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A comparative study on adolescent depression in the general population of junior high school adolescents in a big city based on an analysis of outcomes of 1984 and 2001 studies using the IO "B1" symptom inventory

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Summary

Aim. This study describes an attempt at finding out whether or not the adolescent depression image in the mid-adolescent phase is related to the social context of adolescence.

Material and method. For the depression study, version IO "B1" of the Kraków Depression Inventory (KID) was used. The subject group included 13-year-old seventh-form primary school students in 1984 and first-form junior high school students in 2001, selected using a two-stage draw. The analysis allowed for the outcomes of subjects with a screening diagnosis of depression. In 1984, the group comprised 150, and in 2001 – 388 students.

Results. Statistical analysis revealed a significant increase in self-destructive symptoms in the 2001 population compared with the 1984 population (to a greater extent in girls than in boys). Girls in both populations displayed more intensified symptoms of mood disorder, anxiety and somatic symptoms, whereas in the boys' group, it was related to drive disorder symptoms.

Conclusions. The changing social conditions affect the symptomatic depression image in adolescents. This change manifests itself in an externalization in self-destructive behaviours and an increase in depressive symptoms in the 2001 boys group.

adolescent depression / epidemiology of mental disorders in adolescence

INTRODUCTION

Depressive symptoms remain expressed as one of the most common reasons for seeking help and psychiatric treatment during adolescence. In the latter half of the last century psychiatry has become especially intensely involved in studies on depression, also among adolescents. Depression, or actually the incidence of depressive symptoms, was used as an index of prevalence of mental disorders in the population. Research into the prevalence of depression and depressive symptoms among adolescents has been conducted in many countries, using different methods of screening assessment of the phenomenon.

The first studies on point prevalence of depression in children and adolescents in Poland have been conducted in Kraków since 1982 [1, 2, 3, 4, 5]. Results of epidemiological studies of a representative sample of an untreated population of children and adolescents from 5 to 17 years of age, using versions AO "B1," IO "B1," IO "C1" of the Kraków Depression Inventory

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(KID) for different age groups, helped to establish the point prevalence indexes of depression: in the 5-year-olds group – 6.66%, in the 10-year-olds group – 38.2%, among 13-year-olds – 31.6% and among 17-year-olds – 27.4%. In the 2001 replication study, these indexes were found lower: 27.7% in the 10-year-olds group, 24.6% in 13-year-olds; while in 17-year-olds, the prevalence of depression remained at a similar level of 27.9% [6, 7, 8].

A second major Polish epidemiological survey of the untreated population of 13-year-olds is the study by Witkowska-Ulatowska [9, 10]. The screening of a representative population of Warsaw schoolchildren with KID covered 1,689 school children. 326 of them (19.3%) were found showing the depressive syndrome.

The nature of adolescent depression [4], or depression occurring during adolescence is still under discussion concerning its relation to the modern concept of affective disorders, uniformity etc. A way of seeking answers to these questions may be an analysis of depressive manifestations stability in young people whose adolescence takes place in different social contexts. Such attempts have been made by surveying young people in different countries [12, 13] or cities [9, 10]. The results of these studies indicate, however, differences in prevalence rates or disorder dynamics.

AIM OF THE STUDY

The study aims to find out whether or not depressive manifestation in mid-adolescents is related to the social context of adolescence.

To eliminate the effect of differences in the pace of adolescence as well as the impact of the secular trend, a time interval between measurements of less than 20 years was selected. The first stage of research was carried out in the mid-1980's. Comparative tests were carried out in 2001. It was assumed that the social context difference between the end of the martial law and the twelfth year since the beginning of the political transformation in Poland was sufficient. What had changed by that time was the political system in the country, the basic military alliances, the scope of civil liberties and responsibilities, the social welfare system, the health care system, the prospects of finding a place in the adult world.

MATERIAL AND METHODS

For the depression study, version IO "B1" of the Kraków Depression Inventory (KID) was used, which serves for screening studies of depression in adolescents in the middle phase of adolescence [3]. KID results allow not only a screening diagnosis of depression to be made but also its symptomatic image to be obtained.

