



Perceived impact of the COVID-19 pandemic on child and adolescent psychiatric services after 1 year (February/March 2021): ESCAP CovCAP survey

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Abstract

In April 2020, the European Society for Child and Adolescent Psychiatry (ESCAP) Research Academy and the ESCAP Board launched the first questionnaire of the CovCAP longitudinal survey to estimate the impact of COVID-19 on child and adolescent psychiatry (CAP) services in Europe. In this brief report, we present the main findings from the second questionnaire of the survey, one year after the COVID-19 pandemic began to hit Europe (i.e., February/March 2021). While service delivery to patients and their families was affected in a major way (reported by 68%) at the beginning of the pandemic, the majority of respondents (59%) in this second survey only reported a minor impact on care delivery. The use of telemedicine remained widespread (91%) but the proportion of CAP services partially closed or transformed to accommodate COVID-19 patients (59% in 2020) dropped to 20%. On the other hand, the perceived impact on the mental health and psychopathology of children and adolescents dramatically increased from “medium” (> 50%) in 2020 to “strong” or “extreme” (80%) in 2021. Four nosographic entities were particularly impacted: suicidal crises, anxiety disorders, eating disorders and major depressive episodes. Accordingly, this was associated with a substantial increase in the number of referrals or requests for assessments (91% reported an increase in 2021 while 61% reported a decrease in 2020). Finally, heads of the CAP departments expressed strong concerns regarding the management of the long-term consequences of this crisis, especially regarding the provision of care in light of the perceived increase in referrals.

Keywords COVID-19 · Child and adolescent psychiatry · Europe · Mental health · Children · Adolescents

The COVID-19 pandemic and the measures taken to control its spread have wreaked havoc worldwide, resulting in

more than 3 million deaths and forcing billions of people into isolation, profoundly affecting all aspects of daily life. Numerous studies have reported on the consequences of the COVID-19 crisis on mental health [1], but few have focused on children and adolescents [2, 3].

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In April 2020, the European Society for Child and Adolescent Psychiatry (ESCAP) Research Academy, a network of young clinician–scientists in child and adolescent psychiatry (CAP) [4], and the ESCAP Board launched the CovCAP longitudinal survey to estimate the impact of COVID-19 on CAP services in Europe and to assess their ability to meet the new challenges brought on by the crisis. Heads of CAP university services in ESCAP member countries were contacted by email and invited to complete a self-report online questionnaire survey (detail of the methods have been published previously [5]; some questions were modified, removed or added in the second survey of the CovCAP study). The first stage of the study (i.e., March/April 2020) yielded surprisingly consistent results, showing a substantial reduction in the number of both outpatient visits and hospital admissions and a moderate effect on psychopathology. In contrast, the effect on the organization of CAP services appeared profound, with a clear acceleration in the adoption of new technologies, including telepsychiatry [5]. In this brief report, we briefly present the main findings from the second step of the survey, 1 year after the COVID-19 pandemic began to hit Europe (i.e., February/March 2021).

The survey was distributed to 266 heads of CAP university services in 32 countries by email between February 19th and March 25th, 2021. In total, 72 responded (27.1%), among which, 60 filled in the questionnaire completely (first and last response received: 19 February and 28 March 2021, respectively). Twenty-two countries were represented, among which, Germany had the highest number of responses (12 respondents; 16.7%). We did not obtain replies from Albania, Cyprus, Finland, Iceland, Israel, Luxemburg, Norway, Romania, Serbia and Sweden.

A selection of answers with a comparison between the two time periods (if possible) is presented in Table 1. The full data set is available on request (paul.klauser@chuv.ch). In general, the overall perception of the impact of the crisis on the mental health of children and adolescents has changed markedly between the two study periods, from an impact mainly (> 50%) perceived as “medium” in April/May 2020 to an impact perceived as “strong” or “extreme” by 80% of respondents in February/March 2021 (Fig. 1a). In comparison to before the pandemic, while 61% of respondents reported a decrease in referrals or requests for assessment in March/April 2020, 91% of respondents reported an increase in February/March 2021. Accordingly, the impact on psychopathology appeared much more marked during this second phase of the study, with four nosographic entities particularly impacted: suicidal crises (83%), anxiety disorders (70%), eating disorders (64%) and major depressive episodes (61%) (Fig. 1b). Similarly, the pandemic seems to influence the psychopathology patients present with (e.g., fear of contamination) in a higher proportion of patients in February/March 2021 than in April/May 2020 (Fig. 1c).

