

# Understanding parents' attitudes on efficacy regarding their children's involvement in occupational therapy assisted by therapy dog: a qualitative study

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**Aim:** To explore parents' perceptions of the efficacy of occupational therapy supported by a dog assisted therapy (DAT) for their children.

**Methods:** This qualitative study was based on semi-structured interviews conducted from March to May 2024 in a clinical setting, with participants being parents of children enrolled in DAT for more than six weeks. The interviews focused on their attitudes about potential benefits and limitations of therapy, as well as the overall views of the therapeutic process. A modified version of Braun and Clarke's six-step thematic approach was used to analyze the data.

**Results:** Interviews were conducted with 13 parents, after which, four key themes were identified through the thematic analysis. The theme of behavioral patterns captured participants' perspectives on behavioral improvements due to DAT. The theme of specific developments encompassed notable improvements reported by the participants. The theme of observed challenges and limitations captured participants' opinions on downsides of the therapeutic process. The theme of parental view of the therapeutic process represented overall observations regarding therapeutic aspects perceived by parents. Parents noted improvements in their children's empathy and affection, with interactions promoting gentler, more considerate behavior beyond therapy sessions. Developmental gains, like expanded vocabulary, better eating habits, and improved sensory-motor skills, were observed by parents in regards to their children. However, challenges such as child's initial fear of the dog and insufficient therapy sessions were noted by parents.

**Conclusions:** The parents in our study perceived DAT as a valuable adjunct to traditional occupational therapy by parents, contributing positively to their children's therapeutic process. They expressed a need for more information about DAT and suggested increasing the number of therapy sessions to enhance effectiveness. This study provides insights into the parental perspective on DAT, emphasizing its potential to improve outcomes for children with disabilities and identifying areas for further research.

**Keywords:** dog-assisted therapy; parental perceptions; children's developmental disorders; therapeutic outcomes; qualitative study

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## Introduction

The growing concern about developmental disorders among children calls for the use of advanced innovative therapeutic interventions that can promote their emotional and physical health and lead to better developmental outcomes. Among these interventions, dog-assisted therapy (DAT) has emerged as a promising approach, leveraging the unique bond between humans and dogs to facilitate emotional and social development in children with disabilities. Research indicates that animal-assisted interventions can significantly improve therapeutic outcomes by fostering emotional regulation, social skills, and overall engagement in therapeutic processes (1-3).

Dogs are the most common animals involved in animal-assisted therapy (AAT), since they seem to have one of the greatest capacities to adapt to human behavior, as well as read and react to human (body) language, availability, and trainability (4). Research has suggested that “the use of dogs in AAT is consistently associated with moderately high effect sizes, which is not the case with all other animal groups” (5). Emotional and social support is often expressed through communication, which is particularly intriguing within the context of AAT, as animal communication is primarily nonverbal. Even though that can be seen as potentially limiting, some authors argue that one reason animals and children connect is because both primarily communicate non-verbally (6). Therefore, in therapy sessions, a therapist could manage verbal communication, while a dog could provide other forms of support.

Previous research has recognized various potential impacts of AAT. For instance, interactions with animals have been linked to decreased blood pressure, thereby reducing fear, stress, and anger in a number of individuals undergoing AAT (7). Another study emphasized that animals make children feel safe during therapy and encourage spontaneous behaviors and communication (8).

Research suggests that interactions with therapy dogs, such as petting or playing, increase oxytocin levels, which supports trust, empathy, and emotional well-being (8, 9).

Despite the evidence supporting oxytocin’s role in enhancing therapeutic outcomes, skepticism remains, as some professionals attribute the success of AAT to the placebo effects and raise concerns about its suitability for all clients (4, 9). A recent study investigated the perspective of 239 professionals working in the field of animal-assisted interventions (AAT) (9). The study showed that some clients may require forms of attention that animals are unable to provide, may have previous negative experiences with animals, or may be mentally, emotionally, or physically unable to care for animals, which should be taken into account, especially in the context of interventions aimed to help children with disabilities (9).

Despite studies showing that parents of children with disabilities generally have a positive attitude toward the introduction of therapy dogs in rehabilitation treatments (3), we still lack data on their experiences with and concerns about DAT, which would help improve the therapeutic approach and provide targets for further research. An analytic process (recognising that the analytic process can be a continuum, rather than a dichotomy) is essential here, as understanding parental experiences requires interpreting nuanced

viewpoints, rather than categorizing them into simple and strictly positive or negative outcomes (10).

