiratory symptoms in a population sample of asthma patients in four Brazilian cities**

* Current epidemiological studies suggest that there is a higher prevalence of asthma among males before puberty, after which asthma predominates among females (**5**)
* Women experience greater increases in the prevalence of and mortality from asthma over time (**6**), have a greater prevalence of bronchial hyperresponsiveness (**7**), and use health care services more often (**8**), as well as reporting respiratory symptoms more often (**10**) and poorer quality of life (**11,12**)
* The reasons for specific gender differences may be multiple, such as differences in airway physiology and pathology, hormonal interference in women, (**13**) differences in immune response to high-titer measles vaccine, (**14**), risk of infectious diseases in childhood (**15**) and behavioral differences between men and women (**16**)
* In Brazil, the prevalence of asthma (**17**) and wheezing (**18**) has been shown to be higher in two age groups of boys: 6-7 years and 10-12 years (**19**)
* In two other studies conducted in Brazil, girls aged 13-14 years had more respiratory symptoms than did boys of the same age (**20,21**)
* Our results suggest that, compared with men with asthma, women with asthma experience a greater impact and frequency of respiratory symptoms and more often have asthma-related limitations in daily living
* In contrast to the literature, we found no gender differences in the prevalence of asthma even after stratification into different age groups. It was not possible to assess age-related trends in asthma prevalence, because the sample consisted of individuals aged over 12 years.
* Approximately 20-40% of women with asthma report worsening of their respiratory symptoms during the premenstrual and menstrual period (**24,25**).

**Gender-specific presentations for asthma, allergic rhinitis and eczema in primary care**

* The prevalence of asthma is highest in childhood and has a male predominance that reverses during adolescence (**1,2**)
* There is also a suggestions of a similar gender difference in the expression of allergic rhinitis in limited cross-sectional surveys; surveys in the north-east of England restricted to children aged 6-7 and 13-14 years found a higher prevalence of rhinitis in pre-pubertal males, with a relatively higher prevalence among adolescent girls (**3,4**)
* A similar study in Belgium also found a higher prevalence of asthma, allergic rhinitis and eczema in 6-7 year old boys, but it was only asthma that had a higher prevalence in older boys aged 13-14 years (**5**)
* *Consultations rates for asthma peaked at 4-6 years in both sexes, with a second peak in adolescence*
* Male predominance for asthma and allergic rhinitis was found in childhood with a switch to a female predominance after adolescence.
* Whereas the female predominance for both asthma and allergic rhinitis was evident throughout adult life, the female predominance for eczema was only evident during the female reproductive period.
* *Eczema has its highest prevalence in infancy.*

**Natural Progression of Childhood Asthma Symptoms and Strong Influence of Sex and Puberty**

* Asthma is known to affect males more in childhood and females more in adulthood (**1-3**). Studies supporting this observation have focused on four epidemiologic aspects of the disease: 1. cross-sectional prevalence (**4-17**), 2. Onset (**18-20**), 3. Remission and relapse (**21-31**) and 4. Healthcare use (**32-40**).
* Our results show that greater severity of symptoms among boys stops at age 7 years
* Symptoms of both sexes go through a short period of similarity, with sex differences disappearing at ages 7, 8 and 9 years before reversing and diverging.

**Prevalence of Allergic Diseases among Korean School- age Children: A Nationwide Cross-Sectional Questionnaire Study**

* Using the ISSAC questionnaire, we found that all the prevalences of “wheeze, ever”, “wheezing, last 12 months”, “diagnosed asthma, ever”, and “treatment of asthma, last 12 months” were significantly higher in boys than in girls.
* All prevalences regarding allergic rhinitis and allergic conjunctivitis were higher in boys than in girls, while the prevalence of eczema was higher in girls than in boys.
* Also, differences in allergic disease between boys and girls have been shown by other studies (**20-24**).
* Compared with girls, boys have a higher incidence of asthma in childhood, but a lower incidence after the onset of puberty (**20,25**).
* A study by Osman et al. showed that over 15 yr (from 1989 to 2004) the gender difference in allergic diseases such as asthma, eczema, and hay fever declined (**23**)

**Prevalence of Atopic Dermatitis, Allergic Rhinitis and Asthma in Taiwan: A National Study 2000 to 2007**

* AD is a disease generally affecting infants and adolescents, and most cases occur before childhood (**1,2,27**)
* The gender difference in AD has been variable among different studies. Some studies reported a higher prevalence in females, while others did not (**3, 28-32**). Most studies in Taiwan showed a male predominance, with various levels of statistical significance (**30-32**).
* In our study, the overall prevalence in girls was higher than that in boys. In fact, the prevalence of AD in females was lower than that in males before the age of 8 years, but became higher after that.
* This crossover of prevalence was suggested to be related to the change of sex hormones (**33**)

**~~Prevalence of Childhood Allergic Diseases in Central Taiwan over the Past 15 Years~~**

**Risk factors of atopic dermatitis in Korean schoolchildren: 2010 international study of asthma and allergies in childhood**

* In our study, sex did not significantly influence AD in 6-7-year-old children, but there was a high prevalence of AD in female 12-13 year-old schoolchildren
* Our result is in agreement with a Spanish study where a greater prevalence of rhinitis and AD in females was observed in 13 and 14 year-old adolescents (**19**)
* However, gender difference in AD development is controversial, as the prevalence of asthma and rhinitis symptoms was greater in males, but no difference for eczema was observed in 3000 British pre-pubertal children (**20**)

**~~Sensitisation patterns and association with age, gender, and clinical symptoms in children with allergic rhinitis in primary care: a cross-sectional study~~**

**Sex-Based Differences in Asthma among Preschool and School-Aged Children in Korea**

* Asthma is more common and more severe in prepubertal boys and boys <18 years of age compared with girls of the same age, but the asthma prevalence and severity increase significantly in women after puberty (**13,14**)
* *First, age was related to asthma prevalence in girls. The older girls had lower asthma prevalence.*
* *The asthma prevalence was higher in boys with a larger family size*

**~~Temporal trends in the prevalence of asthma and rhinoconjunctivitis in adolescents~~**

**The Prevalence of Allergic Diseases in Poland - the Results of the PMSEAD Study in Relation to Gender Differences**

* the prevalence of asthma has previously been reported to have male predominance only in childhood
* A study carried out in Belgium found an increased prevalence of asthma as well as allergic rhinitis and eczema in primary school boys; in older boys, aged 13-14, only asthma was more prevalent than in girls (**9**)
* Similar findings were revealed in cross-sectional surveys in England, which found a higher prevalence of allergic rhinitis in prepubertal males (**10**,**11**)
* The prevalence of asthma in early childhood was significantly higher in boys, but by age 15 the diagnosis was reversed to female predominance; the gender bias remained consistent throughout adulthood (**12?**)
* As a possible explanation for this switch, the authors suggested hormonal changes and gender-specific differences in environmental exposures (**13?**)

**Time trends in asthma and wheeze in Swedish children 1996-2006: the prevalence and risk factors by sex**

* During childhood, asthma is more common in boys. Sex-specific prevalence trends have been observed (**9-12)**, but while some studies report decreased boy-to-girl ratio (**9,11**), others report the opposite (**10,12**)

**Geschlecht - Psyche**

**A Systematic Review of the Prevalence and Risk Factors of Depression among Iranian Adolescents**

* The prevalence of depression among children is low (<1% in most studies) (**Kessler, 2001**) with no gender differences, and then seems to rise substantially throughout adolescents (**Green, 2005**)
* Many risk factors have been reported in the literature such as the female sex (**Danesh, Zahirodin, 2005; Kooroshnia, 2007**), poor inter-parental relationship (**Ghorbani, 2003; Modabernia, 2005**), low level of parents´ education (**Mirzaand & Jenkins, 2004; Shahnazi, 2007**), low socioeconomic status (**Rostamzadeh, 2001; Shojaeezadeh, 1999; Modabernia, 2005**) and poverty (**Mirza & Jenkins, 2004**)
* the mean prevalence of depression was higher among girls than boys
* one of the main epidemiological findings is the emergence of a strong female predisposition toward depression after puberty (**Hyde, 2008**); although the reasons for this post-pubertal onset are not fully understood, adolescent depression seems more closely tied to female hormonal changes than to age (**Angold, 1999**); however, hormonal changes alone rarely produce the behavioral or neural signs of depression (**Soares, 2008**) and are more likely to contribute by sensitizing the brain to the adverse effects of stress (**Hyde, 2008; Angold, 1999; Goodyer, 2000**)
* furthermore, it seems that the gender differences cause differences in depression prevalence. Teenage girls are more prone to have mood disorders and depression such that the incidence of depression among girls compared to boys is almost two to one. These differences are probably affected by multiple factors such as biological, psychological, social, and cognitive ones (**Oldehinkel, 1998**)

**~~Anxiety disorder symptoms in children and adolescents differences by age and gender in a community sample~~**

**~~Assessment of Anxiety Symptoms in School Children: A Cross-Sex and Ethnic Examination~~**

**~~Burden of Depressive Disorders by Country, Sex, Age, and Year: Findings from the Global Burden of Disease Study 2010~~**

**Depression in late adolescence: a cross-sectional study in senior high schools in Greece**

* Prevalence rates in childhood are low with no gender difference (**6**) and then increase significantly in adolescence, while gender differences emerge (**7,8**).
* depression was significantly more common among the girls in our sample
* gender differences in the prevalence of depression among adolescents have been well established with approximately twice as many females than males reporting depressive disorders in mid-adolescence (**7**). It is not yet clear whether the observed differences are real or emerge due to methodological issues (**36**)

**Early Risk Factors for Depressive Symptoms among Korean Adolescents: A 6-to-8 Year Follow-up Study**

* Gender, in particular, is a crucial factor to consider as the prevalence of depression in adolescent girls is 1,5-3 times higher than that of adolescent boys (**13**)
* Angold and Rutter (**24**) represented that depression rate was similar between genders under age 11 yr; however, between ages 14 to 16, girls were twice as likely to have symptoms of depression as boys
* Likewise, a study in New Zealand found that the small gender gap in the rates of depressive disorders became evident between the ages 13 to 15, and the greatest differences emerged between ages 15 and 18 (**4**)
* Previous studies in Korea also showed that the gender difference of depression began to emerge in middle school ages with continuity into high school ages (**25,26**)
* On the other hand, some studies in Korea represented that gender differences in depression started to appear in grades 7 and 8; however, gender gaps were not statistically significant in high school students (**27,28**)

**~~Factors associated with attention deficit/ hyperactivity disorder among US children: Results from a national survey~~**

**Factors Predicting Depression across Multiple Domains in a National Longitudinal Sample of Canadian Youth**

* *Age predicted depression for both genders. Depression scores were higher in the lower ranges of 16-20 years.*
* *Past longitudinal research has demonstrated similar effects of age with the highest incidence and greatest increase in new cases of depression occurring for both boys and girls between the ages of 15 to 18 years (****Hankin et al. 1998****). These findings indicate mid to late adolescence may be a particularly vulnerable period for the development of depression in both boys and girls.*

**Individual Differences in Attention Deficit Hyperactivity Disorder Symptoms and Associated Executive Dysfunction and Traits: Sex, Ethnicity, and Family Income**

* It is well established that ADHD is diagnosed approximately 3 times as often in boys as in girls (**APA, 2000; Egger & Angold, 2006; Hartung & Widiger, 1998; Pineda et al., 1999**)
* Further, there has been some suggestion that symptoms of ADHD may vary somewhat between boys and girls, with boys exhibiting higher levels of hyperactivity-impulsivity than girls, although findings for inattention have been mixed (**Gaub & Carlson, 1997; Gershon, 2002; Hartung et al., 2002**)
* In contrast to prior work finding sex differences in ADHD symptoms (**i.e. Gaub & Carlson, 1997; Gershon, 2002**), there were no significant sex differences in ADHD symptoms in the present study.

**Is There a Female Protective Effect Against Attention-Deficit/Hyperactivity Disorder? Evidence From Two Representative Twin Samples**

* Notably, ADHD appears to be substantially more common in males than in females. A study of 10 European countries, for instance, indicated that males with ADHD outnumbered females with ADHD by ratios from 2 to 1 to 16 to 1 (**3**)
* The excess of males with ADHD has been further confirmed by meta-analyses, with 4 times as many males as females thought to be affected (**2,4**)

**~~Prevalence and gender differences in symptomatology of posttraumatic stress disorder and depression among Iraqi Yazidis displaced into Turkey~~**

**~~Prevalence of DSM-IV TR Psychiatric Disorders in Children and Adolescents of Paveh, a Western City of Iran~~**

**Protective Factors Against Depression and Suicidal Behaviour in Adolescence**

* Girls attribute greater importance to their negative thoughts than boys to (**52,54**)

**Sex and Age Differences in Psychiatric Disorders among Children and Adolescents: High-Risk Students Study**

* The rate of ADHD is higher in boys than girls, which is consistent with previous studies (**9,10**)
* *Based on age, the adolescent group shows a lower rate of overall ADHD than the child group.*
* The rate of conduct disorder did not show any sex difference in the present study. It has been generally accepted that boys usually exhibit a higher rate of conduct disorder. However, some studies have been reported in which boys do not always have a higher risk for conduct disorder than girls (**14-16**)
* In our study, depressive disorder shows female and adolescent predominance. *It has been well-known that depression has an upsurge with the onset of puberty (****17****).*
* the present study shows no remarkable sex differences in rates of anxiety disorders. This result is consistent with previous clinical sample studies which reported equal sex rates of anxiety disorders in boys and girls (**22,23**)
* However, general population studies report female predominance in anxiety disorders (**24-26**). It is postulated that sex differences in the prevalence of anxiety disorders differ between general population samples and the clinical sample.