Not surprisingly, the mental health determinant most frequently reported for both children and adolescents was school closure. However, there are differences in the other factors: parental stress appears to be the second most important determinant for children, while for adolescents, home confinement and assembly restrictions are more frequently reported (Fig. 1d).

While the provision of services to patients and their families was initially affected to a major degree (affirmed by 68% of respondents in 2020), the majority of respondents (59%) reported only a minor impact on care provision in this second CovCAP survey. The use of telemedicine has remained important (91%), but guidelines to accompany its usage did not generalize (35% in 2020; 40% in 2021). Specific measures to support bereaved children to deal with COVID-19-related grief or trauma have not become widespread either (16% in 2020; 20% in 2021). While 59% of respondents had a portion of their services closed or transformed to accommodate COVID-19 patients in April/May 2020, this proportion dropped to 20% in February/March 2021. Respondents’ major pandemic-related service delivery concerns for this second phase of the survey were not being able to maintain specific treatment groups for distinct groups of patients (70%), not being in sufficient contact with patients and families in need (60%), and having to manage the absence of some of their staff (33%).

Although the perception of their team’s mental readiness to handle this crisis did not really change from April/May 2020 to February/March 2021 (60–63, respectively, on a scale from 0 to 100), a subjective improvement was noted between the two study periods in terms of the equipment of the services’ infrastructures to manage COVID-positive patients (42 in April/May 2020 to 57 in February/March 2021, on a scale of 0–100). Interestingly, the level of acceptance of COVID-19 vaccination was perceived as high in team members of nearly three quarters of respondents and 23% of them reported a vaccination rate higher than 50% in their respective services.

Respondents’ major concerns related to CAP for when the pandemic is over were difficulties in managing the increased numbers of patients (83%), difficulties in managing families in situation of high psychosocial precariousness (83%) and reduced financial resources for CAP services (48%).

Analysis of the free comments section of the questionnaire confirmed the contrast between a reduced activity in CAP services at the beginning of the pandemic in Europe and a dramatic increase in referrals for assessment and/or hospitalization as of the end of 2020. The impact on young people’s schooling as well as an increased incidence of anxiety, depression, self-harm and suicide attempts were also highlighted. While high levels of stress and even feelings of burnout among care teams were reported, some respondents also emphasized the effectiveness of certain

Table 1 Most relevant results from the second stage (February/March 2021) of the ESCAP CovCAP survey

	April–May 2020 ^a	February–March 2021
Screening for COVID-19 in your CAP service		
How rapidly can you obtain a COVID-19 test result for an inpatient? (<i>n</i> = 61 in April–May 2020; <i>n</i> = 56 in February–March 2021; <i>n</i> [%])		
We have no experience, no inpatient has been tested by us or upon our request	7 (11.5)	1 (1.8)
Within a few hours	–	31 (55.4)
Within 24 h	37 (60.7)	21 (37.5)
24–48 h	14 (23)	3 (5.4)
48–72 h	2 (3.3)	0
72 h	1 (1.6)	0
Psychopathology in your CAP service		
How do you perceive the impact of the COVID-19 pandemic on school dropout (interruption of schooling, independently of lockdown or school closure) of children and adolescents in your region? (<i>n</i> = 64; <i>n</i> [%])		
Negligible	–	2 (3.1)
Low	–	10 (15.6)
Medium	–	16 (25.0)
Strong	–	29 (45.3)
Extreme	–	7 (10.9)
Currently, and in comparison with early 2020, prior to the beginning of the pandemic, are you seeing changes in the number of referrals or requests for assessments? (<i>n</i> = 64 in April–May 2020; <i>n</i> = 64 in February–March 2021; <i>n</i> [%])		
No	17 (26.6)	5 (7.8)
Yes, a decline	39 (60.9)	1 (1.6)
Yes, an increase	8 (12.5)	58 (90.6)
Has a patient been treated in your services whose mental symptoms seemingly directly resulted from a COVID-19 infection (post-infectious mental disorder)? (<i>n</i> = 64; <i>n</i> [%])		
I am not aware of a single patient	–	56 (87.5)
Yes, a single case	–	5 (7.9)
Yes, several cases	–	3 (4.7)
Treatment delivery in your CAP service		
Are your physicians/psychologists using telemedicine to reduce the number of personal contacts with patients and family members (<i>n</i> = 60 in April–May 2020; <i>n</i> = 64 in February–March 2021; <i>n</i> [%])		
Yes	57 (95)	58 (90.6)
No	3 (5)	6 (9.4)
Are you using guidelines for telemedicine? (<i>n</i> = 60 in April–May 2020; <i>n</i> = 62 in February–March 2021; <i>n</i> [%])		
Yes	21 (35)	25 (40.3)
No	39 (65)	37 (59.7)
Have you established a specific procedure (e.g., videoconferences) to support bereaved children to deal with COVID-19-related grief or trauma? (<i>n</i> = 61 in April–May 2020; <i>n</i> = 64 in February–March 2021; <i>n</i> [%])		
Yes	10 (16.4)	13 (20.3)
No	51 (83.6)	51 (79.7)
Provisions of your CAP service		
How are the currently imposed regulatory measures affecting your clinical services? (more than one may apply) (<i>n</i> = 56; <i>n</i> [%])		
Closure of day-care units	–	8 (14.3)
Restriction/reduction of the number of day-care patients	–	22 (39.3)
Closure of specific inpatient wards/units	–	6 (10.7)
Restriction/reduction of the number of inpatients	–	22 (39.3)
Closure of outpatient units (e.g., for medically relevant cases or emergencies only)	–	5 (8.9)

