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Problematic Internet use, family relationships and social support vs. depressive symptoms among adolescents during remote learning

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Abstract

Research objectives (aims) and problem(s): The study presented in this article seeks to answer the following question: What is the role of social support and the quality of family relationships in the context of depressive symptoms and problematic Internet use during the COVID-19 pandemic and remote learning among adolescents?

Research methods: The study was conducted among 509 adolescents aged 11–16. Empirical data were collected using the Epidemic Difficulty Questionnaire (ATP), Family Relationships Questionnaire (KRR), Sense of Support Scale (SWS), Internet Addiction Test (IAT), and the Child and Adolescent Depression Inventory (CDI2). The results showed that 34.02% of the students had elevated depressive symptoms. Heavy Internet use affected 16.8% of respondents, including 10.86% who simultaneously showed heightened symptoms of both depression and addiction. Additionally, girls were more likely than boys to exhibit symptoms of depression.

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Process of argumentation: First, the number of individuals affected by depression and Internet addiction was determined, and four groups were identified based on the combination of these two variables. These groups were then analyzed according to gender, age, pandemic-related difficulties, quality of family relationships, and sources of support.

Research findings and their impact on the development of educational sciences: The study found that 34.02% of students had elevated depressive symptoms. Heavy Internet use affected 16.8% of respondents, including 10.86% who simultaneously experienced aggravated symptoms of depression and addiction. Moreover, girls were more likely than boys to report depressive symptoms. Students exhibiting both depressive and addictive symptoms experienced significantly more difficulties in relationships with family members compared to those without symptoms, and they perceived a greater number of household responsibilities as burdensome. Depressive symptoms were less severe among students whose families demonstrated mutual understanding and openness to differing views and beliefs. In such families, members communicated flexibly, cooperated effectively, and cared for one another.

Conclusions and recommendations: The results confirmed that the quality of family relationships is crucial for the healthy functioning of adolescents without depressive symptoms, even in pandemic conditions. Therefore, an important preventive measure for schools is to undertake initiatives that strengthen mutual communication and parent–child relationships, as well as to enhance the diagnostic skills of parents, caregivers, and educators in the early detection of risk behaviors among children and adolescents.

Introduction

Studies conducted during the pandemic show an increased number of depressive symptoms and instances of Internet overuse. According to the report *Symptoms of Depression and Anxiety Among Poles During the COVID-19 Epidemic*, symptoms of depression and generalized anxiety disorder were associated with difficulties experienced at home (such as strained relationships with loved ones, lack of privacy, and fatigue caused by excessive responsibilities). In addition, these symptoms were linked to anxiety and uncertainty related to the spread of the epidemic (Gambin et al., 2020). Anxiety about COVID-19 was also associated with Internet addiction disorder (including intrapersonal and interpersonal conflicts)

(Servidio et al., 2021). Heavy Internet use was found to exacerbate depressive symptoms (Zalewska et al., 2021).

The COVID-19 pandemic created new difficulties for children and adolescents. In an attempt to identify the stressors associated with functioning during this period, researchers developed several questionnaires that helped determine the most significant difficulties experienced by young people. According to the report *Tenure in the Network 2.0* (N = 806 students aged 11–18), 62% of the adolescents surveyed reported sleep problems, 43% had thoughts of death, 75% worried about the future, and 70% felt more nervous and agitated than before (Bialecka & Gil, 2020). The report *Youth During the Pandemic* (N = 2,476 participants aged 15–19) showed a growing number of young people experiencing loneliness, school-related stress, depression, suicidal thoughts, and cyberbullying during the pandemic (Grzelak & Żyro, 2021). According to the report *Remote Education: What Has Happened to Students, Their Parents, and Teachers?* (N = 1,284), about 10% of the young people surveyed exhibited distinct symptoms of depressive states. Nine percent reported feeling sad all the time, 10% felt lonely and depressed, and 9% admitted that they constantly felt like crying (Ptaszek et al., 2020). Difficulties related to poor peer relationships, remote learning, and isolation were identified as contributing factors (Bialecka & Gil, 2020; Ptaszek et al., 2020; Grzelak & Żyro, 2021).

