Barriers to Biologics: How Barriers to Dupixent for Children Influence Parents

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ABSTRACT

Dupixent is a biologic injection used to treat atopic dermatitis (AD) and asthma in individuals aged 6 months and up. Children who have AD are likely to develop asthma in their youth following the atopic march, a progression from AD to asthma. Previous research has established that barriers to Dupixent include cost, insurance issues, and racial disparities. Moreover, research has concluded that parents of children with asthma and AD both experience higher stress levels, feelings of isolation, and sleep disturbances. However, research has not established what emotional impact Dupixent barriers for children with AD or asthma have on their parents. Through contacts from online eczema and asthma forums, dermatology and asthma clinics, and the Asthma and Allergy Foundation of America, 4 parents were identified as eligible and interviewed online. These interviews were semi-structured. Exploratory questions regarding which barriers they faced, how these barriers influenced them emotionally, and how their perception of the healthcare system changed were asked. Themes around frustration, stress, and helplessness were found. Many parents reported a lack of support from insurance companies, but healthcare providers had made efforts to assist them. The interviews revealed that perceptions of the healthcare system varied based on the support and previous conceptions already held of it. These findings agree with past studies' findings that parents of children with AD and asthma report a poorer quality of life, sleep disturbances, and high emotional burdens. The findings identified insurance delays as a primary delay factor as well. The low sample size limits the generalizability of the study. However, the presence of common themes provides preliminary insight into the emotional well-being of parents with children in need of Dupixent. Additional research could identify what resources would be most beneficial to these parents and create systematic changes to the healthcare system.

INTRODUCTION

Atopic Dermatitis (AD) is a form of eczema characterized by dry, itchy, irritated skin. According to the National Institute of Allergy and Infectious Diseases, it is prevalent in 10-30% of children across the U.S (“Eczema (Atopic Dermatitis)”, 2024). Asthma is a chronic condition that affects the airflow in the lungs. According to the Centers for Disease Control and Prevention in America, around 4 million children in the U.S. have asthma (CDC, 2023). The atopic march is categorized as a progression from AD to asthma. Experts in allergy and clinical immunology have recognized AD as a potential prerequisite for the

development of asthma (Bantz et al., 2014). Many children with AD are likely to develop asthma in the future.

Dermatologists have established that childhood AD heavily impacts the emotional and psychological dynamics of the child and their families. They are affected not only by physical complexities but also by numerous social, emotional, and behavioral changes (Chamlin, 2010). Likewise, researchers specializing in family care and dermatology found that childhood eczema creates struggles for caregivers. This includes frustration with healthcare policies and reports of a lack of support (Santer et al., 2012). Similarly, researchers found that caring for children with eczema entails additional responsibilities: risk avoidance, normalization of the condition, and effective parenting. Overall, parents of children with AD had to manage basic parenting with the added responsibilities of childhood eczema (Færk et al., 2024). Parents experienced a significant decline in their quality of life (QOL), creating lifestyle changes and physiological implications.

Moreover, 40.43% of parents with school-aged asthmatic children experienced moderate to high levels of burden. The time parents dedicate to their children leads to physical and mental strain (Yang et al., 2024). A study conducted by specialists in psychology found that parents and caregivers of children with asthma experience high burdens, high levels of stress, and negative emotional states. A notable burden includes maintaining a positive family outlook, which becomes harder as their negative emotional state becomes stronger (Crespo et al., 2011). Parents of asthmatics reported a higher number of burdens placed on them due to the condition. These burdens include emotional strains on the parents themselves. Without proper access to treatment for their child's asthma, these burdens may continue to harm the emotional well-being of parents.

AD and asthma are categorized as chronic illnesses. Although there is currently no cure, treatments are available to manage and control the skin and respiratory conditions. One of these treatments includes Dupilumab (Dupixent). Dupixent is a biologic injection that works by blocking interleukin (IL-4 and IL-13), key factors in inflammation. Dupixent is FDA-approved for patients aged 6 months and older. Clinical trials expanding its use to the youngest pediatric cohort, including children aged 6 months to 5 years,s demonstrated high efficacy and safety for moderate-to-severe AD (Paller et al., 2024), making it a viable treatment across all pediatric age groups. The high success rate of Dupixent establishes its role as a highly efficacious medication for AD.

This efficacy applies to asthma as well. Specialists in pediatric pulmonology have found that Dupixent reduces asthma symptoms and improves symptom control in children (Shi et al., 2024). This raises concerns about how inaccessibility to Dupixent burdens children with AD and asthma, given that they will not be able to access these high-efficacy treatments.