Table 1 (continued)

	April–May 2020 ^a	February–March 2021
Restricted access to outpatient units (e.g., for medically relevant cases or emergencies only)	–	22 (39.3)
To what extent is the pandemic currently affecting the provisions of services to patients and their families? (<i>n</i> = 59 in April–May 2020; <i>n</i> = 63 in February–March 2021; <i>n</i> [%])		
Not at all	2 (3.3)	3 (4.8)
To a minor degree only	10 (16.9)	37 (58.7)
To a major degree	40 (67.8)	22 (34.9)
Extremely	7 (11.9)	1 (1.6)
Since the 1st of January 2021, has any part of your service been closed or transformed for emergency COVID-19 use? (<i>n</i> = 59 in April–May 2020; <i>n</i> = 63 in February–March 2021; <i>n</i> [%])	^b	
Yes	35 (59.3)	13 (20.6)
No	24 (40.7)	50 (79.4)
If you can, please indicate the average daily number of inpatients (beds) (pertains to estimated average number of outpatients per day in 2019 irrespective of initial referrals or recontacts) at your hospital	See Changes inpatients ^c	–
Please provide today's numbers for inpatients (number of beds occupied). If you are filling the questionnaire during the weekend, estimate the average occupancy during the last week (<i>n</i> = 42 in April–May 2020)	See Changes inpatients ^c	–
If you can, please indicate the average daily number of inpatients (beds) (pertains to estimated average number of inpatients per day in 2019 irrespective of initial referrals or recontacts) at your hospital	–	See Changes inpatients ^c
Please provide the daily average number of inpatients (number of beds occupied each day on average) during the previous week (<i>n</i> = 43 in February–March 2021)	–	See Changes inpatients ^c
Changes inpatients ^c (<i>n</i> [%])		
No	6 (14.3)	18 (41.9)
Decrease	33 (78.6)	15 (34.9)
Increase	3 (7.1)	10 (23.3)
If you can, please indicate the average daily number of outpatients (pertains to estimated average number of outpatients per day in 2019 irrespective of initial referrals or recontacts) at your hospital	See Changes outpatients ^c	
Please provide today's numbers for outpatients (outpatient visits). If you are filling the questionnaire during the weekend, estimate the average occupancy during the last week (<i>n</i> = 46 in April–May 2020)	See Changes outpatients ^c	
If you can, please indicate the average daily number of outpatients (pertains to estimated average number of outpatients per day in 2019 irrespective of initial referrals or recontacts) at your hospital		See Changes outpatients ^c
Please provide the daily average number of outpatients (outpatients visits each day on average) during the previous week (<i>n</i> = 48 in February–March 2021)		See Changes outpatients ^c
Changes outpatients ^c (<i>n</i> [%])		
No	3 (7.3)	17 (35.4)
Decrease	34 (82.9)	21 (43.8)
Increase	4 (9.8)	10 (20.8)
What are your current major concerns related to the pandemic with regard to service provisions? (more than one answer may apply) (<i>n</i> = 63; <i>n</i> [%])		
We are not sufficiently in contact with patients and families in need	–	38 (60.3)
We are not able to maintain specific therapeutic groups for distinct groups of patients	–	44 (69.8)
Members of my team are not as attentive as usual to their patient	–	5 (7.9)
Many employees are absent	–	21 (33.3)
Meetings to manage the crisis prevent me from doing my work	–	16 (25.4)
We are running a deficit, because we treat too few patients	–	9 (14.3)
Other	–	13 (20.6)

