The influence of parenting on the psychological health of adolescents

A study of boys and girls attending second grade of upper secondary school in Stockholm

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Abstract

The primary aim of this study was to examine the association between different aspects of parenting – in terms of monitoring, consistency, and emotional support – and the psychological health of adolescents attending second grade of upper secondary school in Stockholm. Another goal was to see if some aspect of parenting was more important than the others and also to examine gender differences in any of the studied associations. The moderating role of extracurricular structured activity between parenting aspects and psychological health will be also studied. Based on a sample of 5,587 students, the study used linear regression analysis. The results showed that all three aspects of parenting were positively associated with psychological health of both genders, and the strongest association was found for emotional support. Including all three aspects simultaneously explained the association between monitoring and boys’ psychological health. While extracurricular structured activity was associated with better psychological health, it did not moderate the association between aspects of parenting and psychological health.

Key words: Monitoring; Consistency; Emotional support; Parenting; Adolescents; Psychological health; Gender
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Introduction

Many researchers agree that there has been an increase in psychological health problems over the last decades, not the least among Swedish adolescents. This type of health problems covers experiences of feeling sad, down, nervous and worried but also more severe problems such as anxiety and depression. There are many potential explanations for this trend, such as increases in school-related stress, high unemployment rates of young people and unsecure future prospects, influence of media, increase in watching TV as well computer and internet use, sleep deprivation, individualization in society, as well as negative consequences of reductions in the welfare system. Another type of explanations has to do with changes in parenting style and practice, changes in family structure and parents’ lack of time for their children (Ahren, 2010; Eberhard, 2013; Granqvist, 2014; Hjern, Alfven & Östberg, 2008; Lindblad & Lindgren, 2010; Salmi, Berlin, Björkenstam & Ringbäck Weitoft, 2013; Socialstyrelsen, 2009; Svensson, 2010). For example, it has been shown in UNICEF report (2007) that in comparison to adolescents in many other countries, it is common that Swedish adolescents are not eating their main meal with their parents and that their parents spend less time talking with them. This possible decrease of parental involvement may be due to stress and time pressure. One source of stress for women may be the combination of work and family life; there has been an increase in the average of working hours for women and especially for women with small children. Another source of stress for both genders is that work has become more challenged and stressful due to higher concurrence and market changes (Socialstyrelsen, 2009).

Many studies have pointed to parents and parenting as both risk factors and protective factors for the psychological health of children and adolescence (Kaslow, Deering & Racusin, 1994; Lippman et al., 2014; WHO, 2012). The concept of parenting has been defined in various ways. Some of the many different terms that past research has used are: attachment (Ainsworth, 1979; Antonucci, Akiyama & Takahashi, 2004; Bowlby, 1979; Noom, Dekovic & Meeus, 1999), parental style (Baumrind, 1966; Laxmi & Kadapatti, 2012; Uji, Sakamoto, Adachi & Kitamura, 2014), parental behavior (Gecas & Schwalbe, 1986; Schaefer, 1965), monitoring (Dishion & McMahon, 1998; Fröjd, Kaltiala-Heino & Rimpel, 2007; Steinberg, 1990), consistency (Luxton, 2007; Ross & Gill, 2002), social support (Cohen & Syme, 1985; Colarossi & Eccles, 2003; Kawachi & Berkman, 2001), parent-adolescent relationship (McGue, Elkins, Walden & Iacono, 2005; Shaban & Matteo, 2012; Wu, 2012). A vast amount
of research has looked at any of these separate aspects in relation to the psychological health of children and adolescents, but there are few that have more integrative approach which includes several dimensions of parenting within one single empirical framework, like for example parental support, psychological control and behavioral control (Barber, Olsen & Shagle, 1994; Barber, Stolz & Olsen, 2005). Therefore, the current study will jointly examine three different aspects of parenting: monitoring, consistency and emotional support. These three were chosen since a lot of studies show importance of monitoring, but mostly for externalized psychological problems, so this study wanted to bring more clarification about importance of monitoring for internalizing psychological problems. Consistency was chosen to contribute in providing empirical evidence, since although there is great amount of literature claiming that consistency of parents is important for the psychological health of children and adolescents there is still a lack of empirical studies on this topic. Lately, more and more studies have started to use theory of social support to examine association between emotional support of parents and the psychological health of children and adolescents, so another aim of the present study was to see if monitoring and consistency are still important when they are included in the same model with emotional support.

Adolescence is a period of great change in the relationship between children and parents (Buchanan, Eccles & Becker, 1992; Youniss & Smollar, 1985). Most of the research on adolescents and their parents have been conducted on younger adolescents and there are some disagreements of the greater importance of parents or peers in this period. Greenberg, Siegel and Leitch (1983) found that in group of adolescents aged 12-19, both parental and peer attachment was important for life-satisfaction and self-esteem, but parental attachment was more important as predictor of well-being. Raja, McGee and Stanton (1992) found that parental attachment was more important to psychological health than peers (15 age adolescents). Laxmi and Kudapatti (2012) have claimed that parents’ still play the most important role for adolescents’ wellbeing. Thus, to investigate the importance of aspects of parenting in terms of monitoring, consistency and emotional support among older adolescents could add knowledge to this topic of research. Also some studies find that adolescent girls share more activities and report stronger closeness and intimacy with mothers compared to boys (Starrels, 1994; Field, Lang, Yando, & Bendell, 1995), which could mean that parenting also has different impact on the psychological health of boys and girls. The present study will hopefully contribute with more clarification on these questions.
As previously mentioned, parents work more, are exposed to more stress on work and some groups are exposed to greater economic hardship. All of this could result in parents not having enough time and energy for their children. There could however be important protective factors that could compensate for lack of parents time. One of them could be extracurricular structured activity, which has been listed as a protective factor in research on risk behaviors of children and adolescent. Studies have found that leisure time activities are beneficial for the psychological health; they can enhance academic achievement and reduce substance use (Bartko & Eccles, 2003; Cooper, Valentine, Nye & Lindsay (1999), Mahoney, Schweder, & Stattin, 2002; Youniss, Yates, & Su, 1997). The current study therefore aims at examining the moderating role of extracurricular structured activity in the association between aspects of parenting and psychological health.

