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Wiedza i ocena ryzyka depresji wśród młodzieży w okresie pandemii COVID-19

Knowledge and risk assessment of depression among adolescents during the COVID-19 pandemic

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Streszczenie

Wstęp: Depresja postrzegana w kategoriach zdrowotnego problemu jest schorzeniem rozpowszechniającym się dynamicznie w populacji młodzieży. Wpływa na to przede wszystkim nagromadzenie wielu intensywnych zmian biologicznych, psychologicznych i społecznych, jakie zachodzą w okresie dorastania. Okres pandemii COVID-19 nasilił ten problem. Wydaje się, że pomimo dosyć dobrze omówionego w literaturze przedmiotu zagadnienia depresji wieku rozwojowego, w życiu społecznym problem ten wciąż jest marginalizowany, często pozostaje wręcz tematem tabu.

Cel: Celem pracy była ocena poziomu wiedzy i zagrożenia depresją w środowisku wybranej grupy młodzieży w początkowym okresie pandemii COVID-19.

Materiał i metody: Badano młodzież szkolną w wieku 15-20 lat. Próba badawcza liczyła 100 osób. Stan wiedzy uczestników badania na temat depresji sprawdzono za pomocą autorskiej ankiety. Do oceny zagrożenia depresją wykorzystano Skalę Depresji Kutchera dla Młodzieży (KADS).

Wyniki: Badania wskazują na przeciętny poziom wiedzy wybranej grupy młodzieży szkolnej na temat znajomości czynników ryzyka zachorowania na depresję oraz objawów mogących świadczyć o depresji. Niewiele ponad połowa (55%) ankietowanych nastolatków uznała swój stan wiedzy o depresji za średni. Co trzeci respondent uważał, że wiedza na temat depresji jest przydatna. Wiedzę tę młodzież pozyskuje głównie z Internetu (41%) oraz programów telewizyjnych (16%). Znacząco częściej objawy depresji mierzone skalą KADS występowały u: starszych uczestników badania, tych którzy nisko oceniali swoją sytuację materialną oraz uczniów, którzy posiadali doświadczenie depresji w rodzinie. Do uwarunkowań wiedzy na temat depresji należały: płeć, wiek oraz doświadczenie depresji w rodzinie. Nie stwierdzono istotnych statystycznie zależności pomiędzy wiedzą respondentów a miejscem zamieszkania i

samooceną sytuacji materialnej. Badanie ujawniło występowanie objawów depresji u 22% osób. Nasilenie objawów depresji różniło się w zależności od wieku badanych, samooceny sytuacji materialnej oraz doświadczenia depresji w rodzinie.

Wnioski: Wyniki samooceny wiedzy na temat depresji, jak też zagrożenie depresją potwierdzone skalą KADS stanowią podstawę podjęcia pilnych działań profilaktycznych - zarówno w sferze edukacyjnej jak i psychoterapeutycznej.

Słowa kluczowe: wiedza, depresja młodzieńcza, zagrożenie depresją, czynniki ryzyka

Summary

Introduction: Depression, perceived as a health problem, is a condition that is spreading rapidly in the adolescent population. It is mainly influenced by the accumulation of many intense biological, psychological and social changes during adolescence. The period of COVID-19 pandemic has intensified this problem. Despite being relatively well covered in the literature, the problem of adolescent depression is still marginalised in social life and often remains a taboo subject.

Objective: This study aimed to assess the level of knowledge and risk of depression among a selected group of adolescents during the initial period of the COVID-19 pandemic.

Material and methods: The study covered a group of schoolchildren aged 15-20 years. The study sample consisted of 100 participants. The participants' knowledge of depression was checked using a proprietary questionnaire. The Kutcher Adolescent Depression Scale (KADS) was used to assess the risk of depression.

Results: The research indicates that the selected group of school adolescents had average knowledge of the risk factors for depression and the symptoms that may indicate depression. Over half (55%) of the adolescents surveyed considered their knowledge of depression average. One in three respondents felt that knowledge about depression was valuable. Adolescents mainly obtain this knowledge from the Internet (41%) and television programmes (16%). Depressive symptoms as measured by the KADS scale were significantly more frequent in older study participants, those who rated their financial situation low and students who had a history of depression in the family. Determinants of knowledge of depression included: gender, age, and family history of depression. There were no statistically significant correlations between the respondents' knowledge and place of residence and self-assessed financial situation. The study revealed the presence of depressive symptoms in 22% of the subjects. The severity of

depressive symptoms varied depending on the age of the subjects, self-assessment of the financial situation and family history of depression.