Various treatment options besides Dupixent for asthma and AD exist. Topical medications are used to manage AD flares, however, long-term therapies are often needed as well. Furthermore, the safety of topical medications in pediatric care has been evaluated. A systematic study has shown that, although

topical corticosteroids TCS caused less burning and itching, TCS was the only medication class in the study linked to the thinning of the skin (Zhao et al., 2023). Dupixent has also been evaluated for its safety in children as well. A retrospective study found that Dupixent was well-tolerated in children aged 6 to 11 years with only mild side effects (Parmer et al., 2022). However, these side effects do include conjunctivitis and injection-site reactions. A clinical study found that within a cohort of children aged 6 to 11 years, 0.8% of the sample size experienced adverse effects from Dupixent (Langley et al., 2025). Thus, Dupixent is a safe and effective medication for children with AD.

Numerous biologic treatments for asthma in children have been evaluated as well. A systematic literature review has shown that among 5 different biologic treatments for pediatric asthma, Dupixent showed the most consistent and sustained efficacy. Therefore, it is the preferred long-term treatment for severe pediatric asthma (Alzayed, 2026). Another study comparing Dupixent to the other 4 biologic treatments for severe asthma found that Dupixent was associated with lower severe asthma exacerbation rates and greater improvements in lung function (Bateman et al., 2022). Dupixent has provided robust disease control.

Clinical trials have shown that in a sample of 425 individuals on Dupixent for AD, 80.7% reported adequate disease control (Kimball et al., 2023). A retrospective study analyzing 2400 patients diagnosed with asthma and on Dupixent found that the medication reduced the risk of asthma exacerbation by 44% (Blaiss et al., 2024). Although Dupixent is highly effective, it can not completely cure AD or asthma. However, the medication maintains efficacy and consistency across both conditions.

Dupixent has been analyzed for its cost-effectiveness. Previous research indicated that, based on patient results, Dupixent is a cost-effective treatment for eczema (Ferrari et al., 2023). Research has shown that Dupixent is an effective asthma treatment. However, the high cost makes it inaccessible for families (Chauan, 2025). These studies establish that, based on the efficacy of Dupixent, its price is balanced with its health outcomes. Notably, the cost-effectiveness of Dupixent also aligns with the severity of asthma and AD. Experts found that in Ireland, Dupixent was not cost-effective for moderate AD, but it was for severe AD (Barrett et al., 2023). Similarly, another study found that while Dupixent is costly, it is a cost-effective treatment for severe asthma (Ameer, 2025). The differences in results by condition severity indicate that caregivers may respond differently to Dupixent availability.

Step therapy is a critical factor in gaining access to Dupixent. Step therapy is a process that requires patients to use lower-cost medicines, and only if those treatments have failed will they be given a different, more costly drug. The majority of healthcare providers require prior authorization to approve Dupixent for asthma and AD. This requirement induces prolonged discomfort in patients with AD and asthma. The National Eczema Organization found that among the different financial strains of AD, step therapy was one of the most reported barriers (Loiselle et al., 2024). Step therapy can be a long, complex process for many, considering its financial and emotional implications.

As established earlier, AD comes with substantial costs. Step therapy only further increases these costs. For asthma, numerous barriers to Dupixent were identified by researchers. These barriers included struggles to implement in daily life, needle aversion, challenges with device use, and financial strains (Rance et al., 2026). The financial burden of Dupixent is present for both asthma and AD, making it a leading obstacle to accessibility.

LITERATURE REVIEW

Current research examining barriers to Dupixent has focused on mandated step therapy (MST). MST requires patients to try lower-cost, first-line treatments before approving biologic therapies like Dupixent. For mild-to-moderate disease, standard-of-care treatments are frequently successful and economically viable. However, in moderate-to-severe cases, these lower-tier treatments often fail due to the fact that treatment options like topical steroids and inhaled corticosteroids are more successful for mild-to-moderate cases.

Experts in medicine discovered that MST only prolongs the symptoms of eczema and results in increased healthcare costs. Furthermore, those on Medicaid are more significantly impacted by MST requirements. It was noted that 65% of patients in the process of MST did eventually get approved for Dupixent, whereas 35% were not for a multitude of reasons. This includes high copays, personal preferences, and insurance denials (Florenzo et al., 2024). Not only does MST prolong the discomfort of AD, but the other 35% that do not get approval are left to find other treatments. Likewise, prior authorization has also been recognized as a barrier to Dupixent for patients with asthma. Prior authorization for biologics, such as Dupixent, creates a higher risk of exacerbations (Dudiak et al., 2021). Moreover, these added healthcare costs place high financial burdens on families and pressure on parents.