Table 1 (continued)

	April–May 2020 ^a	February–March 2021
Your CAP team		
How well was your team mentally equipped to handle COVID-19-positive patients during the last 3 months? (<i>n</i> = 57 in April–May 2020; <i>n</i> = 59 in February–March 2021; mean ± SD)	60.4 ± 11.7	63.47 ± 19.99
How well was the infrastructure of your service equipped to handle COVID-19 positive patients during the last 3 months? (<i>n</i> = 56 in April–May 2020; <i>n</i> = 58 in February–March 2021; mean ± SD)	42.4 ± 35.9	57.34 ± 24.06
How do you perceive the level of COVID-19 vaccine acceptance among your team? (<i>n</i> = 61; <i>n</i> [%])		
High	–	45 (73.8)
Medium	–	14 (23)
Low	–	2 (3.3)
Which proportion of your team members have already received a first dose of a COVID-19 vaccine? (<i>n</i> = 61; <i>n</i> [%])		
0%	–	2 (3.3)
0.1–4.9%	–	4 (6.6)
5–9.9%	–	2 (3.3)
10–24.9%	–	8 (13.1)
25–49.9%	–	3 (4.9)
50–74.9%	–	14 (23)
> 75%	–	28 (45.9)
After the COVID-19 crisis		
What are your major concerns related to CAP for when the pandemic is over? (more than one answer may apply) (<i>n</i> = 63; <i>n</i> [%])		
Reduced financial resources for CAP services	–	29 (48)
Difficulties in managing the increased numbers of patients	–	50 (83)
Difficulties in managing families in situation of high psychosocial precariousness	–	50 (83)
Difficulties in managing post-infection symptoms affecting mental health	–	9 (15)
Difficulties in reopening some units in CAP services	–	10 (17)
Other	–	4 (7)

CAPchild and adolescent psychiatry, *SD* = standard deviation

^aSome questions were modified, removed or added in the second questionnaire of the CovCAP study. In the "April-May 2020" column, only answers to questions that were strictly identical between the two stages of the study are presented

^bFor the first stage of the CovCAP study (April/May 2020), the title of the question was: "Has any part of your service been closed or transformed for emergency COVID-19 use?"

^cData were recoded to measure for each respondent longitudinal changes (from the pre-pandemic period) at each time point

stress management and coping techniques and the fantastic achievement of their teams in terms of adaptability and flexibility. Finally, concerns about the future of young people's mental health also emerged, particularly for very young children and children from low socio-economic backgrounds, which should lead, according to some heads of CAP service, to strong political support for mental health policies in Europe. The complete free comments are available as supplementary material.

As previously highlighted [5], this study is not without limitations. First, the overall response rate was significantly lower than in the first part of the survey (27% vs. 50%), and only 22 countries were eventually represented, despite sending 4 reminders in total. This severely

restricted the scope of our results and the possibilities of comparison between countries. The lower response rate probably reflects a degree of weariness on the part of heads of department in the face of the multiplication of questionnaire studies, but it could also represent the intensity of their workload in this period of crisis. Second, the respondents in both surveys only partially overlap. Hence, comparisons between the two time points provided in the text and the table are based on cross-sectional data and should be interpreted accordingly. Finally, most of the questions were subject to personal interpretation and some answers also required rough estimates, which means that the data collected represent only general impressions of the heads of service.

