

The Initial Version of the Depression Scale for Adolescents in Latvia

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This research is being conducted within the framework of the National Research Program project "**Development of a new computer-based assessment method for measuring and monitoring adolescent mental health outcomes in post-COVID pandemic conditions**" (No. 1-PB-2/8/2024) and focuses on the development of Depression scale which will be part of a broader mental health screening tool for adolescents.



Purpose of the project:

To develop and validate a new computerized clinical assessment instrument for behavioral and emotional disorder symptoms in adolescents (13-19 years) to measure and monitor adolescent mental health indicators.



Ethical Considerations:

- Parental and participant informed consent was obtained for adolescent participation.
- Ethical guidelines of Rīga Stradiņš University Ethics Committee were adhered to.



Rationale of the study (1.):

14% of adolescents (10-19) have mental disorders, often untreated. Depression affects 1.1% (10-14) and 2.8% (15-19). The COVID-19 pandemic worsened adolescent mental health, increasing self-harm risks. Adolescent mental health is crucial, accounting for over a third of their disease burden (Hannon et al., 2024; WHO).



Rationale of the study (2.):

A Latvian study found 72% of adolescents experienced mental health problems (e.g., anxiety, depression) during the COVID-19 pandemic (SPKC, 2023).

Global events like the COVID-19 pandemic have worsened adolescent mental health, impacting their functioning into adulthood (Barendse et al., 2023).

Latvia 2023: 4664 depressive episodes (F32), 712 mild (F32.0). 51.6% of 8555 adolescents seeking mental health support had depressive symptoms, indicating at least 4400 cases (Masaļska, 2023).

Rationale of the study (3.)

In Latvia, aspects of mental health issues are becoming increasingly relevant within the current socio-economic and geopolitical context. Therefore, evidence-based interventions and research instruments are crucial for assessing psycho-emotional states and for the early detection of potential disorder features, thus promoting adolescent emotional well-being (Koļesņikova et al., 2023).



Justification of the study:

Due to evolving theories, societal changes, and technological advancements, older psychological assessments may lack validity for current adolescent populations (Koļesņikova, et. al.2023).

In Latvia, there is no standardized instrument for the assessment of depression in adolescents.



Rationale for the sample (clinical and control group):

- Adolescence, as defined by the International Classification of Diseases, 11th Revision (ICD-11), encompasses the years from 15 to 19 (ICD-11). The World Health Organization (WHO) identifies adolescence as a key period for the development of healthy behaviors and habits that are critical determinants of future health and well-being.
- The research team extended the age range for this study to begin at 13 years.



Definition (ICD-11)

- **Single episode depressive disorder** is defined by one depressive episode (persistent low mood or loss of interest for at least two weeks, with associated symptoms like fatigue, hopelessness, or sleep changes) and no history of mania or hypomania.
- **Recurrent depressive disorder** involves two or more depressive episodes, each lasting at least two weeks (characterized by low mood, anhedonia, and other symptoms), separated by periods of normal mood lasting several months, and without any prior manic or hypomanic episodes.
- **Dysthymic disorder** involves a chronic low mood (or irritability in adolescents) lasting two or more years, with additional depressive symptoms, but without meeting the criteria for a major depressive episode or any manic/hypomanic history.

(International Classification of Diseases 11th (ICD-11))

Procedure:

Process and preliminary findings



Item development process for disorder assessment scales



1. Study phase one (25.02.2024 - 01.10.2024):

- An initial item pool was developed to operationalize the construct of depression. Based on the ICD-11 criteria for a depressive episode, 16 sub-constructs were identified (*Depressed, mood, helplessness and hopelessness, apathy and anhedonia, feelings of worthlessness, guilt, reduced energy levels, difficulty concentrating, psychomotor retardation, sleep disturbances, unwillingness to live, suicidal thoughts (Thoughts of suicide), significant changes in appetite, insufficient personal hygiene, rumination, lack of desire/motivation, tearfulness*). This process resulted in a 69-item pool. scale for adolescents (13-19 years).
- Determination of the response format.
- Creation of an expert evaluation questionnaire.
- The scale is based on depression subconstructs described in ICD-11 and DSM-5 classifications, as well as theoretical depression concepts.

