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FIFTEEN-YEAR-OLDS IN BRNO
A SLICE OF LONGITUDINAL SELF-REPORTS

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Depressive Symptoms in Adolescence

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While an increased level of affective lability is typical for the early adolescence, in mid adolescence emotions become more stable, mood fluctuations fade away and experiencing becomes more differentiated. Depressive symptoms can be observed as early as in children, but their occurrence dramatically grows in adolescence, with culmination of these phenomena being repeatedly found in mid adolescence (Sund, Larsson, & Wichstrøm, 2001; Costello, Erkanli, & Angold, 2006; Gutman & Sameroff, 2004; Hankin et al., 1998). Signs of depression in adolescence are the same as the signs of depression in adults (Lewinsohn, Pettit, Joiner, & Seeley, 2003).

The period of adolescence is full of developmental changes both in the sphere of psychosocial and somatic development, thus a temporary increase in depressive symptoms can be perceived as a natural phenomenon. However, when it is observed in particular contexts (for instance, perception of interparental conflict by adolescent, Davies & Windle 2001) it can be a sign of maladaptation. Such increase in depressive symptomatology is classified as problematic behavior of internalized type and it can be one of the indicators of risk development. Control of contextual factors (e.g. unfavorable family situation, occurrence of a traumatic event) is fundamental for the specification and evaluation of depressive symptoms.

There are various contextual factors increasing the risk of depression onset in adolescence. To mention at least a few: frequent moving, low SES, small number of friends and high level of distressing life events (Sund & Wichstrøm, 2002). Obviously, it is not only the presence of distressing life events that determines the occurrence of depression. It is also in the way adolescents perceives and evaluates them, and the way they experience support from close people. Garber, Keiley, and Martin (2002) point out the association between depressive symptomatology and attribution style. Adolescents with a negative attribution style and with a tendency to negative experiencing and attribution style have higher starting level of depressive symptoms (judged by themselves and their mothers) than their peers with a positive attribution style (Garber, Keiley, & Martin, 2002). Parents keep playing an important role in the life of adolescents as well as does the kind of support adolescent receives from them and what characterizes their mutual relationship. The adolescents who experience a high level of distressing life events, but at the same time perceive their family as giving extensive social

support, show less depressive symptoms than those adolescents perceiving their family as less supporting (Licitra-Klecker & Waas, 1993). A higher level of depressive symptomatology occurs in adolescents who feel they are being refused by their father, or who feel an increased psychological control of their mothers (Baron & MacGillivray, 1989).

On closer observation, the development of depressive symptoms in the period of adolescence in relation to gender of respondents, according to majority of research studies, girls show higher risk of depressive symptoms prevalence than boys (Roberts, Lewinsohn, & Seeley, 1995; Wichstrøm, 1999; Poulin, Hand, Boudreau, & Santor, 2005; Hankin, Marmelstein, & Roesch, 2007). Women generally develop depressive symptoms twice as often as men, and this gender difference starts to show in the period of early adolescence (Hankin et al.1998; Wade, Cairney, & Pevalin, 2002; Kuehner 2003). Except for different prevalence, some studies also report differences in depressive symptoms between both genders, although general validity of such conclusions has not been accepted unanimously yet (Crowe, Ward, Dunnachie, & Roberts, 2006).

The effort to explain differences in depression prevalence in girls and boys has led, among others, to the issue of association between depression and pubescent physical changes. The onset of increase in depressive symptomatology approximately coincides with the onset of physical adolescence and with the beginning of important changes in physical appearance. Therefore, it is not surprising that the link between these two phenomena is being often supported by research. Even here, important differences between girls and boys have been found. As it has been shown that the focus on body weight and dissatisfaction with it is an important risk factor of depression onset in girls as early as in the early adolescence (Rierdan & Koff, 1997) and that changes in body image have a greater influence on depressive mood in girls than in boys (Siegel, 2002), the change of physical scheme in girls can play quite an essential role in the onset of depressive symptoms.

The ideal of feminine body in our society today is a slim body with feminine features not being too pronounced, so it rather resembles childlike girlish body than the body of a grown-up woman. However, physical adolescence on the contrary, changes the girlish proportions to the feminine ones, and thus the result of physical adolescence differs from this ideal of beauty. Those young girls who experience an earlier onset of physical changes than their peers are comparatively more often perceived (not only by themselves, but also by people around them) as fat, although they may not be overweight at all (White, Schliecker, Dyan 1991, as cited in Rierdan & Koff, 1997). A negative evaluation of physical appearance by their surroundings can be than reflected in their own self-perception and may result in depressive moods.

