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ORIGINAL PAPER

Gender differences in psychosocial functioning of adolescents with symptoms of anxiety and depression: longitudinal findings from the Nord-Trøndelag Health Study

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Abstract
Purpose To explore longitudinally gender differences in the associations between psychosocial functioning, subjective well-being and self-esteem among adolescents with and without symptoms of anxiety and depression.
Methods Data were obtained from a major population-based Norwegian study, the Nord-Trøndelag Health Study, in which 1,092 boys and 1,262 girls (86% of all invited) completed an extensive self-report questionnaire at baseline (mean age 14.4 years) and at follow-up (mean age 18.4 years).
Results Gender was a moderator variable in the associations between symptoms of anxiety and depression and impairment, meaning that boys' functioning was impaired to a larger extent than girls' functioning. A statistically significant interaction effect between gender and symptoms of anxiety and depression was found at follow-up in terms of subjective well-being ($p < 0.05$), self-esteem ($p < 0.05$), academic problems ($p < 0.01$), behaviour problems ($p < 0.01$) and frequency of meeting friends ($p < 0.001$). Onset of symptoms between baseline and follow-up was associated with less frequent meetings with friends among boys, but not among girls. After remission of symptoms, boys still had more behaviour and academic problems, less frequently met friends and reported lower subjective well-being and self-esteem than boys who had no symptoms at both time points. No similar differences were found among the girls.
Conclusion Previous and ongoing symptoms of anxiety and depression had more negative consequences for boys than for girls. These findings may contribute to improved assessment and intervention methods tailored differently for each gender.

Keywords Mental health · Adolescence · Gender differences · Anxiety and depression · Young HUNT study

We dedicate this paper to the beloved memory of Professor Matthew Colton, who died unexpectedly while this paper was in its final preparation phase.

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Introduction

Anxiety and depression in adolescence elevate the risk for later mental disorders and a variety of negative outcomes [1–3]. It is widely accepted that gender plays an important role in the development of anxiety and depression [2, 4, 5]; a large body of research has dealt with the sharp increase in prevalence rates of female depression during adolescence,

which is probably a consequence of mixed biological and environmental factors [5–8]. However, little is known about gender differences in the course and consequences of anxiety and depression [9].

Depressive and anxiety disorders are often co-morbid, and share many similarities in terms of development, prevalence and correlates [1]. Depression and anxiety negatively affect most spheres of psychosocial functioning such as academic performance, behaviour at school and social relations.

Adolescents with symptoms of anxiety and depression are characterized by lower psychosocial functioning, more stress and less social support than adolescents without those symptoms [10, 11]. However, evidence of gender differences in psychosocial functioning of adolescents with symptoms of anxiety and depression is scarce and mixed. In population-based studies, social isolation and lack of social support are reported to be more strongly associated with symptoms of anxiety and depression in young adolescent boys than in girls [12–14]. In contrast, interpersonal stress is usually considered a risk factor for depression in girls, but not in boys [15]. In a Norwegian study, symptoms of anxiety and depression were correlated with lower academic functioning among boys, but not among girls [16]. A recent study of adults reported that men with emotional disorders experience a disproportionally greater role, and social and cognitive disability than women with these disorders (Scott and Collings 2010). We have not found relevant data in studies based on clinical samples.

Subjective well-being and self-esteem are complementary to symptoms of anxiety and depression in mental health assessment. A decrease in self-esteem is one of the distinct symptoms of depression [17], and self-esteem is negatively correlated with both the presence and persistence of symptoms [18]. Subjective well-being is a frequently used indicator associated with mental health and is negatively correlated with depressive symptomatology [19]. Nonetheless, we have not been able to find in the research literature evidence of gender differences in subjective well-being and self-esteem in adolescents with symptoms of anxiety and depression.

The scarcity of findings regarding gender differences in correlates of symptoms of anxiety and depression does not necessarily result from a lack of such differences [1]. Limitations in methods and approach, such as statistically controlling for gender, excluding the examination of interactions between genders and other factors, and excessive focus on girls, may have led to the paucity of findings [5, 9]. It is well accepted that gender differences should be further investigated [2, 4, 5].