The price of Dupixent serves as another potential barrier to gaining access to the treatment, specifically for low-income families. AD and asthma are highly associated with increased financial burden. Specialists in dermatology have determined that caregivers of children with AD report increased out-of-pocket costs, with around ≥ $1000 being associated with severe AD flares (Chovatiya et al., 2023). Many parents perceive childhood asthma as a financial burden, with the percentage of parents reporting this increasing with poorly controlled childhood asthma (Patel et al., 2012). These high costs and burdens may serve as barriers to caregivers gaining access to treatments for the child. In fact, although Dupixent is cost-effective, its annual cost was $36,000. While Dupixent's direct cost is expensive, the use of the treatment could decrease indirect payments (Blaiss, 2018). While this strengthens the cost-effectiveness of Dupixent, it still serves as a barrier for families with lower incomes, given that Dupixent is still meant to be taken with other AD and asthma treatments.

Specialists in allergy and immunology established that those on Medicaid experienced more denials of biologic treatments for asthma, indicating inequities in care (Robinson and Lieberman, 2024). Parents on

Medicaid are disproportionately less likely to be prescribed Dupixent for their child's asthma due to the high costs.

Moreover, the cost of biologic treatments also alters the parents' perceptions of them. Experts in pediatric allergy and immunology demonstrated that in a sample size of 500 caregivers, around half of them were not convinced of the efficacy of biologics because of the high cost (Hernandez-Trujillo et al., 2024). High costs steer parents away from accessing treatments for their child and also induce them to question the likelihood of the treatment's success. Due to this barrier, many children may never get to use Dupixent as a treatment for their asthma, potentially leading to prolonged discomfort. Childhood asthma adds financial and emotional burdens to their parents. Without the means to treat the condition, the burdens parents face are unlikely to resolve.

The implications of Dupixent's cost introduce a discussion around different socioeconomic statuses and their relation to the treatment. A retrospective study found that different racial groups had different chances of being prescribed Dupixent. More specifically, Black and Hispanic patients had significantly lower chances of being prescribed the treatment. This is likely due to differential access to care, cultural differences, and socioeconomic factors. (Jonsdottir et al., 2024). Their findings introduce a new barrier to Dupixent accessibility: racial disparities. The results also highlight the systematic inequalities in Dupixent distribution, potentially impacting parents of these underserved racial groups.

Broader research on parents' views on AD treatment has also been conducted. Interviews revealed that there was no one treatment, specifically an emollient, that worked for all or most children with AD. Parents also indicated frustration with healthcare providers and treatment options (Sutton et al., 2022). The lack of a widely effective emollient for AD makes Dupixent a valuable treatment option for effectively managing AD due to its efficiency. A lack of access to a highly effective treatment like Dupixent could potentially invoke feelings of guilt and heighten stress in parents.

Research has established that childhood AD and asthma create financial and emotional burdens on the parents of the child. Dupixent has also been proven to be an effective, but often inaccessible treatment, as a result of insurance, step therapy, cost, and disparities in distribution. Based on previous research, these barriers to Dupixent, combined with the emotional well-being of parents of children, will likely result in heightened negative emotional implications for the parents. Through semi-structured interviews, the emotional response parents have when facing barriers to Dupixent accessibility will be measured.

Dupixent is marked as a somewhat cost-effective and successful treatment option for children with AD and asthma, chronic conditions that not only negatively impact the child's QOL, but also the parents'. It is necessary to identify specifically how these parents feel when dealing with different aspects of their child's condition, especially when successful treatments do exist but are not attainable. Since AD is found in 10-30% of children, and asthma in around 4 million children, many parents and caregivers experience the negative effects of it, including a weaker QOL, mental health issues, and economic instability. Assessing these emotions and their connections to treatment barriers is essential to form healthcare

policies and create systems to provide comfort to these parents. Moreover, by examining the parents' mental health, the systematic gaps in Dupixent distribution can be filled.

Research up to this point has concluded that Dupixent can be inaccessible for a multitude of factors, including insurance policies, mandated step therapy, racial disparities, and the cost of treatments. It has been established that childhood AD and asthma negatively impact the QOL of parents in numerous ways. Moreover, the high financial burdens of childhood AD and asthma have also been measured and evaluated. Research on these barriers to Dupixent, combined with the financial and emotional strain of childhood eczema and asthma on the emotional state of parents, has not been conducted yet. There is a gap in the literature examining the emotional impact on parents of restricted Dupixent access for childhood AD and asthma.

The healthcare policies in place for Dupixent, combined with ADs' and asthma's burdens on families, highlight the need to evaluate how barriers in Dupixent approval for AD or asthma in children impact parents' emotional well-being. It was hypothesized that barriers to Dupixent for a child's AD or asthma will result in heightened guilt and sadness in parents, as well as a negative perception of the U.S. healthcare system.

