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Quality of Life in Schoolchildren, Their Parents and Teachers during the COVID-19 Pandemic: Psychosomatic Health, Teachers' and Parents' Burnout Along with the Prevalence of Depressive and Anxiety Symptoms

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Abstract

The COVID-19 pandemic and the related changes in the implementation of educational activities affected three groups of the school community: schoolchildren, their parents and teachers. The purpose of this study is to assess psychological functioning in these groups in the period before returning to full-time face-to-face education. The study involved 88 schoolchildren, 99 parents and 36 teachers from Poland. Life satisfaction, subjective physical and mental health complaints as well as the quality of life were assessed in students. Anxiety and depressive symptoms, teachers' and parental burnout were also studied. Additionally, the usage of such maladaptive coping strategies as rumination was assessed in teachers. The analysis revealed that lower levels of psychological well-being were shown by girls (compared to boys) and schoolchildren from grades 7 to 8 (compared to younger pupils). Teachers scored relatively

high on the anxiety/depressive symptoms and work burnout scales. In contrast, parents had lower levels of anxiety/depressive symptoms and the level of parental burnout was average. Among the participants of the educational process, pupils in the higher grades (7–8), especially girls, as well as teachers had poorer well-being. We suggest that measures should be taken to provide psychological support to these risk groups.

Keywords: school, COVID-19 pandemic, quality of life, burnout, depression, anxiety.

Introduction

The COVID-19 pandemic has greatly and widely affected people's functioning as well as their mental health and well-being. These difficulties affected not only students, but also their parents and teachers. A growing body of research suggests that lockdown is associated with poorer social and emotional well-being in adults (Brooks et al., 2020) and in children (Jiao et al., 2020; Orgilés et al., 2020). Studies in the Polish sample showed that female gender, parental status, having a relationship, at least a two-person household were associated with higher post-traumatic stress symptoms or stress, anxiety and depressive symptoms during the COVID-19 pandemic (Larionow & Mudło-Głągolska, 2021).

Schools closures have also had serious psychosocial effects in children (Spinelli et al., 2020), since school is not only a place of learning for children, but it also offers opportunities for interaction with friends and psychological comfort, support in different spheres of functioning, such as psychological support, nutrition and health care (Hoffman & Miller, 2020).

Impact of the COVID-19 pandemic on schoolchildren

As a result of the pandemic, children have experienced changes in their daily routines, activities and social interactions. Children's stress is often manifested through changes in behaviors which are likely to be perceived as challenging by parents (e.g., whining, sleep difficulties), contributing to parents' stress and altering parenting behaviors (Neece et al., 2012). As for the situation in Spain and Italy, Orgilés et al. (2020) found that over 85% of parents reported changes in their children's emotional state and behavior, with the most frequent

increase in difficulty concentrating (76.6%). A recent systematic review found that COVID-19 loneliness in children was associated with subsequent mental health issues, including depression (Loades et al., 2020).

Reference should also be made to the research conducted in Poland. It was shown that the period after school being shut down was associated with a strong crisis experience in many young people, as Bilicki (2020) points out. In a study by Bigaj and Dębski (2020), a significant proportion of adolescent students said that in the 3 months after school closure they felt much or somewhat worse than before the pandemic (18% and 30% respectively among all students surveyed). One in six students indicated that they felt a little or a lot better (9% and 8%, respectively). Poorer well-being was significantly more common among high school students compared to vocational school students or secondary school pupils. Makaruk et al. (2020) showed that students aged 13–17 had low ratings of their life satisfaction and almost 31% admitted that their well-being had deteriorated. All of these negative indicators were more common for girls than boys (Makaruk et al., 2020). In a study by The School with Class Foundation (2021), teachers identified depression as the most serious problem among students. Young people experienced headaches (16%) or stomachaches (9%) very frequently. On average, one in five respondents experienced difficulty falling asleep and one in three experienced a lack of energy (Bigaj & Debski, 2020).

