# New Psychodiagnostic Methods
# The Scale of Depresivity and The Scale of Aggression

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## The Scale of Depresivity

In this method, depression is understood as a psychological state (rather than a personality trait) in which various symptoms of depression are manifested. Thus it is an individual characteristic, which may or may not reach clinical significance. The fundamental manifestations of depression canbe observed in three domains - mood, activity and energy.

The scale comprises 20 statements, to which respondents are invited to respond by selecting one of four options: strongly disagree, disagree, agree or strongly agree.

The scale is appropriate for use in diagnosing adolescents aged 11–19 years and adults aged 19–40 years.

Additionally, the ordinal alpha, with a reliability estimate of **0.94**, was employed for this purpose. Similarly, the reliability coefficient omega has a value of **0.94**.

The mean Pearson correlation between items is 0.34. The mean polychoric correlation between items is 0.42.

The model exhibited a normal convergence after 32 iterations, demonstrating a satisfactory fit to the data as evidenced by the following indices: $\chi 2$ (157) = 513.64; $p < 0.001$ (the influence of the large sample size on this statistic is evident, yet the $\chi 2/df$ ratio of 3.3 remains within an acceptable range); RMSEA = 0.044 (90% CI 0.040-0.048); SRMR = 0.043; CFI = 0.994 and TLI = 0.993. The values of the charges and residuals are presented in Figure 2. The results of the EFA and CFA contribute to the evidence pertaining to content validity.
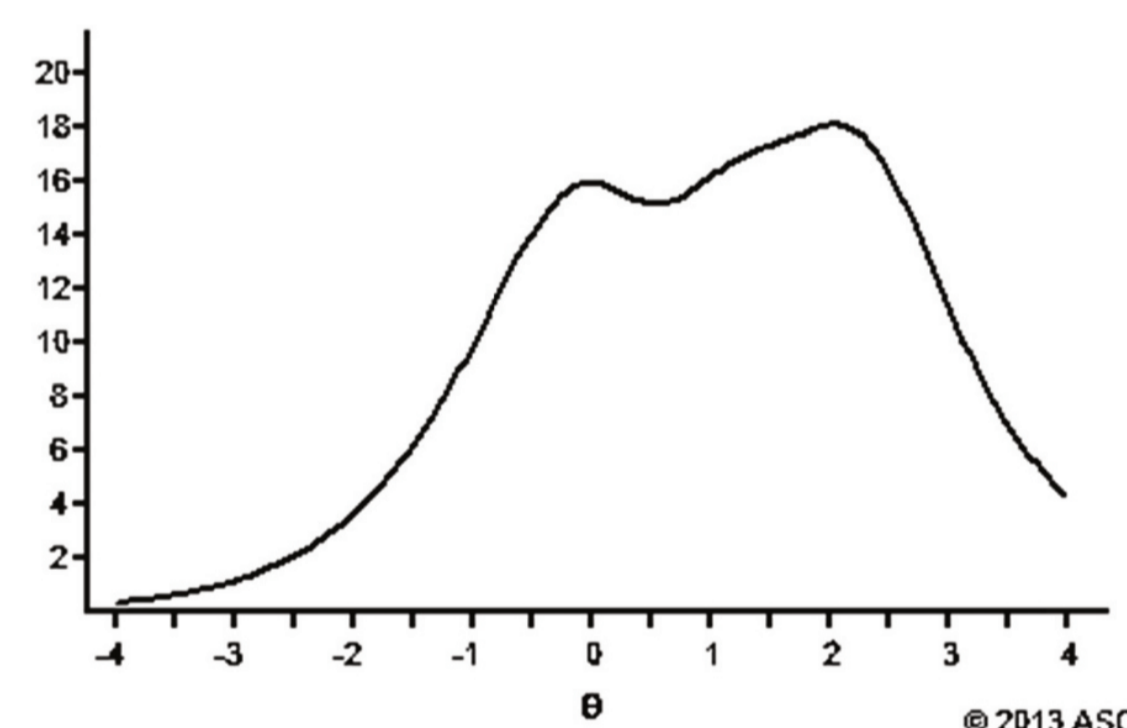
**Figure 2:** CFA scheme (n2 = 1,183)
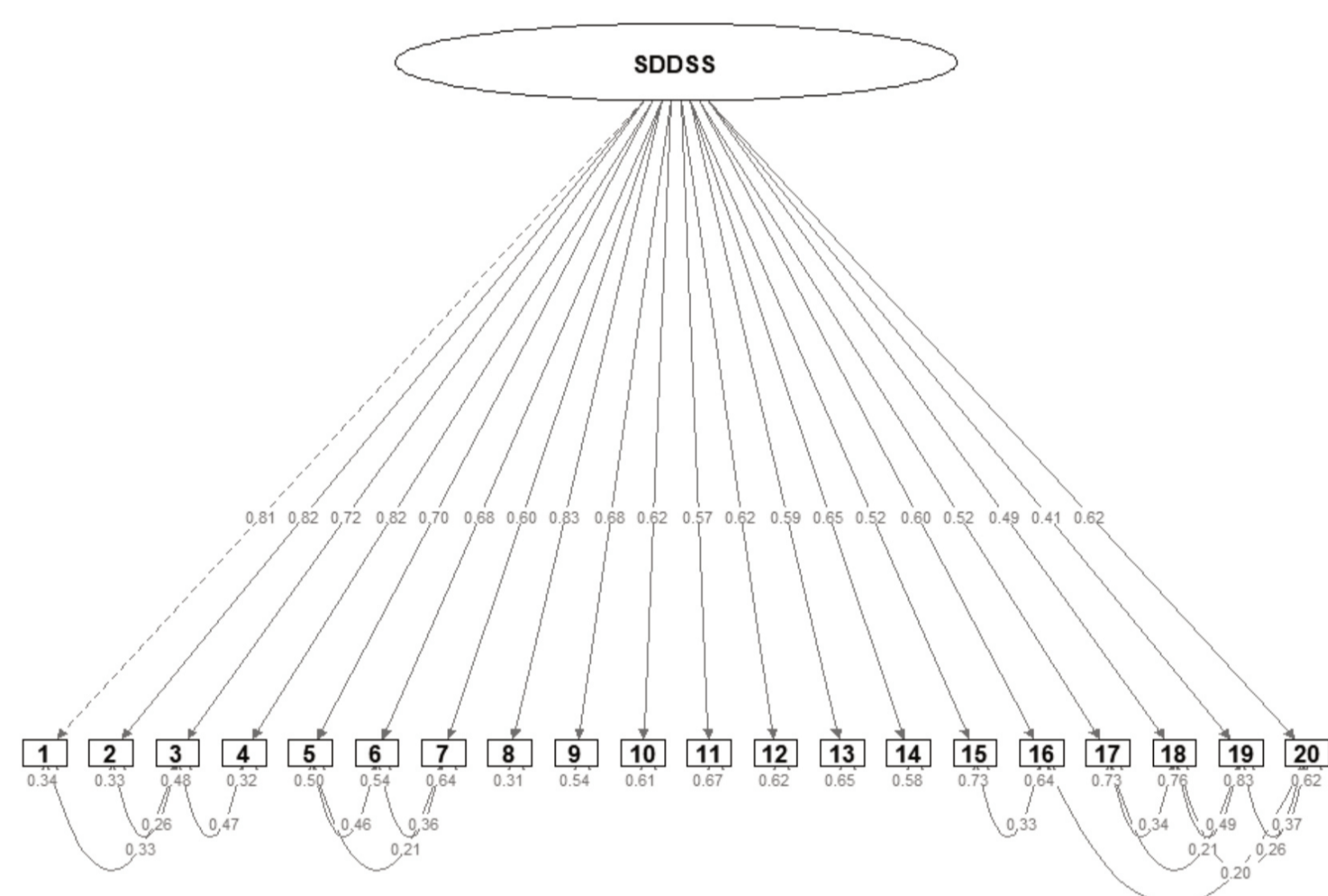


Dolejš, M., Skopal, O., Suchá, J., Charvát, M. (2018). Škála depresivity Dolejš, Skopal a Suchá. Olomouc: Univerzita Palackého v Olomouci, p. 30.