METHODS AND MATERIALS

A qualitative approach was sued to explore how barriers to Dupixent for children emotionally impact parents. Semi-structured interviews were conducted with parents of children with AD and asthma. This method was determined based on past research. Semi-structured interviews ensure consistency throughout the interviews but also allow participants to express their thoughts freely.

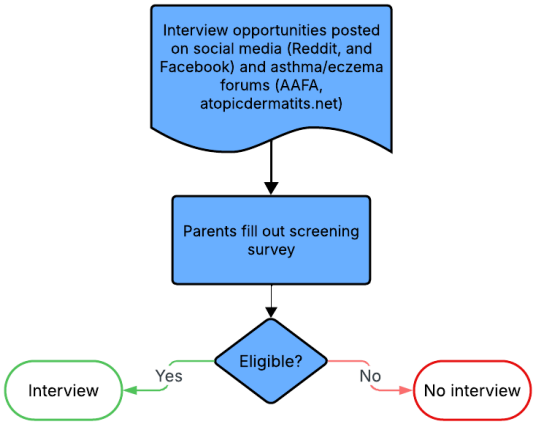
In a study examining the emotional state of caregivers of AD, semi-structured interviews were used to collect data (Santer et al., 2012). Another study that examined parents' and children's perceptions of enoillments also used semi-structured interviews for data collection (Sutton, 2022). The research aims to answer and analyze parents' mental health and well-being. Semi-structured interviews effectively articulate the varied perceptions of parents.

Eligibility

The participants must be the parents of children with AD or asthma and have experienced some sort of barrier to Dupixent accessibility to be eligible for the interview. Parents were contacted through Facebook groups dedicated to childhood asthma and eczema, Reddit communities focused on eczema biologics, the National Asthma and Allergy Foundation (AAFA), and Atopicdermatits.net. 40 asthma and dermatology clinics across the U.S. were also contacted. Parents filled out a Google form screening survey confirming they experienced barriers to gaining access to the treatment (See Appendix A), what these barriers were,

and whether their child had AD or asthma. If parents had met the requirements and consented to the study (See Appendix E), they were invited to an online interview.

Figure 1. Eligibility Flowchart



Data collection

The semi-structured interviews included both predetermined, open-ended questions and non-fixed questions. Parents gave personal anecdotes about their experiences with Dupixent barriers for their children, and follow-up questions were then asked, encouraging the parents to expand on their thoughts and what they had shared. The flexibility of the questions allowed parents to fully articulate their emotions and experiences. There was no set time for the interviews, allowing parents to share as much information as they felt comfortable.

The interview questions focused on 3 main topics: parents' experiences accessing Dupixent, the barriers they faced, and their emotional responses to these barriers. Parents were then asked follow-up questions based on their responses, prompting them to further explore the topic. 4 exploratory questions were created to be used to set a premise for the interview:

1. What barriers have you encountered when trying to access Dupixent for your child?
2. How did that process make you, as a parent, feel
3. Were there any resources provided for you?
4. Did your perspective on the healthcare system change?

The interviews were recorded via Zoom. Transcriptions of the interviews were created through Eleven Labs IO. These transcriptions were uploaded to a document and edited verbatim to match the recording, with all identifying information redacted.

A thematic approach was used to analyze the results. Codes were manually created using a bottom-up approach and primarily centered around emotions (See Appendix C). They were then grouped to identify themes. These themes represented an overarching emotional impact of Dupixent inaccessibility on parents. The results were then analyzed to identify the correlation between Dupixent barriers and parents' emotional well-being.

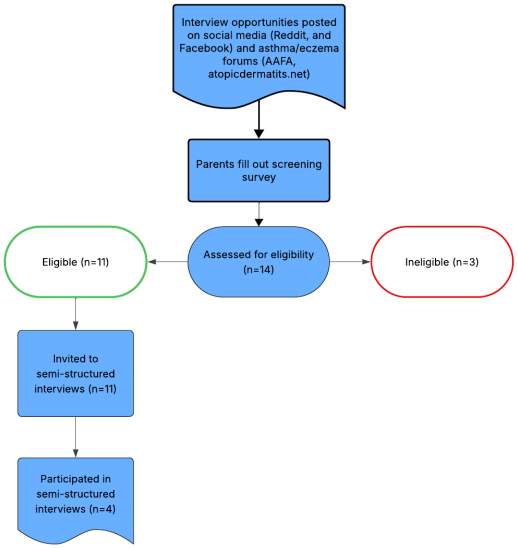
Ethics

Before conducting the interviews, ethical standards were considered and met. The participants were fully informed about the study's purpose and where the information would go. Once participants provided consent, they were also notified that they had the right to withdraw from the interview at any time. Participants were also given the right to skip any questions if they felt uncomfortable. The interviews were conducted with the parents online via Zoom and recorded, with permission from the participants, through the program. Additionally, with permission, Eleven Labs IO was used to transcribe the interviews. This transcription was then uploaded to Google Docs and edited to redact any identifying information and to keep all participants and names mentioned anonymous to protect confidentiality.