The research presented in this article aimed to answer the following question: What is the role of social support and the quality of family relationships in the context of depressive symptoms and problematic Internet use during the COVID-19 pandemic and remote learning among adolescents? As it was difficult to determine the detailed structure of the interdependencies between the variables analyzed, the study was primarily exploratory.

Materials and methods

The study was conducted in March 2021 among schoolchildren aged 11–16 from the Lesser Poland Voivodeship. The analysis included data obtained from 488 respondents: 257 girls and 231 boys. The surveys were anonymous and voluntary, carried out with the permission of the school principal using an online questionnaire administered during remote learning classes.

Questionnaire for the Diagnosis of Depression in Children and Adolescents (CDI 2)

The original version of the questionnaire was developed by Kovacs (2003). Its Polish adaptation was prepared by Wrocławska-Warchala and Wujcik (2017). In the present study, a shortened self-report version was used, consisting of 12 questions related to various symptoms of depression. For each question, respondents selected one of three possible statements that best reflected their feelings over the past two weeks. An example item included the following possible responses: *I do most things well; I do many things badly; I do everything badly*. The scale demonstrates satisfactory reliability. For respondents aged 7–12, Cronbach's $\alpha = 0.74$, and for those aged 13–18, Cronbach's $\alpha = 0.80$.

Internet Addiction Test (IAT)

The original Internet Addiction Test (IAT), in a shortened version consisting of 8 questions, was developed by Young (1998). It was adapted for schoolchildren aged 16–17 by Solecki (2016). In his research, the scale achieved a satisfactory reliability coefficient of Cronbach's $\alpha = 0.70$. An example item reads: *Do you feel the need to spend more and more time using the Internet in order to achieve the desired level of satisfaction?* Respondents were asked to answer "yes" or "no" to each question based on their personal experience of Internet use.

Youth pandemic and distance learning difficulties survey (ATP)

Difficulties related to the pandemic and distance learning were assessed using the ATP, developed by Woźniak-Prus and Gambin (2021).

The tool consists of 13 items rated on a 5-point scale (from 1 to 5), where 1 means “not at all challenging/difficult for me,” and 5 means “definitely a challenge/difficulty for me.” For the purposes of this study, an additional item exploring feelings of limitation in the area of religious practice was added to the original set. The content of each question is presented in Table 5.

Family Relationship Questionnaire (KRR)

The scale used to measure family relationships was developed by Plopa and Połomski (2010). Six versions of this questionnaire are available; in this study, the *My Family* version was used to assess the family as a whole. It contains 32 statements measuring the following aspects:

- Communication (8 items; Cronbach’s $\alpha = 0.88$): represents the mutual understanding among family members, openness to one another, the way information is exchanged, flexibility in communication, and the ability to maintain balance in the family. *Example statement:* “I understand my family members very well.”
- Cohesion (8 items; Cronbach’s $\alpha = 0.87$): represents the quality of emotional bonds in the family, the ability to cooperate and help one another, and concern for each other’s well-being. *Example statement:* “The atmosphere in our home allows everyone to feel comfortable.”
- Autonomy–Control (8 items; Cronbach’s $\alpha = 0.79$): reflects the family’s ability to regulate members’ behavior through flexible or rigid strategies. It also identifies the types of sanctions and restrictions used. *Example statement:* “All members of our family are free to say what they think, even when others disagree.”
- Identity (8 items; Cronbach’s $\alpha = 0.86$): refers to maintaining a consistent family image, fulfilling specific tasks and values, and the pressure to meet parental expectations. It also determines the permeability of external and internal family boundaries. *Example statement:* “In our family, we make sure that various problems are solved collectively.”

Respondents were asked to indicate the extent to which each statement described their family situation using a 5-point scale.

Sense of Support Scale (SWS)

This tool was developed by Solecki (2016) for his study of students aged 16–17. Participants were asked to estimate how often they sought help from the people listed in the questionnaire in difficult or critical situations, using a four-point scale: *never*, *rarely*, *sometimes*, or *often*. The content of each item is presented in Table 7.