Different aspects of parenting and health of adolescence

Parenting can be seen as the process of promoting and supporting the physical, emotional, social and intellectual development of child, in the period of infancy to adulthood (Davies, 2000). Parental styles change through life stages of a child (Laxmi & Kadapatii, 2012). These styles are affected by parents’ and children’s temperaments as well as by the experiences that parents have from their own parents and the way in which they were raised, but it is also shaped within a specific cultural context (Maccoby & Martin, 1983).

Parents’ interaction with their children has direct effects on their children’s level of confidence and self-esteem, emotional well-being, the way how they relate to others, as well as on their performance in school (Laxmi & Kadapatii, 2012). Furthermore, parents are listed as both a key risk and a protective factor in most of the research on the behaviors of children and adolescents. Some of the risk factors for mental health problems among adolescents are neglect from parents, family conflict, low parental monitoring, inconsistent parenting, parental mental health problems and parental aggression, whereas protective factors are social support from parents, good parenting and good family interaction (Hawkins, Catalano & Miller, 1992; Spooner, Hall & Lynskey 2001; WHO, 2012). It should also be noted that some of the studies addressing the influence of parenting on children’s and adolescents’ outcomes show gender differences. Below, the three aspects of parenting examined in the current study – monitoring, consistency and emotional support – will be discussed in relation to psychological health outcomes.
Monitoring

Although parental monitoring is a well-researched dimension of parenting, there is still no real definition of the concept (DiClemente, 2001). According to Ashery (1996) in Dishion and McMahon (1998) monitoring can broadly be defined as a skill that is relevant to parenting from infancy, adolescence and even into young adulthood. A common way of operationalizing monitoring is to focus on adolescents’ perception of whether their parents’ know with whom their children spend time outside the home, as well as where they are spending that time (DiClemente et al., 2001; Kotchick, Dorsey, Miller & Forehand, 1999; Steinberg, 1990). Most of the research on the outcomes related to monitoring has been focused on delinquency, antisocial behavior, smoking and substance use (Fröjd et al., 2007) whereas less research has focused on internalized problems. Those studies that do exist show contradictory results: while some show that higher parental monitoring is linked to lower levels on internalizing problems (Barber et al., 1994; Fröjd et al., 2007; Kerr & Stattin, 2002; Kim & X, 2000). There are also studies that have not found any association between monitoring and depression (Waizenhofer, Buchanan & Jackson-Newsom, 2004). One explanation for the positive influences of monitoring on internalized behavior could be that parental control help children and adolescent regulate their behavior and to develop social conformity and social competence (Barber, 1997), which in turn are positive and protective factors for adolescent well-being (Lippman et al., 2014).

According to Fröjd et al. (2007) gender differences in association between monitoring and adolescent outcomes have not been studied to any large extend and when studied- results are often inconsistent. Kerr and Stattin (2002) found that higher levels of monitoring were link with better adjustment of both genders. On the other hand, Griffin, Botvin, Scheier, Diaz and Miller (2002) found that higher monitoring was associated with less drinking for boys and more drinking for girls, whereas was associated with lower delinquency for boys and girls. Annunziata et al. (2006) found that the combination of higher parental monitoring and high family cohesion was important for school engagement of the girls, while for boys monitoring was important in itself.
Consistency

Parents are usually advised to be consistent in their parenting, but there is a lack of research looking at the importance of consistency of the parents for child and adolescent outcome (Flethcer, Steinberg & Sellers 1999; Luxton, 2007). The studies that do exist have targeted the influence of inconsistent discipline of parents on conduct disorder, eating disorder and academic achievement. For example, one study found more symptoms of conduct disorders in younger adolescents whose parents were less involved, harsh and inconsistent in their behavior (Brody et al., 2003). Another study found the lowest grades among adolescents whose parents had inconsistent parenting style especially if it was combined with authoritarian parenting (Dornbusch, Ritter, Leiderman, Roberts & Fraleigh, 1987). One retrospective study found that symptoms of eating disorders were among other things correlated with inconsistent discipline from the parents (Ross & Gill, 2002).

Studies that have looked at the influence of inconsistent parenting on the development of negative cognitive styles or risk of depression are uncommon. Schwarz and Zuroff (1979) found increased vulnerability for depression in females from families with paternal dominance, high conflicts, and father inconsistency of love. Mother inconsistency in love was less influential; still it increased vulnerability to depression. Furthermore, Luxton (2007) found an association between inconsistent parental behaviors and the self-esteem of adolescents. He further argue that it is possible that certain types of inconsistent parenting behavior like inconsistent praise, control and support can generate an uncertain sense of self-worth in children and adolescents and that this can make them more vulnerable for depression. Luxton (2007) further claimed that it is more likely that combination of inconsistent positive and negative parenting behaviors may foster uncertainty of self-worth to a higher extent than consistent negative parenting behaviors.