Conclusions: The results of the self-assessment of knowledge about depression, as well as the risk of depression confirmed by the KADS scale, are the basis for urgent preventive measures - both in the educational and psychotherapeutic spheres.

Keywords: knowledge, juvenile depression, threat of depression, risk factors

Introduction

Adolescent depression is one of the most common mental disorders of this period. The prevalence of teen depression is estimated to be between 4% and 8%. However, some studies suggest a 20% prevalence in this population. In contrast, the prevalence is considering the period from childhood to the end of adolescence, i.e., the age range between 9 and 17 years, is 0.4-8% (mean 6%). [1, 16, 19] The clinical picture of childhood depression, in terms of core symptoms, is similar to that of adult depression. Key symptoms of depression may include a sense of hopelessness, loss of interest and loss of the ability to experience pleasure in the form of anhedonia. Symptoms such as feelings of hopelessness, worthlessness and unjustified guilt may also appear in the picture of the disorder. Changes in psychomotor activity in the form of slowing down, inhibition, decreased energy, increased fatigability, decreased ability to think and focus attention, and difficulties in decision-making seem to be noteworthy. [15]

The development of depression in adolescents depends on the interaction of several diverse factors. These include genetic, environmental (family, school), personal psychological characteristics and those related to experiences over the life course. [10, 20]

The COVID-19 pandemic is an emergency in which young people experience an intense fear of infecting themselves or other people, especially given that COVID-19 transmission was not well understood from the beginning. Symptoms typical of other illnesses (a cold or the flu) were also likely to cause fear, as they could be attributed to COVID-19 and cause severe anxiety. The unusual situation of school closure, lack of contact with peers and social distancing were also potential sources of anxiety and risk for adolescents. The quarantine at home, the lack of outdoor and school activities and the workload could cause greater emotional and psychological strain [5] and favour the development of depressive disorders. During a pandemic, as with disasters, there is an increased risk of depression. [2,8]

The aim of the study is to assess the level of knowledge about depression and the risk of depression in the environment of a selected group of adolescents functioning as students during the COVID-19 pandemic.

Material and methods

The research covered a group of schoolchildren aged 15–20 and was conducted by means of a diagnostic survey with the CAWI (Computer-Assisted Web Interview) technique. Data from a group of one hundred people were collected during March and April 2020. A survey questionnaire consisting of the standardised KADS scale, and a proprietary instrument was used to achieve the objectives of the study. All respondents completed the same survey questionnaire. In the instructions for each included scale, the respondents were asked to rate in compliance with the current epidemiological situation.

Characteristics of tools used

Adolescent Depression Scale; A tool in the form of the Kutcher Adolescent Depression Scale in Polish (KADS; Kutcher Adolescent Depression Scale) was used to assess the presence and severity of depressive symptoms. [14] This tool was recommended in the project of the Minister of Health within the Programme for the Prevention of Depression in Poland 2016–2020 [18]. The KADS scale is a reliable and accurate measure for assessing depressive symptoms among primary and secondary school students, and numerous studies also outside Poland confirm its value. [6]

The adolescent depression scale (KADS) consists of six statements relating to (1) perceived sadness, (2) lack of self-confidence, (3) physical exhaustion, (4) a belief that life is complicated and overwhelming, (5) experience of fear and anxiety, and (6) emergence of suicidal thoughts and plans. Using a scale of 0–3, the respondents indicate whether they experience the condition described in the statement from 0- "rarely or almost never", through 1 - "quite often", 2- "mostly", to 3 - "always". The scores are added up. The score ranges from 0 (6 statements x 0 points) to 18 (6 x 3 points). A score of 6 or more indicates a risk of depression. The KADS scale uses a language the average teenager can understand and is designed for 12- to 22-year-olds. The ability of this questionnaire to identify symptoms of depression is rated at over 90%. The reliability of the scale is also highly rated (with over 70%) in terms of identifying individual symptoms of depression. It makes the scale a frequently used screening tool to assess the risk of depression in young people. [6,11,12].