In the current study, we address this gap in knowledge by investigating gender differences in psychosocial functioning and mental health correlates of adolescents with symptoms of anxiety and depression. In psychosocial functioning, we include social relations, academic performance and behaviour problems at school. As mental health correlates, we investigate self-esteem and subjective well-being.

The hypotheses of the current study are based on our previous work [20]. Using cross-sectional data of nearly 9,000 Norwegian adolescents, we found that symptoms of anxiety and depression were more strongly associated with lower subjective well-being, self-esteem and psychosocial functioning in boys than in girls. In the current study, we aimed to explore these factors longitudinally, 4 years after the first assessment. The aim of this study was to investigate if gender was a mediator in psychosocial functioning, subjective well-being and self-esteem of adolescents with previous, current or at both time points presence of symptoms of anxiety and depression. More specifically, we wanted to explore whether psychosocial functioning, subjective well-being and self-esteem are affected differently in boys and girls if:

1. symptoms of anxiety and depression are present both at baseline and at follow-up;
2. these symptoms emerge during adolescence (absent at baseline but present at follow-up);
3. these symptoms decline until remission between baseline and follow-up.

Methods

Participants and procedures

Data were taken from the adolescent part of the Nord-Trøndelag Health Study (HUNT), a health survey of residents aged 13 years and older of the central Norwegian county of Nord-Trøndelag. The county has approximately 127,000 inhabitants.

The present paper is based on data from the first two waves of the adolescent part of the study (young HUNT), completed in 1995–1997 (baseline, T1) and 2000–2001 (follow-up, T2).

All students in junior high school and senior high school aged 13–19 years were invited to participate. Adolescents outside the school system were identified through lists obtained from the local authorities. A total of 8,984 (91% of all invited) participated. Only 285 of them were not attending school. Acquisition of the data was mainly organized through the local junior high schools and senior high schools. Baseline participants in wave 1 were in the 8th through 13th grade (age range 12.1–17.4, mean = 14.4). Four years later, in wave 2, all 2,714 baseline participants who were still in the 12th or 13th grade (age range 16.7–21.0, mean = 18.4) were invited to participate in a follow-up. Of these, 2,354 (87%)

provided complete data, including 1,092 boys and 1,262 girls. The adolescents signed a written consent to participate at each time point. In addition, students younger than 16 years of age were asked to provide parental consent. Participants were instructed to complete the questionnaires individually. The questionnaires were identifiable by a bar code of the respondents' 11-digit personal identification number, which was encrypted to secure anonymity. Findings from the first wave were reported in our previous work [20].

Measures

The full original questionnaire and its English translation are available at the HUNT Web site: http://www.ntnu.no/c/document_library/get_file?uuid=55dd3745-c61d-4aaf-bdad-79536996e14c&groupId=10304 (Retrieved 27.12.10).

Symptoms of anxiety and depression were measured by a shortened version of the Symptom Checklist for anxiety and depression (SCL 25). The short version, SCL 5, is a widely used self-administered questionnaire [20]. It has been translated into Norwegian and validated in the local population from the age of 16 years. Its reliability has been shown to be acceptable, and a mean cutoff score of SCL $5 > 2$ has been suggested to account for the same prevalence rates of anxiety and depression as the original SCL 25 questionnaire [20, 21]. This cutoff score was applied in the present study to define the presence of symptoms of anxiety and depression. In the SCL 5, participants are asked to rate, using a four-point Likert scale, how much they have been bothered by the following thoughts and feelings during the previous 14 days: felt consistently afraid and anxious; felt tense or uneasy; felt hopelessness when thinking about the future; felt depressed or sad; and worried too much about various things. The scale ranges from "not bothered" to "very bothered". In the present study, the SCL 5 Cronbach's alpha was 0.77. In order to examine patterns of change in symptoms of anxiety and depression over time, the sample was divided into four 'symptom groups':

1. *Both waves group*: Presence of symptoms at baseline (T1) and follow-up (T2).
2. *Onset group*: Absence of symptoms at baseline (T1), but presence at follow-up (T2).
3. *Remission group*: Presence of symptoms at baseline (T1), but absence at follow-up (T2).
4. *No symptoms* group: Absence of symptoms at both waves.