RESULTS

Over 5 months, interview opportunities were posted on various online platforms targeted to parents of children with AD or asthma. A screening form was published, and 14 parents showed interest. Of those 14 parents, 11 were found to be eligible for an interview, and 4 had participated in a semi-structured online interview. The interviews took place between January 2026 and March 2026. The 4 exploratory questions were asked in each interview (See Appendix B).

Figure 2. *Recruitment Flowchart*



The findings revealed themes around emotional distress, implications of emotional distress, perceptions of the healthcare system, and emotional resolutions. The themes were then categorized into subthemes with aligned testimonies (See Appendix D).

Theme 1: Emotional distress

Table 1

Subtheme 1: *"Emotionally, It's Frustrating."*

Parent 3	"Uh, it, it was more frustrating than anything else because, like I said, they, they have asthma, and they were doing really well on all the medication that they were taking. So to know that now I, I don't know what-- how they're going to react to not having one of the medication was really frustrating."
Parent 1	"I mean I felt kind of frustrated with the insurance."
Parent 4	"It's emotional when you have a child who's going through something and you know there's medicine that works. It works very well, but it's hard to get to. It's emotionally, it's frustrating.

Table 2
Subtheme 2: *"I Felt so Stressed"*

Parent 1	"The process was very stressful. Even the process of—for approval and it made, it made me anxious, seriously."
Parent 2	"I felt so stressed because of all the complexity."
Parent 4	"Sure. Yeah. Well, I know there's a time where my daughter didn't get her weekly shot that she needs. So I did stress out because I didn't know what would happen."

Table 3
Subtheme 3: *"I am at Their Mercy"*

Parent 3	"Yes. It, it, it really felt like, um... Oh, I guess it feels, it still feels like I am at their mercy, even with the new medication that I'm about to take…I don't know what could happen because I am at the mercy of my insurance to cover the cost"
Parent 1	"Yeah. Actually, I, I just-- I own a small, just a small-scale business that we just manage in, in feeding my fam- my family, I, my son, and my wife, you understand, so... Imagine me spending almost half of the money I made on all these things just to make my son better. And then we get to buy food, then after buying food and buying the drinks and everything, we don't have enough to pay, to even pay for rent. So I actually, I feel bad for myself"
Parent 4	"There's not a lot that's very clear with what insurance covers, what it doesn't. And then you just end up spending a lot of time with people, not knowing whether or not they're writing down in the notes that, hey, you called and you requested this."

The next major theme identified was the implications of emotional distress.

Theme 2: Implications of Emotional Distress

Table 4

Subtheme 1: *"I Did Lose Some Sleep"*

Parent 1	"I don't get to sleep because wh- when my son just starts itching himself, I feel for him. I—actually, it makes me depressed because I know how it feels. I know how it feels for this, for my son."
Parent 4	"So yeah, I mean, I did lose some sleep a night that week, worried about it…Yeah, that definitely weighs on you."

Table 5

Subtheme 2: *"Let Down"*

Parent 4	"You feel like you're letting down your child if you don't get this medication."
Parent 1	"Because for…getting approved, it, it took a lot of time, which it, it, um, it left my child in distress and uncomfortable, you understand? So the... And most times I don't, I don't get to sleep because wh- when my son just starts itching himself, I feel for him."
Parent 3	"I started researching into that, which kind of made me spiral a little more 'cause that, that's a different topic because that medication has its own thing"

Themes regarding healthcare support and the varying levels of it for parents were found as well.

Theme 3: Healthcare support

Table 6

Subtheme 1: *"Nothing"*

Parent 1	"No, no. They didn't do that."
Parent 3	"No… The, the insurance company just sent me a letter that said, 'Your claim was denied. Thank you.' That was it. Nothing.

Table 7

Subtheme 2: *"They Tried, They're Just Limited"*

Parent 2	"Yeah, some people gave me advice, and some others gave me money to, like, get up and be able to make myself well and build up that. So, but I also think-- I, I also took some, some advice from some people, which really helps me in, in, in choosing the right one to treat her".
Parent 4	"They're very supportive. They just, I mean, they're kind of limited, I guess, because everything, they did give me a temporary supply while the insurance was kicking in for in January, because everything reset in January. So they're very supportive with that, but they kind of have their hands tied too, I feel, you know, because they're waiting for this, what the insurance will cover."