Demographic data

Respondents were also asked to provide information about their age and gender.

Results

Using the data obtained from the IAT and CDI 2 questionnaires, corresponding categories of addiction severity and depressive symptoms were determined for each respondent. Heavy Internet use was reported by 82 participants (16.8% of the total sample). Very high scores for depression severity were recorded for 58 students (11.9%), elevated scores for 34 students (6.97%), high scores for 74 (15.16%), average scores for 231 (47.34%), and low scores for 91 (18.65%).

Based on these results, four groups of respondents were identified:

- Group 1 (NS): Students who did not exhibit Internet addiction and whose depressive symptoms were at a low or average level. This was the largest group, comprising 283 students (60.04%).
- Group 2 (DEP): Students who did not show signs of addiction but had elevated symptoms of depression (23.16% of respondents).
- Group 3 (DEP&AD): Students who, in addition to heavy Internet use, had at least elevated depressive symptoms. They accounted for 10.86% of respondents.
- Group 4 (AD): Students who showed signs of addiction only, comprising nearly 6% of respondents.

The numerical characteristics of these groups are shown in Table 1. In total, 195 students (39.96%) experienced some form of difficulty.

Table 1. Adolescents' distribution across groups with different levels of severity of depressive symptoms and Internet addiction

Group	<i>N</i>	Percentage (%)
No symptoms (NS)	293	60.04
Depressive symptoms (DEP)	113	23.16
Depressive and addictive symptoms (DEP&AD)	53	10.86
Symptoms of addiction (AD)	29	5.94

Source: own study

In order to determine the extent to which the groups differed in the severity of depressive and addictive symptoms, an analysis of variance (ANOVA) was performed. The results are presented in Table 2. The MANOVA analysis indicated that the differences observed were highly significant ($p < 0.001$), with group membership accounting for 69.5% of the variance in CDI 2 scores and 58% of the variance in IAT scores. The severity of depressive symptoms differed significantly among all identified groups. In contrast, the group consisting of Internet addicts did not differ considerably in their level of addiction from students who also exhibited at least elevated depressive symptoms.

Table 2. Comparison of groups of adolescents in terms of the severity of depressive and addictive symptoms; results of the analysis of variance

Variable	1. NS	2. DEP	3. DEP&AD	4. AD	Differences between groups		
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>F</i> (3. 484)	η^2	<i>Post hoc</i> <i>Games-Howell</i>
CDI 2: Sym. of. dep.	2.53 (2.01)	9.58 (2.84)	12.57 (4.31)	3.66 (2.06)	366.90***	0.695	All relevant
IAT: Sym. of. Ad.	1.58 (1.40)	2.51 (1.25)	5.91 (1.06)	5.66 (0.94)	222.53***	0.580	1–2.3.4; 2–1.3.4; 3–1.2; 4–1.2

Note. Multivariate analysis of variance Wilks' $\lambda = 0.163$; $F = 237.83$; $df_1 = 6$; $df_2 = 966$; $p < 0.001$ *** $p < 0.001$
Source: own study

Table 3 presents the results of the analysis assessing the relationship between the identified student groups and gender. The value of the Pearson's χ^2 statistic was found to be significant, indicating that more girls than boys experience symptoms of depression, as well as both depression and addiction.

**Table 3. Distinct groups of adolescents by sex;
cross-tabulation in the χ^2 -Pearson analysis**

CDI 2 Category		Sex		Total
		Boys	Girls	
1. NS	<i>n</i>	164.00	129.00	293
	<i>n (expected)</i>	138.70	154.31	293
	<i>row percentage</i>	55.97	44.03	100
2. DEP	<i>n</i>	38.00	75.00	113
	<i>n (expected)</i>	53.49	59.51	113
	<i>row percentage</i>	33.63	66.37	100
3. DEP&AD	<i>n</i>	17.00	36.00	53
	<i>n (expected)</i>	25.09	27.91	53
	<i>row percentage</i>	32.08	67.92	100
4. AD	<i>n</i>	12.00	17.00	29
	<i>n (expected)</i>	13.73	15.27	29
	<i>row percentage</i>	41.38	58.62	100

Note. Statistics $\chi^2 = 22.65$; $df = 3$; $p < 0.001$ Source: own study

A significant correlation was also found between students' group membership and age. The oldest respondents were more likely than their younger peers to belong to the group with depressive symptoms (see Table 4).