**Sex Differences in the Pathways of Major Depression: A Study of Opposite-Sex Twin Pairs**

* Because women consistently have a higher rate of major depression than do men (**1-5**), sex differences in the etiologic pathways to major depression have often been explored (**2,3,6-10**)

**Nationalität – Allergien**

**Aeroallergen Sensitization in Healthy Children: Racial and Socioeconomic Correlates**

* Despite numerous environmental and genetic investigations, reasons for worldwide and racial variations in allergic sensitization and respiratory allergy remain poorly understood (**12**)
* In this study, African American children were significantly more likely to be sensitized than Caucasian children to any allergen.
* Age adjusted prevalence of sensitization to one or more allergens was higher in non-Hispanic blacks (23,2%) than in non-Hispanic whites (19,8%) but the difference was not statistically significant (**16**)
* Non-Hispanic blacks were significantly more likely than non-Hispanic whites to have a positive skin test response to seven of the 10 allergens tested in NHANES III (**17**)
* Another study of NHANES III data utilized multivariate models to demonstrate that African American children aged 6 to 16 years were more likely to be sensitized to common indoor allergens after adjustment for multiple socioeconomic factors (**18**)
* Therefore, our data supports other family-based genetic studies that postulate a genetic basis for racial differences in susceptibility to allergic diseases such as asthma (**20**)
* Two other studies have suggested that African American children are more likely than Caucasian children to be sensitized to outdoor allergens (**21,22**)
* One study, performed only in children with asthma showed a strong association with African American race and sensitization to mixed tree pollen, mixed grass pollen, ragweed und mugwort/sage (**21**)
* The other study included a group of middle class children from suburban Detroit with and without asthma, and noted that African American children were more likely to be sensitized to bluegrass than European American children (**22**)

**~~Association between severe eczema in children and multiple comorbid conditions and increased healthcare utilization~~**

**Associations of childhood eczema severity: A US population based study**

* We found that severe eczema was associated with Black race and Hispanic ethnicity.
* Previous studies found that eczema prevalence was higher in children of African descent compared with Caucasians (**1, 20-22**)
* Studies of racial/ethnic disparities in asthma found that African-Americans have significantly worse asthma outcomes, while Hispanic have lower quality of life secondary to asthma (**23**)

**~~Asthma and physical activity in multiracial girls from three US sites~~**

**~~Asthma in U.S. Mexican-Origin Children in Early Childhood: Differences in Risk and Protective Factors by Parental Nativity~~**

**Atopic diseases and related risk factors among Dutch adolescents**

* Adolescents with a Surinamese/Antillean background reported more allergic symptoms and diseases than Dutch adolescents, whereas adolescents with a Turkish/Moroccan background reported less symptoms and diseases.
* The differences between ethnic groups might be due to genetic differences, differences in environment, or both. The results of a study by Hjern et al. (**36**) among two generations of migrants in Sweden point in the direction of heredity. A study by Grube and colleagues on the prevalence of atopic disorders among Turkish immigrants in Germany, however, points in the direction of environmental and cultural effects (**37**)

**Eczema prevalence in the United States: Data from the 2003 National Survey of Children´s Health**

* ISAAC revealed that AD affects children across the globe, although the disease prevalence varies substantially between countries (**Asher MI, et al, 2006**)
* Urban living and being of black race were significantly associated with a higher prevalence of eczema after controlling for possible confounders.
* Hanifin did not find statistically significant differences between various race populations and their prevalence of eczema. A few prior studies have reported racial disparities in eczema prevalence (**Davis LR, Marten RH, Sarkany I, 1961; Schachner L, Ling LS, Press S, 1983; Williams HC et al, 1995**)

**Ethnic variations in asthma hospital admission, readmission and death: a retrospective, national cohort study of 4,62 million people in Scotland**

* The majority of literature comes from the US and this has shown that African-Americans are at increased risk of exacerbations, hospital attendances, near death episodes, and mortality (**6-9**)
* A previous systematic review and meta-analysis investigating ethnic variations in asthma outcomes in the UK found that South Asians and Blacks were at substantially increased risk of hospital admission from asthma when compared to White European-origin populations (**11**)
* When compared to the reference White Scottish populations, people of South Africa descent (i.e. Pakistani, Indian and Other South Asians) had 20-50% increased rates of hospitalization from asthma, whereas people of Chinese origin had 30-40% lower rates.

**~~Ethnic variations in morbidity and mortality from lower respiratory tract infections: a retrospective cohort study~~**

**Exploring racial differences in IgE-mediated food allergy in the WHEALS birth cohort**

* Sicherer et al (**2**) found a higher prevalence of self-reported seafood allergy among African Americans responding to a telephone survey using random digit dialing; however, other studies have reported no significant differences (**3**) or report differences only in sensitization (**4,5**)
* Previous studies (**5,17**) used the National Health and Nutrition Examination Survey to explore patterns of food allergy and reported an increased risk for “non-Hispanic blacks”, males, and children.

**Geographic and racial variation in asthma prevalence and emergency department use among Medicaid-enrolled children in 14 southern states**

* Puerto Rican children have higher asthma prevalence (16,1%) than those of Mexican descent (5,4%). African American or non-Hispanic black children have twice the prevalence of asthma (16%) as non-Hispanic white children (8%)(**3**)
* Asthma-related hospitalization and mortality rates are three times higher among Black children than White children (**2**)
* Asthma prevalence rates are higher in urban regions than in rural areas (**10**)
* Between Black and White children, more counties had higher prevalence of asthma and higher ED visit rates among Black than White children.

**Identifying Individual, Cultural and Asthma-Related Risk and Protective Factors Associated With Resilient Asthma Outcomes in Urban Children and Families**

* Asthma burden is more pronounced in ethnic minority children compared to non-Latino white (NLW) children (**Centers for Disease Control and Prevention, 2007**).
* Puerto Rican children experience higher asthma prevalence rates and greater risk for asthma morbidity compared to children of other Latino ethnic groups, and to children of African-American (AA) and NLW backgrounds, even after accounting for socioeconomic status (**Lara, Akinbami, Flores & Morgenstern, 2006**)
* Among ethnic minority youth, those residing in urban settings display even higher levels of asthma morbidity (e.g. more asthma-related emergency department visits) (**Rand et al, 2000**)

**Incidence of respiratory and allergic symptoms in Italian and immigrant children**

* Children born to foreign parents had a lower life time incidence of wheezing and eczema symptoms than children born to Italian parents, a lower prevalence of family history of atopic diseases, and a lower prevalence of bronchitis, asthma-like bronchitis and bronchiolitis in the first two years of life.
* Children born in Italy to foreign parents were at increased risk of developing persistent cough or phlegm than children in other ethnic groups.

**Neighborhood Poverty, Urban Residence, Race/ ethnicity and Asthma: Rethinking the Inner-city Asthma Epidemic**

* Overall, Black race, Puerto Rican ethnicity and poverty rather than residence in an urban area per se are the major risk factors for prevalent asthma.
* Degree of African ancestry has been associated with asthma (**29,30,31**) suggesting a genetic explanation, although it can be difficult to fully account for confounding by socioeconomic status even in genetic analyses (**32, 33**), particularly because disparities in wealth, educational opportunities, family structure and employment by race/ ethnicity are even higher than what is represented by income (**34**) and can correlate with ancestry.

**Racial and Ethnic Disparities in Current Asthma and Emergency Department Visits: Findings from the National Health Interview Survey, 2001-2010**

* However, the burden of asthma falls disproportionately on children, racial/ethnic minorities, and persons with lower socioeconomic status (**3-6**)
* Non-Hispanic blacks have a higher rate of asthma-related emergency department visits, hospitalizations, and mortality than non-Hispanic whites (**2**)
* Prevalence of asthma episodes did not vary among racial/ ethnic groups; however, Non-Hispanic black and Puerto Rican adults and children were more likely to have an asthma-related ED/UCC visit than Non-Hispanic whites.
* Our findings were consistent with previous studies in that we did not identify any significant differences among racial/ ethnic groups in the risk of reporting an asthma episode, yet we identified the most apparent differences among use of the ED for asthma treatment (**10**)
* Even after adjusting for health-related and socioeconomic factors, the prevalence of asthma-related ED/UCC visits among Non-Hispanic black and Puerto Rican adults and children was nearly double that of Non-Hispanic whites.
* It is important to note that minorities are more likely to have uncontrolled or severe asthma which may result in their overuse of the emergency department (**15**)

**Sensitization and Allergic Histories differ between Black and White Pregnant Women**

* Racial differences in allergic diseases (prevalence and severity) have been reported with Black/African American individuals suffering disproportionately compared to White individuals (**1-8**)
* In our cohort of pregnant women in the urban and suburban areas of metropolitan Detroit, Black women had higher total IgE than White women, regardless of whether or not they were sensitized to allergens or had prior allergy-related diagnoses.
* In addition, Black women were more commonly sensitized to at least one allergen than White women and were more likely to have ever had a doctor diagnosis of eczema.
* While not limited to pregnant women, NHANES III data indicated that Black individuals age 6-59 years were more likely than White individuals to have had a positive skin prick test to at least one of 10 allergens (**1**)
* Data from NHANES 2005-2006 also demonstrated that total IgE was higher in Black / African American individuals than White individuals (**13**)

**Nationalität – Psyche**

**A Cross-Ethnic Comparison of Lifetime Prevalence Rates of Anxiety Disorders**

* Past studies have primarily documented lower prevalence rates of anxiety disorders in minority groups as compared to their White counterparts.
* Other results from this dataset have indicated a similar pattern in the prevalence of DSM-IV generalized anxiety disorder (GAD) and panic disorder (**Grant et al., 2005; Grant et al, 2006**)
* In contrast, some findings indicate no differences in prevalence rates between groups of Hispanics and White Americans with regards to panic disorder or SAD (**Karno et al, 1989; Katerndahl & Realini, 1993**).
* Our results indicate that individuals from minority groups, especially Hispanic or Asian respondents, are less likely to meet criteria for many of the anxiety disorders than White Americans.
* African Americans are also less likely to endorse criteria for GAD, PD, and SAD, but are more likely to meet diagnosis for PTSD.
* Across the board, Asian Americans endorsed less anxiety symptomatology, regardless of type, whereas White Americans presented with increased rates of anxiety disorders examined (except for PTSD) as compared to the three minority groups.

**Attention Deficit Hyperactivity Disorder Among Children Aged 5-17 Years in the United States, 1998-2009**

* ADHD prevalence increased from 1998-2000 to 2007-2009 for non-Hispanic white children (from 8,2% to 19,6%) and for non-Hispanic black children (from 5,1% to 9,5%)
* In 1998-2000, non-Hispanic white children had higher ADHD prevalence compared with all other race groups, and Mexican children had the lowest prevalence.
* In 2007-2009, ADHD prevalence was similar among non-Hispanic white, non-Hispanic black, and Puerto Rican children. ADHD was lower among Mexican children compared with children in the three other racial and ethnic groups.

