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Pandemic life in families with health anxiety symptoms, parental perspectives

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Abstract

Background: The covid-19 pandemic has influenced children and parents worldwide. The pandemic has also been suggested to especially affect and exacerbate health anxiety (HA) symptoms in children and adolescents. However, there is limited understanding of the potential mechanisms challenges of families where parents themselves experience mental health issues such as high degree of HA symptoms.
Objective: The aim of this study was to explore parental experiences of pandemic life in families with continuously high levels of HA symptoms during the covid-19 pandemic.
Method: Six parents, identified with high levels of HA symptoms, participated in qualitative individual semi-structured interviews. Interviews were analysed according to Interpretative Phenomenological Analysis principles.
Results: Three main themes emerged. Theme 1) "Anxious children in a pandemic world" explores how pandemic – independent child factors including anxious temperament may have influenced the child pandemic experience. Theme 2) "Parental influences on child anxiety" describes parental reflections on their possible influence on child anxious thoughts. Theme 3) "Living with pandemic guidelines and restrictions" demonstrates the varying parental experiences of interventions and how these may affect HA thoughts.
Conclusion: Parents who themselves experience HA symptoms see their children, who also experience HA symptoms, to be particularly susceptible and vulnerable to both content and rhetoric of pandemic information. These children may however, experience school lockdown to be anxiety relieving. Parents who themselves have illness-related fears may not see themselves as perpetuating for their child's anxious thoughts.

Keywords: Health anxiety, Qualitative Approaches, Covid-19, Child and Adolescent Mental Health, Parental worries

Introduction

The covid-19 pandemic has cost the world population many lives (1). Research agrees that covid-19 infections mostly caused milder symptoms in children and adolescents (2, 3). However, an increasing amount of research has demonstrated negative mental health consequences of the covid-19 pandemic across different ages (4-6).

In a Danish context, a recent study explored the development in psychotropic medication use and psychiatric disorders during the pandemic in the population aged 5-24. The most pronounced increase was observed in young people aged 12-17 years (7). A study focusing on parent and child experiences of home-schooling during school lockdowns highlighted the importance of the parental role in relation to children's well-being. They found a negative correlation between the children's well-being and the extent of parental worries (8).

The pandemic has been suggested to specifically influence and exacerbate health anxiety (HA) symptoms in children and adolescents (5). HA is characterized by a preoccupation with rumination and fears about one's present or future health (9). In a recent article, individuals who suffered from anxiety, including HA, were described as overestimating the probability of negative health events during the pandemic, which may have led to exacerbation of HA symptoms (10). In children and adolescents, pre-pandemic studies have found HA symptoms to be associated with internalising problems and increased health expenditures. Further,

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intergenerational transmission from parents to their children was suggested (11-13). Nested within a prospective population-based cohort, the Odense Child Cohort (OCC) (14), two cross-sectional studies exploring HA symptoms in children aged 8-11 were performed during the covid-19 pandemic in Denmark, in 2020 and 2021 respectively (15, 16). Children reporting substantial HA symptoms also exhibited higher levels of internalizing problems at age 5 in both studies. Additionally, parental high levels of HA symptoms were positively correlated with child HA symptoms in 2020. However, a more in-depth understanding of how these parents understand the child's illness-related worries during the pandemic is still needed. Therefore, the purpose of this study was to expand on findings from these two former studies by applying qualitative methods and focusing on families where both parents and children have reported high HA symptoms (15, 16). Specifically, we aimed to explore:

How parents with high levels of HA symptoms perceived and understood their child's worries about health and illness.

The parental perspective on how various aspects of the pandemic might have influenced their child's illness-related worries.

Method and design

This qualitative study was methodologically based on Interpretative Phenomenological Analysis (IPA). IPA is a qualitative method placed in the interpretative paradigm where knowledge is considered co-constructed and context-dependent. As such, IPA is a useful methodological approach to explore the specific context of a global pandemic. Furthermore, IPA appreciates the researchers' own interpretative role. Thus, IPA aims to offer insights into how people perceive and understand a specific situation and is thus well-suited to explore the particular phenomenon of living with HA symptoms as experienced by the parents, in a small sample size (17).