**Table 4. Comparison of groups of young people by age;
results of analysis of variance**

Variable	1.NS	2. DEP	3. DEP&AD	4. AD	Differences between groups		
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>F</i> (3. 482)	η^2	<i>Post hoc</i> <i>Games-Howell</i>
Age	12.92 (1.14)	13.55 (1.15)	13.29 (1.10)	12.76 (1.24)	9.52***	0.056	1–2; 2–1.4; 4–2

Note. Multivariate analysis of variance Wilks' $\lambda = 0.76$; $F = 11.62$; $df_1 = 12$; $df_2 = 1272.90$; $p < 0.001$ *** $p < 0.001$
Source: own study

Table 5 shows the severity of pandemic-related difficulties experienced by individuals in each group. Fear of being infected with the coronavirus or of a loved one becoming ill, as well as uncertainty about the current situation and the future, were most prevalent among students who exhibited the fewest symptoms of depression.

Table 5. Comparison of groups of adolescents in terms of the severity of pandemic difficulties; results of the analysis of variance

Difficulties caused by the COVID-19 pandemic	1. NS	2. DEP	3. DEP&AD	4. AD	Group differences		
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>F</i> (3. 484)	η^2	<i>Post hoc Games-Howell</i>
1. Fear of COVID-19 infection	2.53 (1.18)	2.08 (1.14)	2.19 (1.24)	2.55 (1.24)	4.65**	0.028	1–2; 2–1;
2. Fear of a family member/ close relative being infected by COVID-19	3.34 (1.29)	2.88 (1.30)	2.98 (1.29)	3.10 (1.42)	4.07**	0.025	1–2; 2–1;
3. Uncertainty about the current situation and the near future	2.97 (1.16)	2.47 (1.26)	3.02 (1.29)	3.10 (1.21)	5.54***	0.033	1–2; 2.1
4. Distance learning	2.66 (1.29)	2.59 (1.31)	2.74 (1.38)	2.59 (1.62)	0.17		
5. Inconvenience of wearing masks/face coverings in public places	2.98 (1.37)	2.84 (1.41)	2.77 (1.49)	3.03 (1.38)	0.54		
6. Inconvenience of having to maintain social distance and restrictions on gatherings	2.99 (1.31)	2.78 (1.47)	3.21 (1.46)	2.93 (1.33)	1.30		
7. Closure of gyms/cinemas/ theatres/restaurants/pubs	2.85 (1.45)	2.73 (1.50)	3.45 (1.54)	2.48 (1.41)	3.81**	0.023	1–3; 2–3; 3–1.2.4; 4–3
8. Limitations on physical activity	3.20 (1.36)	2.83 (1.39)	3.26 (1.38)	2.90 (1.50)	2.40		
9. Limited ability to pursue hobbies	3.35 (1.30)	2.90 (1.40)	3.21 (1.38)	3.07 (1.56)	3.04*	0.019	1–2; 2–1
10. Restrictions on meeting friends/acquaintances in person	3.46 (1.35)	3.12 (1.51)	3.28 (1.60)	3.35 (1.52)	1.60		
11. Increased use of computers/phones for relaxation or leisure	2.58 (1.20)	2.27 (1.16)	2.23 (1.27)	2.79 (1.29)	3.36*	0.019	$p = 0.070$ 1–2; 2–1
12. Difficult relationships with loved ones at home (feeling of getting on each other's nerves)	2.50 (1.17)	2.84 (1.20)	3.06 (1.38)	2.48 (1.02)	4.70**	0.028	1–3; 3–1
13. Increased number of daily responsibilities	2.53 (1.18)	2.50 (1.24)	3.17 (1.19)	2.69 (1.23)	4.65**	0.028	1–3; 2–3; 3–1.2
14. Lack of opportunity for religious practice	2.85 (1.22)	2.44 (1.26)	2.30 (1.15)	2.35 (1.20)	5.72***	0.034	1–2.3; 2–1; 3–1