Parent perceptions of the U.S. healthcare system after encountering Dupixent-related barriers were grouped into a theme.

Theme 4: Perceptions of the healthcare system

Table 8

Subtheme 1: *"It's Not The Best"*

Parent 3	"Uh, I thought it was... The, the healthcare system in general was pretty, I don't wanna say bad, but not the best…Uh, but, uh, I thought my insurance was better than most because it's a federal, um, it's

	a federal plan of a common insurance, and so I thought that we would have a few more, you know, perks and maybe benefits than regular insurances. I guess we don't. That's what I learned through this process."
Parent 4	"Because it's a little negative. Yeah, you feel a little negative"

Finally, a theme surrounding the emotional state of parents after accessing Dupixent was created.

Theme 5: Emotional Resolution

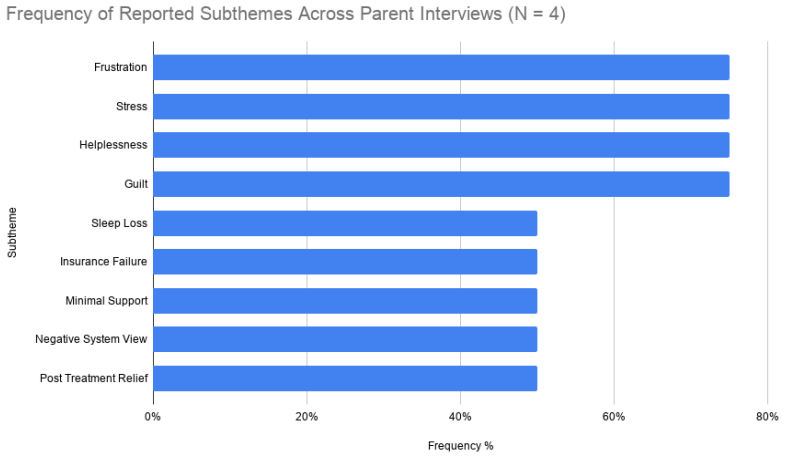
Table 9

Subtheme 1: *"I Feel All Right"*

Parent 1	"I mentioned earlier that happiness, there is happiness. As I-- As long as my son is happy, I, I am so happy, too."
Parent 2	"But after the treatment, I feel all right, and I feel like resting well and doing some other things well."

The frequency of each theme's appearance within the interviews was noted. As stated before, frustration, stress, and helplessness were the most common reports.

Figure 3. *Frequency of Reported Subthemes Across Parent Interviews (N = 4)*



DISCUSSION

Theme 1: Emotional distress

A theme regarding the emotional well-being of parents was found. When prompted about the emotions regarding barriers, frustration was reported the most. Guilt was also reported by parents for their child. All parents described negative emotional responses when first encountering barriers to Dupixent. Based on how the process went for them, their emotional well-being fluctuated.

Subtheme 1: "Emotionally, it's Frustrating."

Frustration appeared consistently throughout the interviews, suggesting that the burden of these barriers evokes an added emotional strain for parents of children with asthma and AD. Some parents noted a lack of sleep, indicating high stress levels. When faced with the lack of medication, parents stressed over both the well-being of their child and the accessibility of the medication. As in past studies, parents reported frustration towards healthcare and a lack of support for their children (Santer et al., 2012). These findings support that conclusion and further expand on it, finding that frustration is directed specifically at insurance companies, suggesting that barriers to Dupixent heighten frustration, given that parents are not only handling the child's condition and daily life, but also medication logistics.

Subtheme 2: "I Felt so Stressed"

High reports of stress indicated that barriers to Dupixent induce distress rooted in the uncertainty of their child's health and medication. Stress emerged as a consistent emotional response among parents, indicating that Dupixent-related barriers cause ongoing psychological strain and burdens, pushing beyond initial frustration. While previous studies in the field have established stress as one of the burdens parents of asthmatics (Crespo et al., 2011) and children with eczema face, these findings demonstrate a link between higher stress levels and systemic barriers that parents encounter.

Subtheme 3: "I am at Their Mercy"

Parents not only experience stress because of their child's condition, but also due to the complexity of the Dupixent approval process. The evidence highlights that Dupixent barriers amplify stress in parents carrying emotional burdens, leading to harsher psychological implications.

Feelings of self-pity and helplessness were also found within parents. Specialists in health science found a sense of helplessness within parents of asthmatics (Lange et al., 2024). A lack of control and reports of "I am at their mercy" signal that Dupixent barriers cause parents to lose autonomy over their child's well-being. A lack of authority over their child's health further heightens the emotional burdens they carry. Parents are forced to spend time communicating and spending money on insurance companies to

support their child, placing increased burdens on them. Barriers to Dupixent for children not only put the child's health at risk, but also intensify the emotional distress and burdens of parents already found to be emotionally vulnerable.