Gender differences in the influence of consistency on adolescent wellbeing has not been examined that much, but Luxton (2007) found that inconsistent care both of mothers and fathers can contribute to depression risk of both genders.
Emotional support

Cohen and Syme (1985:4) define social support as “resources provided by other persons” and it is common to separate social support into emotional support, instrumental support, informational support and appraisal (Weiss, 1974 in Berkman, Glass, Brissette & Seeman, 2000). Of these aspects, emotional support will be the focus of the current study. According to Rostila (2010) emotional support is primarily provided by a confidant or an intimate other, and is assumed to give the individual feeling of comfort, respect, admiration, love, caring and security.

There has been great interest in the theory of social support and a lot of studies have confirmed that social support is a contributor to well-being (Cohen & Wills, 1985; Cohen & Syme, 1985; Kawachi & Berkman, 2001; Kessler & McLeod, 1985). Furthermore social support and especially emotional support, has been shown to be protective factor against depression and mental ill-being (Kawachi & Berkman, 2001). Two major explanatory models have been developed: the direct effect hypothesis and the buffering hypothesis. The direct effect hypothesis claims that social support enhances health and well-being irrespective of the individuals’ stress level - through individual perception that others will provide help when needed (e.g. gives a sense of self-esteem, stability) or as result of being integrated in social network (e.g. relationships provides us with our identity and give us meaning and purpose in life). The buffering hypothesis claims that social support prevents or modulates negative effects of stressful events through the perception of the situation being less stressful, with decrease of neuroendocrine response or with enhancement of healthy behaviors (Cohen & Syme, 1985).

Parents and family are commonly the most important providers of social support in childhood, and although the influence of the peers becomes greater during adolescence, parents are still important (Harter, 1999 in Låftman & Östberg, 2006). According to Låftman and Östberg (2006) social support in childhood and adolescence has not been studied that much. However, there are a great number of studies based on Bowlbys’ theory of attachment, which have some similarities with emotional support. This theory claims that children who receive responsive and sensitive caretaking expect that social partners are responsive and that one is worthy of others’ affections. On the other side, children whose attachments figures are unresponsive and unpredictable expect that others are not trustworthy and available and that one is not worthy
of others’ love. These children would have problems with creating strong affectional bonds to others which could be a base for different types of psychopathology (Bowlby, 1979). Studies have found that caring and supportive relationships with parents during childhood and adolescence are the most powerful predictor of resilience, whereas the lack of emotional support during childhood from parents or caregiver increases the risk of depression (Kaslow, et al. 1994). One study found less psychological complains in young people who used their parents for social support (Låftman & Östberg, 2006). Another prospective cohort study on adolescents, found that perception of functional social support from mother was a significant protective factor in depressive affect symptoms (Colarossi & Eccles, 2003).

Studies have found that social relationships with parents are associated with health complaints (psychological and psychosomatic complaints) in a similar way for boys and girls (Låftman & Östberg, 2006; Wu, 2012) and also that support from parents was of the same importance for the mental health of the both genders (Colarossi & Eccles, 2003).

*Extracurricular structured activity*

Parents are exposed to different kinds of stress that could possibly result in lack of time and energy for their children. Thus there is a need to find protective factors that could compensate for adverse aspects of parenting. One such factor could maybe be participation in extracurricular structured activity.

There are some different classifications of extracurricular activities, but they are mostly divided on structured extracurricular activities (constructive, organized and adult-led activities) and unstructured activities (passive leisure time activity) (Bartko & Eccles, 2002; Vieno, Nation, Perkins & Santinello, 2007). According to Vieno et al. (2007) studies on extracurricular structured activities have mainly been investigating participation in structured activities like sports, youth groups, hobby or some special interest groups, but the importance of civic participation in communities like religions congregations, school-based service clubs, scouts, voluntary associations, or political groups has also been highlighted.

Participation in extracurricular structured activity both contributes to positive development and prevents occurrence of developmental problems (Eccles & Gottman, 2002). Different studies have found associations between extracurricular structured activities and better school
achievement (Bartko & Eccles, 2003; Eccles, Barber, Stonen & Hunt, 2003; Marsch, 1992),
college attendance and graduation (Eccles et al. 2003), less substance use (Eccles et al. 2003; Youniss, et al., 1997) less delinquency (Bartko & Eccles, 1998; Mahoney, 1997), improved
psychological health (Barber, Eccles & Stone, 2001; Bartko & Eccles, 2003; Larson & Kleiber, 1993) and less depressed mood (Conn, Calais, Szilagyi, Baldwin & Jee, 2014; Mahoney, Schweder, & Stattin 2002).

In their study, Eccles et al. (2003) concluded that different activities can contribute to
different outcomes and also that both program type and individual characteristics influence
the impact of activities on individuals’ development. The explanation of the positive influence
of guided leisure time activities is that this kind of activities can help children and adolescents
to acquire specific social, physical and intellectual skills that can help them in different
setting, such as the school. Through guided activities they can receive social support from
adults and peers, which can help them to cope with stress. Participation can also create sense
of belonging and provide children and adolescents with identity formation contexts (Eccles et
al. 2003; Kawachi & Berkaman 2001; Mahoney, Schweder & Stattin, 2002; McHale, Crouter,
& Tucker, 2001; Trainor, Delfabbro, Anderson & Winefield, 2010).