Note. Multivariate analysis of variance Wilks' $\lambda = 0.803$; $F = 2.562$; $df_1 = 42$; $df_2 = 1397.98$; $p < 0.001$ * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$
Source: own study

The difficulties related to the closure of gyms, cinemas, theaters, restaurants, and pubs were experienced most strongly by the group with both depression and addiction. Limited opportunities to pursue hobbies were the most challenging restrictions for the group without symptoms. Difficulties associated with an excessive number of duties and strained relationships with loved ones were reported most often by participants with depressive and addictive symptoms.

In addition, it was observed that those without symptoms were more likely to view the increased use of computers or phones for relaxation or leisure as a difficulty. Conversely, the inability to engage in religious practices during the pandemic was reported as a significant difficulty by students without symptoms more often than by those exhibiting depressive symptoms. For items 4, 5, 6, 8, and 10, no significant differences were found between the groups. It should be noted that even when statistically significant differences were identified in the difficulties measured by the ATP, the effect sizes were small (η^2 ranged only from 0.019 to 0.034).

Subsequent analyses compared the severity of different aspects of family relationships among the groups. In this case, the correlations observed were more pronounced. Group membership explained approximately 20% of the variance in the cohesion, communication, and identity variables, and about 10% of the variance in autonomy (see Table 6).

Table 6. Comparison of groups of adolescents in terms of the quality of family relationships; results of the analysis of variance

Aspects of family relationships	1. NS	2. DEP	3. DEP&AD	4. AD	Differences between groups		
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>F</i> (3. 484)	η^2	<i>Post hoc</i> <i>Games-Howell</i>
KRR1. Communication	34.17 (4.45)	28.30 (6.62)	27.62 (8.33)	34.41 (5.15)	44.10***	0.215	1–2.3; 2–1.4; 3–1.4; 4–2.3
KRR2. Coherence	35.33 (4.34)	29.33 (6.92)	28.25 (8.49)	35.14 (5.25)	46.56***	0.224	1–2.3; 2–1.4; 3–1.4; 4–2.3
KRR3. Autonomy	33.06 (4.82)	29.01 (6.20)	28.43 (8.48)	33.14 (5.08)	20.56***	0.113	1–2.3; 2–1.4; 3–1.4; 4–2.3
KRR4. Identity	34.97 (4.24)	29.96 (5.92)	29.19 (7.38)	34.45 (4.99)	38.17***	0.191	1–2.3; 2–1.4; 3–1.4; 4–2.3

Note. Multivariate analysis of variance Wilks' $\lambda = 0.76$; $F = 11.62$; $df_1 = 12$; $df_2 = 1272.90$; $p < 0.001$ *** $p < 0.001$
Source: own study

Each aspect of family relationships examined showed higher intensity in the group without symptoms compared to the groups with depressive symptoms. Table 7 presents the results of the comparison between groups in terms of seeking help.

Table 7. Comparison of groups of adolescents in terms of who they ask for help with difficulties; results of the analysis of variance