**Clinical Profile of Attention Deficit Hyperactivity Disorder: Impact of Ethnic and Social Diversities in Israel**

* Accordingly, in the United States, racial / ethnic minorities are diagnosed with ADHD at lower rates than in white children (**5**) and, therefore, may have unmet treatment needs (**6**)
* African-American Children are diagnosed with ADDH at only two-thirds the rate of white children despite displaying greater ADHD symptomatology (**7**)
* Hispanic children have also been reported to be under-diagnosed (**8**)
* There is probably more than one reason for these disparities. Lower accessibility to health professionals and service utilization, lower awareness and likelihood of referral by school professionals, limited ability to pay for health care, and negative attitudes toward disability stigmatization probably play a major role (**9-13**)

**Cross-Cultural Aspects of Anxiety Disorders**

* Anxiety disorders are strongly influenced by ethnic, racial, and cultural factors, in part because of culturally dependent variations in the beliefs about the underlying physiology of the illness syndromes (**2**) and the social context and norms a person is exposed to (**3**)
* The results showed that Asian Americans consistently endorsed symptoms of all four major anxiety disorders (social anxiety disorder, generalized anxiety disorder, panic disorder, and post-traumatic stress disorder) less frequently than any of the other racial groups (Hispanic American, African American, White American). White Americans consistently endorsed symptoms of social anxiety disorder (12,6%), generalized anxiety disorder (8,6%) and panic disorder (5,1%) more frequently than African Americans (8,6%, 4,9%, 3,8%, respectively), Hispanic Americans (8,2%, 5,8%, 4,1%, respectively) and Asian Americans (5,3%, 2,4%, 2,1%, respectively). African Americans more frequently met criteria for post-traumatic stress disorder (PTSD) (8,6%) as compared to the White American subgroup (6,5%), Hispanic Americans (5,6%) and Asian Americans (1,6%)

**Cultural Aspects in Social Anxiety and Social Anxiety Disorder**

* 12-month prevalence rate of SAD:
* US adults: 7,1-7,9% (**3,4**)
* Chile: 6,4% (**5**)
* Brazil: 9,1% **(6**)
* Taiwan: 0,4% (**7**)
* Korea: 0,2-0,6% (**8,9**)
* China: 0,2% (**10**)
* Japan: 0,8% (**11**)
* Mexico: 1,7% (**12**)
* Nigeria: 0,3% (**13**)
* South Africa: 1,9% (**14**)
* Europe: 0,8% (**15**)
* Based on this review, we can conclude that social fears are very much dependent on a particular culture. The same social behavior may be perceived as normal in one culture and “unreasonable and excessive” in another.

**Diagnosed Attention Deficit Hyperactivity Disorder and Learning Disability: United States, 2004-2006**

* Hispanic children were less likely than non-Hispanic black children and non-Hispanic white children to have ADHD (with and without LD)

**~~Ethnic Variation in the Cross-sectional Association between Domains of Depressive Symptoms and Clinical Depression~~**

**Measurement Equivalence Across Racial / Ethnic Groups of the Mood and Feelings Questionnaire for Childhood Depression**

* **Saluja and colleagues (2004)** found that American Indian youths reported the highest prevalence of depressive symptoms (29%), followed by Hispanic (22%), non-Hispanic White (18%), Asian American (17%), and African American (15%) youths.
* **Roberts and colleagues (1997)** found that the prevalence of depression among Mexican American adolescents was 12%, while for non-Hispanic white adolescents it was 6,6% without adjustment for impairment.
* In comparison to white youth, higher proportions of Hispanic American youth endorse somatic symptoms (such as headaches and stomachaches), decreased pleasure, fatigue, low self-esteem, crying, and concentration difficulties (**Choi and Gi Park 2006; Roberts and Sobhan 1992**); higher proportions of African American youth endorse anhedonia (**Choi and Gi Park 2006**); and higher proportions of Asian American youth endorse depressed mood and low self-esteem (**Choi and Gi Park 2006; Choi et al. 2006**)

**Prevalence, associated factors and predictors of anxiety: a community survey in Selangor, Malaysia**

* *The point prevalence of anxiety disorders was almost double in females (5,2%) as compared to males (2,8%) (****5?****)*
* *Adults aged 20-64 years were shown to have the highest prevalence (5%) among the other age groups (****5?****)*
* Data from the Global Burden of Disease Study 2010 which included 21 regions worldwide, showed the adjusted point prevalence of anxiety disorders of 6,1% in North Africa/ Middle East and the least in East Asia (2,1%). It was observed that regions with conflict countries, high income countries and Latin America countries have higher prevalence of anxiety disorders.
* The lowest prevalence of anxiety disorder was found in China (lifetime: 4,8%, 12-month: 3%) and the highest prevalence was in United States (lifetime: 31%, 12-month: 19%). It has been noted that western developed countries have higher prevalence of anxiety disorders compared to the developing countries.

**~~Prevalence, Patterns, and Correlates of Co-Occurring Substance Use and Mental Disorders in the US: Variations by Race/ Ethnicity~~**

**~~Racial/ Ethnic Differences in Perceived Reasons for Mental Health Treatment in US Adolescents With Major Depression~~**

**Racial/ Ethnic Differences in the Correlates of Mental Health Services Use among Pregnant Women with Depressive Symptoms**

* *Women are more than twice as likely as men to be affected by depression (****30****)*

**Racial /Ethnic Disparities in ADHD Diagnosis by Kindergarten Entry**

* A recent review (**Miller, Nigg & Miller, 2009**) indicated that Black children are diagnosed with ADHD at two-thirds the rate of White children despite displaying greater symptomatology.

**The Prevalence of DSM-IV Attentiont Deficit/ Hyperactivity Disorder: A Meta-Analytic Review**

* *Results for all diagnostic algorithms indicated that males were more likely than females to meet criteria for an overall diagnosis of ADHD and for each of the DSM-IV subtypes.*
* Moderator analyses indicated no significant differences in the prevalence of overall ADHD or any of the DSM-IV subtypes when results were stratified by country or region of the world
* *Studies in Colombia (****21****), Germany (****22****), Iran (****23****), Australia (****24****) and the United States (****25,26****) indicated that individuals from low SES environments were 1,5-4 times more likely to meet criteria for ADHD than individuals from families with high SES. However, other studies did not find a significant relation between SES and the prevalence of ADHD (****12, 27-29****) suggest that additional research is needed to test more conclusively whether low SES may be a risk factor for ADHD in at least some populations.*
* Initial studies in the United States that defined ADHD, based on parent and teacher ratings suggested that African American children exhibited more symptoms of ADHD than non-Hispanic White or Hispanic children (**28, 30, 31**)
* Similarly, a later study that measured ADHD with a structured interview in a sample of 4-year-old children reported higher rates of ADHD in African American and Hispanic children than White, non-Hispanic children, but these differences were no longer significant after differences in socio-economic status were controlled (**32**)
* In contrast, 2 other studies in the United States used structured interviews to diagnose ADHD based on full DSM-IV criteria, and found no difference in the overall prevalence of DSM-IV ADHD in samples of African American and non-Hispanic White children (**26, 33**)
* In fact, 1 of these studies (**26**) and in a study of adult ADHD based on retrospective ratings (**34**), it was found that non-Hispanic-White individuals were more likely to meet criteria for ADHD than Hispanic individuals.

**Familie – Allergien**

**~~A genome-wide search for linkage to allergic rhinitis in Danish sib-pair families~~**

**Allergic multimorbidity of asthma, rhinitis and eczema over 20 years in the German birth cohort MAS**

* *We found that having parents with allergies is not only a strong predictor to develop any allergy, but it strongly increases the risk of developing allergic multimorbidity*

**Allergic rhinitis: prevalence and possible risk factors in a Gulf Arab population**

* *Arab nationality, younger age, female gender and higher education were all significantly and independently associated with the prevalence of AR*
* *Family history (father and mother) of rhinitis showed the strongest association*

**Analysis of various risk factors predisposing subjects to allergic rhinitis**

* Living in a big family has been considered to protect against AR, because of a higher probability of infection by older siblings (**6**). Immune downregulation mediated by the TH2 response may support this hypothesis (**21**). However, the number of persons in the household did not affect AR prevalence in the present study.
* *The educational levels of the mother and father were associated with child AR prevalence in other studies (****5, 9, 14****). Personal educational levels were also associated with AR prevalence in adults (****8****). However, we found no such associations in the present study.*
* *It is well-known that AR occurs frequently in subjects of higher socioeconomic status (****2, 9, 14*** *). However, neither higher education nor high income were risk factors for AR in the present study.*
* *A family history of AR was strongly associated with AR development in many studies (****37-40****). In agreement with previous reports, we found that a parental history of AR strongly influenced AR prevalence.*

**Association between Household Income and Asthma Symptoms among Elementary School Children in Seoul**

* *Previous investigations have shown that SES is associated with children´s health, including asthma (****5,6****). Rona reported that poverty may affect asthma as an etiological factor and/or a factor contributing to the exacerbation of the condition (****7****). Asthmatic children with low SES seem to experience more asthmatic episodes, more hospitalizations, and more severe symptoms compared with those children with high SES (****8,9****)*
* Previous studies reported that having more siblings protects against allergic diseases. In the literature, this phenomenon has been described as the “sibling effect”. In their systematic review; Karmaus and Botezan reported that 22 of 31 studies reported a negative association between asthma and the number of siblings (**10**). These findings were mostly from Europe. In Korea, Yang et al. (**11**) reported that having no older siblings was a risk factor for persistent wheezing in infants.
* *Household income and asthma symptoms were inversely associated after adjustment other potential risk factors.* This association was modified by number of siblings. For children with two or more siblings, the effect of household income on asthma symptoms was not significant.
* *Hafkamp-de Groen et al. (****18****) reported that low household income levels and maternal education levels were risk factors for wheezing after age 1.*
* Sibship size is reported as a protective factor against allergic diseases **(25)**. However, causal factors explaining the sibling effect are still unclear.

**Association Between Socioeconomic Status and the Development of Asthma: Analyses of Income Trajectories**

* Asthma disproportionately burdens children living in economically disadvantaged urban communities. Some of this disparity can be attributed to the observation that once asthma is established, lower utilization of prophylactic medications and higher rates of hospitalization are more common among low-income children than among high-income children (**1,2**).
* Evidence for the link between socioeconomic status and the development of asthma is less strong – and is, in fact, contradictory. (**1,3**)
* We observed that children who had lived in a low-income household since birth had a 2-fold increased risk of having asthma at age 14 years.
* In our study, family stress was twice as common in low-income households, and was more prevalent when poverty persisted. Pregnancy, early life stress, and chronic family stress were independently associated with asthma at age 6 years.
* Family conflict has been known to precipitate elevated cortisol levels in children. Furthermore, heightened production of atopic cytokines, IL-5, and IL-13 has been reported in children with asthma experiencing higher stress levels, as have higher eosinophil counts (**7, 39**)
* Our finding of an inverse association between having a single parent, and having asthma at age 14 years suggests that children born to single parents live in a family SES environment that protects against asthma development. The single-parent effect appears to be related to the phenomenon of “moving out of poverty”. Single parents accounted for 44% of households in the increasing-income category. When single-parent status was added to models, it diminished the inverse association between increasing income and asthma.

**Asthma in Late Adolescents of Western Mexico: Prevalence and Associated Factors**

* *In this study we show that maternal history of allergic and atopic disorders is strongly associated with asthma, and this was also found to be the case with allergic rhinitis. From the genetic point of view there are several gene polymorphisms which explain why heredity on the mother´s side has a greater impact than on the father´s in the development of asthma: the presence of polymorphisms in the maternal antioxidant genes (GSTP1 and GSTM1, GSTT1) and the high affinity IgE receptor beta chains (FceRI-beta), as well as in the atopic alleles located in the 11q13 chromosome (****28****).*

**~~Atopic dermatitis in children~~**

**Atopic dermatitis is a serious health problem in Poland. Epidemiology studies based on the ECAP study**

* *The ISAAC Phase One found that the prevalence of AD in children and adolescents varied from less than 2% in China to approximately 20% in Australia, the United Kingdom and Scandinavia (****2,3****).*

**~~Childhood Atopic Dermatitis in Taiwan~~**

**Chronic physical health conditions among children of different racial/ ethnic backgrounds**

* *Over the years, some research evidence has illustrated that there is a large racial/ ethnic disparity in chronic physical conditions, with 19,8% of Black children ever having asthma compared with 12,9% of Hispanic children and 11,3% of White children (****3****)*
* In the current study, regardless of race/ ethnicity, children of single mothers were found to be at increased risk for asthma compared with biological/ adopted two-parent families, which is consistent with previous findings. The lifetime prevalence of asthma among US children in 2007 was 17,6% among single-mother households compared with 11,7% in two-parent households (**3**).