Impact of the COVID-19 pandemic on parents

During the COVID-19 pandemic, the demands of many parents increased significantly while resources decreased (Griffith, 2020). Parents in self-isolation had to work, homeschool their children, and simultaneously attend to household chores. At the same time, due to the need for social distancing, gatherings with family and friends were prohibited, and most hobby activities were temporarily unavailable. Moreover, many businesses reduced the number of staff or were closed, generating financial hardship and unemployment, which were associated with parental burnout (Sorkkila & Aunola, 2020). Kerr et al. (2021) noted that parents reported high levels of depression, anxiety, and parental burnout. Furthermore, many parents reported increased negative emotions, such as anger and worry, while simultaneously feeling closer to

their children as well as offering more comfort and soothing. Anxiety, loneliness, boredom, fear, sleep disturbances, changes in concentration, irritability, and uncertainty about the future have been shown to increase (Gunnel et al., 2020; Vinkers et al., 2020). In a study conducted in a US sample by Patrick et al. (2020) it was noted that since March 2020, 27% of parents had reported worsening mental health with themselves, and 14% reported worsening behavioral health with their children. A study in a sample of Iranian parents found that mothers reported significantly higher parental burnout scores than fathers, whereas fathers had higher mental well-being scores (Mousavi, 2020). A study conducted prior to the COVID-19 pandemic outbreak had found that parental burnout affected on average 7–8% of parents. In addition, Polish parents had the highest parental burnout scores compared to parents from 41 other countries (Roskam et al., 2021).

Impact of the COVID-19 pandemic on teachers

Sokal et al. (2020) in a study in a sample of Canadian teachers found that during the first three months of the pandemic, teachers showed increasing exhaustion and cynicism, but also increased effectiveness in classroom management and a heightened sense of fulfilment. In addition, teachers' cognitive and emotional attitudes toward changes became more negative. It has been emphasized that even those teachers who successfully made it through the first wave of the pandemic may have found that their resources had become depleted over time (Sokal et al., 2020). Sánchez-Pujalte et al. (2021) indicated that Italian teachers showed high levels of burnout, with women being the most affected, reaching higher levels compared to men. It was also noted that older and more experienced professionals showed lower levels of burnout. The results of the study by Ozamiz-Etxebarria et al. (2021) revealed that a high percentage of Spanish teachers showed symptoms of anxiety, depression and stress after returning to face-to-face full-time teaching.

Purpose of research

Due to the particular importance of studying the quality of life among participants of the educational process as well as to the low representation of

such studies in Poland, the purpose of this study is to describe psychological well-being in three groups functioning in the school community: schoolchildren, parents and teachers, during the third wave of the COVID-19 pandemic.

Method

Participants and procedure

The study was conducted in one of the secondary schools in a Polish town. The respondents – teachers, students and parents – were members of one school community.

A total of 88 students participated in the study. The surveyed students' age ranged from 9 to 16 ($M = 13.34$, $SD = 1.45$). The majority of the sample was girls (71.59%).

The parent sample consisted of 99 people, 95.96% of whom were female.

The teacher group consisted of 36 individuals, 72.22% of whom were female and 25% male. One person did not specify the gender. Among the sample, 50% of the respondents were between 46–55 years old, 27.78% were above 55 years old.

Teachers aged 36–45 accounted for 13.89% of the sample and those aged 25–35 made up 8.33%. Considering the stage of professional promotion, 77.78% were certified teachers and 19.44% were appointed teachers. Only one of the surveyed teachers was a contract teacher.

The researcher asked for permission from the school management before conducting the survey. Before starting the study, the school psychologist sent a message to the teachers, students and their parents regarding the research that would be implemented, its form, purpose and use of the results.

Parents were informed and asked to give their consent for their children to participate in the study. They were also invited to participate in the part designed for them. Parents and students completed an online questionnaire. The questionnaire was sent by the school psychologist to parents and students via an electronic class register. Teachers completed the questionnaire using the paper-and-pencil method. They collected the questionnaires for completion from the school office, then left the completed questionnaires in a designated place in the office, which ensured the anonymity of their responses.

The study was conducted among students learning remotely from May 7 to May 17, 2021 (from May 17, 2021, hybrid learning began, and on May 29, all students returned to full-time face-to-face education).