The KID IO "B1" questionnaire contains 104 affirmative sentences. These are items that describe phenomena whose presence in them is stated by respondents by choosing one of the "yes" answers. 89 KID IO "B1" items describe depression symptoms, taking into account specificities related to the development phase. The remaining ones form a control scale (15 items). The questionnaire includes the following scales: A – mood disturbances, B – anxiety, C – cognitive disturbances, D – activity level, E – self-destruction and F – somatic symptoms. KID results are given on the standard ten scale. An overall result within the range of 7 to 10 indicates the presence of depressiveness and the results on the individual scales indicate the intensity of symptoms in the respective areas.

The groups tested were: in 1984, 474 6th form students of Kraków primary schools (13-year-olds: 224 girls and 250 boys) and in 2001, 1577 first-form students of Kraków grammar schools (780 girls and 797 boys). These groups were selected using a two-stage draw. The analysis included results of the students with a screening diagnosis of depression. In 1984, it was a group of 150 people, and in 2001 – 388. Gender-wise distribution of numbers in both test stages is shown in Tab 1.

Table1. Number of tested samples of students with depressive symptoms

Sex	1984	2001	Total
Boys	55	179	234
Girls	95	209	304
Total	150	388	538

Statistical methods

Two-factor ANOVA was applied separately for each KID IO "B1" scale in order to verify the differences between the populations of 1984 and 2001 and between both genders. Also, the Tamhane's post-hoc test for materiality of differences between the means of 4 groups extracted according to population and gender was used.

RESULTS

The profiles of averaged scores on the KID IO "B1" scales for the four separate groups are diverse.

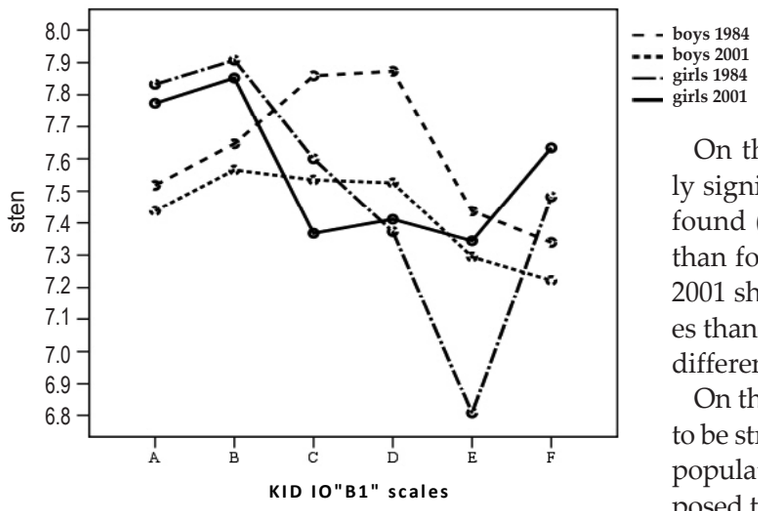

Figure 1. The profiles of averaged scores of the KID IO "B1" scales for the depressive boys and girls populations from the years 1984 and 2001.

Girls, compared with boys, show stronger mood disturbances (A) (effect of gender – F[1.533]=6.693, P=0010). Similarly, on the anxiety scale (B) girls obtained higher results (effect of gender – F[1.534]=6.670, P=0.010). On the C-scale (cognitive disturbances), there were no significant effects of gender and population, however, what proved to be significant was the interaction of these two factors (F[1.534]=4.522, P=0.034). The analysis of an interactive graph (Fig. 2) for results obtained on the C-scale leads to the conclusion that in this period, there is a different trend in girls (decrease in severity of symptoms) and in boys (growth). Tahmane's test rendered a statistically significant (alpha=0.05) difference between the means of boys' and girls' groups in 2001 (higher in boys).

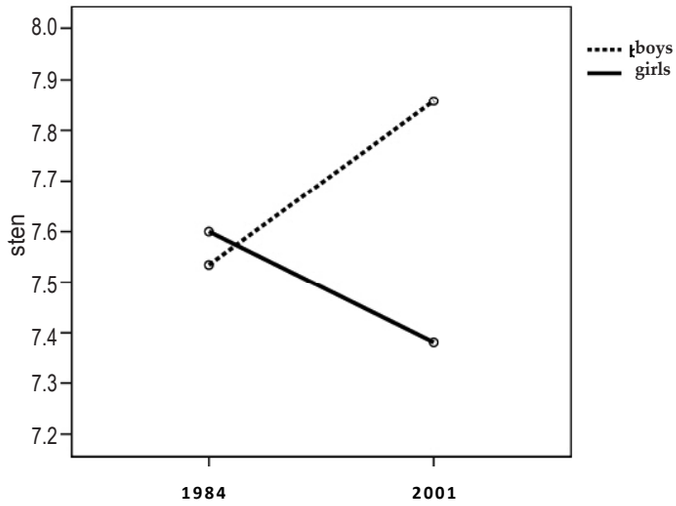

Figure 2. Interaction graph: sex* population for the cognitive disorders scale (C).