Setting

The study was nested in the OCC which is an ongoing population-based prospective birth cohort study on maternal and child health. Between January 1st, 2010, and December 31st, 2012, every newly pregnant woman (n = 6,707) in the municipality of Odense, Denmark, was invited to participate in the cohort study (14). Two previously described consecutive cross-sectional studies were performed during the covid-19 pandemic in Denmark (15, 16). In the first study, a questionnaire addressing child HA symptoms, covid-19 exposure, and parental HA symptoms was sent out to 7–9-year-old children and their parents from the OCC via email. Recruitment for the current study was part of the study design of the second study (16).

Participants

The study sample was recruited from the group of parents who had provided consent for participation in this qualitative interview in study two (16). The inclusion criteria were: high child HA symptom score and high parental HA symptom score in both questionnaires. Child HA symptoms were assessed with the Childhood Illness Attitude scales (CIAS), which is a self-report measure for 8–15-year-old children (18). High score child HA symptoms were defined as children with a fear factor CIAS score > 90th percentile in the study sample of the 2020 study (15). The cut-off was a pragmatic choice based on previous studies of HA in children, as no cut-off score for clinically significant HA has been defined (15). Parental HA symptoms had been assessed by the Whiteley Index 6 (WI-6), a widely used self-report measure exploring respondents' fear of being ill and whether they attribute current bodily sensations to physical diseases (19). High score maternal and/or paternal HA symptoms were defined as WI-6 scores > 75th percentile in the study of the 2020 study (15). The exclusion criteria were: participants who could not speak and/or understand the Danish language. The pre-planned sampling strategy aimed for variation regarding child sex, parental sex, parental marital status, parental education, and covid-19 vaccination status. Aliases were used for all participant names to ensure anonymity.

Data collection

In-depth individual semi-structured interviews were conducted by the first author (IKD) throughout May and June 2022. The interview setting was decided by the participants (the research unit of Child and Adolescent Psychiatry Odense or online). The interview guide was prepared in advance, and research questions were discussed and agreed upon by the entire research team. Furthermore, after the first interview, IKD and DH discussed the interview guide and made minor adjustments. The research questions focused on various aspects of the pandemic's impact on the family life, the parent's experience of their child's worries, including HA-related symptoms, and how the parents dealt with their child's concerns. All interviews were audio recorded, and field notes were taken after each interview. The interview guide with selected sub-questions is attached in Appendix 1.

Data analysis

The research group consisted of one female medical tudent (IKD) and three senior researchers (DH, NB, CUR), all of whom were consultants in child and adolescent psychiatry. DH and CUR had experience with qualitative research and IPA. DH supervised IKD on interview technique. The interviews were transcribed verbatim by IKD in the original language (Danish) using a transcription guide. Quotes were translated for publication. The coding of the interviews was assisted by NVivo 12 software (20) and performed according to IPA principles (21). An IPA-based structured, stepwise approach to analysis provided the analytical framework. Initial steps involved individual interviews, beginning with thoroughly reading each individual interview while noting initial thoughts and ideas in NVivo "annotations". Initial themes were coded using the "nodes" function in NVivo. In the next step, connections between themes were explored, and themes were clustered into main and subordinate themes. Selected interviews were independently coded by two researchers (DH and IKD), and similarities and differences in coding were discussed, with main themes agreed upon by consensus decision. Finally, a cross-case analysis was performed. The emerging themes were discussed in plenary within the entire research group, and main themes were decided by consensus decision (17).