With regard to gender differences, Vieno et al (2007) found that engagement in civil
participation was linked to fewer problem behaviors among both boys and girls. When it
comes to the buffering effect of civic participation in the association between parental/family
detachment and problem behaviors, this was confirmed only for girls. Moreover, Eccles et al
(2003) found gender differences only in performing art activities, which was a protective
factor against risky behavior and a promotive factor for academic performance, only for boys.

**Psychological health/ill health**

According to Jonsson, Östberg, Låftman & Evertsson (2001) most of studies have been
focusing on psychological ill-health rather than psychological health. Furthermore, what we
define as psychological health and ill-health changes with new scientific findings and with
the new discourses in society. The term psychological ill-health can also have different
meanings in different contexts (Ekstrand, 2006): it can reflect both mild psychological
problems and it can also mean more severe problems or functional impairment
(Socialstyrelsen, 2013). The Swedish National Board of Health and Welfare (2005) have
suggested that children’s and young people’s psychological health can be measured with three
groups of questions: psychosomatic problems, internalized psychological problems (e.g.
anxiety, depression, and withdrawal) and externalized psychological problems (e.g. poor self-
control, aggression and antisocial behavior). In the current study, the term “psychological
health” was used, although it actually reflects the absence of psychological ill-health. It was
measured with seven questions about internalized psychological problems (emotional
problems and self-confidence).

Studies have shown that there is a gender difference in the prevalence of psychological health
problems with a greater prevalence of externalized problems (e.g. alcohol and drug use,
stealing, fighting) in the group of boys (Sakoman, Raboteg-Šarić & Kuman, 2002; Bijedić,
2007) and a greater prevalence of more internalized problems (headache, sadness, depression,
fear, nervousness, problems with sleeping, problems with self-esteem etc.) in the group of
girls (Kos-Grabar, 2007; Bijedić 2007; Ekstrand, 2006). The current study’s measure of
psychological health may thus primarily reflect health problems more prevalent among girls.

Aim and research questions

The aim of this thesis is to examine the association between different aspects of parenting and
psychological health among students attending second grade of upper secondary school in
Stockholm, Sweden. The research questions are as follow:

1. Are different aspects of parenting, in terms of monitoring, consistency and emotional
   support, associated with adolescents’ psychological health?
2. Are some of these aspects of parenting more important for adolescents’- psychological
   health than the others?
3. Does extracurricular structured activity moderate the association between aspects of
   parenting and psychological health among adolescents?
4. Are there any gender differences in any of the studied associations?
Methods

Data material

The data used in this study come from the Stockholm Survey, which is a cross-sectional survey carried out by the Department of Social Services every other year among all students in 9th and 11th grade (second year of upper secondary school) in Stockholm city. Private schools participate on a voluntary basis but still have widespread participation. The questionnaire is anonymous and directly filled by students. The purpose of the questionnaire is to measure behavioral problems as well as risk and protective factors for children and adolescents, which may guide the Department of Social Services in their planning of preventive measures. The current study will use data collected from the 11th grade students in 2006 (n=5,894).

Variables

Psychological health was the main dependent variable whereas monitoring, consistency and emotional support were the main independent variables. Another central variable concerned participation in extracurricular structured activity. Moreover, parental education and unemployment of parents were used as control variables.

Dependent variable

Psychological health was measured by the following seven questions: “Do you feel sad and depressed without knowing why?”, “Do you feel frightened without knowing why?”, “How much would you like to change yourself?”, “How often do you feel you're not good enough?” “Are you happy with your appearance?”, “Do you feel sluggish and uneasy?” and” How often do you feel it's really good to be alive?” Response options were slightly different across the questions but all were ranging from 1-5. For the purpose of the analysis, all questions were recoded in the same way, where the value 1 represented the worst possible answer and the value 5 the best possible answer. For each individual, these seven questions were subsequently added together and divided by the number of questions answered. Thus, the measure of psychological health indicated the mean value. Confirmatory factor analysis was performed and all seven items fell into one factor, with factor loadings ranging from 0.56-0.77. Since it was a possibility that the meaning of the questions differed between boys and
girls, a reliability test was carried out. Cronbach’s alpha was 0.80 for boys and 0.84 for girls which are acceptable values.

**Independent variables**

Exploratory and confirmatory factor analysis helped in the creation of the main independent variables: monitoring, consistency and emotional support. To be sure that this three aspects of parenting are separate aspects, correlation analysis was conducted. Correlations analysis showed significant association between these three aspects of parenting still correlation was mainly low, just for girls association between monitoring and emotional support was moderate. For boys: correlation coefficient between monitoring and consistency was 0.162, between monitoring and emotional support was 0.381 and for emotional support and consistency was 0.223. For girls: correlation coefficient between monitoring and consistency was 0.261, between monitoring and emotional support was 0.443 and for emotional support and consistency was 0.353.