Research tools

Students' well-being was assessed using the Cantril ladder method, the KID-SCREEN-10 Index, a list of eight subjective physical and mental health complaints. The severity of anxiety and depression in both parents and teachers was described based on the results of the Patient Health Questionnaire-4. The Oldenburg Burnout Inventory was used to assess teacher burnout, while the Parental Burnout Assessment was used to assess parental burnout. Teachers' rumination was assessed based on the results of the rumination subscale of the Cognitive Emotion Regulation Questionnaire.

Questionnaires for students

1. The Cantril ladder (Cantril, 1965); the Polish translation by Kleszczewska et al. (2018) was used to assess life satisfaction. It is a unidimensional scale where respondents rated their current level of life satisfaction. The subjects indicated their position on the ladder (0 being the worst possible life satisfaction and 10 being the best).

2. The Kidscreen-10 Index by Ravens-Sieberer et al. (2010) in its Polish version published by Kleszczewska et al. (2018) was used to evaluate health-related quality of life. Questions addressed physical well-being, energy level, psychological well-being, independence, relationships with parents and peers, as well as school environment (e.g., *Have you had enough time for yourself?*) during the previous week. Responses were given based on a 5-point Likert scale from 1 (*never*) to 5 (*always*) for 8 items and from 1 (*not at all*) to 5 (*extremely*) for other 2 items. Higher values correspond to a higher health-related quality of life.

3. Psychosomatic health was measured based on the frequency of eight subjective physical and mental health complaints in the last six months: (1) headache, (2) stomachache, (3) backache, (4) feeling low, (5) being irritable or bad tempered, (6) feeling nervous, (7) having difficulties in getting to sleep, and (8) feeling dizzy. This scale is a brief screening non clinical measurement of psychosomatic complaints, developed for the Health Behaviour in School-

-aged Children (HBSC) and WHO survey (Inchley et al., 2016). The Polish version was posted in the study by Kleszczewska et al. (2018), who added the additional ninth symptom “fatigue” to the questionnaire. Responses were given based on a 5-point Likert scale from 1 (*about every day*) to 5 (*rarely or never*). Higher values indicate a better health status.

Questionnaires for parents

1. Parental Burnout Assessment (PBA) by Roskam et al. (2018) in the Polish adaptation by Szczygieł et al. (2020) was used for assessing parental burnout. It is a 23-item self-report questionnaire which consists of four subscales: exhaustion in one’s parental role (9 items; e.g., *I feel completely run down by my role as a parent*), contrast with previous parental self (6 items; e.g., *I’m no longer proud of myself as a parent*), a feeling of being fed up (5 items; e.g., *I can’t stand my role as father/mother any more*), and emotional distancing (3 items; e.g., *I do what I’m supposed to do for my child(ren), but nothing more*). Items are rated on a 7-point Likert scale from 0 (never) to 6 (every day). Higher scores indicate a higher level of parental burnout. For individual parental burnout scales, Cronbach’s alpha coefficient was as follows: exhaustion in parental role – 0.93, contrast with previous parental self – 0.92, feelings of being fed up – 0.96 and emotional distancing – 0.85. For the overall score it was 0.97.

2. The Patient Health Questionnaire-4 (PHQ-4) was used to measure depressive and anxiety symptoms (Kroenke et al., 2009); the Polish version: Patient Health Questionnaire Screeners (2022). The PHQ-4 consists of four items: two items for detecting anxiety symptoms (e.g., *Feeling nervous, anxious or on edge*) and two for depressive symptoms (e.g., *Little interest or pleasure in doing things*). The response scale ranges from 0 (*not at all*) to 3 (*nearly every day*). A total score ≥ 3 for the first two items suggests positive screening of anxiety disorder and a score of ≥ 3 for the last two questions suggests depression. The total score can be also calculated, which is rated as normal (0–2), mild (3–5), moderate (6–8), or severe (9–12) levels of depressive-anxiety symptoms. The Cronbach’s alpha coefficient for the anxiety symptoms subscale was 0.63, for the depression subscale it was 0.80, and 0.77 for the overall score.