It can be concluded that a scale around two standard deviations above the mean of the measured variable has the most accurate estimation and the highest discriminatory power, which is undoubtedly an optimal characteristic for a screening test designed to distinguish adolescents with a clinical depression problem.

**Figure 4:** Test Information Function (TIF)



Dolejš, M., Skopal, O., Suchá, J., Charvát, M. (2018). Škála depresivity Dolejš, Skopal a Suchá. Olomouc: Univerzita Palackého v Olomouci, p. 32.

A cohort of multi-year high school students was selected for the purpose of verifying the test-retest reliability. The adolescents were required to complete the questionnaire on three occasions. A period of six months elapsed between the initial and subsequent testing sessions, while a further three months elapsed between the second and third testing sessions. A total of 187 triplets of results could be paired, resulting in a relatively high average correlation coefficient (0.68) between all measurements. Cronbach's alpha values were found to be consistent across the three measurements, with values of 0.91 for the first and second and 0.93 for the third.

The test manual is available in Czech and Slovak languages. The questionnaire is available in the following languages: English, Albanian, Macedonian, German, Persian and Slovak.
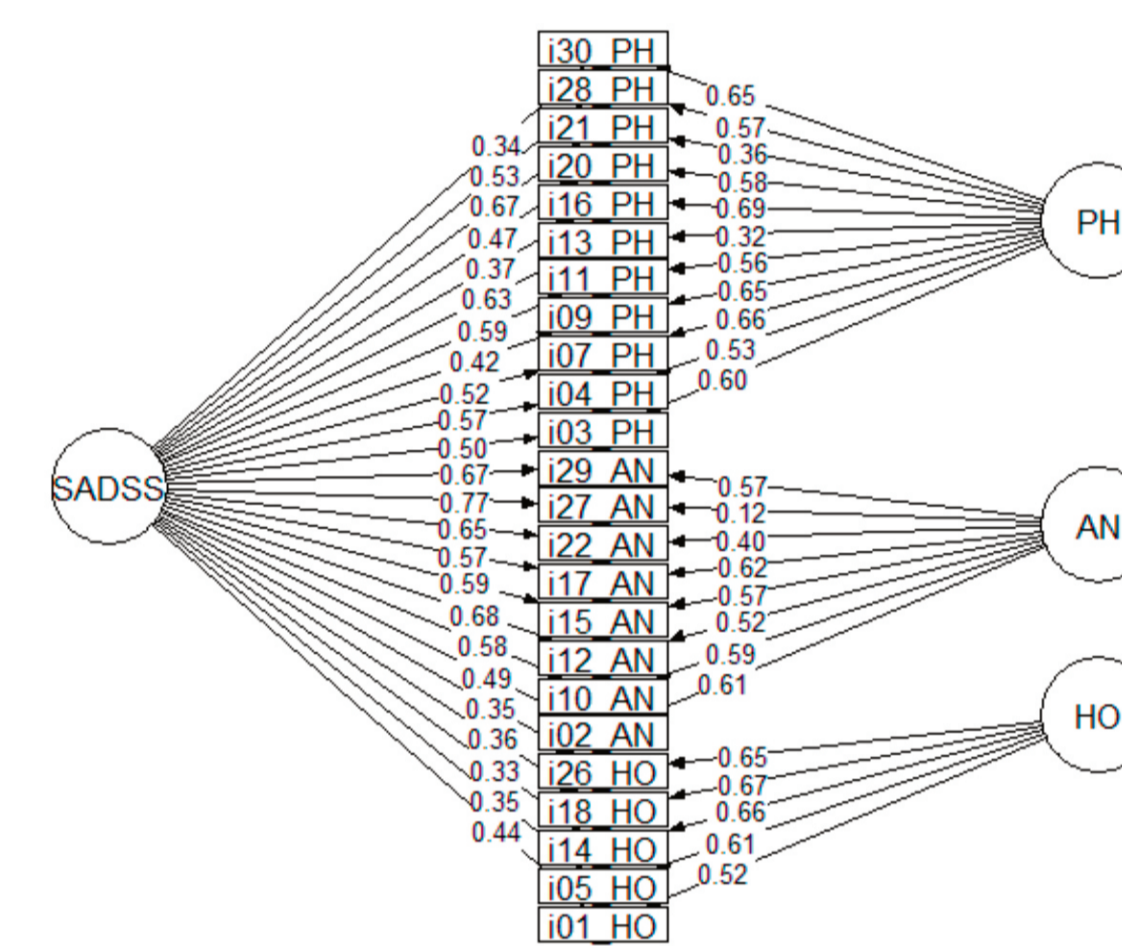
## The Scale of Aggression