Theme 2: Implications of Emotional Distress

The emotional distress led to changes in the parents' lives. Many parents reported a lack of sleep and feelings of guilt after facing barriers.

Subtheme 1: "I Did Lose Some Sleep"

In general, studies have shown that parents of children with eczema or asthma display more stress and sleep disturbances. A questionnaire revealed that parents of children with eczema had greater sleep disturbances compared to those of children with asthma (Moore et al., 2006). The findings show that barriers to Dupixent invoke additional stress on parents, influencing their psychological and physical well-being. The lack of sleep is congruent with past studies finding that sleep disturbances and stress are found within parents of children with eczema (Waples, 2024). The uncertainty of the medication, as well as the emotional toll of watching their child suffer without it, creates heightened anxiety and fear within parents. The weight of caring for a child while simultaneously managing their medication leads to sleepless nights.

Subtheme 2: "Let down"

The emotional distress parents experienced, as well as seeing their child experiencing the side effects of no medication, induced high levels of guilt in parents.

When parents see their child suffering due to a lack of treatment, they feel like they are letting their child down. Although parents have little to no control over their accessibility to Dupixent, the physical impact of those barriers causes parents to blame themselves. Burdens and guilt that are the faults of the healthcare system are instead placed onto parents. High levels of guilt and blame potentially lead to signs of mental health disorders. Without access to Dupixent, parents are forced to watch their children suffer, impeding their mental health and invoking strong feelings of guilt.

Theme 3: Healthcare support

While some parents claimed they received no healthcare support, others reported that doctors and nurses had offered support. There was a common trend of healthcare staff providing resources, whereas insurance companies did not.

Subtheme 1: "Nothing"

Parents report a lack of communication with their healthcare providers. The lack of support and communication from healthcare providers connects back to the frustration participants felt. Studies have proven that 35% of individuals don't get access to Dupixent due to numerous factors, including insurance denials (Florenzo et al., 2024). These barriers, combined with a lack of resources for parents, are highly likely to kindle higher stress levels in parents of children with AD and asthma. As mentioned previously, parents felt at the mercy of their insurance companies and were completely helpless. The findings show a lack of communication and resources from insurance companies as another barrier to Dupixent. This barrier may cause the feelings of helplessness that parents reported.

No communication or support from the insurance company isolates the parents and leaves them on their own to navigate through their child's AD or asthma. The isolation and lack of support add emotional burdens that extend farther than the initial ones that past research has identified (Crespo et al., 2011). Dupixent barriers for children influence more than just the child's health. The parents are faced with isolation and a weak support system from the system that determines their child's well-being.

Subtheme 2: "They Tried, They're Just Limited"

Parents who claimed to receive support highlight the fact that the support was limited. The support they received was only from their child's doctor directly, rather than the insurance company handling their access to the medication. All parents reported insurance as their primary barrier to Dupixent. However, support was not given by those companies. In general, parents received little to no support, showing the influence of systemic barriers on parental mental health. While healthcare providers offered some support, parents still reported frustration and stress due to the lack of results. Dupixent barriers prevent parents from accessing the medication their child needs to heal, resulting in emotional distress due to systemic obstacles and a desire for their child's safety.

Theme 4: Perceptions of the healthcare system

Parents were asked about how their perception of the healthcare system had changed due to the barriers they encountered and the emotional changes they underwent. The perceptions varied greatly with each parent.

Subtheme 1: "It's not the Best"

2 out of 4 parents held negative perceptions of the system as a result of a lack of support and care for both the child and the parent. When considered alongside the negative emotional responses as well as the minimal support from healthcare companies, the disdainful view of the healthcare system is consistent. However, other parents reported different perceptions of the healthcare system depending on their

familiarity with it.

The perceptions of the healthcare system for parents did not yield any highly common trends, suggesting that it is influenced by numerous factors outside of the denials, such as experience and expectations. Indicating that the perception of the healthcare system is dependent on broader factors rather than Dupixent barriers, specifically disproving the hypothesis that facing barriers to Dupixent will cause parents to hold a negative perception of the U.S. healthcare system.

Theme 5: Emotional Resolution

While only a few parents reported happiness and contentment, the findings suggest that access to Dupixent would significantly minimize emotional burdens on parents. Thus, highlighting the potential for parental healing if systematic barriers are addressed.

The themes found within the interviews revealed trends of frustration, stress, and helplessness among parents facing barriers to Dupixent for their children. Past research found that parents of children with AD and asthmatics experienced limited collaboration with healthcare professionals (Færk et al., 2024). These findings align with previous research. However, they revealed the unique role of U.S. health insurance companies, primarily evoking emotional distress in parents.