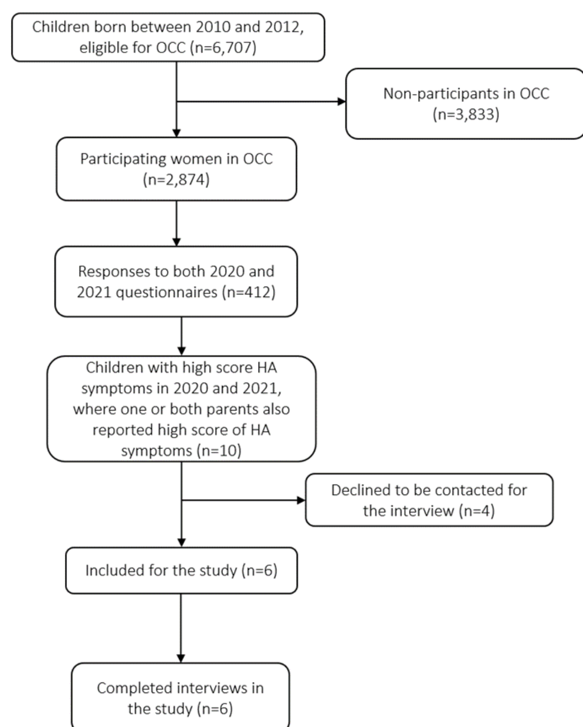

FIGURE 1. Flowchart with a recruitment overview. HA: Health anxiety, OCC: Odense Child Cohort

Ethics

This study was conducted in accordance with the second Helsinki Declaration and approved by The Regional Committees on Health Research Ethics for Southern Denmark (J. no. S-20090130).
Furthermore, it was approved by the Danish Data Protection Agency (J. no. 22/21442). Participating parents received written and oral information and provided written consent before the interviews.

Findings

Demographics

The sample consisted of all eligible families who agreed to participate. However, the predefined aims for variation were widely met (Table 1). The recruitment flowchart is displayed in Figure 1. The average interview duration was 45 minutes (ranging from 16 to 82 minutes).

TABLE 1. Participant characteristics (n=6).

	n
Sex	
Male (fathers)	1
Female (mothers)	5
Age	
30-35 years	2
36-45 years	4
Marital status	
Relationship with other parent	4
Relationship but not with other parent	1
Single	1
Education	
Short*	1
Medium long**	2
Long***	3
Children's sex (age 10-12)	
Boy	3
Girl	3
Received the covid-19 vaccine (parent)	
Yes	3
No	3
Received the covid-19 vaccine (child)	
Yes	2
No	4
Child internalizing problems at the age 3	
Yes	3
No	3
Child internalizing problems at the age 5	
Yes	2
No	2
Missing	2

**Short = ≤2 years after high school. **Medium long = 3-4 years after high school. ***Long ≥ 5 years after high school.*
The 95 % confidence interval of internalizing problems between 1½-5 years in boys and girls are CI: 3.5-9.2 (22)

Themes

Three main themes were identified, reflecting parental experiences during pandemic life in families with HA symptoms. These themes covered the parental experiences of how the pandemic and its consequences influenced family life, including their child's anxious thoughts, and how these were expressed as well as perpetuated or relieved within the context of the pandemic. The first theme, *Anxious children in a pandemic world,* describes how child factors, including pre-pandemic anxiety, may have influenced children's understanding and reaction to the pandemic. The second theme, *Parental influences on child anxiety,* portrays parental reflections on how they might influence child worries. The last theme, *Living with pandemic guidelines and restrictions,* describes how the guidelines and restrictions introduced by Danish authorities were experienced as anxiety-aggravating by some parents and children, while for others, they were anxiety-alleviating. Main themes and sub-themes are illustrated in Figure 2.

Anxious children in a pandemic world

Parents described how their child's pre-pandemic temperament, anxiety, and personal illness beliefs and thoughts affected child behaviours and well-being during the pandemic.

Pre- and post-pandemic anxiety

Some of the participating children were described by their parents as having pre-pandemic anxious thoughts and HA-related symptoms. Lilly described her daughter as having anxious thoughts and behaviours throughout her childhood, including health and illness-related worries.

