

Perceptions, emotional reactions and needs of adolescent psychiatric inpatients during the COVID-19 pandemic: A qualitative analysis of in-depth interviews

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Abstract

Background: The new coronavirus pandemic (COVID-19) has been accompanied by great psychological pressure on the entire population. However, little is known about how this pandemic could affect the more vulnerable population with severe mental illness.

Aims: To explore adolescent psychiatric inpatients' perceptions, emotional reactions and needs during the first wave of the COVID-19 pandemic.

Methods: Individual in-depth interviews were conducted with nine psychiatric inpatients aged 12-17 years. Five themes were initiated by interviewers through open-ended questions: (1) knowledge about the coronavirus pandemic, (2) changes in everyday routine, (3) feelings about the pandemic, (4) helpful thoughts and behaviors, and (5) practices of helping adolescents with their difficulties concerning the pandemic. A thematic analysis was conducted using line-by-line open coding.

Results: Regarding their knowledge about the impact of the current pandemic, almost all adolescents focused on information about the nature of coronavirus and existing crisis management practices. Nearly all patients identified mainly negative changes due to the quarantine state, such as restrictions on social life and personal freedom, and excessive contact with family members during home isolation. With regard to their feelings, they acknowledged anxiety about harm to self and beloved ones, mood changes within the family nucleus, the unknown, and the management of the pandemic in other countries. Avoiding thought rumination about the coronavirus and its consequences, focusing on the positive, and looking into and towards the future were reported as helpful strategies for coping with difficult feelings. Additionally, a sense of belongingness insofar as they are not alone and share a common experience, seems central to the adolescents' arsenal of coping strategies. Confidence in the authorities and the community was another particularly interesting point that emerged during the interviews. Last, our findings indicated adolescents' benefit from receiving balanced health messaging, in addition to balanced thinking within their social and family environment.

Conclusions: Better comprehension of possible mediating psychological pathways is needed in order to help clinicians, researchers and decision-makers develop psychosocial support interventions, to prevent the deterioration of mental disorders and overall functioning, as well as additional stress-related disorders.

Background

The first wave of the new coronavirus pandemic (COVID-19) struck the entire world in the first quarter of 2020 and many countries are still struggling to mitigate its magnitude on public health through strict quarantine measures, social distancing and health education strategies (1). This unprecedented phenomenon is equivalent to a mass disaster. Mass disasters affect individuals, families and entire societies and may lead to significant physical, psychological and economic consequences. The overall and continuing impact of a mass disaster may disrupt social networks of children and their families,

daily life routines and endanger the sense of security and connection with others (2). Under the pandemic threat, society's ability to facilitate the recovery of its members is dramatically reduced. The situation is getting worse as resources run out and health, education and social welfare facilities are being compromised.

In the current pandemic, besides morbidity and mortality, psychological pressure on the entire population is particularly high. Fear of infection and its outcomes, loneliness, denial, anxiety symptoms, obsessive-compulsive symptoms, boredom, frustration, irritability, depression and despair may be experienced by a significant part of the population. In addition, subsequent financial crisis and job loss, as well as social rejection, discrimination and stigma, further jeopardize mental health (3–9).

There are numerous mental health risks for children and adolescents related to the pandemic (10–14). During the acute phase of the pandemic, social distancing, increased pressure on families and reduced access to support services is observed. After the pandemic, economic recession and anxiety, stress and violence exposure may be the main issues that need to be dealt in mental health services (15, 16).

Patients with pre-existing severe mental illness are unavoidably affected by this situation and may experience further discomfort (17, 18). For example, patients in psychiatric intensive care units may experience an increased threat of a group infection (5). The psychosocial impact on children and adolescents treated in inpatient psychiatric units may be even more critical (19).