The questionnaire comprises items designed to ascertain the prevalence of aggressive behaviour in adolescents. These aggressive activities indicate the presence of a constant component, namely the internal disposition of the personality, which may be characterised as either aggressive or as exhibiting a readiness for violent and aggressive behaviour. For these reasons, the authors elected to designate the method as the Aggression Scale. It is a psychodiagnostic method that reveals a permanent personality trait (aggression) on the basis of observed behaviour.

The scale measures one central scale of General Aggressiveness (24 items) and three subfactors of aggression, namely Hostility (5 items), Anger (8 items) and Physical Aggression (11 items). The respondent is required to select one of four possible responses: strongly disagree, disagree, agree nad strongly agree.

The scale is appropriate for use in diagnosing adolescents aged between 15 and 19 years.

The robust variant yielded the following values: $\chi 2$ = 1217 (df = 228; $p < 0.001$); CFI = 0.974; TLI = 0.968; RMSEA = 0.052 (0.049-0.055); SRMR = 0.039.

**Figure 6:** CFA diagram of the bifactor solution of the SADSS model (ntest = 1,586)



Dolejš, M., Charvát, M., Komrska, Š., Suchá, J., Skopal, O., (2018). The Scale of Aggression Dolejš, Suchá, Skopal (SADSS). Olomouc: Univerzita Palackého v Olomouci, p. 25.

The factor determinacy scores, which are relatively high (ranging from 0.84 to 0.89) for all three subscales, and the construct replicability scores, which range from 0.77 to 0.85, also indicate that the hostility, anger, and physical aggression subscales are defensible minority factors.

The adjusted item correlations with the remaining scales for the complete data set ranged from 0.42 to 0.74. The difficulty index, or more accurately the popularity index, of the items ranged from 0.32 to 0.65.

It can be concluded that the test-retest reliability is satisfactory for the total SADSS score and the anger and physical aggression subscales, with a correlation coefficient of r = 0.80. The hostility subscale displays the least stability over time, yet its value remains sufficient (r = 0.71).
The correlation between the SADSS and the Buss and Perry Aggression Questionnaire (Buss & Perry, 1992) is strong along the diagonal, indicating a significant relationship between the mirror subscales.

**Table 19:** Pearson correlations of the SADSS and its subscales with the BPAQ and its subscales

| (N = 2,845) | BPAQ total score | Hostility | Anger | Physical aggression | Verbal aggressiveness |
|---|---|---|---|---|---|
| | | BPAQ | BPAQ | BPAQ | BPAQ |
| SADSS total score | **0.81** | 0.42 | 0.61 | 0.72 | 0.45 |
| Hostility HO | 0.47 | **0.61** | 0.30 | 0.19 | 0.23 |
| Anger AN | 0.71 | 0.37 | **0.77** | 0.44 | 0.46 |
| Physical aggr. PH | 0.62 | 0.15 | 0.31 | **0.82** | 0.31 |

Dolejš, M., Charvát, M., Komrska, Š., Suchá, J., Skopal, O., (2018). The Scale of Aggression Dolejš, Suchá, Skopal (SADSS). Olomouc: Univerzita Palackého v Olomouci, p. 34.

The test manual is available in both English and Czech. The questionnaire is available in four languages: English, Albanian, Macedonian and German.