**Determinants of the Incidence of Childhood Asthma: A Two-Stage Case-Control Study**

* *The presence of asthma and atopy in the family, most importantly maternal history of asthma, is one of the many risk factors reported in the literature (****3, 4****)*

**~~Diverging prevalences and different risk factors for childhood asthma and eczema: a cross-sectional study~~**

**Do early-life exposures explain why more advantaged children get eczema? Findings from the UK Millennium Cohort Study**

* *One interesting feature of previous epidemiological studies of eczema is the finding of a reverse social gradient, with higher prevalence in children from more advantaged circumstances (****7,8****). The reasons for the reversed social gradient are unclear. Higher prevalence rates of allergies in more privileged social groups have been considered consistent with the hygiene hypothesis (****9****) and understanding this phenomenon may provide broader insights into the aetiology of eczema.*
* *Female sex and Pakistani and Bangladeshi ethnicity were protective for eczema.*
* *The natural history of atopic eczema suggests a male predominance in childhood and female predominance from adolescence (****28****)*

**~~Early protective and risk factors for allergic rhinitis at age 4 ½ years~~**

**Environmental Factors Associated with Altered Gut Microbiota in Children with Eczema: A Systematic Review**

* *The prevalence of eczema in children is much higher in developed countries than in developing countries (****4****)*

**Environmental factors associated with childhood eczema: Findings from a national web-based survey**

* There is a clear genetic predisposition for AD (**5,6**)
* Regarding family size and household income, the protective effect of the number of siblings has been well known since the 1990s (**16**), supporting the so-called “hygiene hypothesis”. Our analysis corroborated these findings. However, in contrast to previous studies showing a correlation between an increase in the prevalence of eczema and an increase in household income (**17**), our study showed a decrease in prevalence among the high income group. This trend was similar to the findings of an US population-based study carries out in 2007 (**18**)

**Factors associated with the severity of childhood rhinoconjunctivitis**

* **Siehe Alter – Allergien**

**Family eczema-history in 2-year olds with eczema: a prospective, population-based study. The PACT-study, Norway**

* Several studies have emphasized the association of atopy in the mother with the development of atopic eczema in the child whereas the evidence for association to an atopic father has been somewhat weaker (**3-6**). In the last years, however, other studies have concluded that the association with both parental as well as maternal atopy is important in the development of allergic disease in the offspring (**7-10**)
* Several investigators have studied the protective effect of having a high number of siblings on the development of allergic diseases (**13, 14**). However, few prospective studies from the general population have addressed the association between allergy related disorders in older siblings and the child under study (**4, 15**)
* Having one or several siblings with eczema, with or without either of the parents with eczema reported at 1 year, was also strongly associated with reported eczema at 2 years and significantly stronger for siblings only.
* Several studies describe a maternal line of inheritance concerning eczema (**5, 6, 22**). This maternal line of inheritance has led investigators to hypothesize that environmental influences operating in utero or in early infancy may be essential in determining disease expression (**24**)
* In this study eczema in the index child was significantly associated with eczema in mothers as well as fathers. This finding is in accordance with several others (**8,9,25**) and not supportive to the hypothesis of parental genomic imprinting.

**~~Genetic and Environmental Risk Factors for Childhood Eczema Development and Allergic Sensitization in the CCAAPS Cohort~~**

**~~Genetic, familial and environmental correlates of asthma among early adolescents in Sri Lanka: a case control study~~**

**Increased health risks of children with single mothers: the impact of socio-economic and environmental factors**

* Victorino and Gauthier (**29**) demonstrated recently in a large cross-sectional study in USA that children from single-mother families were more likely to have asthma compared with children with two biological parents even after adjusting for household income.

**~~Inter-Relationship between Rhinitis and Conjunctivitis in Allergic Rhinoconjunctivitis and Associated Risk Factors in Rural UK Children~~**

**~~Pilot Study of Low-Income Parents´ Perspectives of Managing Asthma In High-Risk Infants and Toddlers~~**

**Preschool children´s health and its association with parental education and individual living conditions in East and West Germany**

* On the other hand, atopic diseases and allergic sensitization in both children and adults have been reported to occur more frequently in higher than in lower socio-economic groups in eastern and western industrialized countries (**13-15**). Children, whose parents have a high education suffer from less educated parents, this relationship hold true in West Germany as well as in East Germany (**16**).
* Mielck (**17**) reviewed 24 studies on the association between childhood asthma and socioeconomic status. He resumed that the studies did not reveal a clear picture; positive associations were as frequent as negative ones, and most studies showed no association at all.
* Children of higher educated parents were more often sensitized against grass pollen or house dust mites, but had higher birth weights, lower airway resistance and were less overweight at the age of six.
* To live as a single child in a family was not only a risk factor for allergies, but also a risk factor for overweight in both parts of Germany.

**~~Prevalence and Risk Factors for Atopic Dermatitis: A Cross-sectional study of 6,453 Korean Preschool Children~~**

**~~Prevalence and Severity of Symptoms of Asthma, Allergic Rhinitis, and Eczema in 10- to 15- Year-Old Schoolchildren in Central Taiwan~~**

**~~Prevalence of Allergic Disorders among Primary School-Aged Children in Madinah, Saudi Arabia: Two-Stage Cross-Sectional Survey~~**

**~~Prevalence of allergic rhinitis and risk factors in 6 – to 7- year- old children in Istanbul, Turkey~~**

**Relative Importance and Additive Effects of Maternal and Infant Risk Factors on Childhood Asthma**

* We found that having no older siblings at home was associated with an increased risk of childhood asthma. This significant protective effect may be a reflection of the hygiene hypothesis (as older siblings may share protective bacteria with their infant sibling). Azad and colleagues recently published data from the Canadian Healthy Infant Longitudinal Development (CHILD) birth cohort in which 24 healthy term infants´ intestinal microbiome was measured, demonstrating that having older siblings does alter the microbiome (**54**).

**Risk factors associated with wheezing in infants**

* In this study, the presence of asthma in the infants´ relatives (mother, father, and siblings) was associated with risk of wheezing in the first year of life in both the bivariate and multivariate analyses.
* In a Brazilian cohort study, family history of asthma assessed at four years of age was significantly associated with the pattern of transient and persistent wheezing (**5**)

**~~Risk factors for wheezing in infants born in Cuba~~**

**~~Risk factors for wheezing in the first year of life~~**

**Risk Factors for Wheezing, Eczema and Rhinoconjunctivitis in the Previous 12 Months among Six-Year-Old Children in Himeji City, Japan: Food Allergy, Older Siblings, Day-Care Attendance and Parental Allergy History**

* He found that the increasing trend for smaller numbers of children in families was related to the prevalence of hay fever, and proposed that allergic diseases could be prevented by infection in early childhood (the “hygiene hypothesis”) (**1?**)
* Recently, **Ohfuji et al. (7)** reported an epidemiological study conducted among children aged 6-15 years in Okinawa. They demonstrated an inverse relationship between sibship size (especially the presence of older siblings) and the prevalence of allergic disorders.
* Our study showed that the presence of allergic diseases In the parents was significantly related to the presence of allergic diseases in their 6-year-old children.
* **Arshad (20)** reported that a positive family history of allergy was a significant risk factor for any allergic condition, including asthma, eczema and rhinitis, in 2-year-old children on the Isle of Wight, UK.
* In our study, the presence of older siblings showed a significant inverse relationship with the prevalence of RP. This may be explained by Strachan´s hygiene hypothesis that allergic diseases can be prevented by infection in early childhood, transmitted by unhygienic contact with older siblings, or acquired prenatally from a mother infected by contact with her older children (**1**).

**Risk factors of childhood asthma in children attending Lyari General Hospital**

* *Our study found that age, gender and breastfeeding were not associated with asthma in children.*

**Role of the Home Environment in Rhinoconjunctivitis and Eczema in Schoolchildren in Pamplona, Spain**

* A family history of atopic disease is a known major risk factor (**2**)

**Sibling number and prevalence of allergic disorders in pregnant Japanese women: baseline data from the Kyushu Okinawa Maternal and Child Health Study**

* Although an inverse relationship between number of siblings and likelihood of allergic disorders has been shown in many epidemiological studies, the biological mechanism underlying this phenomenon has not yet been identified (**1**)
* Strachan first proposed the hygiene hypothesis in 1989, suggesting that exposure to infections transmitted by unhygienic contact with older or younger siblings might influence the skewing of the Th1/ Th2 balance away from allergy-promoting Th2 cells toward Th1 cells, leading to a reduced risk of allergic disorders (**2,3**)
* However, a study of young adults in the UK showed that both the number of gastrointestinal infections before the age of 5 years and the number of brothers were independently inversely related to the prevalence of atopy after mutual adjustment for the 2 factors (**4**)
* The intrauterine programming hypothesis has been proposed as an alternative explanation of the mechanism of the sibling effect (**1**). According to this theory, maternal immunomodulation acquired through multiple pregnancies might be transmitted to the developing fetus (**5-7**). Although a cohort study in the USA found no association between birth order and total cord blood IgE level (**8**), another recent study reported a significant interaction between birth order and IL13 polymorphisms affecting allergic sensitization: the effect of IL13 was restricted only to firstborn children, suggesting adverse prenatal programming in firstborn offspring (**9**).
* The current study found a significant inverse exposure-response relationship between the number of older siblings and the prevalence of rhinoconjunctivitis, but not wheeze, asthma, or eczema. Total sibship size and number of younger siblings were not materially associated with the prevalence of wheeze, asthma, eczema, or rhinoconjunctivitis.

**Siblings, asthma, rhinoconjunctivitis and eczema: a worldwide perspective from the International Study of Asthma and Allergies in Childhood**

* More than two decades have elapsed as an inverse association was reported between numbers of siblings (particularly older siblings) and the parentally reported prevalence of hay fever and eczema in two British national cohorts, born in 1970 (**1**) and 1958 (**2**).
* Inverse associations of total sibship size with disease labels (particularly for hay fever and eczema) are largely attributable to the number of older siblings and are mainly a phenomenon of more affluent countries.
* In contrast, the greater prevalence of more severe symptoms of asthma and eczema in larger families is globally more widespread, and related to total numbers of brothers and sisters, rather than to position in the sibship.
* More recent commentaries have suggested not only that the immunological processes underlying sibship size effects may extend to a wider range of disease conditions (**33-35**), but also that mechanisms other than reduced exposure to infection may need to be considered as explanations for the associations of asthma and allergies with family size and birth order, even in higher-income countries (**35-38**)

**Single parent households and increased child asthma morbidity**

* Children living in a single parent households are nearly twice as likely to have a physician diagnosis of asthma as children living in households with married parents (**2,3**).
* Although the association between caregiver marital status and asthma prevalence has been examined, the influence of marital status on asthma-related morbidity is not weel understood. One study found that children from single parent households filled fewer prescriptions for controller medications and were more likely to have their asthma rated as severe. This study also associated a higher number of children living in the home with fewer prescriptions filled and an increased likelihood of asthma exacerbations (**4**).
* Several psychosocial factors, such as lower household income, are more common among single parents and also play a role in asthma (**3, 8-10**). Indeed, poor children are more likely to have an asthma diagnosis, require hospitalization and seek care in the emergency room than children living above the poverty level (**2, 11-13**).
* Caregiver mental health has also been related to both single-parenthood and asthma morbidity. Children whose caregivers have a mental illness are roughly two times more likely to experience an asthma hospitalization (**14**).
* Adjusting for age and gender, children with asthma whose parents self-described themselves as single had more than 40% increase in the odds of returning to the hospital within 12 months when compared to children from homes with married parents.
* Lower household income appeared to explain this relationship: lower income was both more common in single parent households and also a powerful, independent predictor of healthcare reutilization.
* Nearly 60% of children in this hospitalized asthma cohort lived in households headed by single parents.

**~~Trends in the prevalence of asthma, rhinitis, and eczema in 15 year old adolescents over an 8 year period~~**

**Familie – Psyche**

**Analysis of Personal and Family Factors in the Persistence of Attention Deficit Hyperactivity Disorder: Results of a Prospective Follow-Up Study in Childhood**

* Regarding factors related to the family context, a recent review that focused on the relationship between parenting and functional impairments showed that ADHD is associated with greater stress within the family, higher rates of parental psychopathology, and conflicted parent – child relationships (**38**).
* Recent findings confirmed that, compared to controls, parents of children screening positive for ADHD reported greater stress and more inconsistent and hostile parenting (**39 , 40**).

**~~Association between sociodemographic characteristics and anxiety levels of violence-exposed patients admitted to emergency clinic~~**

**~~Association of Sibling Aggression With Child and Adolescent Mental Health~~**

**~~Birth Order and Sibling Gender Ratio of a Clinical Sample of Children and Adolescents Diagnosed with Attention Deficit Hyperactivity Disorder~~**

**Characteristics and co-morbidity of ADHD sib pairs in the Central Valley of Costa Rica**

* *However, these studies have also suggested that the genetics of ADHD are complex, and may differ between populations or ethnic groups (****13****)*
* *For example, the gender ratio with a male predominance and the relatively early mean age of onset (approximately 5 years of age) is in line with what has been described previously (****37****)*
* Perhaps our most striking findings were the high rates of anxiety disorders (55% of the overall sample) and the high sib-sib concordance and heritability estimates for anxiety disorders (~40% correlation; 81% heritability).