Psychosocial functioning variables

Academic problems and *behaviour problems at school* were measured as part of school-related questions designed by the Norwegian Institute of Public Health. Participants were asked to consider 14 statements about school and to respond according to a four-point scale ranging from "never" (1) to "very often" (4). In a previous study using the HUNT data, these 14 statements were subjected to factor analysis [22]. The present study used two of these factors: "Academic problems" with five items (highest loading item: "I have problems concentrating in class") and "Behaviour problems in school" with four items (highest loading item: "I am reprimanded by my teacher"). Cronbach's alphas, based on standardized items for these factors, were 0.67 and 0.64, respectively. High scores indicate more problems than low scores.

The social relations of the respondents were examined by the question "How frequently do you meet your friends?" This variable was calculated by taking the mean frequency of paying and receiving visits in the last week. Possible answers ranged from never (1) to four or more times (4). These questions were specifically designed for the HUNT study by the Norwegian Institute for Public Health.

Mental health correlates

The Subjective Well-Being Scale consisted of the following three questions: (1) "When you think about the way your life is going at present, would you say that you are by and large satisfied with life or are you mostly dissatisfied?", (2) "In general, do you feel strong and in a good mood or tired and worn out?" and (3) "Are you generally happy or sad?". Respondents answered according to a seven-point scale ranging from the extreme negative (1) to the extreme positive (7). The Subjective Well-Being Scale has been reported in a number of previous HUNT study publications [23]. In the present study, it had an associated Cronbach's alpha of 0.74. Higher values indicate better subjective well-being.

Self-esteem was measured by a short version of the Rosenberg Self-Esteem Scale (Rosenberg, 1965), consisting of four statements, for example: "I feel I do not have much to be proud of". Respondents answered in terms of a four-point scale ranging from "I totally agree" (1) to "I totally disagree" (4). A high degree of correlation (0.95) has been reported between the four-item version and the original scale, in a validation study with Norwegian adolescents [24]. In the present study, a Cronbach's alpha of 0.74 was obtained for the four-item scale. High scores correspond to high self-esteem.

Socio-economic status (*SES*) was measured by the variables of parents' education and income, which were obtained from Statistics Norway for each participant. Parents' education level was divided into six ascending

categories according to the length and type of education, ranging from "up to four years of elementary school" (0) to "master's degree or above" (6). The composite variable was the mean score of both parents' education. The correlation between educational level and income was 0.49. Educational level contributed more to the explained variance, and thus was chosen as an indicator of SES.

Statistical analysis

The prevalence of symptoms of anxiety and depression in both waves was calculated, and the numbers of boys and girls in each symptom group were compared using a χ^2 test.

Differences in psychosocial functioning, subjective well-being and self-esteem between boys and girls at follow-up with respect to their previous or current presence of symptoms of anxiety and depression were analysed by a set of multivariate linear regression analyses. Each analysis was performed with one of the following variables at follow-up as its outcome: academic problems, behaviour problems at school, frequency of meeting friends, subjective well-being and self-esteem; the explanatory variables were symptoms of anxiety and depression group, gender and the interaction between genders and symptom group. The model's covariates were age and parents' educational level. The numbers of participants who entered into the analyses varied slightly due to non-responses on some items (<1% for all analyses). In the same set of analyses, we further compared psychosocial functioning, subjective well-being and self-esteem of boys and girls within each symptom group by calculating estimated marginal means with confidence intervals for each outcome variable.

Data analyses were undertaken using SPSS for Windows version 17.0 (SPSS Inc, Chicago, IL).

Prevalence

The total prevalence of symptoms of anxiety and depression at baseline (T1) was 6.5%; in boys 3.4% and in girls 9.2%. At follow-up (T2), the total prevalence was 13.8%; among boys 7.4% and among girls 19.4%. Percentages (and numbers) of subjects in the four symptom groups were—both waves group: 1.2% (13) of the boys and 4.7% (59) of the girls; onset group: 6.2% (68) of the boys and 14.7% (186) of the girls; remission group: 2.2% (24) of the boys and 4.5% (57) of the girls; no symptoms group: 90.4% (987) of the boys and 76.1% (960) of the girls. In all groups, apart from the no symptoms group, the numbers for girls were significantly higher, $\chi^2 = 86.20$, $df = 3$, $p < .001$.

Results

Functioning of girls and boys in the various symptom groups

Table 1 displays the unadjusted means and standard deviations for psychosocial variables, subjective well-being and self-esteem with respect to the symptom group and gender.