Who the teenagers asked for help	1. NS	2. DEP	3. DEP&AD	4. AD	Differences between groups		
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>F</i> (3. 484)	η^2	<i>Post hoc</i> <i>Games-Howell</i>
1. Parents	4.07 (1.03)	3.18 (1.20)	2.96 (1.32)	4.07 (0.88)	28.39***	0.150	1–2.3; 2–1.4; 3–1.2; 4–2.3
2. Teachers	1.98 (0.89)	1.43 (0.68)	1.49 (0.85)	1.86 (0.95)	14.30***	0.081	1–2.3; 2–1; 3–1
3. Peers at school	2.43 (1.04)	2.31 (1.15)	2.49 (1.20)	2.52 (1.02)	0.55		
4. Online friends	1.25 (0.69)	1.94 (1.31)	2.36 (1.51)	1.31 (0.60)	27.97***	0.148	1–2.3; 2–1.4; 3–1.4; 4–2.3
5. Other friends	3.39 (1.13)	3.63 (1.20)	3.94 (1.10)	3.59 (1.09)	4.04**	0.024	1–3; 3–1
6. Siblings	3.36 (1.18)	2.74 (1.45)	2.42 (1.41)	3.03 (1.38)	12.14***	0.070	1–2.3; 2–1; 3–1
7. Grandparents	2.88 (1.31)	2.03 (1.24)	2.09 (1.28)	2.72 (1.31)	15.01***	0.085	1–2.3; 2–1; 3–1
8. Clergy	1.92 (1.07)	1.50 (0.97)	1.70 (1.19)	1.72 (1.10)	4.50**	0.027	1–2; 2–1
9. Nobody	1.73 (1.07)	2.73 (1.42)	2.62 (1.52)	2.45 (1.45)	22.42***	0.122	1–2.3.4; 2–1; 3–1; 4–1
10. Self-management	2.95 (1.13)	3.49 (1.17)	3.66 (0.96)	3.21 (1.18)	10.05***	0.059	1–2.3; 2–1; 3–1
11. Someone else	1.27 (0.79)	1.27 (0.75)	1.70 (1.30)	1.31 (1.04)	3.82**	0.023	n.i.

Note. Multivariate analysis of variance Wilks' $\lambda = 0.618$; $F = 7.521$; $df_1 = 33$; $df_2 = 1397.20$; $p < 0.001$ * $p < 0.05$; ** $p < 0.01$, *** $p < 0.001$
Source: own study

Parents appeared to be the most frequent source of help. Seeking help from them correlated negatively with the severity of depression. A similar pattern of correlations was also observed in the case of grandparents,

teachers, siblings, and clergy. Individuals with depression and addiction were significantly more likely to seek help from friends compared to those without symptoms. People experiencing difficulties were also more likely to seek support from online friends than those without symptoms. Compared to the group without symptoms, individuals in the DEP and DEP&AD groups were significantly more likely to report that they did not ask anyone for help and preferred to cope with difficulties on their own.

Discussion

The study showed that 23.16% of students exhibited increased depressive symptoms and 10.86% displayed both symptoms of depression and Internet addiction. This means that more than one-third of respondents (34.02%) showed symptoms of depression. The high prevalence of depressive symptoms among the surveyed adolescents is consistent with the findings of other studies (Modrzejewska & Bomba, 2010; Dymowska & Nowicka-Sauer, 2015). The severity of depressive mood may result not only from difficulties related to remote learning, family relationships, or school problems, but also from the developmental crisis of adolescence itself, which can intensify mood disorders. For example, symptoms of depression may accompany the existential exploration typical of older adolescents (Szczukiewicz, 2015).

The groups of students exhibiting signs of depression included older adolescents compared to those who showed no symptoms or only symptoms of addiction. The greater likelihood of mood disorders among older children and adolescents may be related to the increasing challenges of adolescence. As Wendołowska (2017) points out, these challenges can be a major burden, particularly at the onset of adolescence, when the intensity of multiple changes coincides with limited support factors.

At the same time, it was noted that girls, compared to boys, were more often found among adolescents experiencing symptoms of depression. This phenomenon corresponds to the findings of studies conducted not only in Poland, where rates of depression are sometimes even

twice as high among females as among males (Hammen, 2006). According to Modrzejewska and Bomba (2010), depressive symptoms among 17-year-olds were observed in 33.6% of girls and 18.2% of boys.

When examining differences between the identified groups in how they experienced pandemic-related difficulties, it was noted that those with depressive symptoms expressed the least concern about their own health, the health of loved ones, and the future. However, this difference was minimal compared to students without symptoms. This may suggest that depressive mood disorders are associated with difficulties in assessing reality. Depression likely causes young people to focus more on their mood than on actual threats. They may also experience greater indifference and a sense of futility regarding their own efforts when facing difficulties (Hammen, 2006).