Monitoring was measured with the following three questions: “Do your parents/guardians know where you are when you're out with your friends in the evening?”, “Do your parents/guardians know who your friends are that you're with in your spare time?” and “Do your parents/guardians know what you spend money on?” Response options were slightly different across the questions but all were ranging from 1-4. For the purpose of this study answers were recorded so that the value 1 represented the worst possible answer and the value 4 the best possible answers. The mean value for each individual was calculated by adding the three questions together and dividing the sum by the number of questions answered. The Cronbach’s alpha was 0.66 for boys and 0.65 for girls, which may be considered to be too low. However, sensitive analysis, done separately for the genders, indicated that all the questions were related to psychological health in the same way. Moreover, factor analysis showed the three questions were part of the same factor, so it was decided to keep the monitoring in the analysis.

Consistency was derived from the statements: “How well do the following statements describe your parents/guardians relationship with you?” The three following questions were asked: “They threaten to punish me for things I've done but don't follow through on it”, “I don't know how they react when I've done something they don't approve of” and “How they are towards me depends on the mood they're in.” For the purpose of the current study answers
were recorded so that the value 1 represented the worst possible answer and the value 4 the best possible answer. The mean value was calculated for each individual by adding the three questions together and dividing the sum by the number of questions answered. A test of internal consistency was done separately for boys and girls in the case of the possible gender difference. Cronbach’s alpha was 0.31 for girls and 0.40 for boys, which may be considered unacceptable values. However, sensitive analysis indicated that all questions were related to psychological health in the same way. Moreover, factor analysis showed that these questions fell into the same factor. Based on this, it was decided to keep the measure of consistency.

Emotional support was measured with one question and five statements. The question was: “If you have a personal problem, can you ask one of your parents/guardians for help?” and the statements were introduced by the following question: “How well do the following statements describe your parents/guardians relationship with you?” The statements were: “They praise me when I do something good”, “They usually encourage and support me”, “They notice when I do something good”, “I care about what my parents/guardians say” and “My parents/guardians are an example to me”. Possible answers for the first question were “Yes”, “No” and “Don’t know” whereas the rest of the questions had four response alternative. For the purpose of the current study answers were recorded so that the value 1 represented the worst possible answer and the value 4 the best possible answer. The mean value of emotional support for each individual was created by adding all five questions together and dividing the sum by the number of questions answered. In order to correct for the fact that the first question only had three alternatives, the answers were recoded in the following way: value 1 became value 4, value 3 became value 2.5 and value 2 became value 1. In the statements, value 1 represented the worst possible answer and the value 4 the best possible answer. A test of internal consistency, done separately for boys and girls, resulted in a Cronbach’s alpha of 0.80 for boys and 0.84 for girls which are acceptable values.

Extracurricular structured activity was measured with one question: “Do you usually take part in any supervised recreational activity or training? (sports, music, drama and art, hobby, church, scouts, politic or other association)”. There were four possible answers (“Often”, “Sometimes”, “Seldom” and “Never”).

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Control variables
Parental education was included as a potential confounder. It was measured by the question: “What is the highest education your parents have?” There were four response alternatives for this question, separately for the mother and the father: “Old elementary school (folkskola) or compulsory school (max 9 years schooling), “Upper secondary school”, “University and University College” and “Don’t know”. Three categories were created “University” (at least one parent attended university), “Less than university” (both parents less than university) and “Other” (this category also included responses of “Don’t know” and missing answers in order to prevent further attrition).

Unemployment of parents was also included as a possible confounding variable. It was indicated by the question “What do your parents do?” with five possible answers, separately for the mother and the father: “Work”, “Study”, “Leave of absence/parental leave”, “Unemployed”, “Other” and “Don’t know”. For the purpose of the current study, the following categories were created: “At least one parent unemployed” and “Other” (this category included all other responses, including missing).

Although all individuals in the study sample attended 11th grade, there was some age fluctuation. To account for possible variation in the levels of psychological health and relationships with parents, all analysis were age-adjusted.

Statistical analysis
The analysis included all participants who answered at least 60% of the questions relevant for creating the measures of psychological health, monitoring, consistency and emotional support. The internal attrition present for the remaining variables was calculated at 5.2% resulting in an analytical sample of 5 587 individuals. The association between the three aspects of parenting and psychological health was analyzed by means of linear regression analysis. A total of six models were generated. The first five were carried out separately for monitoring, consistency and emotional support. Model 1 was age-adjusted, Model 2 was adjusted for age and parental education, Model 3 was adjusted for age and unemployment of parents, Model 4 was adjusted for age and extracurricular structured activity and Model 5 was adjusted for age,
parental education, unemployment of parents and extracurricular structural activity. The sixth model was adjusted for age, parental education, unemployment of parents and extracurricular structured activity as well as mutually adjusted for the three aspects of parenting. Interaction analysis also examined whether the association between psychological health and each aspects of parenting is moderated by extracurricular structured activity- so to see if activities could be a potential protective factor in the association between adverse aspects of parenting and psychological health. Moreover, since an initial interaction analysis showed that there were gender differences in the association between the aspects of parenting and psychological health (statistically significant for monitoring) the decision was made to conduct the regression analysis separately for boys and girls.