Questionnaires for teachers

1. The Oldenburg Burnout Inventory (OLBI) developed by Demerouti et al. (2003) in the Polish adaptation by Chirkowska-Smolak (2018) was used to assess two dimensions of burnout: exhaustion (8 items; e.g. *After work, I tend to need more time than in the past in order to relax and feel better*) and disengagement (8 items; e.g. *It happens more and more often that I talk about my work in a negative way*). Each subscale consists of one half of items expressed in a positive way and another one worded in a negative way. The response scale is rated from 1 (*strongly agree*) to 4 (*strongly disagree*). The overall burnout score can also be calculated. Higher scores indicate higher levels of work burnout and its dimensions. The Cronbach's alpha coefficient for the exhaustion subscale was 0.78, and for the disengagement subscale it was 0.61.

2. The above-described PHQ-4 was used. The Cronbach's alpha coefficient for the anxiety symptoms subscale was 0.80, it was 0.86 for the depression subscale, and 0.90 for the overall score.

3. The rumination scale of the Cognitive Emotion Regulation Questionnaire (CERQ; Garnefski et al., 2001) in the Polish adaptation by Marszał-Wiśniewska and Fajkowska (2010) was used for assessing such maladaptive coping strategy as rumination. The scale consists of 4 items (e.g., *I often think about how I feel about what I have experienced*). On a 5-point scale from 1 (*(almost) never*) to 5 (*(almost) always*), the respondent indicates how often they act in a certain way in a stressful situation. Higher scores indicate a higher level of rumination. The Cronbach's alpha coefficient for the rumination subscale was 0.84.

Results

Students

Boys scored significantly higher in life satisfaction than girls as it was determined by the Cantril ladder measure ($Z = 2.47, p = 0.014$) (Table 1).

Table 1. Students' life satisfaction according to the Cantril scale (% of students)

Life satisfaction	Whole sample (N = 88)	Boys (N = 25)	Girls (N = 63)
Low (0–5)	27.27	12.00	33.33
Medium (6–8)	42.05	40.00	42.86
High (9–10)	30.68	48.00	23.81
Average (SD)	6.98 (2.38)	8.00 (1.71)	6.57 (2.51)

Source: Authors' research.

Boys and girls did not significantly differ in quality of life, which was assessed using Kidscreen-10 Index ($Z = 1.41$, $p = 0.157$). The mean score of Kidscreen-10 Index was 34.35 ($SD = 6.32$).

Table 2. Presence of selected psychosomatic complaints (%) in students

Symptoms	Roughly every day	More than once a week	Approximately once a week	Approximately once a month	Rarely or never
Stomachache	6.82	10.23	10.23	13.64	59.09
Headache	5.68	11.36	11.36	19.32	52.27
Backache	11.36	12.50	9.09	9.09	57.95
Fatigue	30.68	13.64	12.50	18.18	25.00
Feeling low	11.36	11.36	13.64	13.64	50.00
Being irritable or bad tempered	17.05	14.77	17.05	19.32	31.82
Feeling nervous	17.05	13.64	17.05	21.59	30.68
Having difficulties in getting to sleep	20.45	9.09	14.77	7.95	47.73
Feeling dizzy	6.82	17.05	6.82	7.95	61.36

Source: Authors' research.

Table 2 presents the frequency of each symptom in the students. The analysis showed that boys and girls differed significantly in the frequency of most listed symptoms. Girls experienced stomachache ($Z = 2.50$, $p = 0.012$), headache ($Z = 2.93$, $p = 0.003$), backache ($Z = 3.21$, $p = 0.001$), fatigue ($Z = 2.15$, $p = 0.032$), being irritable or bad tempered ($Z = 2.02$, $p = 0.043$), having difficulties in getting to sleep ($Z = 2.71$, $p = 0.007$) and feeling dizzy ($Z =$

3.46, $p = 0.001$) significantly more often than boys. The mean scores of each symptom for boys and girls are presented in Figure 1.