Youths' experiences during a disaster usually include three inter-connected patterns: (a) disruption of normality, (b) fear due to an objective and subjective threat to life or exposure to frightening information, and (c) mourning following a loss (loss of human life, sense of meaning, basic trust, self-esteem) (2). However, the inner experience of children and adolescents may be overlooked, even by the most sensitive observers. Therefore, clinicians and researchers should take into consideration and evaluate the type, extent, and consequences of children's and adolescents' emotional and behavioral responses. Moreover, children and adolescents with pre-existing severe mental health problems are at high-risk group for worse outcomes since access to mental health services is disrupted and their ability for adaptive coping and emotion regulation may be impaired (15, 20–22).

The aim of our research was to qualitatively investigate, through in-depth interviews, the perceptions, emotional reactions and needs of adolescent psychiatric inpatients amidst COVID-19. The method of in-depth interviews can offer the opportunity to collect detailed information regarding the comprehension, thoughts and feelings of hospitalized children and adolescents with severe psychiatric disorders. We expected that this analysis will provide preliminary insight regarding this vulnerable population in the face of an unprecedented disaster in order to help clinicians, researchers and decision-makers develop psychosocial support interventions, prevent the deterioration of mental disorders and overall functioning, as well as additional stress-related disorders.

Methods

Participants and procedure

The study included all nine inpatients aged 12–17 years that were treated during the second week of April 2020 in the psychiatric intensive care unit of the Department of Child Psychiatry, School of Medicine, National and Kapodistrian University of Athens, "Aghia Sophia" Children's Hospital. Participants 1, 2, 4, 5, and 9 were discharged from hospital to home sheltering and continued their treatment program via Skype (individual supportive psychotherapy, parent counselling and family sessions), while the remaining adolescents (Participants 3, 6, 7, 8) continued inpatient treatment. In this particular setting's modification, the first group of adolescents was interviewed via Skype, while the second group in vivo, in the psychiatric intensive care unit. Three patients were treated for anorexia nervosa, one patient for obsessive-compulsive disorder, one patient for major depressive disorder with school refusal, one patient for autism spectrum disorder and conduct disorder, one for adjustment disorder, intentional self-harm and a history of institutional upbringing, and two patients were treated for generalized anxiety disorder, one of which also had enuresis and a history of emotional neglect.

Individual in-depth interviews were conducted with every patient by one interviewer with appropriate training in the interview guide. An in-depth interview guide was developed, pilot tested and reviewed before the final administration. The average duration of each interview was approximately 20 minutes. The participants were given a brief description of the current situation related to the COVID-19 pandemic and were invited to participate in the discussion. They were then asked an open set of questions related to the aims of the present research: *(a) What do you know about the new coronavirus? (b) How has your daily life changed due to the coronavirus? (c) How do you feel about what is happening? (d) Is there anything you can think or do to feel better? (e) Is there anything other people can do to help you feel better?*

All the in-depth interviews were audio-recorded and transcribed verbatim.

Data analysis

A thematic analysis was conducted in order to explore the understanding, thoughts and feelings of children and adolescents treated in a child and adolescent psychiatric inpatient unit, using line-by-line open coding (23, 24). The concepts that emerged from the raw data were consequently grouped into conceptual categories. Constructed codes were created from in vivo codes (the exact wording used by participants in the interviews). Constant comparisons for developing themes and seeking data not conforming to each theme were conducted independently by two researchers. At the end of this process, no new information was being extracted and repetition of information was observed in each of the categories.

Results

The analysis included the themes that were initiated by interviewers through the five open-ended questions: (a) Knowledge about coronavirus pandemic, (b) changes in everyday routine due to the pandemic, (c) children's feelings about the pandemic, (d) children's helpful thoughts and behaviors, and

(e) practices of helping children and adolescents with their difficulties concerning the pandemic. Each theme is reported below, and examples of its content is illustrated with quotes from the participants.

Knowledge about the coronavirus pandemic

The concepts that emerged from the raw data and the wider conceptual categories are shown in Table 1. Information about the nature of the coronavirus was the most common answer between the participants concerning the coronavirus pandemic, including the definition of the coronavirus, the worldwide spread rate, the morbidity, the transmission risk/rate, the mortality, the outcome, previous knowledge about the pandemic and the origins of the virus.