Differences in psychosocial functioning, subjective well-being and self-esteem of boys and girls at follow-up were analysed by a set of multivariate linear regression analyses. The main results are presented in Table 2.

In all the analyses except where subjective well-being was the dependent variable (self-esteem, academic problems, behaviour problems and frequency of meeting friends), main effects of symptom group and gender were found ($p < 0.01$), as well as interaction effects between gender and symptom group ($p < 0.05$). This implies that psychosocial functioning and self-esteem were influenced both by gender and symptom group, yet the influence on boys was different from the influence on girls.

In subjective well-being, a main effect of symptom group ($p < 0.01$) was found, meaning that the subjective well-being of subjects in various symptom groups differed.

A significant interaction effect between gender and symptom group ($p < 0.01$) demonstrated that the effect of a symptom group was different for boys and girls.

Specific gender differences in psychosocial functioning, subjective well-being and self-esteem within each symptom group are presented in Fig. 1 by estimated marginal means that are controlled for age and parents' educational level. Table 3 details the values and CI of the estimated marginal means which appear in Fig. 1.

Gender differences in the continuous presence of symptoms

We compared psychosocial functioning, subjective well-being and self-esteem between the no symptoms and the both waves groups, and found that the functioning of boys in the both waves group was lower in all measurements than the functioning of boys in the no symptoms group. The girls showed the same pattern except for frequency of meeting friends, where there was no difference between the both waves and no symptoms groups.

It is noteworthy that while boys scored higher than girls in subjective well-being and self-esteem in the no symptoms group, they scored the same as girls in the both waves group. In the same line, boys and girls had similar rates of academic problems in the no symptoms group, but boys presented more problems than girls in the both waves group.

Table 1 Psychosocial functioning, subjective well-being and self-esteem at a 4-year follow-up, by gender and symptom group

	Academic problems	Behaviour problems	Frequency of meeting friends	Subjective well-being	Self-esteem
Symptoms at both waves					
Boys, $N = 13$	2.77 (.48)	1.96 (.55)	2.23 (.73)	3.87 (1.21)	2.54 (.54)
Girls, $N = 58$	2.44 (.52)	1.50 (.49)	2.81 (.75)	4.11 (.94)	2.39 (.66)
Onset group					
Boys, $N = 68$	2.39 (.50)	1.70 (.65)	2.70 (.82)	4.08 (.98)	2.69 (.58)
Girls, $N = 185$	2.34 (.47)	1.42 (.39)	2.83 (.77)	4.05 (.92)	2.64 (.56)
Remission group					
Boys, $N = 24$	2.36 (.51)	1.65 (.54)	2.56 (.73)	5.08 (.83)	3.10 (.52)
Girls, $N = 57$	2.02 (.43)	1.41 (.35)	2.89 (.76)	5.08 (.88)	2.98 (.54)
No symptoms					
Boys, $N = 984$	2.01 (.44)	1.46 (.42)	2.96 (.76)	5.46 (.85)	3.34 (.47)
Girls, $N = 959$	1.99 (.40)	1.33 (.33)	2.85 (.73)	5.22 (.81)	3.07 (.45)

Values are mean (SD)

Table 2 Differences in psychosocial functioning, subjective well-being and self-esteem and of boys and girls at a 4-year follow-up: summary of main results from the various multivariate linear regression analyses, *F*-scores (with degrees of freedom)

	F-scores (with degrees of freedom)				
	Academic problems	Behaviour problems	Frequency of meeting friends	Subjective well-being	Self-esteem
Symptom group	69.58 (3,2163)***	21.47 (3,2162)***	7.71 (3,2322)***	168.11 (3,2190)***	105.51 (3,2187)**
Gender	16.38 (1,2163)***	43.50 (1,2162)***	8.01 (1,2193)**	0.04 (1,2190)	9.08 (1,2187)**
Symptom group × gender	4.85 (3,2163)**	5.02 (3,2162)**	7.16 (3,2322)***	2.72 (3,2331)*	3.59 (3,2187)*

Variables entered into the model: symptom group, gender, interaction between genders and symptom group, age at follow-up and parents' educational level. Significance level for *F*-score: * $p < .05$; ** $p < .01$; *** $p < .001$