**Common Genetic and Environmental Influences on Major Depressive Disorder and Conduct Disorder**

* *Boys and girls are equally affected by MDD in childhood, but by adolescence, depression affects twice as many girls as boys.*

**Depression in late adolescence: a cross-sectional study in senior high schools in Greece**

* Similarly to findings reported by studies in adults (**21**), lower socioeconomic status has been correlated with a greater prevalence of depression in adolescents (**22**).
* In our study the socioeconomic risk factor was conceptualized through the financial difficulties of the family, as perceived and reported by the adolescent. Our finding is consistent with previous studies, which showed that adolescents, who thought that their socioeconomic status was somewhat or much worse off than their peers had a higher prevalence of depression (**22**). In our study both depression according to ICD-10 and depressive symptoms correlated with financial difficulties of the family.
* A number of theories have tried to identify the pathways linking socioeconomic status and depression (**62**). According to the stress theory lower socioeconomic status is associated on the one hand with higher levels of chronic stress due to financial difficulties, family problems and adverse living conditions, and with lower levels of personal resources, such as coping style, self-esteem, mastery and locus of control on the other. Many studies in depression are consistent with the above mentioned theory, while evidence supporting the strain theory, which underlines the decisive role of contextual and community features such as values, social welfare, social cohesion, infrastructure and policies, is conflicting (**60**).

**Early Risk Factors for Depressive Symptoms among Korean Adolescents: A 6- to -8 Year Follow-up Study**

* *According to various studies, by ages 15-18 yr, the rate sharply increases (****4****): an implication that adolescence is a vulnerable stage correlated to depression.*
* *Some studies represented that Asians demonstrated more persistent symptoms of depression compared to European Americans (****15****), whereas others found lower depression rates in Asian adolescents (****16****).*
* Sociodemographic factors, including family structure and economic status, did not significantly predict depression in girls. On the other hand, boys were more sensitive to environmental factors than girls were. The fact that boys who did not live with both parents were likely to show depressive symptoms 6-8 yr later, implying that boys respond more to environmental support than girls do. This result is not consistent with that of previous reports in which the environment has a higher influence on girls than on boys (**35**).

**Family income in early childhood and subsequent Attention-Deficit/ Hyperactivity Disorder: A quasi-experimental study**

* Research has documented a robust negative relationship between family socioeconomic status and its components (i.e. income, education, and occupation) and offspring ADHD (**Biederman, Faraone & Monuteaux, 2002; Biederman et al. 1995; Counts, Nigg, Stawicki, Rappley & von Eye, 2005; Hjern, Weitoft & Lindblad, 2010; Scahill et al. 1999**).
* A natural experiment with American Indian families found that increases in income were followed by a significant reduction in their children´s conduct problems (**Costello, Compton, Keeler & Angold, 2003**).
* Similarly, a comparison of differentially exposed siblings (who share genetic factor and many of the same unmeasured family characteristics) showed that sibling differences in Family income during childhood were associated with sibling differences in conduct problems (**D´ Onofrio et al, 2009**). Similar results have been reported also from other quasi-experimental studies (**Dearing, McCartney & Taylor, 2006; Hao & Matsueda, 2006**).
* Altogether, the findings suggest that the association between family income and conduct problems in offspring partly reflects social causation; that is, low SES causes offspring conduct problems indirectly via environmental adversity and stress that interfere with parenting and limit the resources available for one´s children (**Costello, et al. 2003; D´Onofrio et al., 2009**).

**Family Structure and Children´s Health in the United States: Findings From the National Health Interview Survey, 2001-2007**

* *Children living with biological or adoptive parents – either in nuclear families or unmarried biological or adoptive families – were less likely to have ever suffered from asthma than children in the remaining family types. Children in single-parent families were more likely than children in nuclear families to have asthma regardless of their gender, race/ ethnicity, parent´s education, family´s poverty status, place of residence, or region. Children living in unmarried biological or adoptive families were least likely to have hay fever in the past 12 months. Children in unmarried biological or adoptive families were less likely than children in nuclear, single-parent, blended, extended or other families to have hay fever. ETC*
* For example, children in nuclear families were generally less likely than children in nonnuclear families to be in good, fair, or poor health; to have a basic action disability; or to have learning disabilities or ADHD. Additionally, children living in nuclear families were less likely to be poorly behaved or to have definite or severe emotional or behavioral difficulties during the past 6 months than children living in nonnuclear family types.

**Home environment: association with hyperactivity/ impulsivity in children with ADHD and their non-ADHD siblings**

* Twin, family and adoption studies support a genetic component to ADHD (**Schachar & Wachsmuth, 1990; Frick et al., 1991; Levy et al. 1997; Sprich et al., 2000**) with heritability estimated 76 % (**Faraone et al., 2005**).
* Childhood psychiatric disorders are associated with severe marital discord, paternal psychopathology, maternal psychiatric disorder, large family size, fostered children and low social status (**Rutter, 1973**).
* A longitudinal study has shown that family adversity predicts psychiatric disorders in children, and in particular early onset disorder, disorders in boys, and conduct disorders (**Blanz et al., 1991**).
* Adopted children have higher rates of ADHD than non-adopted children (**Keyes et al., 2008; Beverly et al., 2008**) and those adopted later have higher rates of ADHD (**Beverly et al, 2008**).
* A less supportive home environment significantly correlated with more teacher-rated hyperactivity/ impulsivity and a greater risk of oppositional disorders in those with ADHD-CT, and was associated with more parent-rated hyperactivity/ impulsivity and oppositionality in non-ADHD siblings.

**~~Impact of Family Structure on Stimulant Use among Children with Attention- Deficit/ Hyperactivity Disorder~~**

**~~Parent-Reported Attention Deficit / Hyperactivity Symptomatology in Preschool-Aged Children: Factor Structure, Developmental Change, and Early Risk Factors~~**

**~~Pilot Study on Depression Among Secondary School Students in Selangor~~**

**Predictors of the onset of depression in young children: a multi-method, multi-informant longitudinal study from aged 3 to 6**

* In a large birth cohort, Najman and colleagues (**2005**) found that low socioeconomic status, maternal health problems in pregnancy, marital instability and conflict, maternal anxiety, poor child health, and less positive maternal attitudes toward caregiving, generally assessed six months after childbirth, predicted children´s depressive symptoms at age 5.
* In a sample of 3-6 year-old children, Luby and colleagues (**Luby, Belden & Spitznagel, 2006**) reported that family history of mood disorders and number of stressful life events predicted depressive symptoms six months later.

**Preschool Anxiety Disorders in Pediatric Primary Care: Prevalence and Comorbidity**

* Associations were found between generalized anxiety disorder and the number of biological parents in the household, such that living with both biological parents appeared to be protective.
* A higher prevalence of disorders among children exposed to single parenthood has been reported (**38, 39**).
* Living with a greater number of siblings was associated an increased risk for generalized anxiety disorder and social phobia.
* Kessler et al. (**37**) reported a lower prevalence of disorders among adolescents with 1 versus 2 or more siblings.
* *Female preschoolers were more likely to meet criteria for separation anxiety disorder.*
* *Studies have indicated a greater prevalence of separation anxiety disorder for girls than boys in both community (****40-4344)*** *and clinical samples (****45****).*

**Prevalence and Predictors of Clinically Significant Depressive Symptoms Among Chinese and Malawian Children: A Cross-Cultural Comparative Cross-Sectional Study**

* *The results showed that Mexican American youths had higher rates of depression than other groups and their socioeconomic status was relatively lower than their counterparts (****Roberts, Roberts & Chen, 1997****) argumentatively.*
* *Based on the CDI cut-off point of 19, Chinese participants had a higher rate of clinically significant depressive symptoms (16%) compared to Malawian participants (12,4%). A similar study found high levels of depressive symptoms among Chinese adolescents as compared to South Africans (****Steptoe, Tsuda, Tanaka & Wardle, 2007****).*
* A study which compared the psychosocial outcomes between Chinese children without siblings and those with siblings found that girls who were the only children in their families had higher scores of depressive symptoms than those with siblings (**Tseng et al., 1998**).
* *Of the 16% of the Chinese children who had clinically significant depressive symptoms, 34,2% were girls and 65,8% were boys, indicating that boys had relatively more depressive symptoms than girls. It is argued that in Chinese culture, parents and communities have greater expectations from boys which put much pressure on them (****Shang et al, 2010****). Unlike Malawian children, of the 12,4% who had clinically significant depressive symptoms, 60% were girls and 40% were boys. This is consistent with findings from a study done in Kenya (****Khasakhala, Ndetei, Mutiso, Mbwayo & Mathai, 2012****), where prevalence rate of depressive symptoms among girls was 31% compared to 22,6% among boys. It is evident that girls carry more pre-existing risk factors for depression that combine with greater biological and social challenges during adolescence (****Dong, Wang & Ollendick, 2002; Wang, He, Fang & Li, 2011****).*

**Prevalence and risk factors of anxiety status among students aged 13-26 years**

* A higher anxiety score was found in girls, undergraduate and senior high students, rural students and the no-only children, partial introverted students, extreme manic and dietary bias students, the reason may be that there are gender difference in coping press. The results in our study are consistent with previous national and international studies (**11-13**).

**Prevalence of Attention-Deficit/ Hyperactivity Disorder Symptoms in Preschool-aged Iranian Children**

* The results from our study indicate that children living in a single parent home were more symptomatic based on evaluation by teachers. One explanation may be that being single parent has a negative effect in teacher perception of child´s behavior. Also there is the possibility that in such families there is a lack of adequate emotional support that leads to behavior abnormalities in children.
* We found that low level of parental education is a predictor variable for ADHD symptoms.

**Risk and Protective Factors Associated with Trajectories of Depressed Mood from Adolescence to Early Adulthood**

* *Risk factors associated with higher levels of depressive symptoms in both boys and girls include being African-American, Hispanic, or Asian/ Pacific Islander (****Wight, Aneshensel, Botticello & Sepulveda, 2005****),* lower socioeconomic status (**Kandel & Davies, 1982**) etc.
* Social support from parents and peers also buffers adolescents from depression (**Galambos et al., 2004; Lewinsohn, Roberts et al. 1994; Windle, 1992**), although some studies have reported this association for females but not males (e.g. **Gutman & Sameroff, 2004**).

**Sibling Bullying and Risk of Depression, Anxiety and Self-Harm: A Prospective Cohort Study**

* Being victimized by bullies has been associated with an increased risk of depression, anxiety and self-harm (**1-3**)
* Using data from a large, prospective cohort study, we found evidence of strong dose-response associations between being the victim of sibling bullying at age 12 years and depression and self-harm at 18 years.

**Sibling risk of anxiety disorders based on hospitalizations in Sweden**

* A population-based sample of twins from Virginia showed a modest genetic influence of 36% for agoraphobia, 28% for panic disorder and 23% for generalized anxiety disorder (**2**). Another study on twins demonstrated genetic influences as high as 44% on the development of panic disorder (**3**). A recently published large-scale population-based study from our group found that age-specific familial risks of anxiety disorders had a twofold increased risk among individuals having a parent with anxiety disorder (**4**).

**Socioeconomic Associations with ADHD: Findings from a Mediation Analysis**

* Children from socioeconomically disadvantaged backgrounds are more at risk of mental health problems (**12**).
* Although the majority of risk for ADHD is thought to be incurred through heritable factors – with data from 20 twin studies estimating heritability at around 0,76% (**16**), environmental and social influences are also likely to contribute to aetiology (**17**).
* Our findings confirmed there were associations between some indicators of socio-economic disadvantage, namely financial difficulties, social housing tenure, younger maternal age, single-parent status and ADHD in the child.
* Although ADHD was more prevalent in families whose parents had lower occupational status, and lower educational levels, these indicators did not show significant association with ADHD in children in the current sample.
* This association was mediated by how involved both parents were with their child and by the presence of family adversity, such that children with less involved parents and with at least one type of family adversity were more likely to receive a diagnosis of ADHD.
* Being a single parent has been associated with an increased risk of ADHD for the child both in the current study and previously (**23, 27, 61**).
* It is interesting that having married parents decreases the risk of ADHD more so than does having cohabiting parents.

**The association of attention deficit hyperactivity disorder with socioeconomic disadvantage: alternative explanations and evidence**

* Childhood attention deficit hyperactivity disorder (ADHD) has been reported to be more prevalent among socioeconomically disadvantaged groups in many regions of the developed world. Studies from the United States (**Akinbami, Liu, Pastor & Reuben, 2011; Froehlich et al. 2007; Pastor & Rueben, 2008; St Sauver et al. 2004**), the United Kingdom (**Ford, Collishaw, Meltzer & Goodman, 2007**) and Scandinavian countries (**Boe, Overland, Lundervold & Hysing, 2012; Hjern, Weitoft & Lindblad, 2010; paananen et al. 2012**) as well as in Australia (**Sciberras, Ukoumunne & Efron, 2011**) and Germany (**Döpfner, Breuer, Wille, Erhart & Ravens-Sieberer, 2008**) have all found an association between increased childhood ADHD and socioeconomic disadvantage. A recent systematic review, although focused on treatments of ADHD, noted that both symptoms and diagnosis of ADHD are more common among those from a low socioeconomic status background (**Charach et al. 2011**).
* Several studies describing unattached parenting or family conflict as risk factors for ADHD (**Deault, 2010; Johnston & Mash, 2001**).
* No design to date has separated inheritance due to shared environmental influences from genetic influences convincingly.
* This study detected a higher prevalence of ADHD among socioeconomically disadvantaged groups.
* A recent systematic review of child mental health more generally found socioeconomically disadvantaged individuals were two to three times more likely to develop mental health problems (**Reiss, 2013**).
* Models from health economic have conceptualized ADHD as a disorder with socioeconomic consequences for families (**Doshi et al., 2012; Litt, 2004**). This study found no evidence for such a reverse causality hypothesis.