... many people have died from all this... the older ones can easily die... (Participant 1)

...others go through it a little heavily, others lighter ... I know that mostly older people get sick ... children fortunately go through it very lightly... because, unfortunately, it is very easily transmitted by children mainly to adults (Participant 8)

A group of participants referred to the existing crisis management practices referring to the current condition in Greece and to the existing knowledge about treatment and disease prevention.

In Greece we have handled it quite well, so things are better than in other countries that have been hit harder (Participant 1)

... but fortunately, the deaths are few here in Greece (Participant 8)

... and unfortunately, it has not been found so far, at least as far as I know, a drug or a vaccine or something else... we hope to find a vaccine (Participant 2)

Whilst one participant referred to the psychosocial aftermath of the pandemic

They (infected) are afraid of the pandemic and they feel anxiety, isolation ...they can't see their beloved ones... even their friends, their relatives... unfortunately (Participant 9)

Changes in everyday life

The concepts that emerged from the raw data and the wider conceptual categories are shown in Table 2. Initially, three main conceptual categories emerged from the participants' interviews referring to changes in everyday life: positive changes, negative changes and non-important changes.

Regarding the positive changes, only two participants recognized some positive aspects impact of the pandemic on everyday life. The first one referred to precautionary measures, mentioning the existence of strict measures, the necessity of the measures and the observed compliance, as well as a sense of transience, which are considered more as helpful thoughts and beliefs to cope with his stress through the pandemic, rather than truly positive aspects of the pandemic.

... unless we consider the general condition worldwide, the strict measures that each country has taken... I understand these measures that have been taken and I believe all this is happening for our own good, so I comply with them like any other citizen... and I believe that all this will pass and we will continue our daily routine as it was before... (Participant 2)

A second participant recognized as a positive aspect of the pandemic the increased contact with beloved ones during home restriction.

... so, we are all together again... it's been a long time since we've been all together like that... it was an opportunity to spend time together... (Participant 1)

Nearly every participant mentioned negative changes in everyday life, referring to new obligatory protective behaviors, social life restraint, restriction of freedom and prohibitions, and negative aspects of increased contact with beloved ones during home restriction.

Regarding the adaptation of new obligatory protective behaviors some participants referred to new hygiene rules that must be followed and to a necessary modification of social encountering.

We have to be far from each other, we don't hug each other too much... (Participant 3)

Limitations on social life were the most commonly referred to negative change. More specifically, nearly all participants referred to the decreased contact with beloved ones, the restrictions on socializing opportunities, home confinement and school closure.

Another particularly interesting concept that emerged from quite a few participants' responses was that of restriction of personal freedom.

... obviously I can't go out whenever I want (Participant 1)

... we have to stay in the house, and we can only go out when... for some important reason, such as the pharmacy or the supermarket, and still one person at a time, etc. (Participant 2)

... we have to send a text message if we need to go out... (Participant 6)

In addition, one participant recognized a negative aspect related to the increased contact with beloved ones.

... there can sometimes be disagreements or fights, around many issues... (Participant 1)

Finally, some participants didn't acknowledge important changes in everyday life, in light of their pre-existing confinement in the inpatient unit before the pandemic began.

Personally, my daily life has not changed that much (Participant 2)

Ehm... of course in here, ok, things have changed very little ... (Participant 6)

Feelings about the pandemic

The concepts that emerged from the raw data and the wider conceptual categories are presented in Table 3. The four main conceptual categories that emerged from participants' answers were: negative feelings, positive feelings, ambivalence, and non-important changes in feelings.

Half of the participants expressed worries about possible harm to their loved ones, and one adolescent also considered the psychological impact.