The authors' questionnaire, developed on the basis of the literature, consisted of the following: demographic questions on independent variables (gender, age and place of

residence, financial situation and family history of depression) and test tasks testing knowledge of depression, its symptoms and risk factors. The true-false type test contained 18 specific questions. The following scoring system was used for evaluating the results: 1 point for a correct answer and 0 points for an incorrect answer. The respondents could obtain a total of eighteen points. Scores of less than 10 pts. indicate inadequate knowledge; 10–13 pts. (50-75% of points possible) average knowledge; 14–18 pts. (more than 75% of points) high knowledge.

Ethical Considerations

The informed consent form preceding the survey questions included an explanation of the purpose, focus of the study, approximate duration, and how to answer the questionnaire. After reading the information about the study, the respondents were asked to indicate their willingness to participate in the study by clicking 'Yes'. They could also opt out of the study by closing the web page in the browser containing the survey or selecting 'No'. Only those who selected 'Yes' were taken to the questionnaire page. The respondents had the possibility to withdraw from the study at any time by closing the web page with the survey questionnaire.

Statistical analysis

A database was created in Microsoft Excel and based on the completed survey questionnaires. The chi-square test of independence was used to test the relationship between variables and verify the research hypotheses. Statistically significant results were considered at the level of $p<0.05$.

Results

Characteristics of the study group

The study group of young people was predominantly female (57%). The largest group consisted of adolescents aged 15–16 (46%), living in a city of more than 50 000 residents (47%), with an average material status (49%). Twenty-six per cent of the adolescents surveyed had a family history of depression with parents, siblings, or grandparents. Table 1. presents the detailed results.

Table 1. Selected characteristics in the study group

No.	Variables		Study group (N=100)
1.	gender	female	57
		male	43
2.	age	15 - 16 years	46
		17 - 18 years	30
		19 - 20 years	24
3.	place of residence	village	27
		city with up to 50,000 residents	26
		city of over 50,000 residents	47
4.	self-assessment of financial situation	low	24
		average	49
		high	27
5.	family history of depression	yes: my mother/father	12
		yes: my siblings	8
		yes: my grandparents	6
		no, nobody	54
		I do not know	20

Knowledge of depression and the risk of its development among young people

Table 2. shows the percentage of responses to questions about the respondents' knowledge of depression. Most of the correct answers (93%) were obtained in the contradictory statement: "A symptom accompanying depression is panic attacks". In contrast, the respondents had the most problems with the following statements: "Children and adolescents cannot become depressed" (only 13% correct), " Depression tends to recur - if it has occurred once, it can occur again" (17% correct) and " Depression is a temporary (lasting no more than a few days) feeling of sadness or dejection"(only 20% of correct answers).

Considering the proposed scoring system, the total results determining the level of the respondents' knowledge showed that 21% of the respondents demonstrated a high level of knowledge about depression. Forty-six percent of them had an average level of knowledge. Thirty-six percent of the study participants obtained a lower score of fewer than 10 points.

Table 2. The results of the True-False test on knowledge about depression

Statements (True-False test)	Correct answer	Incorrect answer
	%	
Depression is one of the most serious health problems in the modern world.	83	17
Depression is an illness characterised by various symptoms that occur over an extended period of time (at least two weeks).	27	73
Depression is a temporary (lasting no more than a few days) feeling of sadness or dejection.	20	80
Children and adolescents cannot become depressed.	13	87
Depression is a problem that only affects alcohol and psychoactive drugs abusers.	91	9
Depression manifests itself not only in sadness and dejection but also in a loss of interests and enjoyment of life, a sense of fatigue.	51	49
Problems with appetite and sleep may indicate depression.	39	61
An accompanying symptom of depression is panic attacks.	93	7
Depression increases the risk of suicide.	67	33
Depression results only from negative thinking and a pessimistic view of the world.	47	53
The risk of depression is higher if it has previously occurred in someone in the family.	41	59
Close family relationships protect against depression.	62	38
Depression does not require medical attention; it resolves on its own.	27	73
Treatment of depression can consist of psychotherapy and visits to a psychiatrist.	37	63
Depression is only treated pharmacologically (antidepressants are prescribed).	21	79
Depression tends to recur - if it has occurred once, it may occur again.	17	83
Stressful situations, psychological trauma, chronic illness are all factors that increase the risk of depression.	62	38
Constant fatigue, dejection, low self-esteem, loss of interests are all symptoms that can indicate depression.	51	49

The results of the assessment of depressive components in adolescents (as indicated by the KADS scale) and its correlation with selected variables.