On the D-scale (activity level) a statistically significant difference between the sexes was found (average results clearly higher for boys than for girls, F[1.532]=5.989, P=0.015). Boys in 2001 showed stronger activity level disturbances than both girl groups (statistically significant differences in Tahmane's test).

On the self-destruction scale (E), what proved to be stronger and statistically significant was the population effect (F[1.533]=4.456, P=0.035) as opposed to the gender effect (close to statistical significance at alpha=0.05, F[1.533]=3.490, P=0.062). In 2001, self-destruction symptoms were more severe than in 1984. Girls in 1984 showed relatively least severe auto-destructive symptoms (on Tahmane's test, their results differed statistically significantly at P= 0.023 from the results of boys in the year 2001).

In girls, in both populations, somatic symptoms were more severe than in boys in both populations (F-scale gender effect on ANOVA: F[1.533]=3.970, P=0.047).

The comparison of profile graphs of average scores on 6 KID IO "B1" scales shows that the profiles for both groups of girls are similar in shape (higher results on A and B scales in comparison with the other scales). The only visible difference is in the case of the E-scale and it indi-

cates higher intensity of auto-destruction symptoms in the population of girls in 2001.

In contrast, in boys surveyed in 2001, what is noticeable is a higher profile level in comparison with the profile of the 1984 boys (results higher for all scales). The profile of the 1980's boys is one of low diversity (nearly flat), while boys in the group in 2001 indicate higher results in the profile on C and D scales in comparison with the results of other scales. This may indicate that over the nearly 20 years, symptoms of cognitive disturbances and activity level had intensified in boys.

DISCUSSION

Results of a screening study of depression in young people in the middle phase of adolescence carried out in a different social context, point to the persistence of some characteristics of the phenomenon under research, with changes taking place in other areas.

In both studies compared, gender differences in the symptomatic manifestation of depression had remained. Greater severity were declared in mood disturbance, anxiety and somatic symptoms in girls, while in boys – symptoms of reduced drive and self-destruction. In both sexes, in the periods compared, symptoms of self-destruction had intensified, while in boys all kinds of symptoms had increased (although in four of the six areas relatively insignificantly). The more pronounced differences include changes in cognitive disturbance intensification (growth in boys, drop in girls) and in self-destruction (a clear increase in girls with a small increase in boys).

Point-wise depression prevalence rates at the beginning of the current century had decreased significantly in the population of girls compared with the 1980's (from 42.4% to 26.8%) [7]. For the boys' population, no such changes had been found (22.0% vs. 22.5%).

The changing social context of adolescence, therefore, had a significant impact on the occurrence of depressive disorders in girls.

The symptom manifestation of depression, as analysed with KID results, had not changed significantly in majority of the questionnaire dimensions.

Probably, the changing social conditions had affected the tendencies towards intensification of, above all, self-aggression as well as cognitive symptoms and activity level; which were varied for both sexes. In the first case, what should be noted is the compatibility of the results obtained with the increase in aggressive crime recorded in the statistics among adolescent girls in the mid-phase of adolescence.

CONCLUSIONS

The changing social conditions have varied effects on the symptomatic manifestation of depression in mid-adolescents.

They are likely to impact on the relative intensification of self-destruction symptoms in both sexes (significant population effect). For other symptoms, there were no clear differences between the populations tested (1980's versus 2001).

Over the 20 years, there was a trend in boys for all depression symptoms to intensify.

In the periods compared, boys had demonstrated an intensification of cognitive disturbances (C) compared with the girls' group, in which they had decreased.

Differences between the sexes had become visible at a statistically significant level on the scales of mood disturbances (A), anxiety (B) and somatic symptoms (F) in the form of a greater severity of symptoms in the girls' group. By contrast, on the activity level scale (D), a greater intensification of symptoms is observed in the boys' group. As for the auto-destruction scale, the differences were close to the level of significance at alpha=0.05 (results higher for boys).

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