**~~The Association of Poor Economic Condition and Family Relations in Childhood with Late-Life Depression~~**

**~~The “Younger-Sibling-at-Risk Design”: a Pilot Study of Adolescents with ADHD and an Older Sibling with Substance Use Disorder~~**

**~~Using a high-risk family design to identify biomarkers for major depression~~**

**Bildung – Allergien**

**Aeroallergen Sensitization in Healthy Children: Racial and Socioeconomic Correlates**

* Bei Nationalität – Allergien!

**~~Characterization of socioeconomic status of Japanese patients with atopic dermatitis showing poor medical adherence and reasons for drug discontinuation~~**

**Does migration affect asthma, rhinoconjunctivits and eczema prevalence? Global findings from the international study of asthma and allergies in childhood**

* Evidence has accumulated which suggests that immigrants moving from less developed countries with lower prevalence s of asthma, rhinoconjunctivitis and eczema to more Westernized countries, with higher prevalences, tend to acquire the rates of local populations: the longer the time spent in the new environment, the less the difference in prevalence (**6, 7-12**). However, some exceptions to this trend have been reported (**13-18**).
* *Some authors have hypothesized that the ethnicity of immigrants might be relevant (****21-23****), however within a given environment, children born into that environment have a similar risk of asthma symptoms regardless of ethnicity (****24****) and ethnic differences in diagnosed asthma could reflect the use of health services. So it may be reasonable to attribute migrant differences to environmental (including cultural) factors rather than to genetic differences associated with ethnicity.*
* For children, the “protective” effect of immigration only seems to occur if migration took place after 2 years of age; whereas for adolescents, migration shows an effect after the age of 10, indicating greater protective effect with fewer years spent in the host country.

**Effects of Socioeconomic Status on Maternal and Child Positive Behaviors in Daily Life Among Youth With Asthma**

* *In general, low-SES youth display higher rates of disobedience, impulsivity (****McLoyd, 1998****), anxiety and learned helplessness (****Evans & English, 2002****), particularly during middle childhood and adolescence (****Appleyard, Egeland, van Dulmen & Sroufe, 2005****).*
* While many studies have investigated the influence of SES on developmental outcomes, less is known about how specific components of SES (e.g. income, education) influence outcomes in childhood and adolescence, even though recent studies suggest that each may predict distinct aspects of cognitive and socioemotional development (**Farah et al., 2008; Shapero & Steinberg, 2013**).
* For instance, previous research has found that parental education is associated not only with fewer child behavioral problems (**Bradley & Corwyn, 2002**), but also with increased maternal responsiveness during observed mother-child interactions (**Huston & Aronson, 2005**).

**Is Childhood Asthma Associated With Educational Level and Longest-Held Occupation?**

* There is evidence that the consequences of chronic illness in childhood could lead to poorer academic achievement, unemployment, and decreased earning power (**2-4**).
* There was no difference in academic performance between children with asthma and those without it (**12**)
* In a cohort of French adult men, those with childhood asthma were more often high school graduates than those with no asthma (**20**). Other authors, however, reported no such differences (**21,22**). For example, a community-based follow-up study found no difference in educational achievement assessed by academic qualification or in employment between individuals with childhood asthma and those with no asthma (**21**).

**Parental Socioeconomic Status, Childhood Asthma and Medication Use – A Population – Based Study**

* Most studies have reported that children in families with low SES (measured by parental occupation, education or family income), have an increased asthma risk even after adjustment for known confounders such as prenatal maternal smoking, indoor allergens, and maternal stress (**7-9**). Other studies, however, found no relationship with parental SES (**10-12**).
* However, clinical research has shown that parental SES strongly impacts their offspring´s quality of care and asthma control (**16-18**).
* The study results support our hypotheses that there is an association between parental SES and childhood asthma occurrence, level of healthcare use at diagnosis and pattern of medication usage.
* Interestingly, parental income and education seem to affect asthma outcomes in different ways. Firstly, children from families with lower income or education had higher incidence rates of asthma measured by specialist diagnosis or medication. Those in families from the lowest education group had an increased risk of in- and outpatient asthma diagnosis and asthma medication. Finally, lower amounts of controller medications were dispensed for children from families with lower parental education.
* Reviews conducted by **Mielck et al (26) and Rona et al (27)** have demonstrated inconsistent findings on the association between SES and childhood asthma overall.
* However, more recent findings focusing on children at preschool age (**8, 9, 28-33**)showed that those from low SES familial background are more likely to develop asthma, which is partially in line with our result.
* Furthermore, as consistent with previous literature (**36, 37**) our data support the hypothesis that there was an effect of parental education level on asthma diagnosis and medication use among preschool children. However, the question remains why children of more educated parents have less asthma. Admittedly, the mechanism of association has been hypothesized to involve multidimensional factors and only a small part of the education gradient could be attributed to years of parental schooling alone.
* Among children with diagnosed asthma, we found that parental income did not have any influence on average daily doses of all types of medications, which was in contrast to previous findings (**16, 42**)
* However, there was a worrisome association between parental education background, and dispenses of controller medications. Less ICS and LTRA were consumed by children in families with lower parental education background, and dispenses of ICS were even lower when adjusting for use of quick-relief medication.

**Prevalence and socioeconomic associations of asthma and allergic rhinitis in northern Africa**

* Comparisons between International Study of Asthma and Allergies in Childhood (ISAAC) prevalence results and the results of another international study, the European Community Respiratory Health Survey, have shown that although there are some differences in the absolute prevalence levels, there is good agreement of patterns between countries (**1**).
* The role of socioeconomic factors in the aetiology of asthma is not simple. The “hygiene hypothesis” suggests that higher standards of hygiene and cleanliness have reduced the chance for cross-infection in childhood and increased the risk of atopic sensitization (**3**). Although “poor” and “richer” children living in urban environments may be equally less exposed to faeco-oral pathogens than in the past, poorer children may still have a higher exposure to many risk factors facilitating severe asthma and wheezing. Such risk factors may include airborne viruses, smoke, indoor dampness, cockroaches and poor access to healthcare (**4, 5**).
* It has been consistently been found that people from low socioeconomic backgrounds tend to have a higher prevalence of severe asthma symptoms, even if the overall prevalence is no different to the rest of the population (**5-7**).
* People from lower-income families (as defined by school type) were 1,5 times as likely to have had wheeze during the last year and twice as likely to have had severe symptoms as people from a higher socioeconomic background. In addition, children from state schools were 2,5 times as likely to have rhinoconjunctivitis as their colleagues in private schools.
* This study demonstrated a significant association between socioeconomic status and symptoms, with both higher prevalence and severity found in the lower socioeconomic group.
* In a study of 4300 7-15 yr old males in Saudi Arabia, lower monthly family income was associated with having asthma (**24**).
* A study in Norway also found that markers of low socioeconomic status were associated with asthma in young children (**4**).
* These findings are consistent with results of asthma studies in Chicago that have found that asthma is more prevalent and severe in inner cities than in the rest of the country (**25**).
* Of particular interest is the consistent association between cockroach allergen and asthma symptoms (**26, 27**). It has been shown that high levels of cockroach allergen seem to be associated with lower socioeconomic status (**28**). In addition, the association between cockroach allergen in the family room and repeated wheezing during childhood has been shown to be significant even after adjusting for socioeconomic factors (**25**).
* Not only were the rates of severe asthma symptoms higher in the lower socioeconomic group, but of children with severe asthma symptoms, a higher proportion from state schools than from fee-paying schools did not have a physician diagnosis of asthma (63% versus 30%).
* Similar findings of higher levels of severe asthma among lower socioeconomic groups have been described elsewhere (**6, 7**).

**Prevalence of Aeroallergen Sensitization and Increased Exhaled Nitric Oxide Values in Schoolchildren of Different Socioeconomic Status**

* We observed a lower prevalence of sensitization in children with a low socioeconomic status, although the difference only reached statistical significance for pollen (grass and Olea europea). This could be due to insufficient sample size.

**~~Prevalence of Symptoms of Asthma, Rhinitis, and Atopic Eczema in Brazilian Adolescents Related to Exposure to Gaseous Air Pollutants and Socioeconomic Status~~**

**Quality of life in children and teenagers with atopic dermatitis**

* *There was a female predominance (70% of the cases), similar to other studies (****14****).*
* *Our greatest percentage (72%) aged from 10 to 16 years, and this is due to characteristics of the study site.*
* Our study did not show a significant percentage difference between the high and low social classes. Thus, the economic status was not involved decisively in the natural evolution of the disease.
* Another Austrian study showed higher frequency of atopic diseases in adult patients with higher socioeconomic-cultural standard, residing in urban areas (**30**).

**Socioeconomic and sociodemographic factors related to allergic diseases in Korean adolescents based on the Seventh Korea Youth Risk Behavior Web-based Survey: a cross-sectional study**

* A number of studies have shown that factors such as SES, obesity, smoking and drinking are associated with the high prevalence rates of allergic diseases (**5, 7, 9, 12, 13**).
* One German study reported atopic dermatitis to be associated with high and middle SES, in contrast to asthma and allergic rhinoconjunctivitis (**9**).
* Another study described a higher prevalence of allergic rhinitis and eczema in the high SES group than in the low SES group (**11**).
* On the other hand, a systematic review reported that asthma was associated with lower SES, whereas the prevalence of allergies was related to higher SES (**17**).
* The FAS is a commonly used indicator to measure SES and parental education level (**12**). The relationships we found between FAS and allergic diseases were similar to those of other, similar studies (**10, 26**). The middle- and high-FAS groups displayed higher ORs for allergic rhinitis than did the low-FAS group. The high-FAS groups also had a significantly higher OR for atopic dermatitis than did the low-FAS group. In other words, as SES became higher on the basis of the FAS, the prevalence rate of allergic diseases increased. Parental education level was adopted as another variable to measure SES, because high SES groups tend to have higher education levels (**12**). Asthma was not related to parental education level, but having parents with a bachelor´s degree was a risk factor for allergic rhinitis, and having a mother with a bachelor´s degree was a risk factor for atopic dermatitis. These results are compatible with the so-called “hygiene hypothesis”, which links the sanitary environment of Westernized areas with a higher prevalence rate of allergic diseases during the early phase of development. Children raised in a high-SES family have better access to advanced medical treatment, vaccination and adequate nutrition; thus, they are less likely to be exposed to infection (**10**). Under these circumstances, the Th2 cell pathway becomes stronger than the Th1 cell pathway, which increases allergic disease prevalence rates (**10**).
* However, children with high SES benefit from access to medical services through improved disease detection, which raises the disease diagnosis rate. Socioeconomic conditions may result in an uneven distribution of medical personnel and institutions depending on the location. Although a low SES group uses more medical services, a high SES groups is in a better position to use medical services when both groups´ desire to use medical services is adjusted for (**27**). Therefore, adolescents from high-SES families may have better access to medical services and may therefore present with higher prevalence rates of allergic diseases.

**Socioeconomic Status and Asthma Control in African American Youth in SAGE II**

* *African American children have among the highest asthma prevalence and mortality rates in the U.S. (****1****). Compared with white children, African Americans have higher rates of hospitalizations and emergency room visits (****1****), and are more likely to report missed school days due to their asthma (****2****).*
* This discrepancy in asthma outcomes is multifactorial and greatly influenced by social adversities, such as poverty, that disproportionately affect African American populations (**3**). Socioeconomic status is often measured by educational level, annual household income, and insurance status (**4-6**). Individuals with low educational attainment are at high risk for poor health literacy (**7**), and low parental literacy is associated with moderate and severe persistent asthma as well as higher rescue medication use in children (**8**).
* Lastly, households in the lowest income levels are more likely to perceive financial burden in managing their child´s asthma, have higher rates of urgent care use, and experience missed school days due to asthma (**11**).
* African American children and adolescents not only have increased odds of poor asthma control but also of increased asthma-related symptoms and missed school days with each step down the socioeconomic gradient.
* Previously, it has been suggested that the finding of poor asthma outcomes associated with SES may be related to increased exposure to indoor and outdoor air pollutants (**14, 36-39**). Individuals with low SES are more likely to live in areas with high levels of air pollution exposure and live in substandard housing conditions (**40**), which increases the exposure to cockroach and mold antigen (**41**). In our study, we included the self-report of mold exposure as a marker of substandard housing in our final model. In addition, mold exposure was an independent predictor of poor asthma control in our population, yet it did not explain the observed effect of SES on asthma control. We also considered the role of air pollution, as measured by nitrogen dioxide (a common marker of traffic related air pollution) as a mediator, but found no significant association between air pollution and the SES index or with asthma control. This suggests that the effects of SES are imparted through mechanisms that are not limited to environmental exposures.