> *"She is extremely afraid that we will get cancer. She is enormously afraid of anything related to diseases and hospitals. Recently, she underwent allergy testing because she had a cold. And just the fact that we had to go to the hospital and have the test done… She almost thought she was going to die if they found that she had allergies."*

Lily's daughter had HA symptoms such as fear of serious illness, which were unrelated to the pandemic and predated it. Additionally, in the aftermath of the pandemic, Lilly's daughter exhibited fears related to other diseases, rather than being specific to covid-19. Isla described her son as having an anxious temperament, with heightened awareness of his surroundings.

> *"Now another disease has arrived [monkeypox]. Wow, he just became 'alert' again, or what is it called 'aware' of what is going on around us… He reacts much more because of corona."*

Isla described an increased post-pandemic focus on health and illness in her son. She felt that his anxious reaction to information about monkeypox was influenced – and possibly exacerbated by his experiences related to the covid-19 pandemic and its

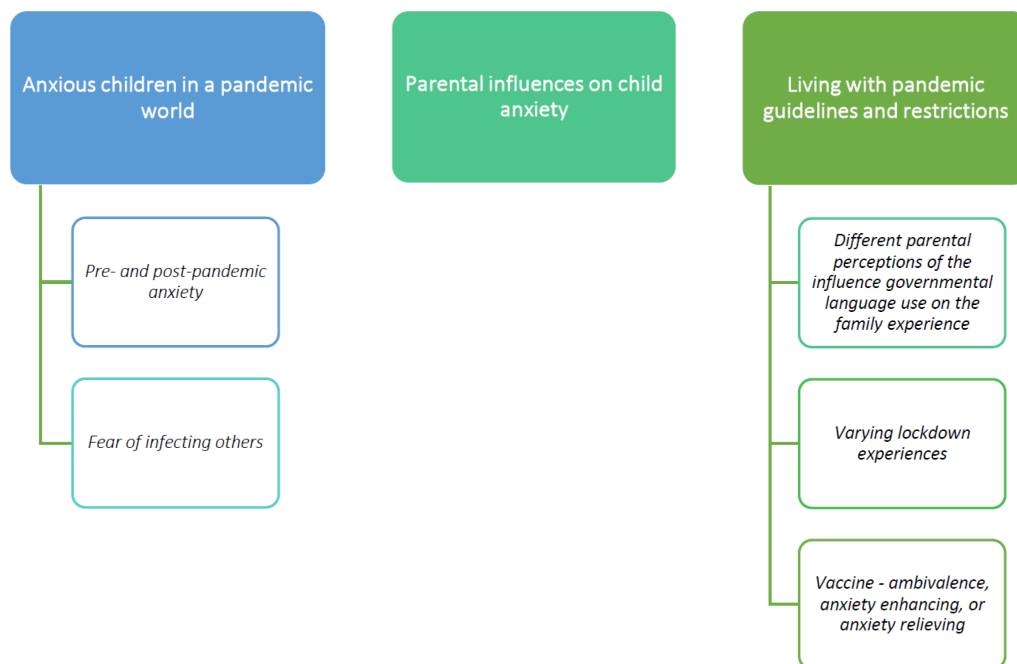

FIGURE 2. Coding tree with three main themes in the coloured boxes and five subthemes in the white boxes

consequences, thus exacerbating post-pandemic HA-related symptoms.

These descriptions suggest that some anxious children experienced HA symptoms related to the pandemic as a continuation of their pre-pandemic anxiety, including pre-pandemic HA symptoms, while for others, the pandemic may have further exacerbated their HA-related symptoms.

Fear of infecting others

The parents generally described how their children were worried about possible illness, infection, or even death of their relatives during the pandemic.

Grace described that while her son was afraid of getting covid-19 himself, he was even more worried that his older relatives would get infected.

> *"He was afraid that members of our family might get infected… And he became quite anxious, especially at bedtime."*

Thus, for some children covid-19 related worries were multifaceted and anxious symptoms including ruminations at bedtime would be focused not only on themselves but on the possible risks for relatives.

Lilly described her daughter's fears of losing her family and friends. During the pandemic, her daughter wrote a poem about her fear of losing her family and friends.