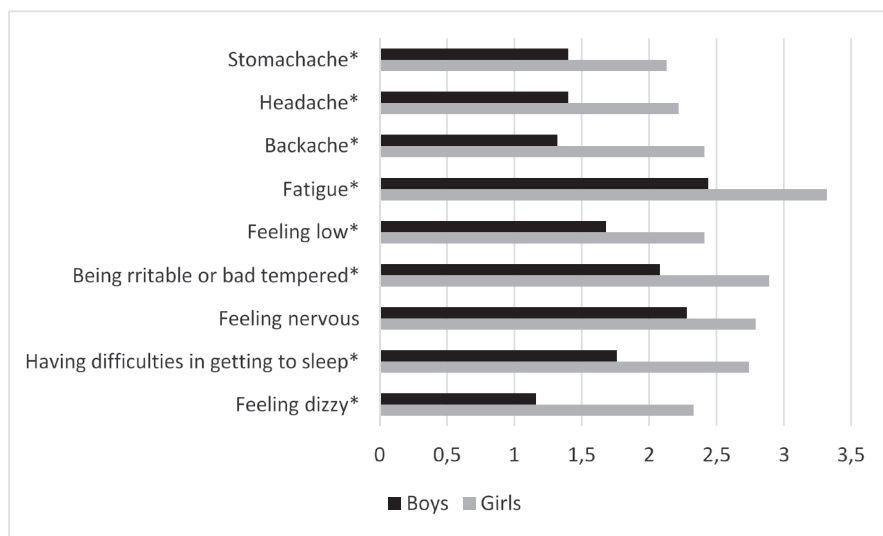


Figure 1. Severity of psychosomatic symptoms with gender distinction

Source: Authors' research.

It was verified whether the age of students influences the results of particular well-being indices. Pupils aged 9–12 years had significantly higher scores of life satisfaction measured by the Cantril ladder (9–12 years old: $M = 7.78$, $SD = 2.34$; 13–16 years old: $M = 6.42$, $SD = 2.29$; $Z = 3.14$, $p = 0.002$) and Kidscreen-10 index (9–12 years old: $M = 37.28$, $SD = 5.68$; 13–16 years old: $M = 32.33$, $SD = 5.99$; $Z = 3.59$, $p < 0.001$). Senior students were significantly more likely to experience symptoms such as stomachache ($Z = 3.57$, $p < 0.001$), headache ($Z = 3.15$, $p = 0.002$), backache ($Z = 2.60$, $p = 0.009$), fatigue ($Z = 4.03$, $p < 0.001$), feeling low ($Z = 4.55$, $p < 0.001$), being irritable or bad tempered ($Z = 3.95$, $p < 0.001$), feeling nervous ($Z = 4.27$, $p < 0.001$), having difficulties in getting to sleep ($Z = 3.29$, $p < 0.001$), and feeling dizzy ($Z = 4.32$, $p < 0.001$). Mean scores are presented in Figure 2.

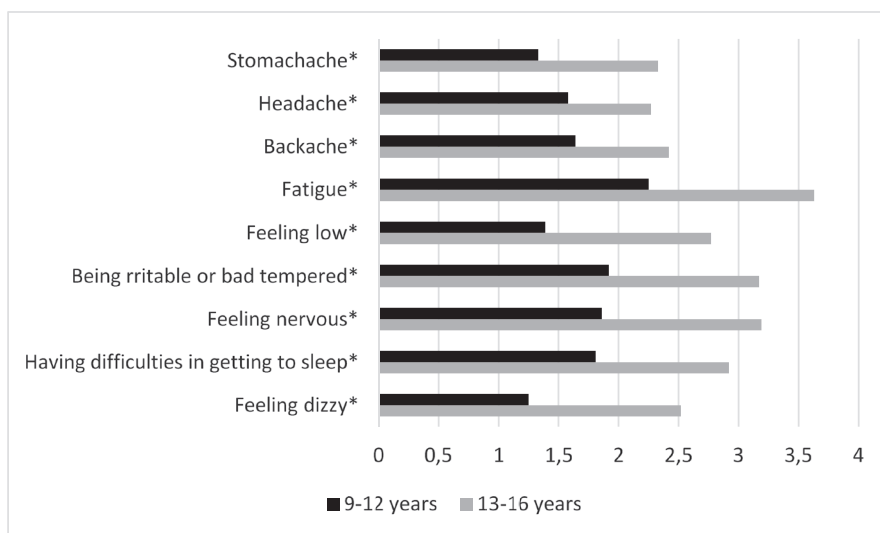


Figure 2. Severity of psychosomatic symptoms with age distinction

Source: Authors' research.