Gender differences at onset of symptoms

We compared psychosocial functioning, subjective well-being and self-esteem of the onset and the no symptoms group, within each gender separately. Both genders reported more academic problems, lower subjective well-being and lower self-esteem in the onset group as compared to the no symptoms group. However, as can be seen in Fig. 1, only boys reported more behaviour problems in the onset group than in the no symptoms group. Boys also met friends less frequently in the onset group as compared to the no symptoms group. When controlling for baseline level, the difference in behaviour problems diminished, but the difference in frequency of meeting friends remained significant, meaning that onset of symptoms was followed, and not preceded by lower frequency of meeting friends. Girls reported the same rate of behaviour problems and the same frequency of meeting with friends in the onset and the no symptoms groups.

Gender differences after remission of symptoms

We further investigated the functioning within each gender in the two groups that presented no symptoms at follow-up, namely the remission group and the no symptoms group. As can be seen in Fig. 1 and Table 3, boys in the remission group reported more academic problems, behaviour problems at school and met friends less frequently than their peers who reported no symptoms. In addition, these boys still had lower subjective well-being and lower self-esteem than boys who presented no symptoms in both waves. No such group differences were found for the girls.

Discussion

Adolescents who presented symptoms of anxiety and depression at both waves reported lower psychosocial functioning and had lower subjective well-being and self-