> *"She is enormously afraid of losing family and grandparents... And from what I can remember, she was also concerned about the possible risks she may be causing [e.g., by infecting family members], and well just the fact that grandma and grandpa are old."*

Lilly's daughter was not only afraid that her grandparents could get sick, but also that they might die during the pandemic. Furthermore, she was attentive to the fact that the grandparent's old age made them more vulnerable. Anxious thoughts were worsened by a fear of being the one to infect her grandparents.

Participating parents thus described their children with different covid-19 related worries. The worries revolved not only around the risk of being infected themselves but especially around the risk of being the source of infection for relatives, particularly the most vulnerable ones.

Parental influences on child anxiety

The interview addressed if and how the parents felt that their own worries and anxious thoughts about health, illness, and the pandemic might influence or exacerbate their child's anxiety. In general, participating parents felt that they did not influence pandemic or health-related anxiety in their children. Still, they were aware of possible influences of their own thoughts and behaviours on their children.

Anny described how, during the pandemic, she was mindful of possible parental influences on their children's pandemic experiences. She particularly recalled how her own worries about the pandemic was exacerbated, for example when she watched television news.

> *" We must keep our own anxiety on a level, where it is manageable, if not, it will transmit to the kids; Okay if the parents panic, then we [the kids] must panic as well."*

Anny described a conscious effort throughout the pandemic to keep herself calm and avoid parental "panic", as she was aware of the risk of transferring panic to her children. Thus, Anny felt that she could avoid influencing or exacerbating anxious thoughts in her children by remaining calm.

Leo described his son to be an anxious child pre-pandemic. During the pandemic, Leo's son was less troubled by anxiety and enjoyed lockdown life. Leo did not have any examples of how his own pandemic-related fears were transferred from him to his son. However, he explained how, pre-pandemic, his son would be affected by parental worries:

> *"If I said at the dinner table, that our house might collapse, there is no doubt that for the next couple of days, he would speculate: Will the house collapse, and then what might happen? He will ruminate on that thought. However, the thought will let go again if it is not exacerbated. "*

Thus, the father described an awareness that his child was suggestible and would be influenced by parental worries easily. However, he did not describe any similar experiences during the pandemic.

While some of the parents were aware of their children's suggestibility in relation to anxious thoughts, they generally did not feel that their own pandemic worries influenced possible child HA symptoms. Participating parents felt that they were able to keep their personal anxious thoughts and beliefs in relation to the pandemic hidden from their children and thus not influence pandemic or health-related anxiety in their child.

Living with pandemic guidelines and restrictions

The participating parents described different perspectives on the interventions, guidelines, and

information provided by the Danish government during the pandemic. These were perceived as helpful and anxiety relieving for both themselves and for their children by some parents, while others perceived interventions such as lockdowns and vaccination recommendations and the tone and manor of information delivery, as both stress and anxiety-inducing in child and family.

Different parental perceptions of the influence of governmental language use on the family experience

Anny, who lived with her husband and two daughters, described her youngest daughter, who participated in the OCC, as a happy girl without pre-pandemic psychological or psychiatric problems. In the early stages of the pandemic, Anny and her daughters watched press conferences held by the Danish prime minister. She disagreed with both the content and the delivery style of the prime minister's information and therefore stopped her children from watching later press conferences.

> *"The rhetoric they [the children] have heard from our prime minister, damn it, I feel that it is like the adults are putting the responsibility on the children. It is the children's fault that we have to lock down again or that the elderly is getting sick"*

Anny argued that the rhetoric used by the Danish prime minister was unhelpful and not suitable for children. She felt that the rhetoric implied and projected blame and responsibility for the consequences of the pandemic onto the children, thereby possibly exacerbating anxious thoughts about covid-19, such as fear of infecting the elderly.

Another participating parent, Mia, lived together with her three daughters and husband. She followed rules and restrictions rigidly and found them to relieve stress and anxiety as they provided guidance to avoid covid-19 infection, e.g., she did not allow her daughters to leave their apartment for three months to avoid being infected with covid-19 virus. A part of the family's daily routine during lockdown was to watch "Ultranyt", a news program aimed for children, provided by the national Danish television.