Parents

Table 3 presents the mean scores and standard deviations for the parental burnout, anxiety, and depression subscales. The highest average parental burnout score was on exhaustion in parental role subscale, whereas the lowest score was on the emotional distancing from children subscale. Anxiety and depressive symptoms score that can be considered normal (0–2) was shown by 68.69% of the parents surveyed. Exactly 28.28% of respondents showed the mild levels of depressive and anxiety symptoms (3–5), 2.02% did the moderate level (6–8) and 1.01% showed the severe one (9–12).

Table 3. Descriptive statistics on parental burnout, anxiety and depression

Variables	<i>M</i>	<i>SD</i>	<i>min</i>	<i>max</i>
Parental burnout (global score)	8.07	14.40	0.00	115.00
Exhaustion in one's parental role	4.15	6.40	0.00	45.00
Contrast with previous parental self	2.00	4.16	0.00	30.00

Table 3. (continued)

Variables	<i>M</i>	<i>SD</i>	<i>min</i>	<i>max</i>
Feeling of being fed up with parenting	1.18	3.01	0.00	25.00
Emotional distancing from children	0.74	1.91	0.00	15.00
PHQ-4 (overall score)	1.82	1.92	0.00	9.00
Anxiety symptoms	1.12	1.16	0.00	6.00
Depressive symptoms	0.70	1.03	0.00	6.00

Source: Authors' research.

Average positive correlations were found between anxiety symptoms and exhaustion in one's parental role ($r = 0.31, p = 0.002$) as well as contrast with previous parental self ($r = 0.34, p = 0.001$). A weak positive correlation was also noted with feeling of being fed up with parenting ($r = 0.20, p = 0.043$). Depressive symptoms were moderately positively related to contrast with previous parental self ($r = 0.36, p < 0.001$) and weakly positively correlated with exhaustion in parental role ($r = 0.26, p = 0.009$), being fed up with parenting ($r = 0.25, p = 0.012$) and emotional distancing from children ($r = 0.23, p = 0.20$).

Teachers

Table 4 presents the descriptive statistics for work burnout, rumination, and anxiety/depressive symptoms shown by teachers.

After analyzing the results shown on the exhaustion subscale according to the standards based on stanine scale of the OLBI presented in the research by Baka and Basińska (2016), it can be indicated that a low score was shown by 9.38% of the teachers, a medium score did by 62.50% and 28.12% of teachers had a high score. As for the disengagement subscale, a low score was obtained by 21.21% of the teachers, a medium score was shown by 63.63% of the teachers, and 15.15% had a high score.

Anxiety/depressive symptoms (PHQ-4 overall score) at a normal level (0–2) was obtained by 57.14% of the surveyed teachers. Then the mild level (3–5) characterized 25.71% of the respondents, moderate (6–8) – 14.29%, severe (9–12) – 2.86%.

Table 4. Descriptive statistics on work burnout, rumination, anxiety and depressive symptoms shown by teachers

Variables	<i>M</i>	<i>SD</i>	<i>min</i>	<i>max</i>
Burnout (OLBI overall score) (<i>N</i> = 32)	2.34	0.41	1.69	3.38
Exhaustion (<i>N</i> = 32)	2.45	0.48	1.38	3.50
Disengagement (<i>N</i> = 32)	2.24	0.39	1.50	3.25
Rumination (<i>N</i> = 35)	2.49	0.78	1.00	4.00
PHQ-4 (overall score) (<i>N</i> = 35)	2.40	2.65	0.00	9.00
Anxiety (<i>N</i> = 35)	1.37	1.52	0.00	5.00
Depression (<i>N</i> = 35)	1.03	1.27	0.00	4.00

Source: Authors' research.

Anxiety symptoms score was highly positively correlated with rumination ($r = 0.70, p < 0.001$), exhaustion ($r = 0.71, p < 0.001$) and overall burnout score ($r = 0.71, p < 0.001$), and it was moderately positively related to disengagement ($r = 0.61, p < 0.001$). Depressive symptoms were highly positively correlated with exhaustion ($r = 0.71, p < 0.001$) and work burnout overall score ($r = 0.75, p < 0.001$). There were moderate positive correlations with rumination ($r = 0.68, p < 0.001$) and disengagement ($r = 0.68, p < 0.001$). Rumination was highly positively correlated with exhaustion ($r = 0.71, p = 0.001$) and work burnout overall score ($r = 0.71, p = 0.001$). Rumination was moderately positively correlated with disengagement ($r = 0.48, p = 0.006$).