Perceptions of the U.S healthcare system varied, but the negative views emphasize how systemic barriers create disdain and distrust of the healthcare system. Overall, these findings indicate that not only do Dupixent denials impede a child's healing, but the emotional well-being of the parents is put in jeopardy. Surprisingly, the findings show a lack of support from insurance companies rather than direct healthcare providers, highlighting a lack of systematic support for families, contrasting previous findings by researchers specializing in families that found that parents felt frustration with healthcare policies (Sutton et al., 2022).

When encountering barriers to Dupixent for a child's AD or asthma, parents face emotional disturbances such as heightened stress, frustration, and feelings of helplessness, leading to sleep disturbances and further psychological strains. As demonstrated in past studies, parents reported frustration towards the healthcare system because their child did not receive support for their eczema (Santer, 2012). The findings highlight that Dupixent-related barriers further heighten the frustration parents hold as a result of both systemic and parental burdens.

Additionally, the stress levels reported by parents went beyond general parental stress that previous studies have identified. Experts in child care and education have identified that asthmatic parental stress stemmed from limitations of activities and parental health conditions (Chiou and Hsieh, 2008). The findings demonstrated that when encountering a barrier to Dupixent, parental stress in parents of asthmatics and children with AD is amplified due to systemic barriers that cause isolation, guilt, and anxiety.

CONCLUSION

Limitations

Numerous limitations must be addressed. The first limitation is the small sample size. Due to the small size, the reliability and generalizability of the results are very limited. Therefore, the conclusions drawn from the data were made with caution, and only highly common themes were considered. This limitation was mainly due to the highly specific sample size and a lack of responses from parents after filling out the Google form. Moreover, of the 40 clinics contacted, many did not respond. However, this limitation was partially mitigated by the prevalence of highly common themes across interviews. However, further research with a larger sample size could increase generalizability.

Moreover, there was a lack of diversity within the sample. As previous research demonstrated, Black and Hispanic individuals were less likely to be prescribed Dupixent (Jonsdottir et al., 2024). The lack of diversity within the sample prevented the exploration of racial disparities.

Furthermore, the recruitment process also served as a limitation in the generalizability of the study. Because many clinics did not respond to outreach, most recruitment occurred online. This may have excluded parents who aren't active on social media forums or don't have internet access. Therefore, the study is skewed towards parents who are active on online eczema communities and have access to the internet. A more targeted recruitment strategy could have prevented these limitations, such as directly contacting parents who visit pediatric eczema or asthma clinics.

Implications

The results directly reveal that barriers to Dupixent for children lead to parents experiencing frustration, stress, and guilt. These emotions clearly exemplify a need for systematic changes to insurance companies and the distribution of biologics for children, as well as a need for parent-focused support groups when dealing with childhood chronic illness. These emotional burdens highlight a need for policy reforms within insurance systems. This includes clearer communication and mental and economic support. While healthcare providers showed some assistance towards parents, the disconnect between them and insurance companies further reinforces the need for advanced advocacy programs for parents and providers.

Conclusion and Future Directions

When faced with barriers to Dupixent, parents experience heightened frustration, stress, and guilt, leading to sleep disturbances and emotional burdens. However, while parents reported emotional strains, these changes did not show a drastic change in perceptions of the healthcare system. The feelings reported by

parents did not stem from issues with clinical care, but rather systemic issues with insurance companies. Therefore, resources should be created to improve the regulation of medication distribution.

Moreover, resources dedicated to reducing the stress and frustration parents face can be created to directly address systemic issues within the healthcare system. The high reports of insurance issues and costs indicate that state-wide medicaid expansions could aid families looking for Dupixent. State legislatures and insurance regulatory commissions could enact legal mandates that restrict the duration of step therapy protocols for pediatric biologics.

Parents reported getting support only for the medications. No support was given to improve their mental health. Pediatric care needs to be reevaluated so as not to be solely patient-focused, but family-focused instead. Healthcare providers could work directly with Dupixent's MyWay program to provide assistance to families. Additionally, pediatricians and specialists should implement brief, standardized check-ups with parents along with pathways to clinic-affiliated social care workers.

Further research should use more diverse samples to address the racial systemic gaps within Dupixent distribution and identify how the emotional burden differs for those families. A larger sample size will also strengthen the generalizability of the emotional influence on parents. Moreover, a longitudinal study could highlight the long-lasting implications of Dupixent barriers for parents. Future research should focus on creating a solution to the arduous insurance process and healthcare gaps for biologic treatments. Ultimately, extended research is necessary to address the faults within healthcare and insurance companies and to create reforms to support parents' mental health with childhood chronic illness.

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