I feel a bit anxious because my mum unfortunately belongs to a vulnerable group ...and I want to know that she is well, all the time... I am very concerned about my grandparents who are old... about the people who I love and care for (Participant 8)

I see my brother, who is a student and obviously was going out very often, being more irritable and getting mad easily... (Participant 1)

Possible harm to self was referred to much less by the participants:

... but ok, I can't say I am really worried about contracting it myself... (Participant 1)

Three participants expressed worry about the future and the unknown:

I'm worried how things will evolve, meaning how will I go to school next year ... what will happen with the exams ... all this stresses me out ... I like to know my program, not be like "we will see"... (Participant 1)

I have anxiety about when this thing will come to an end... (Participant 6)

I feel very... uncomfortable... (Participant 7)

Whereas two participants talked about concerns regarding the management of the pandemic from a global perspective:

In other countries cases are increasing daily or are too many... (Participant 2)

Deaths are unfortunately quite a few in some other countries –here in Greece not that many (Participant 8)

Few participants expressed sadness about the deceased or affected people in general:

I'm sad about all these people who have died, or those who are ill, and we still don't know their outcome... (Participant 2)

I also feel very bad about the other people who were free before, and now they are all homebound... (Participant 8)

However, more expressed their sorrow with regard to the lack of contact with their beloved ones.

I feel a bit sad that I can't see my dad because he is not allowed to get around since he is a high-risk individual ... (Participant 3)

I also feel sorrow that I do not see my family... (Participant 9)

Sadness was also associated with anger and boredom in some instances:

I feel sadder because I'm mainly bored... (Participant 6)

... I feel at the same time anger... and some sadness... (Participant 9)

Four of the participants reported extensively feeling confined or 'trapped' and of being deprived of their freedom. Some referred to hospitalisation as keeping their routine unchanged, and others as a condition aggravating their feelings of confinement and loneliness.

I don't feel very well ... but I manage. Everybody must feel like that, that they are boxed in a house (Participant 5)

... It would help me to be out, not in here... to be with my brothers, my family, with the ones I love. ... I cannot do the things I want when I'm shut in here, and I feel like being on my own. (Participant 7)

Several participants expressed optimism:

...well ok, I know that they (family) are cautious so I am calmer... (Participant 1)

This will not be for too long, now that the temperature is rising and it'll be warm, it will go (Participant 3)

...on the other hand, I'm happy to hear on the news that cases are decreasing daily, at least in Greece... I believe everything will be fine... (Participant 2)

Two of the participants reported positive feelings about the lockdown, referring to the increased time spent with their beloved ones.

I enjoy the days spent with my parents, because I know that when we go back to normality my mum will work until late, my dad will return to his shifts and all that... so it was a chance to be all together (Participant 1)

... but I feel some joy as well, because in this way I have more free time to be with my family, to play several games ... (Participant 9)

Some inpatients expressed ambivalence when asked about their feelings associated with the current situation. Apart from mixed feelings, two participants referred to non-significant changes in their emotions.

I feel like the other times... ok. I can play with my sisters and watch TV... (Participant 4)

Helpful thoughts and behaviors

The concepts that emerged from the raw data and the wider conceptual categories are shown in Table 4. Initially, two main conceptual categories emerged from the participants' interviews referring to things they could do to help them feel better: helpful thoughts and helpful behaviors.

Some participants referred to avoiding rumination about the pandemic as a helpful way of thinking during the pandemic. In addition, focusing on the positive aspects of the current situation, such as the low morbidity- mortality rates in Greece and knowing that beloved ones are healthy, appear to have been helpful to some participants. Another particularly interesting finding was that many participants mentioned that looking towards the future, by maintaining a belief that the situation is transient, looking forward to an upcoming return to previous daily routine, to the cessation of restrictions and making plans for the future, proved helpful to them. Moreover, two participants acknowledged the feeling that they are not alone, meaning that this is a shared experience, as a useful thought in order to help them cope with their worries.

...and generally, not to feel like I'm alone in all this... (Participant 1)

Finally, regarding the thoughts that adolescents found helpful, confidence in authorities and community seems crucial, as many participants referred to the sufficient functioning of State institutions in Greece, the citizens' compliance with the measures and their trust in the scientific community.