Since occupational therapists try to embrace the principles of family-centered care, where the parent is the decision-maker and the expert in knowing their child, while the therapist is a technical resource to the family, DAT could help alleviate parents' stress levels whenever they are present during therapy (11). Research also found that 13% of pediatric occupational therapy interventions are directed at the parent, meaning they seek to enable them to deliver interventions at home within daily parenting (11). Moreover, integrating parents into the rehabilitation process empowers them by giving them a sense of participation and control, and allowing them better insight into their children's improvements, especially those which they struggle to achieve themselves (12). For example, research on parental attitudes about AAT for children with ASD (autism spectrum disorder) found that "a significant motivator for parents who sent their children to AAT was that they were able to learn behavioral control, which they themselves struggled to teach their children, and to manage their challenging behaviors" (13). Therefore, it can be hypothesized that investigating parents' opinions on their children's involvement in occupational DAT would be beneficial as well. For example, research shows that parents frequently attest to the benefits of animals as companions for their children by nurturing responsibility, providing companionship, and offering a sense of security (14). Accordingly, it is of primary interest to investigate the ways a therapy dog can be included, in order to improve and drive increase in motivation with the aim of contributing to positive therapeutic outcomes. A study by Karnjuš (3) in Croatia found that 75.47% of parents completely agree, and 15.09% mostly agree, that a therapy dog could help motivate their child in rehabilitation. This raises the question of whether programs like DAT are necessary if parents could have a therapy dog at home, potentially benefiting the entire family. The study also found that only 7.54% of participants had a dog that received official therapy dog training, drawing attention to issues such as accessibility and cost (3).

However, the implementation of DAT is not without its challenges. Some literature flagged a concern that children may initially experience fear or discomfort when interacting with therapy dogs (4, 13), negatively impacting the DAT's effectiveness and necessitating a careful introduction and gradual acclimatization to therapy animals (3). Understanding these dynamics from the parental viewpoint is essential for refining therapeutic practices and ensuring that interventions are tailored to meet the needs of both children and their caregivers.

By exploring not only the advantages and disadvantages of DAT, but also parents' overall view of the therapeutic process, we aimed to present a balanced understanding of DAT that can be beneficial to both practitioners and policymakers.

## Methods

A qualitative study was designed to explore parents' attitudes and experiences with DAT, as this would allow to gain a rich, detailed understanding of that insights that would otherwise be difficult to quantify (15). To explore these perceptions this study utilized modified

reflexive thematic analysis (TA), as developed by Braun and Clarke, and further refined by Guest *et al* (16). TA is philosophically flexible and accommodates both inductive and deductive analysis; an inductive approach is particularly suitable here because this type of therapeutic intervention has rarely been examined from the parents' perspective, allowing new insights to emerge directly from their experiences (10, 16).

### Sample

The participants in this study were parents of children receiving DAT for at least six weeks, ensuring adequate exposure to the therapy and, consequently, meaningful feedback from parents. The therapy sessions occurred once a week, with the children completing a minimum of six sessions by the time of the interview.

### Intervention

The DAT incorporated Dora, a poodle certified through the Center for Rehabilitation Silver and the only therapy dog in Croatia specifically trained to work with children. She was guided by her handler, Matea Videk, a certified occupational therapist, who structured and led the therapy sessions. Each session was conducted once a week, lasted 45–60 minutes, and was designed to address the developmental needs of children with a range of developmental issues. The therapy dog was introduced from the first session, fostering its consistent interaction with the child. Most children completed at least eight sessions, with the minimum for this study being six sessions, to allow sufficient time for evaluating parental attitudes on the intervention's effectiveness.

### Data collection and research procedures

We used purposeful sampling to select participants who met the study criteria. Potential participants were approached by their child's therapist to gauge interest and given the opportunity to discuss the study with the interviewer, ask follow-up questions, and review information sheets and consent forms. The interview guide was not pilot tested. Demographic data were collected via a questionnaire and included information on the child's participation in other therapies (yes/no), as well as the age and gender of both parents and children, and place of residence. Semi-structured interviews were then conducted using an interview guide (Table 1) which was based on pre-existing literature. The semi-structured interview method was chosen because it allows respondents to provide descriptive answers and thus offer insights into their subjective experiences of a phenomenon. It is also easier to direct conversations with one respondent, as opposed to a focus group, observe non-verbal communication, and arrange meetings more easily.

The interviews were conducted from March to May 2024, instead of the planned timeframe (February to April) due to the participants' availability. They were led and audio-recorded by mobile phone by one research team member (LŠ: female undergraduate psychology student) in an empty office room. All participation was voluntary, and all participants were allowed to drop out of participation if needed or wanted. The transcripts were not returned to participants for review or comment.