**Socioeconomic Status and Childhood Asthma in Urban Minority Youths**

* Asthma affects nearly 10% of children in the United States and disproportionately affects disadvantaged minority populations (**1**). Prevalence of children with current asthma is two times higher in African American (16%) and Puerto Rican (16,9%) children compared with non-Hispanic whites (8,2%). In contrast, Mexican Americans have one of the lowest asthma prevalence (6,5%) and have less severe disease compared with all other racial and ethnic groups (**2**). The “Hispanic paradox” may explain the low asthma prevalence and less severe disease seen in Mexican Americans (**13**).
* Individuals of low SES have limited healthcare options and little control over changing their personal environment to reduce exposure to important risk factors for asthma (**14**).
* Low SES, often measured by educational attainment and household income, is associated with high exposure to secondhand smoke, poor housing quality, and increase exposure to traffic-related air pollution, each of which is an important predictor of asthma (**24-26**).
* Previous studies have demonstrated either and increased risk of asthma (**46-48**) or no associated risk (**27**) of asthma with lower SES in Latinos.
* Lower SES, and thus higher exposure to social stress, may contribute to a higher allostatic load leading to asthma. This pathway is consistent with our findings among our African American population with lower levels of SES. We found the SES effect to be the strongest among African Americans with low total IgE.

**~~The Impact of Multimedia Education on Knowledge and Self-efficacy among Parents of Children with Asthma: A Randomized Clinical Trial~~**

**~~The influence of caregivers´ knowledge and understanding of asthma aetiology on domiciliary management of children with asthma~~**

**Bildung – Psyche**

**Association of maternal and paternal IQ with offspring conduct, emotional and attention problem scores: trans-generational evidence from the 1958 British birth cohort study**

* Emerging evidence suggests that individuals who score poorly on IQ tests in childhood, adolescence or early adulthood are more likely as adults to experience psychological distress (**1**), are at increased risk of the whole range of mental disorders (**2, 3**) and have higher rates of attempted (**4, 5**) and completed (**6, 7**) suicide. Lower IQ in children has also been associated with an increased risk of behavioural and emotional problems (**8**), and anxiety disorders (**8-9**).
* A very spare literature suggests that maternal (**10, 11**) or mean parental (**12**) IQ may be associated with behavioural and emotional problems in their offspring. However, the overall evidence is inconsistent.
* There was no evidence to suggest that parental IQ had an impact on the conduct problems of children aged 4-6 and an unexpected weak suggestion of an increase in emotional problems in younger children whose fathers, in particular, had a higher IQ score.
* Conversely, among children aged 7+, age- and sex-adjusted analyses indicated that those with higher IQ parents had fewer conduct, emotional and attention problems.
* The isolated finding of increased emotional problems in younger children with higher IQ parents, particularly fathers, is consistent with a previous finding by Goodman et al (**12**), who reported an increased risk of behavioural problems in children whose parents had a higher mean IQ. These authors suggested a number of mechanisms for this association including higher academic expectations and pressures applied by higher IQ parents, or a style of parenting that is more over-protective or more sensitive to the child. While plausible, it is difficult to explain why these factors would apply more to fathers in the present analyses and, although associations in offspring aged 7+ were weakest for the emotional dimension of the Rutter scores, they were nonetheless consistent with a decrease in problems in children of higher IQ parents. It may therefore be the case that this result is simply a chance finding as a result of multiple comparisons.

**Association of socioeconomic status in childhood with major depression and generalized anxiety disorder: results from the World Mental Health Japan survey 2002-2006**

* It is widely known that low socioeconomic status is associated with psychological problems such as depression and anxiety disorders (**1-5**). This association can be explained in two ways: 1. Low SES actually induces a mental disorder (social causation), or 2. Mental disorders limit employment opportunities, causing individuals to fall into the low SES category (health selection) (**6, 7**).
* Previous studies have shown that SES in childhood has a direct effect on the development of mental disorders later in life (**8-15**). For example, Gilman et al. reported that participants whose parent was engaged in manual labor either at the time of their birth or when they were seven years old were significantly more likely to develop major depression in their lifetime, even after adjusting for SES in adulthood (**11**).
* Unlike what has been found in previous studies in Western societies (**8-13**), we found that, among women, higher SES in childhood is positively associated with the onset of MD, but not GAD, even after adjusting for age, childhood characteristics, and SES in adulthood.
* In contrast, higher childhood SES among men is associated with GAD, but not with MD, after fully adjusting for other covariates.
* Women tend to internalize stress and feel disappointment or decreased self-esteem when they face stressful situations (**44-46**). Thus, women who experienced high SES in childhood are more likely to develop MD. Meanwhile, men with higher SES in childhood might feel more pressure and a heightened sense of personal responsibility when they enter middle age, resulting in the development of GAD.
* High SES in adulthood, represented as educational attainment, is also positively associated with MD for both genders.
* Previous studies on SES and mental disorders in Japan have reported inconsistent results; that is, higher educational attainment may (**35**) or may not be (**16, 17**) associated with mental disorders.
* In our study, high childhood SES was positively associated with the onset of mental disorders (more precisely, MD and GAD); however, the exact mechanism of this positive association is unknown. Asian parents tend to have stronger expectations for their children (**36, 37**) in terms of educational achievements than do Western parents (**38**). Therefore, it is likely that those who come from high parental SES situations may feel more pressure to achieve; thus, they may feel distressed when they fail to do so in adulthood. Moreover, those who come from a high-SES family may have been overprotected during childhood, a phenomenon that has been shown to induce lower stress tolerance (**41, 42**). Thus, when they encounter stressful academic, professional, or social situations, they are more likely to develop mental disorders.

**Behavior Problems of 9-16 Year Old Preterm Children: Biological, Sociodemographic, and Intellectual Contributions**

* Low SES can be conceptualized as a marker for a large collection of adverse environmental factors, such as limited parental education and minimal fiscal resources, all of which may contribute to behavior problems as well as risk for premature birth. In term children, low SES is associated with increased rates of disruptive behavior problems, including ADHD (**18**).

**Childhood cognitive performance and risk of generalized anxiety disorder**

* Individuals with a higher level of cognitive skills are consistently found to be more resilient to adversity compared with individuals with fewer cognitive resources (**17-21**) and skills such as memory, problem solving and communication may contribute to an individual´s sense of control and ability to successfully cope with unpredictable or negative events. Taken together, these findings suggest that individuals with higher cognitive skills may be less likely to develop GAD.
* Consistent with the above theory, research has found that individuals with a lower level of cognitive performance are more likely to develop other psychiatric disorders (**22**) including anti-social behavior (**18**), dementia (**23**), schizophrenia (**24, 25**) and post-traumatic stress disorder (**16, 26-28**).

**Childhood socio-economic status and the onset, persistence, and severity of DSM-IV mental disorders in a US national sample**

* Significant associations between childhood SES and adverse mental health outcomes in adulthood have been reported in numerous studies (**Fan & Eaton, 2001; Gilman, Kawachi, Fitzmaurice & Buka, 2003 & 2002; Lundberg, 1993; Marmot et al., 2001; Power & manor, 1992**).
* First, we found that the traditional indicators of childhood SES, parent education and occupation, did not predict disorder onset, but that financial hardship predicted disorder onset at every stage of life-course. This finding is consistent with evidence that childhood financial hardship is more strongly associated with mental disorders than parental education and occupation (**Lahelma et al., 2006**) and suggests that material deprivation is more strongly associated with the onset of psychiatric disorders than indicators of relative status.
* Second, financial hardship was associated with elevated risk of initial disorder onset across all four disorder classes considered here and in all four life-course stages, although the magnitude of this association decreased significantly with age. These findings are consistent with previous research showing a strong relationship between child poverty and child psychopathology (**McLeod & Shanahan, 1996; Goodman et al. , 2003**) and extend this literature by documenting a breadth of the association between childhood financial hardship and mental disorders over the life-course that has, to our knowledge, never before been demonstrated.

**Employment, income, and education and prevalence of depressive symptoms during pregnancy: the Kyushu Okinawa Maternal and Child Health Study**

* The present study found that, compared with unemployment, employment was independently related to a lower prevalence of depressive symptoms during pregnancy, regardless of whether the employment was full- or part-time.
* In a study of 5404 pregnant US women, employment, income, and education were significantly inversely related to the depression severity score based on the Beck Depression Inventory after mutual adjustment (**4**).
* A study in Jamaica showed that employment, but not education, was significantly inversely related to the Edinburgh Postnatal Depression Scale score during pregnancy (**5**).
* Employment and education were significantly inversely associated with depression during pregnancy in a UK study (**6**).

**Family social support, community “social capital” and adolescents´ mental health and educational outcomes: a longitudinal study in England**

* This paper found that a number of dimensions of family social support and community “social capital” were associated with mental health and educational achievement in adolescence. In the case of mental health, family social support was particularly pertinent. After adjustments, having a poor relationship with one´s parents was associated with higher odds of being a case on the GHQ.

**~~Health inequalities with the National Statistics-Socioeconomic classification: disease risk factors and health in the 1958 British birth cohort~~**

**Individual Differences in Attention Deficit Hyperactivity Disorder Symptoms and Associated Executive Dysfunction and Traits: Sex, Ethnicity, and Family Income**

* *Further, there has been some suggestion that symptoms of ADHD may vary somewhat between boys and girls, with boys exhibiting higher levels of hyperactivity-impulsivity than girls, although findings for inattention have been mixed (****Gaub & Carlson, 1997; Gershon, 2002; Hartung et al., 2002****).*
* *African Americans exhibited increased parent- and teacher-rated ADHD symptoms in the domains of inattention and hyperactivity-impulsivity as well as increased negative affect and decreased set-shifting. Family income explained, or accounted for, many of the ethnic differences seen (with the exception of ethnic differences in teacher-rated inattention).*
* Lower family income was associated with worse executive function, higher negative affect, and increased inattentive and hyperactive-impulsive ADHD symptoms.

**Influence of mental disorders on school dropout in Mexico**

* Even though low levels of educational attainment, and low socioeconomic status in general, have been associated with several mental disorders in Latin America and Mexico (**14**), information is lacking on how much of this association is due to mental disorders affecting school performance and thereby shifting individuals into a lower socioeconomic status.

**Interactive effects of family socioeconomic status and body mass index on depression in school-aged children**

* In particular, children in families of low socioeconomic status that experience family disruption or parental divorce, or that have a history of mental disorders may be at an increased risk of developing depression later in life (**3, 4**).
* Low family income and socioeconomic status were significantly associated with childhood depression through stressful life events, family environment and neighborhood characteristics (**4, 15**).
* In this study, a higher prevalence of depression was found among children in lower SES families than in the higher SES group.

**~~Lifetime Paid Work and Mental Health Problems among Poor Urban 9-to-13-Year-Old Children in Brazil~~**

**Mental health inequalities in Slovenian 15-year-old adolescents explained by personal social position and family socioeconomic status**

* Mental health determines and is determined by a wide and diverse network of personal (e.g. genetic, lifestyle, psychological), social and community-related (e.g. family structure, friends, isolation), larger societal, and environmental factors (e.g. education, employment), as well as by demographics such as age, gender, and ethnicity (**1**).
* In recent decades, there has been increased recognition of the importance of the socioeconomic determinants of mental health and socioeconomic inequalities in mental health (**2-4**).
* Adolescents with a lower socioeconomic position have poorer mental health than those with a higher SEP, but not all socioeconomic variables are associated with all mental health indicators.
* Our results show that perceiving the familial financial position as poor decreases adolescent´s life satisfaction and increases the risk of mental health problems.
* Adolescents from socioeconomically disadvantaged families are probably deprived in many ways in comparison to peers from socioeconomically advantaged families (holiday destinations, possession of high-tech devices, clothing, etc.), which could influence their perceived position among peers.
* Adolescents attending industrial or crafts and technical or related school programs reported higher KIDSCREEN-10 levels (or higher quality of life) and worse mental health assessments (higher SDQ scores and lower life satisfaction) than gymnasiums. Possible explanations still need to be explored. Magklara et al. (**18**) report that low academic achievement is linked to poor psychological health.
* The social causation hypothesis posits that mental health problems result from socioeconomic deprivation. Individuals from socioeconomically disadvantaged families are more likely to develop mental health problems than those from socioeconomically advantaged ones (**24**). The social selection hypothesis assumes that people with mental health problems drift downwards in socioeconomic position because of their mental health problems and their inability to fulfill expected role obligations (**24**). Low childhood socioeconomic position was found to be associated with disadvantages in health and economic position in adulthood. In our study, we found support for the social causation hypothesis by demonstrating that socioeconomic position contributes to differences in the levels of mental health problems.