Results

Table 1 and 2 show the descriptive statistics for all the variables included in this study, separately for boys and girls. The first table concerns the continuous measures: monitoring, consistency, emotional support and psychological health. A t-test for gender differences in psychological health shows that there is a statistically significant difference in the mean value between girls and boys to the disadvantage of the girls. Moreover, girls reported significantly higher monitoring from parents, more consistency in their behavior and more emotional support. The second table concerns the categorical variables: parental education, unemployment of parents, participation in the extracurricular structured activity and age of participants. There is a high percent of parents with university degree (61.2%) and parents unemployment is low (6%). A chi-square test shows that there is no gender difference in the participation in the extracurricular structured activity.
Table 1. Statistical description of the continues variables of the sample (n= 5587)

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<tr>
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<th>Boys (n= 2638)</th>
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Table 2. Statistical description of the categorical variables of the sample (n= 5587)

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Table 3 (boys) and Table 4 (girls) displays the results from the multiple linear regression analysis of the association between different aspects of parenting and psychological health. The analysis has been carried out separately for monitoring, consistency and emotional support in Models 1-5, whereas these indicators are included simultaneously in Model 6. The results are presented with B coefficients, 95% confidence intervals and adjusted R² values.

With regard to boys (Table 3), Model 1 suggests that all three aspects of parenting are positively associated with psychological health: the B coefficient for monitoring is 0.21, for consistency 0.25 and for emotional support 0.42. Thus, it is possible to conclude that higher monitoring, consistency and emotional support is linked to better psychological health among boys. Model 2 is adjusted for parental education, which is not in itself significantly related to psychological health, nor does it affect the association between the aspects of parenting and psychological health of adolescent boys. Model 3 is adjusted for unemployment of parents, which is not significantly linked to psychological health, nor does it affect the association between aspects of parenting and boys’ psychological health. Model 4 includes extracurricular structured activity, which is positively associated with psychological health: those who participate in such activities seem to have better psychological health. The association between the aspects of parenting and psychological health is only slightly change when extracurricular structured activity is taken in account. Based on Model 5 it can be concluded that each aspect of parenting remain a significant predictors of psychological health also when all confounders are included in the analysis. In Model 6, when all three aspects of parenting are included in the same model, the main associations decrease in strength to some extent. This is especially the case for monitoring, where the association between monitoring and psychological health among boys becomes statistically non-significant: it is explained by inclusion of consistency and emotional support. It is also evident that the association between emotional support and psychological health is stronger than for consistency and psychological health. The interaction analysis for extracurricular structured activity and each of the three aspects of parenting showed not significant results.
With regard to girls (Table 4), Model 1 suggests that all three aspects of parenting are positively associated with psychological health: the B coefficient for monitoring is 0.31, for consistency 0.31 and for emotional support 0.44. Thus, it is possible to conclude that higher monitoring, consistency and emotional support is linked to better psychological health among girls. Model 2 is adjusted for parental education, which has no clear association with psychological health nor does it not affect the association between the aspects of parenting and psychological health of girls. Model 3 is adjusted for unemployment of parents, which is shows a clear association with psychological health. The B coefficient is -0.13, which means that by changing from the category of “Other” (working and all other responses) to “At least one parent unemployed”, psychological health decreases by 0.13. However, this adjustment does not change the association between aspect of parenting and girls´ psychological health. Model 4 includes extracurricular structured activity, which is positively associated with psychological health: those who participate in such activities seem to have better psychological health. The association between the aspects of parenting and psychological health is only slightly changed when extracurricular structured activity is taken in account. Based on Model 5 it can be concluded that each aspect of parenting remain a significant predictors of psychological health also when all confounders are included in the analysis. In Model 6, when all three aspects of parenting are included in the same model, the main associations decrease in strength to some extent, but still all three aspects of parenting stayed significant. It is also evident that the association between emotional support and psychological health is stronger than for monitoring and consistency. The interaction analysis for extracurricular structured activity and each of three aspects of parenting showed not significant results.
### Table 3. The association between aspects of parenting and the psychological health of boys. Result from multiple linear regression (n=2 638)

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<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
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<td>0.01 -0.05 , 0.07</td>
<td>0.00 -0.06 , 0.06</td>
<td>0.00 -0.05 , 0.06</td>
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<td>-0.07 -0.14 , 0.01</td>
<td>-0.07 -0.15 , 0.00</td>
<td>-0.05 -0.13 , 0.02</td>
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*Significance at the 5% level (p<0.05). **Significance at the 1% level (p<0.01). ***Significance at the 0.1% level (p<0.001).
Model 1 adjusted for age
Model 2 adjusted for age and education of parents
Model 3 adjusted for age and unemployment of parents
Model 4 adjusted for age and extra-curricular structural activity
Model 5 adjusted for age, education of parents, unemployment or parents and extra-curricular structural activity
Model 6 adjusted for monitoring, consistency, emotional support, age, education, unemployment of parents and extra-curricular structural activity
Adjusted R² in model 1 is for monitoring or consistency or emotional support
### Table 4. Association between aspects of parenting and the psychological health of girls. Result from multiple linear regression (n=2,949)

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*Significance at the 5% level (p <0.05). **Significance at the 1% level (p<0.01). ***Significance at the 0.1% level (p<0.001).

Model 1 adjusted for age  
Model 2 adjusted for age and education of parents  
Model 3 adjusted for age and unemployment of parents  
Model 4 adjusted for age and extra-curricular structural activity  
Model 5 adjusted for age, education of parents, unemployment or parents and extra-curricular structural activity  
Model 6 adjusted for monitoring, consistency, emotional support, age, education, unemployment of parents and extra-curricular structural activity  
Adjusted R² in model 1 is for monitoring or consistency or emotional support
Discussion

The main purpose of this study was to examine whether different aspects of parenting, in terms of monitoring, consistency and emotional support, were linked to adolescents’ psychological health. The results showed that all three aspects were positively associated with the psychological health of boys and girls. These associations persisted after adjustment for the potential confounding effects of parental education and unemployment of parents. Moreover, emotional support showed the strongest association to the outcome for both genders whereas, for boys, the relationship between monitoring and psychological health was explained by the inclusion of the other two aspects of parenting. Concerning extracurricular structured activity, this did not seem to moderate the association between parenting and psychological health.