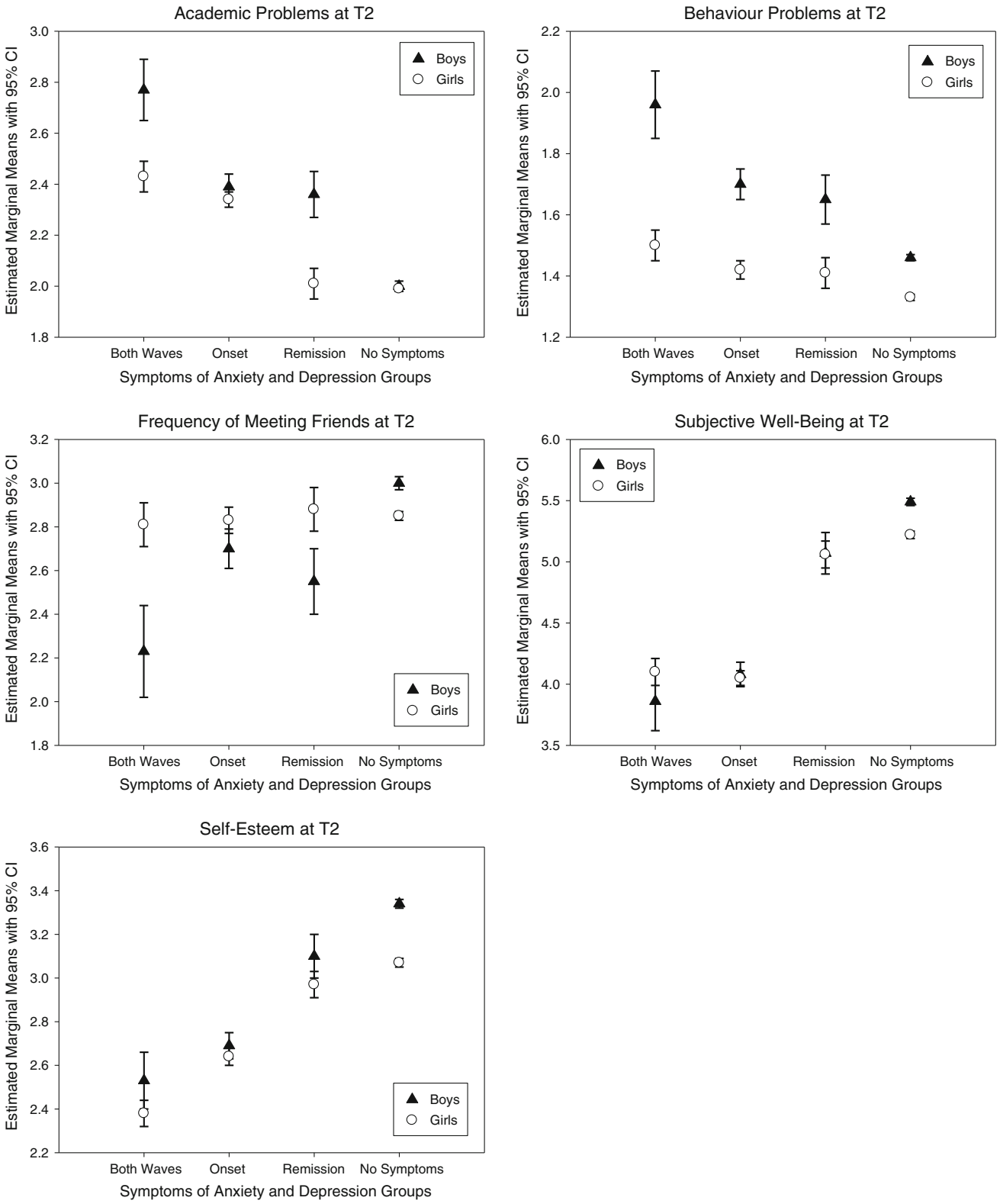

Fig. 1 Estimated marginal means of the outcome variables in the various symptoms of anxiety and depression groups for each gender, with 95% confidence intervals

Table 3 Estimated marginal means of psychosocial functioning, subjective well-being and self-esteem at a 4-year follow-up, by gender and symptom group

	Academic problems	Behaviour problems	Frequency of meeting friends	Subjective well-being	Self-esteem
Symptoms at both waves					
Boys, $N = 13$	2.77 (2.52–3.01)	1.96 (1.74–2.18)	2.23 (1.82–2.63)	3.86 (3.40–4.32)	2.53 (2.27–2.79)
Girls, $N = 58$	2.43 (2.32–2.54)	1.50 (1.40–1.60)	2.81 (2.62–3.00)	4.10 (3.88–4.32)	2.38 (2.26–2.51)
Onset group					
Boys, $N = 68$	2.39 (2.29–249)	1.70 (1.61–1.80)	2.70 (2.52–2.88)	4.08 (3.88–4.29)	2.69 (2.58–2.81)
Girls, $N = 185$	2.34 (2.28–2.41)	1.42 (1.36–1.47)	2.83 (2.73–2.94)	4.05 (3.93–4.18)	2.64 (2.57–2.71)
Remission group					
Boys, $N = 24$	2.36 (2.19–2.53)	1.65 (1.49–1.80)	2.55 (2.52–2.88)	5.07 (4.73–5.41)	3.10 (2.91–3.29)
Girls, $N = 57$	2.02 (1.90–2.13)	1.41 1.31–1.52)	2.88 (2.69–3.08)	5.06 (4.84–5.28)	2.97 (2.84–3.10)
No symptoms					
Boys, $N = 984$	2.00 (1.97–2.03)	1.45 (1.43–1.48)	3.00 (2.95–3.05)	5.49 (5.43–5.55)	3.34 (3.31–3.37)
Girls, $N = 959$	1.99 (1.96–2.01)	1.33 (1.31–1.36)	2.85 (2.80–2.89)	5.22 (5.17–5.27)	3.07 (3.04–3.10)

Values are mean (SD)

esteem than their symptom-free peers almost in all measures. However, the magnitude of impairment and patterns of changes in functioning between the various symptom groups differed between genders. A significant interaction effect of gender and symptoms of anxiety and depression group was found in all analyses, showing that the effect of having such symptoms on subjective well-being, self-esteem and psychosocial functioning was stronger in boys than in girls.

It was further found that both girls and boys with onset of symptoms at follow-up had more academic problems, lower subjective well-being and lower self-esteem than their peers who reported no symptoms of anxiety and depression in both waves. By contrast, onset of symptoms was associated with less frequent meetings with friends only among boys. In addition, boys who previously reported symptoms, but who no longer suffered from symptoms of anxiety and depression, still had higher rates of academic and behaviour problems and lower subjective well-being and self-esteem than boys who had no symptoms at both measuring points. No such differences were found in the girls' population.

Our findings are in line with previous research reporting stronger associations between behaviour problems and symptoms of anxiety and depression among boys than among girls [5]. Likewise, previous research reported that social isolation and lack of social support were more strongly associated with symptoms of anxiety and depression among pre-and early adolescent boys than among girls [12–14]. These results are also compatible with a recent study which found disproportionately greater role, social and cognitive disability among men with emotional disorders than among women [25]. Nevertheless, we were not able to find in the research literature similar reports of lower functioning in multiple fields in a longitudinal study of symptoms of anxiety and depression in boys. The current study adds to the findings of our previous cross-sectional study [20] where we reported stronger associations between symptoms of anxiety and depression and lower psychosocial functioning, subjective well-being and self-esteem for boys than for girls.