Risk behavior is often being mentioned in relation to depressive symptoms prevalence. The coincidence of depressive symptoms with

delinquency is not obvious and is bound only with certain complex of individual characteristics. Those adolescents who feel disappointment in their expectations and behave in a manipulative way have ten times higher probability of depressive symptoms occurrence together with a delinquent behavior (Overbeek et al. 2006).

Choice and adaptation of the instrument

The Mood and Feelings Questionnaire (MFQ) originally comprises 34 items surveying depressive symptoms in children and adolescents from 8 to 18 years of age, and show a high convergent validity with Beck Depression Inventory ($r = .91$). The scale is used for screening of depressive symptoms in clinical and general population (Sund, Larsson, & Wichstrøm, 2001, 2003).

Respondents evaluate statements like „I’ve had a feeling that I am useless,“ or „I’ve had a feeling that nobody likes me“ on a three-point scale (yes, sometimes, never). They are instructed to consider their feelings over the past two weeks.

With 13-year old respondents we used a shortened version of MFQ (16 items) adapted for use within a longitudinal research ALSPAC in Bristol (Golding, 1996). Because of findings in a research study by Sund, Larsson a Wichstrøm (2001), for 15-year old respondents we added 5 items from the original MFQ giving best prediction as for the high and low scoring respondents, and on the basis of the data analysis from age 13 we left out 6 low-discriminating items from the ALSPAC version.

Descriptive statistics

The scale of depression is calculated as a mean of all fifteen items, so the theoretical range from 1 (minimum depression) to 3 (maximum depression) follows the response scale for individual items. Descriptive statistics of this scale are reported in tables 9.1 and 9.2.

As expected, the distribution of depression scores is extremely positively skewed. Most of our respondents report only minimum of depressive experiences – approximately 75% report occasional occurrence of roughly a half of the 15 possible symptoms over part two weeks.

Table 9.1. Descriptive statistics of the depression scale (N = 552).

Scale	<i>Min</i>	<i>Max</i>	<i>M</i>	<i>SD</i>	Skew	Kurt	N of items	Cronbach Alpha
Depression	1.00	2.87	1.42	.36	1.39	1.95	15	.88

Table 9.2. Ordinal statistics of the depression scale (N = 552).

Scale	Percentiles						
	5	10	25	50	75	90	95
Depression	1.00	1.07	1.13	1.33	1.60	1.93	2.16

We have verified the dimensionality of the scale, too. Besides the unifactorial congeneric (and equivalent) model that represents primary theoretical assumptions, we tested also a two-factor model with correlated factors – individual emotional symptoms and social evaluative symptoms. Due to the sharp skewness of all variables we estimated the model using diagonally weighted least squares (DWLS) in Lisrel 8.80 (Jöreskog & Sörbom, 2006). The summary of fit indices for individual models can be found in the table 9.3.

In our opinion, the most suitable data model is the original unifactorial congeneric model. In contrast to the much too strict equivalent model it offers a satisfactory fit with the data. The fit of two-factor model is only marginally better. Moreover, these two factors correlate .90 in a model. Though in the answers of the respondents it is possible to distinguish between generally emotional reasons for depressive expressions and reasons originating rather in social comparison, interaction, the difference is very small and the question is, to what extent it is utilizable.

Table 9.3. Summary of fit indices for the models of depression scale.

Model	$\chi^2 / \text{S-B } \chi^2 / \text{df}^{*)}$	P	RMR	RMSEA	CFI	AGFI	H's N ^{**)}
Unifactorial congeneric	877/219/90	.00	.055	.051	.99	.99	313
Unifactorial equivalent	2466/477/104	.00	.250	.081	.97	.82	163
Two-factor correlated	768/189/89	.00	.050	.045	.99	.99	359

*) Satorra-Bentler scaled chi-square, **) Hoelter's N

Table 9.4. Structural coefficients of individual items in the unifactorial congeneric model.

Item	LX
I felt miserable.	.71
I didn't enjoy anything at all.	.62
I was very restless.	.49
I felt I was no good anymore.	.83
I cried a lot.	.62
I thought there was nothing good for me in the future.	.67
I thought that life wasn't worth living.	.83
I thought my family would be better off without me.	.79
I hated myself.	.76
I felt I was a bad person.	.67
I thought I looked ugly.	.58
I felt lonely.	.69
I thought nobody really loved me.	.83
I thought I could never be as good as other kids.	.66
I did everything wrong.	.61

Conclusion

Presented results are in accordance with the purpose of this method designed for screening of depressive symptoms within common population of middle adolescents. The question remains, to what extent it is possible to distinguish between a common distemper associated with adolescence as a development period and possible depression.

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