In research on the topic of parenting, there is disagreement on how much can parents do for the physical and psychological health of their children and how much is a consequence of the biology, genes or the child’s broader environment. Even if some have underlined the great importance or parent, there is no consensus with regard to in which way parents influence their children and which the most important aspects of parenting are.

The current study showed that emotional support seemed to constitute the most important aspects of parenting for adolescents’ psychological health. Based on existing theories, this could be because emotional support gives a secure base for the adolescent, as well as the feeling that somebody cares and that one is loved and not alone. Also, emotional support from parents may help adolescents to better cope with problems that are present in their life and help them to deal with different emotional states that are more prevalent in adolescence, such as anxiety, depression or anger. When parents provide emotional support, adolescents become better in regulating their emotions and better in problem solving, which can help them in coping with stress. Resiliency models explain that parental support help children to better develop academic and social competence, which may help them in better adaptation to difficult life circumstance (Blechman & Culhane, 1993; Eisenberg & Fabes, 1992; Sandler, Miller, Short, Wolchik & Belle, 1989; Wills, 1990; Wills, Mariani, & Filer, 1996).
Consistency was not as strongly linked to psychological health as emotional support was, but a clear association was still shown for both genders. This association remained after the inclusion of emotional support and monitoring. Bowly (1988) has claimed that among different aspects of parenting, consistency is one of the most important for the normal development of children. It seems that this aspect is important during all periods and even if children and adolescents know that parent will give them emotional support, it seems that consistency gives them something more, possibly some kind of stronger sense of security and predictability of their life. Luxton (2007) has argued that inconsistent parenting behaviour can generate an uncertain sense of self-worth that can make children more vulnerable for depression. Thus even if parents give emotional support and monitor their children, they can be inconsistent in their parenting and this can have negative consequences for psychological health of their children. This is in the line with Luxton (2007) who finds that inconsistent parental behaviours have negative consequences, above and beyond the influence of other negative parenting behaviours.

The perhaps most interesting results here concerned the association between monitoring and psychological health. Interaction analysis (data not presented) showed that this association was stronger for girls than for boys. One explanation for this can be that maybe for girls it means more if parents ask them where they are and with whom, since some studies show that adolescent girls report stronger closeness and intimacy with mothers, compared to boys (Starrels, 1994; Field, Lang, Yando & Bendell, 1995). It is thus possible that girls perceive it like lack of caring and love if parents do not show interest in this. Still one has to be careful in the interpretation because it is possible that girls with lower psychological health are less likely to share this information with parents than boys are. Moreover, for boys, the association between monitoring and psychological health was explained by consistency and emotional support. It is reasonable to conclude that if boys get high emotional support and high consistency from parents, high monitoring is not important anymore for their psychological health, when for girls high monitoring is still important even if parents are highly supportive and consistent.

There has been some criticism against the concept of monitoring as a separate dimension of parenting that measure active parental findings about their adolescents. According to Stattin & Kerr (2000), adolescents who voluntarily disclosed to their parents (without parents asking them) where they are and with who they are with, performed better in school, had lower levels
of delinquency and depression and higher self-esteem, but if the parent actively asked or if they were controlling, the relationship between parental knowledge and adolescent adjustment in some cases become non-significant. This led Stattin and Kerr to argue that monitoring is not a separate dimension of parenting but the sign of a good or bad parent-child relationship. They suggested that future studies should have question about how parents know where/with whom children are (Stattin & Kerr, 2002).

On the other hand, Waizenhofer, Buchanan & Jackson-Newsom J. (2004) found that the parents’ knowledge on their children like where they are and with whom, was the only predictor of adolescents’ deviant behaviour and parent’s cognition on the mentioned information was insignificant.

It seems that the results of the current study, at least for girls, are more in the agreement with others who see monitoring like a separate dimension and not in the line with Stattin & Kerr (2002) who see knowledge of parents (where children are and with whom), only like an indicator of a good or bad relationship. Also Barber et al (1994) found that an association between parental control and adolescent difficulties existed even if parents were supportive. Fröjd et al. (2006) think that even if adolescents have good relationship with their parents, the parents have to show an active interest in where their children are and who are there friends, because this is sign of parental involvement and not controlling. They further say that parents should be encouraged to ask their children about their lives, because also adolescents need some amount of supervision. Their further recommendation is that parents who are depressed or in some other way cannot monitor, should get greater support. Also adolescents who do not feel good or are depressed sometimes can be rejecting toward parents, but still parent should to keep involving themselves in their life.

It is important to say that possible reason for not finding stonger confounding effect of parental education and unemployment, can be due to high procent of parents with university degree (61,2%) and low procent of unemployed parents (6%).
Extracurricular structured activity like moderator and gender differences

The present study did not find extracurricular structured activity to be a moderator between different aspects of parenting and adolescent psychological health. This is in contrast to the findings presented by Vieno et al (2007), which indicated buffering effects of civic participation between parents/family detachment and problem behaviours, but just for girls. Still, however, the current study did not study civic participation and extroverted psychological problems, making it hard to compare.