Symptoms of depression were clearly related to aspects of communication, cohesion, and autonomy in the family. Students exhibited less severe depressive symptoms when their families demonstrated mutual understanding and openness to alternative views and beliefs. Moreover, members of such families communicated flexibly, cooperated with one another, and provided mutual care. Overall, it can be observed that the stronger the family relationships, the better the functioning of young family members and the lower the likelihood of experiencing depressive symptoms. This finding is consistent with the conclusions of other studies (Radziwiłłowicz, 2010; Pilecki et al., 2013; Wendołowska, 2017; Radoń & Samochowiec, 2017).

Heavy Internet use affected 16.8% of respondents, including 10.86% who exhibited both aggravated symptoms of depression and addiction. These findings are consistent with those of other researchers, who report a significant proportion of adolescents experiencing problems in both areas (Grzelak & Żyro, 2021; Ptaszek et al., 2020). Students with both depressive and addictive symptoms experienced significantly more difficulties in their relationships with family members compared to the group without symptoms, and they perceived a greater number of household responsibilities as burdensome. This correlation appears evident and coincides with the results of Woźniak-Prus, Gambin, and Cudo (2020), who

found a positive correlation between the difficulties measured by the ATP and symptoms of depression among adolescents aged 16–18. The positive association between various difficulties and levels of depression and Internet addiction has also been noted by many authors (Gambin et al., 2021; Ptaszek et al., 2020; Brudzińska & Godawa, 2021; Lin, 2020; Chen et al., 2020; Weinstein & Lejoyeux, 2010; Servidio et al., 2021).

When it comes to seeking social support, adolescents who do not exhibit symptoms of depression are significantly more likely to seek help from parents, grandparents, siblings, teachers, and clergy than those who experience depressive symptoms. At the same time, these students identified their parents as a source of support more than twice as often as their teachers. In contrast, teenagers experiencing symptoms of depression (as well as depression combined with Internet addiction) were significantly more likely to identify peers and friends as their primary sources of social support. Students with symptoms were also more likely to report that they coped on their own or did not ask anyone for help.

This situation raises concerns for parents, caregivers, and educators, as it presents a serious challenge for them. They cannot expect students to speak openly about their experiences. In order to effectively help young people, parents, caregivers, and educators must be highly empathetic toward the difficulties that these adolescents are facing. The functioning of the surveyed students who exhibited depressive symptoms may also be explained, at least in part, by broader social processes related to the acceptance of norms and social authority. Researchers have observed that the greater the level of social anomie present in a given society, the higher the prevalence of mental disorders (Szczukiewicz, 2016).

This study shows that difficulties related to the pandemic are unequally associated with depression and Internet addiction. The results confirmed that the quality of family relationships is the most important factor for the healthy functioning of adolescents without depressive symptoms, even during a pandemic. Therefore, as noted by many authors, efforts to ensure the optimal functioning of family members are essential for preventing disorders among adolescents (Bednarek & Andrzejewska, 2009; Grzelak, 2015; Porzak, 2013; Chen et al., 2020; Sela et al., 2020).

Summary

The present study shows that more than one-third of adolescents exhibit symptoms of depression. Older respondents were more likely than their younger peers to display depressive symptoms. The findings also indicated that difficulties related to the pandemic are unevenly associated with depression and Internet addiction. The results confirmed that the quality of family relationships is of greatest importance for the functioning of adolescents without symptoms, even during a pandemic.

Symptoms of depression were clearly related to aspects of communication, cohesion, and autonomy in the family. Therefore, promoting the optimal functioning of family members remains an important preventive measure against disorders among adolescents. All actions undertaken by schools and parents to improve mutual communication with children, encourage the expression of needs and emotions, support shared leisure activities, and ensure early intervention in times of family crisis serve as valuable protective factors against depression and addiction.

Enhancing the diagnostic and educational skills of parents, caregivers, and educators to detect early risk behaviors in children, especially at the onset of puberty, is also an important preventive measure.

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