A number of methodological advantages contributed to these findings. Our sample is a large community-based longitudinal sample, characterized by a low attrition rate and almost no missing data. Studies which have addressed similar questions have usually defined symptoms of anxiety and depression as an outcome variable [10, 18]. In contrast, we were interested in the daily functioning of adolescents who presented such symptoms. Therefore, we used symptoms of anxiety and depression to define study groups, and used functioning as the outcome variable. In addition, interactions between gender and other factors were examined following Crick and Zahn-Waxler's recommendations [9].

Reasons for the reported gender differences

Previous research has found that girls usually demonstrate greater social sensitivity and emotional regulation than boys from birth. These differences seem to persist across the life span [5]. When stressed, girls seek support and express their feelings more than boys. Therefore, they may receive more relationship provisions, which may later contribute to a positive emotional adjustment [15]. However, these provisions may not overpower the other processes that increase the risk for emotional problems in

girls, such as concerns about general peer evaluation, exposure to peer stress and rumination [5, 15]. Hence, it may be useful to differentiate between risk factors for depression and coping strategies while depressed. Although girls' social skills present them with an increased risk for depression [9], these same skills may also provide them with a better competence to get help and support in distress, which thus contributes to the maintenance of their level of functioning. In the current study, we found that boys, but not girls, reported lower frequency of meeting with friends at onset of symptoms, also when controlling for baseline rates, and did not regain their social competence after remission of symptoms. It was also found that the only domain in which girls who presented symptoms at both waves functioned as their peers who presented no symptoms was frequency of meeting friends. These findings support the hypothesis that girls with symptoms of anxiety and depression are more successful in maintaining social relations than boys.

Lower functioning of boys than of girls with symptoms of anxiety and depression may also be explained by the "gender paradox of co-morbidities"; when a disorder has a gender-related prevalence, it is assumed that the underlying liability is similar for both genders, but that the critical threshold for the presence of disorder varies [26]. It can then be predicted that the gender which is characterized by lower prevalence of psychiatric disorder will be more severely affected by this disorder [26]. Thus, we may suggest that the gender paradox of co-morbidities has possible explanatory value in our study. The prevalence of symptoms of anxiety and depression is lower among boys than among girls, but when boys are affected, their functioning is more severely impaired. Lastly, it is widely accepted that increased prevalence of depression among girls is strongly associated with pubertal changes [27]. Recent studies in brain neuro-imaging suggest that the course of brain development is often as important as its final stage of development, and that gender differences exist in brain development during adolescence [27]. Future research should look into the complex interactions between biological, developmental and social factors in adolescence and their possible effect on psychopathology and dysfunction.

Limitations

We assessed symptoms of anxiety and depression using a self-report questionnaire, which does not allow for a clinical diagnosis. However, self-report instruments demonstrate satisfactory levels of sensitivity and specificity in the identification of depression, and a high degree of overlap between the phenomenology and measurement of symptoms of anxiety and depression has been reported [28]. The similarity between the prevalence that was found in our study and in previous studies [7, 29–31] serves to strengthen the validity of our measurement tool. The internal consistency of the scales used to measure academic problems and behaviour problems in school was only mediocre, and further research with better measurements is needed.

The use of self-report questionnaires in the Young HUNT study allowed for the investigation of a broad spectrum of phenomena in a large sample. However, it should be acknowledged that self-report questionnaires may be more prone to bias due to the possible influence of social desirability factors. Some of the measurement tools used in this study were shortened versions of widely used questionnaires. Although these versions demonstrate good validity, as with all such instruments, they may involve some reductions in sensitivity.

Conclusion

In this study, symptoms of anxiety and depression affected psychosocial functioning, subjective well-being and self-esteem more strongly in boys than in girls.

Bearing in mind the importance of functional impairments in the development and course of psychopathology, our findings may contribute to improved assessment and intervention methods tailored differently to adolescent boys and girls with symptoms of anxiety and depression.

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