Even if the present study did not find buffering effect of extracurricular activities, the results show a positive association between extracurricular activities and the psychological health of boys and girls, and this is in the line with several other studies (Barber, Eccles & Stone, 2001; Bartko & Eccles, 2003; Larson & Kleiber, 1993). Still one has to be aware of possible problems in conducting research on extracurricular activities. One of the challenges is that adolescents` personal characteristics or background can influence participation and continued participation or choice of activities. Further uncertainty concerns how much of the positive outcomes of the activities that are influenced by the characteristics of participants, how much is influenced by the leaders of the activities, and what is due to activities by themselves. So further research should bring some clarification, so that youth activity programs could be more effective in promoting good health and also give answers on which programs are best suitable for whom (Eccles et al, 2003).

Strengths and limitations

The strengths of this study are the quite large number of participants and the low internal attrition. Study participants were middle and late adolescents who are not studied in relation to parenting so often, so this study gives some broader picture of importance of parents even for older adolescents. Another positive aspect is that this study was able to include and contrast three aspects of parenting which are usually studied separate.

However, there are also some study limitations that are needed to be discussed. Firstly, since the study is based on cross-sectional data, there can be no assumptions of causal trajectories between different aspects of parenting and the psychological health of adolescents. Secondly,
the Stockholm Survey was not primarily constructed for the purpose of measuring aspects of parenting, which means that the items capturing parenting may not be optimal. For example, the measure of monitoring showed poor internal consistency, suggesting that the items included were perhaps not the best choice to reflect monitoring. However, sensitivity analysis, done separately for the genders, indicated that all three questions which monitoring was based on were related to psychological health in the same way. Moreover, factor analysis showed the three questions were part of the same factor. Similar questions have also been used in other studies (Di Clement et al., 2001; Fröjd et al., 2006; Sandahl, 2011). Another consideration in relation to monitoring is the interpretation of the result that with every increase in monitoring there is better psychological health. This can be problematic because too much monitoring can reflect over controlling by the parents, and lack of perception of personal control that can be detrimental for physical and psychological health and well-being (Seligman, 1991; Syme, 1990). Thirdly, the questions about parenting were not separate for mothers and fathers, which can cause confusion in the responses, if parents behave differently. It can probably be different if one has emotional support just from one parent (and which one) or if one has support from both parent. For example Colarossi and Eccles (2003) found different effects of mother’s and father’s support in their study. Even if fathers in Sweden are more involved in their children’s lives compared to fathers in many other countries, it seems that mothers are usually still closer to the children, so if one has not emotional support from mother, maybe it can have a different effect than if one has not so much emotional support of fathers. The situation can probably also be different with different parental monitoring and inconsistency. Having been able to separate this information between mother and fathers could have contributed to a broader understanding and possibly have brought some new insights and maybe more detailed future recommendations. Also the measure of consistency had rather poor internal consistency. Although factor analysis showed that the three questions chosen to reflect consistency fell into the same factor, and that sensitivity analysis revealed that they were related to psychological health in the same way, the composite measure is difficult to compare with other studies since it has not commonly been operationalized in this form before. One study used the same questions for creating an index of parents’ inconsistency, but they did not look for association between this aspect of parenting and psychological health (Ekstrand, 2006). Other examples of measures of inconsistency are “Child report of Parent Behavior Inventory”, that measure parents inconsistent- disciplinary behaviours and “Parenting Scale of Inconsistency”, those measures- parents’ moods, behaviours and attitudes toward children with 12 questions (Yoshizumi,
Murase, Murakami & Takai, 2006). Still, even if scale used in the current study had just three questions it can give some information of parents´ inconsistent behaviour. Moreover, the measure of emotional support should be discussed. In the Stockholm survey they included three questions to represent attachments and three questions for attention from parents. A factor analysis conducted in the present study showed that all six questions were part of the same factor and that they measure same dimension. Four questions that are used: “If you have a personal problem, can you ask one of your parents/guardians for help?”, “They notice when I do something good”, “They praise me when I do something good” and “They usually encourage and support me” could somehow fit in the concept of emotional support that is according to Rostila (2010), mostly provided by a confidant or intimate other, and is assumed to give the individual feelings of comfort, respect, admiration, love, caring, and security. Another two questions: “I care about what my parents/guardians say” and “My parents/guardians are an example to me” while not strictly emotional support provided by the parents, they focus on how the student feels about getting support from their parents.

**Recommendation for future study**

It is difficult to fully grasp such a complex issue like the influence of parents on adolescents´ psychological health. However it seems that despite the current study´s narrow approach, monitoring, consistency and emotional support, represents quite influential aspects of parenting. Future studies should, include measure of psychological control, because it is also associated with internalized behaviours in adolescents (Barber et al., 1994). Also there is a need to include separate questions for mother and fathers aspects of parenting. Further there is a need to include questions about non-normative stress events that could deteriorate psychological health (Kerr & Håkan, 2000). To get more clear answer of the confounding effect of socioeconomic position of parents it would be better to look education of mother and father separately, to have information about income of parents and to have sample with higher percent of unemployed parents and parents with lower education. To get more clear answer on importance of extracurricular structured activities, future recommendation is to give options where children can freely write their activities and how much they practice each of them.
Acknowledgments

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References