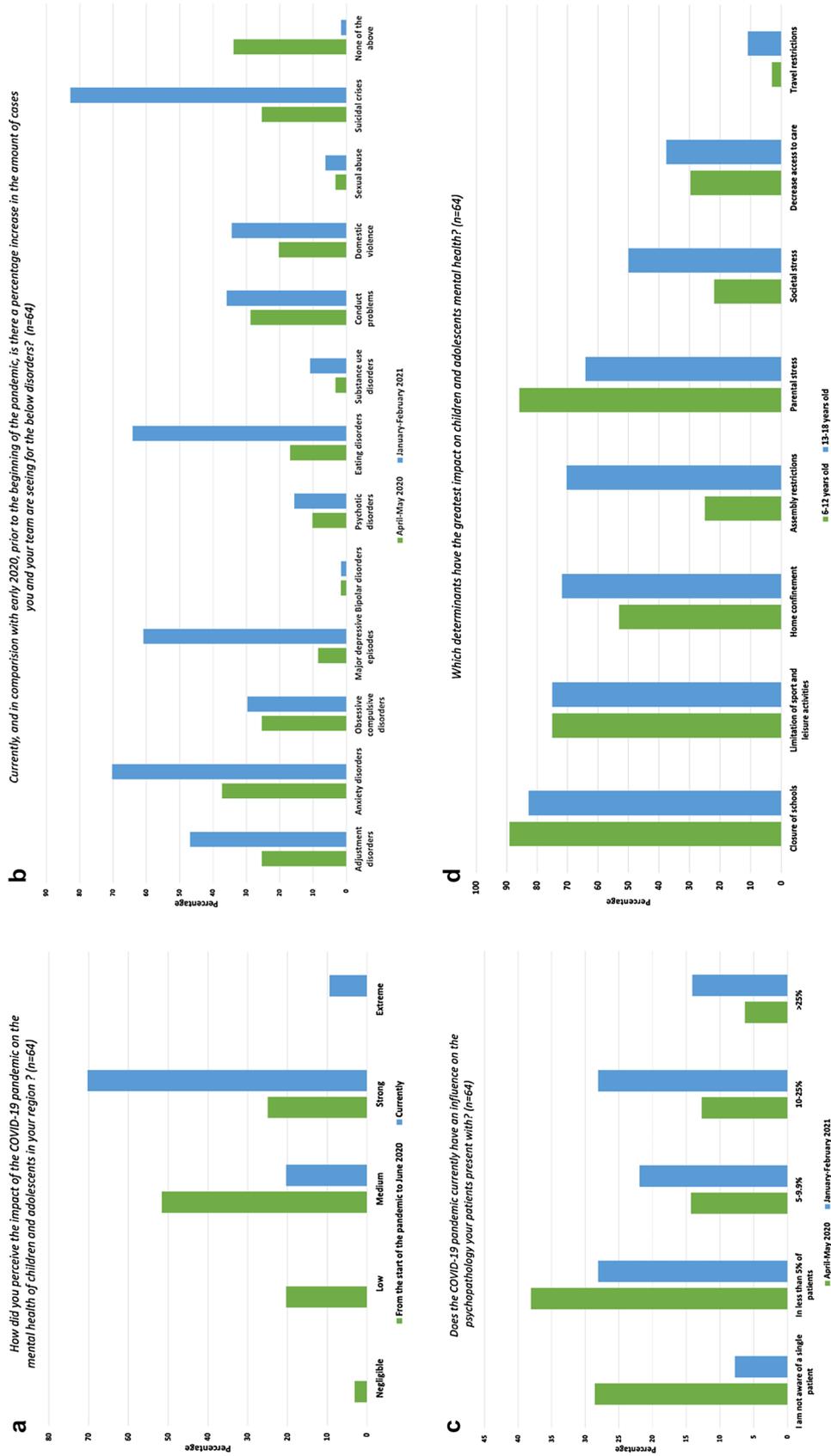


Fig. 1 Impact on psychopathology of the COVID-19 crisis as evaluated by European heads of child and adolescent psychiatry departments. The respective percentages were calculated on a total number of 64 respondents

On the one hand, the results of this second phase of the CovCAP study show a more moderate effect after 1 year of the pandemic on the organization of CAP services, with the implementation of structural adjustments and the continued use of new technologies, notably telepsychiatry. On the other hand, the perceived impact on the mental health and psychopathology of children and adolescents seems major and associated to a very substantial increase in the number of referrals or requests for assessments. Finally, heads of the CAP departments expressed strong concerns regarding the management of the long-term consequences of this crisis, especially regarding the provision of care in light of the perceived increase in referrals.

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Author contributions AR, PK, LK and JH designed the study and wrote the protocol. JH, AR and PK designed the first version of the questionnaire, which was then corrected and improved by LK, DA and members of the Board of the European Society for Child and Adolescent Psychiatry (ESCAP). JH, GGD, AR, PK and LK designed the second version of the questionnaire. AR and PK conducted the analyses and produced the first draft of the manuscript. JH, LK, GGD, and DA contributed to the interpretation of the data, drafted portions and substantively revised all drafts of the manuscript for important intellectual content. All authors contributed to and have approved the final manuscript. AR and PK take responsibility for the integrity of the data and the accuracy of the data analysis.

Declarations

Conflict of interest The authors have no conflict of interest to declare related to this study.

Ethical approval Ethics committee approval was not required for this anonymous web-based questionnaire study.

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