> *"It is really helpful with "Ultranyt" as they provide explanations to the children in child-language – if you can call it that. For example, when Mette Frederiksen [the Danish prime minister] has asked everybody to disinfect everything, then they [the children] would not understand it the same way as "Ultranyt" explains it."*

Mia did not question the content of the information provided by the government. Rather, she felt that age-appropriate information about the pandemic could increase the children's understanding of the guidelines. Thus, she experienced the information as helpful and anxiety-relieving for her children and family.

Across the study, not only the content of information and guidelines, but also the way in which information about the pandemic was provided carried importance for how it was perceived and experienced to influence children by the parents. Factual and age-appropriate information could be helpful, calming, and anxiety-relieving while information that was perceived as threatening and implying of blame could increase anxiety and incline parents to avoid watching news with their children.

Varying lockdown experiences

The lockdown profoundly influenced the family structure and dynamics for all participating families. However, accounts of how these changes affected family and child well-being varied significantly. While some parents described positive effects on child anxiety, others stressed the negative consequences of the lockdown on the well-being of the child and for the entire family.

During the pandemic, Anny worked from home, unlike her husband, while simultaneously managing the home-schooling of her children. Everyday life, family structure, and routines underwent significant changes due to restrictions and the lockdown.

> *" …well, it was really difficult and especially because we do like structure in our home. So, this week we have these plans and everybody knows, like they cook dinner that day and you cook dinner that day and so on. And that was just gone, and we had to reinvent everything again."*

Anny described the family's struggles with adapting to the new conditions, losing control over their everyday life, and having to adjust and reconstruct daily routines and normal structures due to the lockdown.

In contrast to Anny, Grace described how her who had concentration difficulties at school before the pandemic, experienced positive effects of the lockdown. For him, everyday life was less stressful as the amount of family time increased. She elaborated on how this affected her son:

> *"He seemed calmer. He could focus more easily on the things he had to do, such as schoolwork and other stuff. We got to be closer in our family."*

Grace described how her son was calmer and less anxious, and his concentration abilities for schoolwork improved during the lockdown. The family spent more time together without disruptions or stressful working days. Lockdown thus seemed to positive effect on her son's general well-being and was experienced as anxiety-relieving for him.

The lockdown had significant influences on all participating families, as daily routines and structures were changed, and activities were centred on the family and home. Several accounts suggest that some of the families living with anxiety felt content and calm at home during the lockdown and experienced it as a pleasant period. Furthermore, these parents described that their children also thrived at home during lockdowns.

Vaccine-ambivalence, anxiety enhancing, or anxiety relieving

Out of the six participating parents, three chose to get vaccinated against covid-19. Additionally, two of the six children also received the vaccine.

Most participants supported the vaccination of the most vulnerable individuals, such as the elderly. Several parents described how their children could become afraid that close family members, like grandparents, could get seriously ill from covid-19, as described in theme 1. In this context, the vaccine was perceived to be helpful for anxious children, providing reassurance that their relatives were protected from serious illness. Isla decided that neither she nor her son would get vaccinated due to the scepticism about vaccine's effects. However, she supported vaccinating her own mother.

> *" …. we could say to him, well, grandma is vaccinated. She was vaccinated because the vaccine can help her. So, we used these facts like that, and that would calm him down."*

Thus, information about the vaccine was seen as a tool to alleviate children's anxious thoughts about possible infection in their relatives and could ease their worries. However, not all parents felt enough trust in the vaccine to choose vaccination for themselves and their children.

Anny and her husband also chose not to receive the vaccination, partly due to concerns about vaccine safety and possible side-effects. Despite her scepticism, Anny explained that she wanted to let her children decide for themselves whether they wanted to get vaccinated.