Discussion

This article reveals the results of the survey on the students', their parents' and teachers' well-being during distance learning, just before returning to face-to-face learning.

Schoolchildren

The analysis showed that among all the surveyed students, girls and pupils from grades 7 and 8 are particularly vulnerable to experiencing low psychological well-being. They are significantly more likely to experience negative psychosomatic symptoms such as headaches, stomachaches, being irritable

or bad tempered, having difficulties in getting to sleep. In the present study, girls were more likely than boys to show symptoms that suggested depressive or anxiety disorders. These findings correspond with the published reports, which showed that being female was a risk factor for higher rates of depressive and anxiety symptoms (Oosterhoff et al., 2020; Pappa et al., 2020; Zhou et al., 2020).

The frequency of such psychosomatic symptoms as being irritable or bad tempered, feeling nervous, difficulties in getting to sleep, and fatigue seems to be particularly worrying. It gives grounds to assume that a significant percentage of the examined children may suffer from anxiety or depressive disorders. Studies from China provided child and/or adolescent reports on depression, anxiety and psychological stress during the COVID-19 pandemic (Xie et al., 2020; Zhou et al., 2020; Liu et al., 2021). Zhou et al. (2020) reported that the prevalence of depressive and anxiety symptoms among the 12 to 18-year-old Chinese youth was 43.7% and 37.4%, respectively. Sleep disturbances were also present among children during the pandemic (problems initiating and maintaining sleep: 33.4% of the children studied, excessive sleepiness: 15.7%; (El Refay et al., 2021).

The older students rated their level of life satisfaction lower than younger pupils. The study by Zhou et al. (2020) also found that adolescents showed significantly higher prevalence of both depressive and anxiety symptoms compared to younger children. The findings of a longitudinal study by Norwegian researchers Hafstad et al. (2021), who assessed levels of depression and anxiety symptoms in adolescents aged 13–16 before the pandemic (February 2019) and during the pandemic (June 2020), are noteworthy. They noted a slightly higher frequency of these symptoms during the pandemic outbreak than before (6.3% vs. 5.5%). However, Hafstad et al. (2021) pointed out that the increase in the prevalence of depressive and anxiety symptoms was due to the increase in the subjects' age during the study rather than the impact of the pandemic. The Norwegian study also confirms the results of our study with a slightly higher prevalence of depressive and anxiety symptoms in girls (Hafstad et al., 2021).

The girls' poorer well-being may have been fostered by a somewhat blocked opportunity for direct contact with peers and significant adults during

the pandemic, as seeking and relying on others' help is a very important coping strategy for Polish girls, as it was indicated by Sikora and Greszta (2015).

It is important to pay attention to the health of older children who showed more psychosomatic symptoms, as well as educational problems during the pandemic. The education in grades 7–8 is a period of preparation for school exams, which are crucial for admission to high school. Adolescents face one of the most important exams in their lives, so the uncertainty and potential negative impact of prolonged school closure on educational development may have a more negative impact on adolescents than on children (Zhou et al., 2020). Comparing the results obtained in this study to those obtained by Kleszczewska et al. (2018) in a study conducted in 2014, it can be concluded that in the study sample, a higher percentage reported low life satisfaction (19.3% vs. 27.27% in the presented study). Examining these results by gender, it was shown that among girls, a low score of this variable was obtained by more than 33% of female respondents. Considering these results from the aspects of coping with stress, it is worth noting that according to Sikora and Greszta (2015) younger adolescents (13–14 years old) more often used the “ignore the problem” strategy compared to older youngsters (15–16 years old). Although this strategy belongs to the group of maladaptive strategies, during the pandemic its use may protect children from excessive anxiety. These results suggest the relevance of conducting research in this area, specifically examining the usage of coping strategies in a specific event or situation, in this case in relation to the COVID-19 pandemic.