**~~Mental health of indigenous school children in Northern Chile~~**

**Neighbourhood income and anxiety: a study based on random sampled of the Swedish population**

* A recent study from Sweden found that individuals living in the socio-economically most disadvantaged neighbourhoods exhibited a significantly higher risk of being hospitalized for mental disorder than individuals living in the socio-economically most advantaged neighbourhoods, after adjustment for individual demographic and socio-economic characteristics (**9**).
* Our study is in agreement with a study from the UK where no neighbourhood variation was found in the prevalence of common mental disorders, assessed by a General Health Questionnaire (**13**).

**Social factors in childhood and risk of depressive symptoms among adolescents – a longitudinal study in Stockholm, Sweden**

* The relationship between SES and depressive symptoms is not straight-forward, as illustrated by studies both among adolescents (**3, 4, 6, 8, 10, 19-28**) and adults (**21, 16, 29-34**).
* With regard to studies on adolescents, most found at least one indicator of low SES (based on parent or family information), linked to the risk of depressive symptoms (**3, 4, 6, 8, 10, 19-25**), but in some cases an opposite association was found for another indicator of SES (**3, 8, 10**).
* Low parental occupational class and low parental education as well as parental unemployment were found to impact on the risk of depressive symptoms among adolescents.
* Living exclusively with one adult almost tripled the risk of depressive symptoms.
* Our results show that Swedish adolescents from socioeconomically disadvantaged families, measured in different ways, were at higher risk of depressive symptoms than those from more advantaged backgrounds. These results are in line with two studies conducted in Finland, a country with a welfare system similar to Sweden´s (**3, 6**).

**Socioeconomic Associations with ADHD: Findings from a Mediation Analysis**

* Children from disadvantaged socioeconomic backgrounds are at a greater risk of a range of negative outcomes throughout their life course compared with their peers (**3**), however the specific mechanisms by which socioeconomic status relates to different health outcomes in childhood are as yet unclear, perhaps due to the complex relationships between SES and health as well as individual patterns of resilience in each child.
* Children from socioeconomically disadvantaged backgrounds are also more at risk of mental health problems (**12**).
* Although ADHD was more prevalent in families whose parents had lower occupational status, and lower educational levels, these indicators did not show significant association with ADHD in children in the current sample.
* Although we hypothesized that parental education would be the strongest predictor of ADHD, this was not the case. The reasoning behind this hypothesis was that gene-environment correlation was likely to be high for ADHD and educational attainment, therefore those who did not attain highly in education would be more likely to have ADHD-like traits and pass these genes on to their children.
* Instead, financial difficulties emerged as the strongest predictor.
* *It is of interest that having married parents decreases the risk of ADHD more so than does having cohabiting parents. In the Millennium Cohort Study, single parent families have substantially lower household incomes than cohabiting parents, and married parents have a higher income than cohabiting parents, reflecting an interaction between marital status and other aspects of SES (****63****).*

**The association of attention deficit hyperactivity disorder with socioeconomic disadvantage: alternative explanations and evidence**

**Siehe Familie-Psyche!!!**

**~~Vulnerability to depression: A moderated mediation model of the roles of child maltreatment, peer victimization, and 5-HTTLPR genetic variation among children from low-SES backgrounds~~**

**Soziodemographie – Allergien**

**Geographical and Sociodemographic Risk Factors for Allergic Diseases in Korean Children**

* Allergic diseases are well known to be highly heredity (**Larsson et al., 2008**). When parents have an allergic disease, children are more likely to develop the same allergic disease as well as concomitant allergic diseases (**Sarafino, 2000; Sebok, Schneider & Harangi, 2006**).
* However, the fact that some children develop allergic diseases even though their parents do not have any, and that the prevalence of allergic diseases varies by country and regions within a country suggest that environmental factors may also play an important role in the development of childhood allergic diseases (**Asher & Dagli, 2004; Kurt et al., 2007; Tomac, Demirel, Acun & Ayoglu, 2005; Williams et al., 1999**).
* Children living in urban areas and developed countries are more likely to experience asthma and other allergic diseases than children living in rural areas and developing countires (**Asher et al., 2006; Dorner, Lawrence, Rieder & Kunze, 2007; Majeed, Rajar, Shaikh, Majeed & Arain, 2008; Priftis et al., 2007**).

**Individual-level socioeconomic status is associated with worse asthma morbidity in patients with asthma**

* At the individual level (e.g. education attainment, income), asthmatics of lower SES may have higher exposures to indoor (e.g. cockroaches, tobacco smoke (**9**)) and outdoor (e.g. urban pollution (**9**)) allergens, and tend to use less inhaled corticosteroids (**10**), thus increasing risk for acute asthma exacerbations (**9, 11**).
* Results showed that patients with lower SES had worse asthma control, worse asthma self-efficacy, and greater emergency health service use relative to patients with higher SES, independent of age, sex, asthma severity, current smoking, BMI, and having mood and/or anxiety disorder.
* We also found that patients with less than 12 years of education were 55% more likely to report any emergency health service use, compared to those with 12 or greater years of education, when controlling for age, sex and severity. When additional covariates were included in the model, this relationship was no longer statistically significant. However, though statistical significance was lost, there was a minimal change in the point estimate, suggesting that mediation was unlikely.
* These findings are consistent with previous studies finding significant associations between lower childhood SES and worse asthma morbidity, including increased prevalence of asthma and severe asthma (**12, 13**), and increased risk of emergency department visits and hospitalizations for asthma (**29, 30**).
* These findings are also in line with previous studies linking lower SES (assessed using area-level and individual-level measures) to worse asthma morbidity in adults, including increased prevalence of asthma (**31**), greater asthma symptomatology (**32**) and increased asthma related hospitalizations (**33**).
* It is noteworthy that patients with lower SES were more likely to exhibit poor health behaviors that may exacerbate asthma, including higher rates of current smoking, total pack-years, and BMI.
* One additional finding that warrants discussion is that asthmatics of lower SES were less likely to be atopic (i.e., have allergic asthma) than asthmatics of higher SES. Although this was not the primary aim of the analyses, this finding is consistent with several studies linking lower SES to lower incidence of allergic asthma (**31, 32, 44, 45**). Although controversial, it has been suggested that this relationship may be due to the “hygiene hypothesis”, which proposes that the development of atopic asthma and allergy may be prevented via prenatal and-or early childhood exposure to immune system stimulants (e.g. bacteria, viruses and endotoxins) that shift T-helper type 2 cell dominance to T-helper type 1 cell dominance (**46, 47**). This shift in cytokine balance is thought to contribute to allergic asthma and allergy, and may be induced by a lack of early exposures to microbial environments (**46**), which are typical lower SES settings (e.g. poor housing conditions that may be overcrowded, infested with cockroaches and dust mites, and poorly insulated, leading to greater exposure to infections, allergens, and mould).
* Surprisingly, we did not observe any significant association between SES and asthma-related quality of life, which was contrary to our expectations and to previous findings (**14, 48**).

**~~Prevalence and classification of rhinitis in preschool children in Portugal: a nationwide study~~**

**Socioeconomic and Sociodemographic Factors Associated with Asthma Related Outcomes in Early Childhood: The Generation R Study**

* Childhood asthma is influenced by many genetic, socioeconomic, sociodemogrpahic and environmental factors (**1-4**).
* Some studies report that asthma prevalence is disproportionately high among socioally disadvantaged children (**6-12**), others found no or only a weak association between social disadvantage and childhood asthma (**13-17**).
* Also variations in the prevalence of asthma and asthma-like symptoms were found among children with different ethnic background living in the same country (**18-23**).
* This multi-ethnic population-based prospective cohort study showed that low parental education, financial difficulties, paternal unemployment, single parenting, male sex and ethnicity were associated with asthma related outcomes at age 6 years, independent of other socioeconomic or sociodemographic factors.
* A review by Mielck et al. demonstrated conflicting results concerning the association between socioeconomic status and childhood asthma, but revealed that socioeconomic disadvantage is associated with increased risk of asthma (**38**).

**Socioeconomic Factors and Home Allergen Exposure in Children With Asthma**

* Asthma prevalence is higher among children from low-income families (**Crain et al., 1994; Evans, 1992; Halfon & Newacheck, 1993; Witzman, Gortmaker & Sobol, 1990; Wissow, Gittelsohn, Szklo, Starfield & Mussman, 1988**) and is often more severe (**Erzen et al., 1997; Mielck, Reitmeir & Wjst, 1996**).
* The literature suggests that lower socioeconomic status may be associated with greater exposure to environmental allergens.

**Soziodemographie – Psyche**

**~~Prediction of postpartum depression by sociodemographic, obstetric and psychological factors: A prospective study~~**

**Prevalence, Persistence, and Sociodemographic Correlates of DSM-IV Disorders in the National Comorbidity Survey Replication Adolescent Supplement**

* Age is associated with 37,5% of 12-month disorders and 43,7% of 30-day disorders. The disorders not significantly related to age mostly begin before adolescence (e.g. phobias, adhd). The shape of significant age differences is complex as some disorders are inversely related to age, others are positively related, and others are highest at intermediate ages.
* Girls have significantly higher 12-month and 30-day prevalence of all mood and anxiety disorders and eating disorders than boys, with most ORs in the range of 1,5 to 2,5. Boys have significantly higher prevalence of almost all behavior and substance disorders than girls, with most ORs in the range of 0,3 to 0,8. Prevalence ratios are significantly higher among girls than boys for most mood and anxiety disorders (44,4%), with most significant ORs in the range of 1,5 to 3,0.
* Nearly one-third (31,2%) of multivariate associations between race/ethnicity and prevalence are significant, the most consistent involving lower prevalence of behavior and substance disorders among minority races/ethnicities than non-Hispanic white individuals, with significant ORs in the range of 0.2 to 0.8.
* Half of the bivariate associations but only one-fourth of the multivariate associations between parent education and prevalence are significant. The most consistent pattern here is for higher prevalence of diverse disorders among offspring of parents with less than college education vs. college graduates.
* The results regarding sociodemographic variables are largely consistent with previous research (**4, 30**). Several findings diverge from previous research, though, and point to potentially valuable areas for further inquiry. For one, we did not replicate the regional finding that Hispanic individuals have higher rates of depression than non-Hispanic white individuals (**31**), raising the possibility of urban-rural, regional or socioeconomic differences that need to be explored in more detailed analyses. In addition, the finding that girls have a more persistent course of mood and anxiety disorders than boys is consistent with some (**32**) but not other (**33**) previous studies, raising the possibility of informative specifications to explore in further analyses.
* Another interesting deviation from previous findings involves family socioeconomic status. Our finding that parental socioeconomic status is inversely related to prevalence, although broadly consistent with previous studies (**34, 35**) differs in 2 important ways from earlier findings. First, previous studies largely focused on parental income, whereas we found the strongest association with education and no consistent income effect after controlling for education. Second, earlier studies documented especially high rates of disorder in the lowest socioeconomic strata (ie, living in poverty), whereas we found especially low rates at the highest socioeconomic strata (ie, parents graduated from college).
* The strongest sociodemographic correlate was number of biological parents living with the adolescent. This is consistent with previous research (**36**), but the causal dynamics are unclear. Although a genetically informative design would be needed to investigate relative influences of genes and environment (**37**), further analyses of our data might be useful in refining and understanding of component associations involving the presence and timing of parental marital disruption, single parenthood, and family stressors.

**Social Phobia Symptoms: Prevalence and Sociodemographic Correlates**

* Also, as expected, women scored higher than men; higher means were also attributed to reports of no social support and only elementary school compared to bachelor degree or above. These results were consistent with reports, which concluded that sex, social support, and low educational achievements were related to social phobia (**5, 13, 17, 21-23**).
* Although Schneier et al. and Davidson et al. (**23**) concluded that unstable job, low socioeconomic status and low income were related to SP, it has not been specified which types of jobs were associated with SP. This study showed that groups of housewives had a higher SP mean than those with other occupations which might be explained by the tendency of anxious persons to avoid anxiety-provoking environments.

**Sociodemographic and personal factors related to depressive symptomatology in the Mexican population aged 12 to 65**

* Other studies have found that some of the socio-demographic factors related to the presence of depression in the adult Mexican population include being a woman, being older, having a low socioeconomic level, being eunemployed (mainly in men) and not being married or having a partner (**3, 13, 14**).

**~~The relationship between postnatal depression, sociodemographic factors, levels of partner support, and levels of physical activity~~**