...and I think that Greece has taken precautionary measures early compared to other countries, and that we are one of the safest countries at the moment (Participant 6)

... there aren't many violations (Participant 1)

... we have taken our precautions ... well, and that reassures me... (Participant 6)

... both doctors and experts do as much as they can to help people feel safe... (Participant 2)

Regarding the helpful behaviors, few participants recognized that calibrating the amount of incoming information is significantly helpful. More specifically, two participants referred to their need to hear good news about the pandemic in order to feel better, whilst one participant focused on his need for limited media information and pointed out his concurrent need to keep informed about what is going on.

I generally don't sit and watch the news all the time... this doesn't help me obviously... I watch very little, just enough so as not to live in a bubble (Participant 1)

Additionally, nearly all participants referred to their need for creative leisure activities and their need to relate to others by maintaining contact with beloved ones, as well as appealing to them for comfort when needed:

Obviously, it helps to talk to my friends and not to self-isolate, and to talk as much as I can with my grandparents via Skype.... and when I'm feeling anxious, to go to my parents and be encouraged ... I

believe this... (Participant 1)

Practices of helping adolescents deal with the situation

The concepts that emerged from the raw data and the wider conceptual categories are shown in Table 5. Some participants found the overflow of information to be unhelpful and referred to their need to calibrate the flow of information received. However, they acknowledged their need to be informed about the latest developments of the pandemic. Others stated that adults offering to answer their queries and hearing positive updates was helpful.

Obviously [family] not to hide things from me, not to tell me 'everything is fine', because, ok, I wouldn't like not knowing what is going on... but I wouldn't also like them to overanalyze all this and have aimless discussions (Participant 1)

A balanced approach and mode of thinking in the adolescent's environment was identified as a helpful strategy by several adolescents, who focused on their family's positive attitude and avoidance of excessive panic:

... if a family's or the relative's, or the wider environment's general perception is positive and right, then the child does not worry that much and is relieved (Participant 2)

Just others not to feel sad and not give up (Participant 5)

Not to exaggerate... not to bring the end of the world... (Participant 1)

Emotion regulation within the adolescent's environment was also recognised as helpful by half of the participants, in particular a calm emotional climate, the family's ability to manage their own stress, having the chance to express painful feelings and receiving reassurance through discussion.

... that there will be no tension... and others not to be stressed because stress is transmittable, so I can perceive when my parents feel anxious (Participant 1)

... that I could talk to my parents or my sister about the problems that worry me (Participant 9)

... and they would tell me things like "this will go away soon", "it will not last too long, and then things will be like before (Participant 3)

The family's positive emotional climate proved to be the most commonly reported helpful aspect for the majority of the adolescents, meaning family and other people providing opportunities for discussion, showing empathy, and children feeling close to others and supported, thus avoiding loneliness. Some participants reported the physical proximity to their beloved ones as quite helpful.

When for example my relatives discuss with me, this helps me a lot (Participant 6)

... and when they understand to a great extent how we feel (Participant 2)

What I need now, I believe, is for my family to stand by me... because I don't feel alone in that way (Participant 1)

It would help me very much, if the hospital staff could press the institution staff to come and get me... as soon as possible... and then, if they could bring my brothers here to see them for a bit, but they can't actually considering where they live... (Participant 7)

Another helpful way to deal with the coronavirus pandemic, mentioned by two participants, was opportunities for shared leisure time and distractions coming from others.

... to spend our time creatively, not to have many moments that I would sit and think on my own about what will happen... so when others are next to me and draw my attention away from all this coronavirus issue, I believe this helps me a lot (Participant 1)

... when I discuss together with the people with whom I share the same space, this helps to take our minds off this (Participant 6)

One participant talked about future plans and the removal of restrictions as being comforting.