2. Expert evaluation:



**2 - certified clinical and health
psychologists**



**4 - certified pediatric
psychiatrists (comprising 1
narcologist and 1 medical
psychotherapist specializing in
eating disorders**



2. Expert evaluation:

- Receipt and compilation of six expert evaluation questionnaires with recommendations and comments.
- Calculation of content validity indices.
- Revision of item formulations based on expert recommendations, comments, and semi-structured interviews (online, via ZOOM platform).
- Selection of 28 items (v.2.): 4 screening questions and 24 diagnostic items

Construct	Subconstruct	Initial Number of Items	Number of Deleted Items	Number of Items Sent for Expert Evaluation	Comments
Depressive Episode	1. Depressed Mood	12 items	6 items	8 items	2 new items were created
	2. Helplessness and Hopelessness	7 items	6 items	3 items	1 new item was created and one item was divided into two separate items
	3. Apathy and Anhedonia	7 items	0 items	10 items	3 new items were additionally created
	4. Feelings of Worthlessness	2 items	0 items	4 items	2 new items were additionally created
	5. Guilt	8 items	4 items	3 items	One item was constructed from the combination of two items
	6. Reduced Energy Levels	9 items	4 items	9 items	One item was modified, 4 new items were created
	7. Difficulty Concentrating	9 items	5 items	4 items	One item was modified
	8. Psychomotor Retardation	6 items	4 items	2 items	Two items were modified

Subconstruct	Initial Number of Items	Number of Deleted Items	Number of Items Sent for Expert Evaluation	Comments
9. Sleep Disturbances	9 items	4 items	6 items	2 items were modified and 1 new item was created
10. Unwillingness to Live	7 items	0 items	7 items	4 items were modified
11. Suicidal Thoughts (Thoughts of Suicide)	7 items	4 items	3 items	2 items were modified
12. Significant Changes in Appetite	4 items	3 items	1 item	-
13. Insufficient Personal Hygiene	6 items	4 items	2 items	-
14. Rumination	5 items	4 items	2 items	Two items were transferred to the anxiety scale, 1 new item was created
15. Lack of Desire/Motivation	7 items	5 items	2 items	-
16. Tearfulness	6 items	3 items	3 items	1 item was constructed from the combination of two items, 1 new item was created

Summary:



Content validity assessment (*had done*):

Following expert feedback, items were refined and re-evaluated. A content validity Index was calculated for each item (indexs:0,83-1,00).

As a result, 19 items were left for further empirical approbation in clinical and general population samples.



3. Scale development and psychometric properties (*in progress*):

A two-stage assessment scale was developed based on the results. A brief screening section (four items) was designed to identify individuals who would benefit from a more in-depth assessment (15 items). Cut-off points, sensitivity, and specificity were calculated. The scale demonstrated strong psychometric properties.

Concurrent validity was demonstrated by correlating scale scores with the WHO-5 and single-item measures of life satisfaction and self-esteem.

(Schedule until May 2025)



4. Conclusion (*in progress*):

The scale's strong psychometric properties and its ability to differentiate between adolescents with and without depressive symptoms make it a valuable tool for clinical assessment and intervention.

The scale's brevity and ease of administration make it a practical tool for assessing depressive symptoms in adolescents, particularly in busy clinical settings.

Validation of DpSNSP v.2 will include face validity, internal consistency and psychometric evaluation.

(Schedule until May 2025)

5. Conclusion (*in progress*):

1. Item Selection and group differentiation:

- Items will be selected based on their ability to differentiate between clinical and control groups, as determined by Student's t-test results.

2. Determination of optimal cut-off points and diagnostic accuracy:

- The optimal cut-off points for the scale will be established.
- Sensitivity and specificity indices will be calculated to assess the diagnostic accuracy of the scale.

3. Concurrent validity assessment:

- The results of the developed scale will be correlated with the scores obtained from the WHO-5 Well-being Index.
- This correlation will be used to establish the concurrent validity of the scale.

(Schedule until May 2025)

References:

Barendse, M., Flannery, J., Cavanagh, C., Aristizabal, M., Becker, S., Berger, E., Pfeifer, J. (2023). Longitudinal Change in Adolescent Depression and Anxiety Symptoms from before to during the COVID-19 Pandemic. *Journal of Research on Adolescence*, 33(1), 74-91.

Hannon, E., Anselimus, S. M., Bardikoff, N., Bulc, B., Germann, S., Gonsalves, P. P., Wanjiru, M. (2024). Why cities matter for adolescent mental health and wellbeing. *The Lancet* (British Edition), 403(10428), 708–710.

Koļesņikova, J., Kīvīte-Urtāne, A., Perepjolkina, V., Bite, D., Krone, I., Gulbe Z., (Oktobris, 2023) “Kā tiek mērīta un sekmēta bērnu emocionālā labizjūta skolā” Pētījuma starprezultāti, RSU.

Masaļska, A. (8.maijs, 2023) Pusaudžu mentālās veselības temperatūra Latvijā- mainīga, bet ar tendenci nepasliktināties.

<https://www.spkc.gov.lv/lv/klasifikacijas-un-klasifikatori>

**Thank you for Your time and
attention!**

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