> *"Well, I think I know more people who have been really, really sick from getting the vaccine than from getting the corona virus. And we also had this conversation with the children: This is the vaccine, these are the advantages, and these are the disadvantages, and you can completely decide for yourselves. Before we influenced them. And they did not want to get vaccinated."*

Anny did not trust in the safety of the vaccine and relied personal knowledge of others who had experienced side-effects. This influenced her decision not to get vaccinated. Anny consciously allowed her children to decide for themselves whether they wanted the vaccine, with the intention of not influencing their decision. However, they too chose not to get vaccinated in line with their parents. The role of the vaccine for the pandemic experience could vary among different families. Knowledge and information about the vaccine carried potential to both aggravate or alleviate anxiety. By some, the vaccine was seen to protect vulnerable subpopulations from possible serious illness and death. Thus, the vaccine could work as a protective factor, relieving child anxiety. However, it could also increase insecurity during pandemic life, depending on the families' thoughts and views about the information and safety of the vaccine.

Discussion

This qualitative study explored the experiences and understanding of the covid-19 pandemic and its consequences in families where both children and one of the parents had reported higher scores of HA symptoms. Three main themes with subthemes were identified. Theme 1) *'Anxious children in a pandemic-world'* elaborated how pandemic-independent child factors, including anxious temperament, may have influenced the way children understood and reacted to the pandemic. Theme 2) *'Parental influences on child anxiety'* described parental reflections on how they may influence child experiences, including possible anxious thoughts. Theme 3) *'Living with pandemic guidelines and restrictions'* described the varying experiences of guidelines and interventions and how these could affect HA symptoms.

The children whose parents were interviewed in this study had the highest HA scores in the OCC study population (15, 16). Our findings suggest that some of these children did not experience the lockdown and resulting school absence to negatively impacting their mental health. Instead, their parents described how some of these children were less stressed and more content at home during lockdown. This contrasts with earlier quantitative studies that primarily focused on the burden the pandemic entailed and its potential long-term adverse consequences (23, 24). A longitudinal study has previously explored changes in psychiatric symptoms before and during the covid-19 pandemic. Among participating adolescents with more severe emotional

and behavioural problems pre-pandemic, the study found a significant decrease in mean symptom scores, including depressive problems, anxiety problems, and stress problems (25). Similar results were found in a Danish study, which reported an improvement in mental well-being, loneliness, and quality of life among young people aged 18-24 with pre-existing depressive symptoms (26). Another study focused on the impact of covid-19 emergency measures for children and adolescents with and without pre-existing psychiatric diagnoses and their changes in mental health. The influence of the pandemic on participants with pre-existing psychiatric diagnoses was heterogenous, with some experiencing an increase in depression (ORs 1.96–2.23), irritability (2.08), hyperactivity (2.23), and obsession/compulsions (1.96), while others experienced a decrease in depression (3.12), anxiety (2.42), and irritability (2.13) (ORs 2.13-3.12) (27).

Concerns and worries about infecting or losing someone, especially vulnerable family members, were prominent in the study population. These findings are supported by key findings from several other studies representing families with children, where concerns about others becoming critically ill were more prevalent than worries about one's own health (28-30).

Some of the participating parents were aware of their children's suggestibility in relation to anxious thoughts. However, in general, parents felt that their own anxious thoughts did not influence their child's anxiety. This finding is somewhat surprising in the current population where both parents and children had HA symptoms, as previous research has indicated that intergenerational transmission of HA symptoms from parents to children does occur (11, 15, 31). To the best of our knowledge, no previous qualitative studies have explored the parental perspective on and understanding of possible intergenerational transmission of HA symptoms. It could be speculated that parents with HA symptoms may not easily recognize the possible transfer of anxious thoughts and feelings to their children, making it more difficult for them to avoid such a transmission of HA worries. In a Danish study, it was found that mothers with severe HA reported their children to have more emotional and physical symptoms compared to mothers with rheumatoid arthritis and healthy mothers. The children themselves in these three respective groups of mothers did not report such differences to the same degree (32).