... it helps for others to tell me several things we can do and arrange when the pandemic ends, for example, discussing where we can go out, or where to spend the summer holidays (Participant 6)

Another female reflected on her thoughts that people's compliance with the strict measures would help her feel better:

Maybe if all people would isolate themselves in their home, this would be helpful for me, because there are people who don't abide by the measures and go out, and unfortunately that's how the virus is being transmitted (Participant 8)

Notably, the same participant reported that there is nothing that could help her:

I think there is nothing that could help me think a bit different about the coronavirus (Participant 8)

Which was similar to another participant:

No, I don't have anything... (Participant 4)

Two more adolescents initially could not think of any helpful practices, but soon they were able to identify specific ways through which others could help them feel better.

Discussion

The aim of our research was to qualitatively investigate, through in-depth interviews, perceptions, emotional reactions and needs of adolescent psychiatric inpatients amidst the COVID-19 pandemic. Preliminary knowledge about the diversity of subjective experience of these vulnerable adolescents in the

face of an unprecedented devastation was conducted with the aim of helping researchers, clinicians and decision-makers better understand the patients' perspective and develop tailored preventive and therapeutic interventions.

Regarding their knowledge about the impact of the current pandemic, almost all adolescents focused on information about the nature of coronavirus and existing crisis management practices. Only one participant mentioned the possible psychosocial impact of the pandemic. This fact may reflect a general tendency to underestimate the consequences of a mass disaster on mental health. Regarding changes to everyday life, nearly all adolescent inpatients identified mainly negative changes due to the quarantine state, such as restrictions on social life and personal freedom, and excessive contact with family members during home isolation. Taking into account that, in our study, all participants were in adolescence - a critical developmental phase during which a sense of autonomy must be maintained by any means (25) - the deprivation and restriction of freedom should not be overlooked. According to the treatment plan followed in each case, some of those patients that were discharged from hospital and returned home due to the pandemic found home quarantine helpful, mainly because they had the opportunity to spend more time with their family, while others were ambivalent about this restriction. On the other hand, the patients that stayed hospitalized during the pandemic focused on new hygiene rules and decreased contact with loved ones (reduced family visits) or reported no significant changes.

With regard to patients' feelings about the pandemic, they acknowledged anxiety about harm to self and beloved ones, mood changes within the family nucleus, the unknown, and the management of the pandemic in other countries. Furthermore, sadness and grief about the deceased and the lack of contact with beloved ones were mentioned, while feeling trapped as a result of numerous restrictions was another particularly interesting outcome. Concurrently, some participants who were subjected to home isolation acknowledged some positive feelings about spending more time with loved ones, or they were ambivalent about it.

Concerning adolescents' helpful thoughts during the pandemic, our findings indicate that avoiding rumination about the coronavirus and its consequences, focusing on the positive, and looking towards the future were helpful strategies for coping with difficult feelings. Additionally, a sense of belongingness insofar as they are not alone and share a common experience, seems central to the adolescents' arsenal of coping strategies. Confidence in the authorities and the community was another particularly interesting point that emerged during the interviews. Regarding helpful behaviors, both the adolescents who were discharged from hospital and some inpatients that remained hospitalized agreed that a balanced inflow and management of information, engaging in creative leisure activities, and relating to others were reported as being beneficial. Concerning practices that helped adolescents deal with the pandemic, our study indicates adolescents benefit from receiving balanced health messaging, in addition to balanced thinking within their social and family environment. Similarly, the environment's emotional regulation was recognised as a very helpful practice by adolescents. A positive emotional climate within the family proved to be the most commonly reported helpful factor for the majority of adolescents, as well as shared spare time, making future plans and recognizing people's compliance with the strict measures. However,

some adolescents did not acknowledge any helpful external intervention, reflecting their possible feelings of helplessness.