In the study group of adolescents, 22% of the respondents exhibited depressive symptoms as measured by the KADS scale (score of at least 6 points). Table 3. presents the detailed results of the assessment.

Table 3. The results of the assessment of depression components on the KADS scale

Depression symptoms	Measure	Last-week experience			
		hardly ever	quite often	mostly	all the time
sadness, depressed mood, dejection	%	52	26	14	8
lack of self-belief, feeling of worthlessness and hopelessness	%	64	26	8	2
physical exhaustion, fatigue, lack of energy, lack of motivation	%	56	28	13	3
feeling that life is difficult, loss of well-being, anhedonia	%	67	23	6	4
worrying, nervousness, panic, irritation, anxiety	%	61	27	8	4
suicidal or self-harm thoughts	%	87	6	4	3

Among the six components of depression included in the KADS scale, the following were most frequently experienced by the respondents in the past week: sadness, gloomy mood, depression (48% of indications of at least frequent occurrence of this symptom in the past week) and physical exhaustion, fatigue, lack of energy, lack of motivation (44%). Each of the following three symptoms of depression was experienced at least often by one in three of the respondents: worry, nervousness, panic, irritation, anxiety (39%), lack of self-belief, bad mood, feeling of uselessness and hopelessness (36%), feeling that life is difficult, loss of well-being (33%). As many as 13% of the young people surveyed admitted to thinking about suicide or self-harming at least quite often.

The statistical analysis shows that significant determinants of depression risk in the environment of the selected group of adolescents include age ($p<0.05$), self-assessment of the financial situation ($p<0.05$), and history of depression in the family ($p<0.05$). In contrast, gender and place of residence did not differentiate the results in this area. Table 4. presents the results of the detailed quantitative analysis.

Table 4. Association of the prevalence of depressive symptoms according to the KADS with selected socio-demographic factors and family environment

Symptoms of depression diagnosed with the KADS scale	**Measure**	**Gender**		**Total**
		girls	**boys**	
no depressive disorders (up to 5 points)	number	42	36	78
	%	74	84	78
depressive disorder (at least 6 points)	number	15	7	22
	%	26	16	22
Total	number	57	43	100
	%	100	100	100
Chi-square=1,43883 (df=1); **p > 0,05**				

Symptoms of depression diagnosed with the KADS scale	**Measure**	**Age (in years)**			**Total**
		15-16	**17-18**	**19-20**	
no depressive disorders (up to 5 points)	number	42	24	12	78
	%	91	80	50	78
depressive disorder (at least 6 points)	number	4	6	12	22
	%	9	20	50	22
Total	number	46	30	24	100
	%	100	100	100	100
Chi-square=15,77987 (df=2); **p<0.05**					

Symptoms of depression diagnosed with the KADS scale	**Measure**	**Place of residence**			**Total**
		village	city with up to 50,000 residents	city of over 50,000 residents	
no depressive disorders (up to 5 points)	number	22	19	37	78
	%	81,5	73	79	78
depressive disorder (at least 6 points)	number	5	7	10	22
	%	18,5	27	21	22
Total	number	27	26	47	100
	%	100	100	100	100
Chi-square=0,57227 (df=2); **p > 0,05**					

Symptoms of depression diagnosed with the KADS scale	**Measure**	**Financial situation**			**Total**
		low	**average**	**high**	
no depressive disorders (up to 5 points)	number	12	43	23	78
	%	50	88	85	78
depressive disorder (at least 6 points)	number	12	6	4	22
	%	50	12	15	22
Total	number	24	49	27	100
	%	100	100	100	100
Chi-square=14,49468 (df=2); **p<0.05**					