To sum up, the results of this study are consistent with the above-mentioned studies and reflect the following regularities. Firstly, the quality of life did not differ for boys and girls. However, girls had lower life satisfaction and experienced more psychosomatic symptoms. Secondly, children aged 13–16 years old had poorer psychosomatic health and lower life satisfaction compared to younger children aged 9–12. And finally, the observed increased proportion of adolescents with low life satisfaction compared to previous years' data allows us to draw a cautious conclusion about the negative impact of the pandemic on adolescents' lives.

Parents

Referring to the scores obtained by parents on the PHQ-4, it can be noted that they were characterized by relatively lower scores of anxiety and depressive symptoms compared to teachers. About 3% of parents had scores of 6 and above on the PHQ-4, which may indicate the presence of clinical anxiety/depressive disorder. Comparing the parental burnout scores obtained in the present study to the results by Szczygieł et al. (2020) it can be concluded that they are lower. This means that the severity of parental burnout during the third wave of the pandemic is lower (nominally) than before the pandemic. This is consistent with the results by Le Vigouroux et al. (2021), who showed that levels of parental burnout severity did not differ in the studied periods, i.e., pre-pandemic vs. in-pandemic. It is worth noting that the results of this study are based on data from a sample of residents in a small rural location, and therefore may not reflect the reality. Better mood may also have been promoted by the approaching end of the academic year.

Teachers

Teachers' scores were quite high on the anxiety and depressive symptoms and burnout scales. Teachers were characterized by worse well-being than parents. Approximately 17% had 6 or more points on the PHQ-4 (vs. parents' 3%). Screening results indicate the necessity of accurately diagnosing this percentage of teachers for the presence of clinical depression and/or anxiety disorders. High correlations were found between anxiety and depressive symptoms and burnout scales. It is worth noting that burnout and depression/anxiety are different constructs (orthogonal), which are, however, positively correlated with each other, as indicated by meta-analyses and systematic reviews (Koutsimani et al., 2019). In this regard, screening for depressive and anxiety disorders as well as burnout seems to be an important aspect of prevention efforts among teachers, especially during the pandemic.

The results indicated that teachers used such maladaptive coping strategy as rumination. Rumination was strongly correlated with anxiety and depressive symptoms as well as with burnout. The use of this strategy was assessed because of its significant role in predicting anxiety/depression (Garnefski et al., 2002), burnout and stress symptoms in teachers (Košir et al., 2015). It is worth noting that teachers used rumination moderately (due to the lack of

Polish norms we referred to Dutch norms; Garnefski et al., 2002) or results obtained in a sample of young Poles (Larionov, 2021). The strong correlation between rumination and anxiety, depression, and work burnout symptoms raises the probability that assessing the use of other cognitive coping strategies (e.g., catastrophizing, blaming others or self-blame) in teachers may be useful to conduct psycho-prophylaxis of these mental health symptoms.

During the pandemic teachers had to deal with many new difficulties, ranging from the need to acquire new digital competencies through individualizing work in previously unknown settings (online), to working with students who have special educational needs digitally. Teachers experienced some difficulties in cooperating with parents (Madalińska-Michalak, 2021). These aspects may have negatively impacted their functioning. Low well-being, including high levels of teachers' work burnout negatively affects the quality of their work and, consequently, the academic success of their students.

Limitations and practical implications

The survey was conducted in relatively small samples with the representatives of a single community, making it impossible to generalize its results. The vast majority of the teachers' and parents' samples were female. In the case of teachers, this reflects the proportions in the population, whereas this cannot be justified regarding parents. Equal groups of mothers and fathers should be involved in future research.

Based on the obtained results, it can be assumed that a significant percentage of students require psychological support. Special attention should be paid to students of older grades. It would be worthwhile to provide teachers with adaptive ways of coping with difficulties. Preventive measures should engage both students and teachers.

Conclusions

1. Students in the higher grades (7–8), especially girls, and teachers are the most vulnerable to poorer psychological functioning in the school community.

2. It seems particularly important to screen teachers for depression, anxiety, and burnout because of the disturbing results in this area.

3. Measures should be taken to support pupils and teachers and to provide them with the competences they need, for example, how to cope with difficulties effectively. It is useful to integrate whole school communities by creating mutual support networks.

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