In our research, adolescents reported a wide range of negative thoughts and feelings related specifically to the pandemic. These thoughts/ feelings may be triggered by the threat of the pandemic itself, by the changes the pandemic brings to daily life and human relationships, by the reactions of family members or the adolescent social support network and may be affected by or affect pre-existing adolescent mental health problems. Therefore, researchers and clinicians need to investigate these pandemic-specific patient thoughts/ feelings, begin to understand their triggering and maintenance mechanisms, and clarify their role in the course of pre-existing mental disorders.

Furthermore, adolescents mentioned various factors/ways that help them cope with their stressful experiences in the midst of the pandemic. Listening to the patients' voices and taking into consideration their experience can enlighten us about the most effective strategies to enhance their resilience, prevent the aggravation of mental disorders they face and therapeutically address their specific needs during the pandemic.

In light of the above, it would be feasible to design personalized preventive and therapeutic interventions with targets based on the experience of this extremely vulnerable population and make complex treatment planning decisions, such as staying hospitalized or sheltering at home. Given the fact that the role of the family and social environment in triggering, maintaining and managing difficulties during this crisis proved of great importance in the adolescents' responses, their inclusion in these interventions is considered essential.

Since there is a general tendency to underestimate the consequences of a mass disaster on mental health, it is essential for researchers to monitor and report symptoms of anxiety, depression and other mental health issues in order both to better understand the psychological pathways that mediate, and to design and implement personalized interventions (15, 26). Particularly when it comes to hospitalized adolescents who are *a priori* considered a population already burdened by severe psychopathology, it is an urgent call for researchers to address how mental health consequences for these vulnerable groups can be mitigated through the pandemic, and on the impact of repeated media consumption and health messaging around COVID-19. Discovery, evaluation, and refinement of interventions to address the psychological, social, and neuroscientific aspects of the pandemic are also required (27, 28). Furthermore, it is essential for clinicians who treat adolescents to talk with both the youth and the parent about the impact of this crisis on the life of the family. Symptoms of depression and anxiety or hyperactivity may be situational for the adolescent and may resolve over time or with a supportive intervention. Major depression and anxiety disorders may develop or exacerbation of a current psychiatric disorder may occur and will require medication and/or evidence-based psychotherapy (29). It is further suggested that parents are involved in the whole therapeutic design, as worsening mental health for parents sometimes occur alongside worsening behavioral health for children, while in many cases parents can address

uncertainty and isolation and try to help their offspring cope with this new world of COVID-19 (15, 16, 30, 31).

Additionally, in our research we had the opportunity to observe adolescents in two different forms of treatment, one inpatient and another consisting of home sheltering. Sheltering at home provides adolescents with additional opportunities to interact with others via technology, a practice that was proved of great help for adolescents that were treated by distance. On the other hand, many of the anticipated consequences of quarantine (4) and associated social and physical distancing measures are themselves key risk factors for mental health issues (e.g. domestic and child abuse, and psychosocial risks) and require a thorough evaluation when deciding to modify therapeutic settings (27).

Finally, the contribution of the State's health policies in imbuing and preserving a sense of security in its citizens is highlighted. Some useful practices for families and clinicians to help adolescents cope while sheltering in isolation, include: (a) establishing a regular routine and schedule at home, (b) helping adolescents keep in touch with friends and family members via technology, (c) keeping them informed about the current situation with honesty, using words and concepts they can understand, (d) helping adolescents find accurate and up to date information but not overwhelming them, (e) developing a "shared understanding" within the family about coronavirus, and (g) making future plans (11).

Limitations

The aim of the present study was to collect critical information on an unprecedented experience from a small sample rather than generalizable results. Therefore, it cannot be claimed that the present findings reflect the whole range of perceptions and needs of the entire respective population. Moreover, future research may include in-depth interviews of parents and clinicians in order to capture different perspectives on youths' experiences.