Symptoms of depression diagnosed with the KADS scale	**Measure**	**Family history of depression**		**Total**
		YES	**NO**	
no depressive disorders (up to 5 points)	number	10	68	78
	%	38,5	92	78
depressive disorder (at least 6 points)	number	16	6	22
	%	61,5	8	22
Total	number	26	74	100
	%	100	100	100
Chi-square=32,00839 (df=1); **p<0.05**				

Discussion

It is estimated that early symptoms of depression occur in 15-30% of the adolescent population. [3] The incidence of this disorder increases with age. In those over 12 years old, the risk of developing depression increases to 6-8%. During the analysis of the results, it should be emphasised that depressive symptoms, as measured by the KADS scale, were revealed in 22% of the study sample.

The study was conducted during the first wave of the COVID-19 pandemic when adolescents encountered social isolation for the first time and had to undergo the new restrictions associated with the pandemic situation. In the study by Modrzejewska R, Bomba [13], the prevalence of depressive symptoms assessed on the basis of the Beck scale in a group of 17-year-olds (n=1933) was found in 26.7% of the respondents. On the other hand, the prevalence of depressive symptoms in the group of girls was statistically significantly higher than in the group of boys ($Chi2 = 54.16$, $df = 1$, $p < 0.0005$) and amounted to 33.6% and 18.2% for girls and boys, respectively. The results of our study do not show any significant gender dependency. Perhaps this is related to the trauma factor of the first wave of the pandemic during which the study was collected, where adolescents' atypical situation of social isolation strongly affected both girls and boys. In another study by Dymowska A, Nowicka-Sauer [4] conducted in a group of 18-year-old secondary school students (n=70), depressive disorders were initially diagnosed in 25.7% of the subjects. An extensive study of students from Wuhan (N=2330) in Hubei Province who remained in social isolation since January 2020 assessed depressive symptoms using the Children's Depression Inventory Short Form [21] and found depressive symptoms in 22.6% of subjects, which is comparable to our results.

Our study's results indicate that the depression knowledge survey respondents demonstrate an average general level of knowledge of the disorder, which is consistent with previous empirical reports. A study conducted within the health programme Prevention of depressive disorders among adolescents aged 16–17 years, conducted in 2013 and supervised by the PRAESTERNO Foundation, in which more than 600 secondary school students from the Lublin Province participated, showed an average level of knowledge of adolescents about depression [17].

Implications for practice

Although the importance of supporting young people in their mental health development has been emphasised for many years, systemic and institutional deficiencies in this regard are still observable.[9] It has become particularly evident during the pandemic period. [7]

Insufficient awareness of the extent of the risk of depression among young people, the key risk factors and the symptoms of this disorder means that the measures taken by school nurses, psychologists and educationalists are often limited to supporting mainly pupils with mental illnesses or disorders and their families. However, the diagnosis of this problem applies insufficiently to healthy pupils. Early health screening in school balance sheets using simple tests to assess depressive symptoms should be a daily practise in school medicine. Meetings with parents and carers can also help identify the problem early. Organising better and easier access to specialists for pupils with depressive symptoms at school or outside the school (e.g., visits to a therapist) would undoubtedly help address the problem systematically.

Conclusions

The obtained results of the study lead to the following conclusions:

- The surveyed adolescents' knowledge of depression, its symptoms and risk factors showed statistically significant differences according to gender, age and history of depression in the family.
- The average level of knowledge about depression indicates the need for better education of adolescents on prevention and strengthening the role of the school environment, including the school nurse's office.
- The overwhelming number of people in the study group did not show symptoms of depression (78%). However, a considerable proportion of young people (22%) exhibited depressive symptoms, as measured by the KADS scale.
- Age, self-assessment of the financial situation and history of depression in the family significantly influenced the risk of depression in the respondents.
- The family history of depression is the variable that conditioned both the level of knowledge about depression and the occurrence of its symptoms in the adolescent group studied.
- The results of the self-assessment of knowledge about depression and the risk of depression confirmed by the KADS scale are the basis for urgent preventive measures - both in the educational and psychotherapeutic spheres.

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