An important finding was the variation in parental experience of the pandemic consequences, including the lockdown. Some parents expressed difficulties in managing the new everyday life with their children at home. Consistent with these findings, several studies have found the lockdown to cause increases in family stress, especially in already vulnerable families (28, 33). However, in the current context, where both one of the parents and their child reported HA symptoms during the pandemic, several accounts emphasized the more positive aspects of the lockdown, describing a renewed focus on more family time and noting that the lockdown was anxiety-reducing for some children. Some children were more comfortable and happier during lockdown compared to pre-pandemic circumstances. These findings are supported by other studies where the lockdown was described to contribute to family intimacy with better connection among family members (34, 35).

In the present study, several of the included parents and children chose not to be vaccinated against covid-19. In the Danish population, almost 80% of the population were vaccinated and the vaccine was available free of charge in Denmark (36). The parents described their scepticism and ambivalence about the vaccine safety and possible side-effects, while at the same time supporting the vaccination of the vulnerable population. A study on self-reported intentions to receive the covid-19 vaccine among vaccine hesitant individuals found similar worries about the vaccine safety and possible side-effects (37). Little trust in the reassurances and interventions by health authorities might occur in relation to HA (38, 39). This lack of trust in health authorities may exacerbate insecurity and increased anxiety during the pandemic in families.

Strengths and limitations

This study is the first to qualitatively explore the pandemic experience in families where children and one of their parents have reported HA symptoms during the pandemic.

Several measures were taken to increase the validity of the findings of the study. The study was conducted according to the consolidated criteria for reporting qualitative research statement (COREQ), and the criteria were widely met (Appendix 2) (40). Two researchers read and coded the transcribed interviews independently. The analysis was conducted cyclically with several rounds with coding and discussion, and themes were discussed within the entire research group.

Some limitations should be noted. The study focused on parents with high HA symptoms and their perspectives on how various aspects of the pandemic might have influenced their child's illness-related worries. We know from previous studies that parents' own levels of anxiety also influence how they interpret and report on their child's anxiety (32, 41). Thus, it could have been interesting to also include the perspectives of parents with a normal level of HA for comparison, as well as the perspectives of the

children themselves. However, this would have meant a considerably broader focus for the current study. Furthermore, we found it specifically important to understand the views of parents in families who might be more vulnerable due to HA under the pandemic and therefore potentially in need of support. However, these quite strict inclusion criteria meant that the number of eligible families for the study was limited, and the sample size was further reduced by the number of participants who agreed to participate. Fortunately, the included sample still widely met the predefined aims regarding the variation of sample characteristics, but the participants were mainly mothers, as only one father agreed to participate. Finally, the transcribed interviews were not returned to the participants for feedback.

Conclusion

To the best of our knowledge, this is the first study to explore how parents with self-reported HA symptoms understood and dealt with their children's worries about health and illness during the covid-19 pandemic. These parents experienced that their children, who also reported higher levels of HA symptoms, could be more susceptible and vulnerable to the public information provided about the pandemic. Specifically, some of the parents perceived such information as overwhelming and guilt inducing for the child due to the focus on the risk of one infecting others with a potentially lethal outcome.
On the other hand, the parents reported their children may be less negatively affected by school lockdown, as for them, staying at home could be anxiety-relieving and even release them from pre-pandemic stressors.

Despite describing awareness about how their words and actions could easily influence their children's emotions and behaviours, the parents might not see their own potential perpetuating role for the child's anxious thoughts. The study calls for further research to understand the complexity of these connections between child and parents when both child and parent experience HA-related symptoms.

Implication of practice

Increased knowledge of parental experiences of pandemic life in families with HA symptoms may inform clinicians on how to best support these families in managing illness-related fears, including HA symptoms in the children. Furthermore, it is relevant for the health policymakers to understand how anxious families may react to pandemic information, guidelines, and restrictions. Politicians should be aware that governmental information and rhetoric could imply blame and be experienced as fearmongering. The results of the current study can inform the development of appropriate information materials for families, health professionals, and government for future use during if another pandemic arises.

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Conflict of interest
The authors declare no conflicts of interest.

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