Conclusion

Despite its limitations, the present study revealed important information about perceptions, feelings and thoughts of adolescent psychiatric inpatients during the COVID-19 pandemic. To our knowledge, there is still no other qualitative research referring to adolescent psychiatric inpatients, a particularly vulnerable population at greater mental health risk, compared to healthy adolescents. This information may be helpful for researchers, and decision makers, in order to develop mental health promotion interventions within the context of hospitalization during the pandemic and respond effectively to children's mental health problems. Despite the challenging circumstances, professionals should continue regular and emergency mental health care as far as possible in order to mitigate negative consequences for children and adolescents. Flexibility and creativity could facilitate mental health care continuation during all phases of the pandemic.

Declarations

Ethics approval and consent to participate

The Bioethics Committee of the "Aghia Sophia" Children's Hospital approved this study protocol. Written consent from the parents and oral consent from the patients were obtained prior to starting the data collection.

Competing interests

The authors declare that they have no competing interests.

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None.

Authors' contributions

GG designed the study; SM, AZ and GG carried out the analysis, interpreted the results and drafted the manuscript; MB, SC and GK assisted in reviewing the manuscript; GK supervised the study; All authors reviewed the final manuscript and gave their consent.

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Tables

Table 1 Knowledge about the pandemic

Conceptual category 1: Information about the nature of the coronavirus

Concepts

Definition of the coronavirus

Worldwide spread rate

Morbidity

Transmission risk/ rate

Mortality

Outcome

Previous knowledge about the pandemic

Origins of the virus

Conceptual category 2: Combating coronavirus pandemic

Concepts

Existing crisis management practices in Greece

Existing knowledge about treatment and disease prevention

Conceptual category 3: Psychosocial aftermath of the pandemic

Concepts

Psychosocial consequences

Table 2 Changes in everyday life

Conceptual category 1: Positive changes in everyday life

Concepts

Precautionary measures

Increased contact with beloved ones

Conceptual category 2: Negative changes in everyday life

Concepts

New obligatory protective behaviors

Social life restraint

Restriction of freedom and prohibitions

Increased contact with beloved ones

Conceptual category 3: Non-important changes

Concepts

Little change

Table 3 Feelings about the pandemic

Conceptual category 1: Negative feelings

Concepts

Worries about possible harm to beloved ones

Worries about possible harm to self

Worries about the future and the unknown

Concerns about the management of the pandemic from a global perspective

Sadness about the deceased or affected people

Sorrow with regard to the lack of contact with beloved ones

Feeling confined or being deprived of their freedom

Conceptual category 2: Positive feelings

Concepts

Optimism

Joy because of the increased time spent with beloved ones

Conceptual category 3: Ambivalence

Concepts

Mixed feelings

Conceptual category 4: Non-important changes

Concepts

Little change

Table 4 Helpful thoughts and behaviors

Conceptual category 1: Helpful thoughts

Concepts

- Avoiding rumination about the pandemic
- Focusing on the positive aspects of the current situation
- Looking into the future
- Shared experience - feeling that they are not alone
- Confidence in authorities and community

Conceptual category 2: Helpful behaviors

Concepts

- Calibrating the amount of incoming information
 - Creative leisure activities
 - Relating to others
-

Table 5 Practices of helping adolescents deal with the pandemic

Conceptual category 1: Balanced health messaging

Concepts

- Calibrating the provision of information
- Answering adolescents' queries
- Hearing positive updates

Conceptual category 2: Balanced approach and mode of thinking in the environment

Concepts

- Family's positive attitude
- Avoidance of excessive panic

Conceptual category 3: Emotion regulation within the environment

Concepts

- Calm emotional climate

Family's ability to manage their own stress

Having the chance to express painful feelings

Receiving reassurance through discussion

Conceptual category 4: Family's positive emotional climate

Concepts

Providing opportunities for discussion

Showing empathy

Feeling close to others, avoiding loneliness

Physical proximity

Conceptual category 5: Shared leisure time and distraction

Concepts

Shared leisure time and distractions coming from others

Conceptual category 6: Looking into the future

Concepts

Future plans

Future removal of restrictions

Conceptual category 7: Compliance

Concepts

Compliance with the strict measures

Conceptual category 8: Nothing

Concepts

Nothing could help