**Table 1.** Topic guide for semi-structured interviews\*

Part of the interview	Objective	Questions
Introduction	Create a comfortable environment and build rapport with the participant. Discuss their reasons for enrolling their child in therapy, and gently guide the conversation towards the child's disorder, encouraging open communication.	<ul style="list-style-type: none"> <li>- Tell me the process of enrolling your child into the therapy.</li> <li>- Why did you decide to enroll into this specific therapy?</li> <li>- For how long is your child enrolled into the therapy?</li> <li>- What was your knowledge of and attitudes about therapy dog before the beginning of the therapy?</li> </ul>
Central part	Find out personal attitudes and expectations of parents regarding the DAT for their children. Determine parents' attitudes on effectiveness of the therapy (benefits, limitations, overall views).	<ul style="list-style-type: none"> <li>- Did you have any expectations from the therapy?</li> <li>- Do you see any benefits of the therapy? If yes, please explain them.</li> <li>- Do you see any impact of therapy dog on your child? If yes, please explain what kind.</li> <li>- Do you see any limitations of this therapy? If yes, please explain them.</li> <li>- Where you present at any therapy sessions? If yes, then: Can you describe what did you observe in regard to therapy dogs' involvement?</li> <li>- Have you observed any reactions of your child due to therapy dog's presence? If yes, please state them.</li> <li>- From your perspective, do you consider this kind of therapy effective for your child? If yes, please explain in what way. If no, please explain.</li> <li>- Please state your present attitudes towards the topic of DAT.</li> <li>- Do you have any opinion on availability of information surrounding this type of therapy?</li> </ul>
End	Determine if participant has something to add or state something that has not been discussed. Conclusion of the interview.	<ul style="list-style-type: none"> <li>- Is there anything else you would like to add or anything else you think is important to mention?</li> </ul>

\*Abbreviations: DAT – dog-assisted therapy.

### Data processing

The interviews were conducted by one researcher (LŠ), a female undergraduate psychology student with no prior experience in conducting qualitative research. Coding framework and identified themes were reviewed, discussed, and approved by the mentor (GK) and co-mentor (LLK) and bacc. therap. occup. (MV) to enhance credibility. No prior relationship was established between the researcher and participants before the study. Participants were informed about the researcher's role as a student and the purpose of the study. Given the researcher's novice status, reflexivity was maintained throughout the research process, particularly during data collection in terms of field notes regarding non-verbal communication and analysis. One researcher (LŠ) transcribed the recordings *verbatim* using the Sonix programme (Sonix, San Francisco, CA, USA) and analyzed using Braun and Clarke (17) method and the related six-step approach: become familiar with the data, generate initial codes, identify themes, review themes, define and categorize themes, and create a report. This inductive coding approach allowed us to discover parents' subjective perspectives and attitudes emerging directly from the data, without being constrained by pre-existing theories or frameworks, due to the lack of prior research on the topic. Thematic analysis was chosen to process the collected data because it allows flexible, inductive analysis suitable for exploring parents' experiences with DAT, an area with limited prior research. A latent approach was applied to capture underlying meanings not immediately apparent in participants' responses, while an experiential approach facilitated understanding of parents' perspectives and experiences during the interviews.

Coding was not treated as a linear process; rather, codes were repeatedly revisited, refined, merged when similar, and expanded through the creation of sub-codes (18).

### *Ethical issues and protection of privacy*

Ethical approval for the study was obtained from the ethics committees of both the Faculty of Humanities and Social Sciences (Approval number: 2181-190-24-00011). The research followed up to the standards outlined in relevant ethical codes, such as the Ethical Code of the Croatian Psychological Association and the Code of Ethics of the Faculty of Humanities and Social Sciences in Split (Faculty of Humanities and Social Sciences in Split, 2024).

Regarding potential risks, we note that the participants might have felt temporary discomfort when discussing sensitive topics related to their children. Regarding benefits, the valuable insights shared during the interviews could contribute to the development of effective therapy approaches, including those for the participants' children, and their awareness of the effectiveness of DAT on their children.

## Results

The sample included one man and twelve women (Table 2). All research participants resided in Split and its vicinity, except for one with a residence in Omiš. This predominance of female participants can be explained by the fact that mothers more often act as the primary caregivers, that their names appear more frequently on the parents' contact list, and that, in cases where both parents were present upon being approached for this study, mothers were more interested in participating. More than half participants reported that their children participated in multiple therapies simultaneously, such as speech therapy, occupational therapy, or physical therapy. However, an exact number of those children

**Table 2.** Demographic characteristic of the participants and their children

Parent		Child		Number of finished therapy sessions at the moment of interview
Sex	Age	Sex	Age	
Female	36	Male	4	6
Female	35	Male	2	8
Female	33	Male	2	6
Female	39	Male	5	7
Female	41	Female	5	7
Female	29	Female	2	8
Female	37	Male	2	7
Female	40	Male	3	6
Female	39	Male	5	8
Female	39	Male	3	>20
Female	43	Male	3	>20
Female	38	Male	4	>20
Male	40	Female	2	6

could not be precisely captured, as some were are between or waiting to start with therapies. Regarding the method of inclusion, all of the children were referred by healthcare professional, except in one case in which parent took the initiative to seek out DAT themselves because their pediatrician was reluctant to provide a referral.

All themes and subthemes were derived from parental observations, emphasizing the therapy dog's presence and its potential impact on therapeutic processes and outcomes. There were four primary themes presented, which include behavioral patterns, specific developments, observed challenges and limitations, and parental views of the therapeutic process (Figure 1). Together, these themes provide a comprehensive understanding

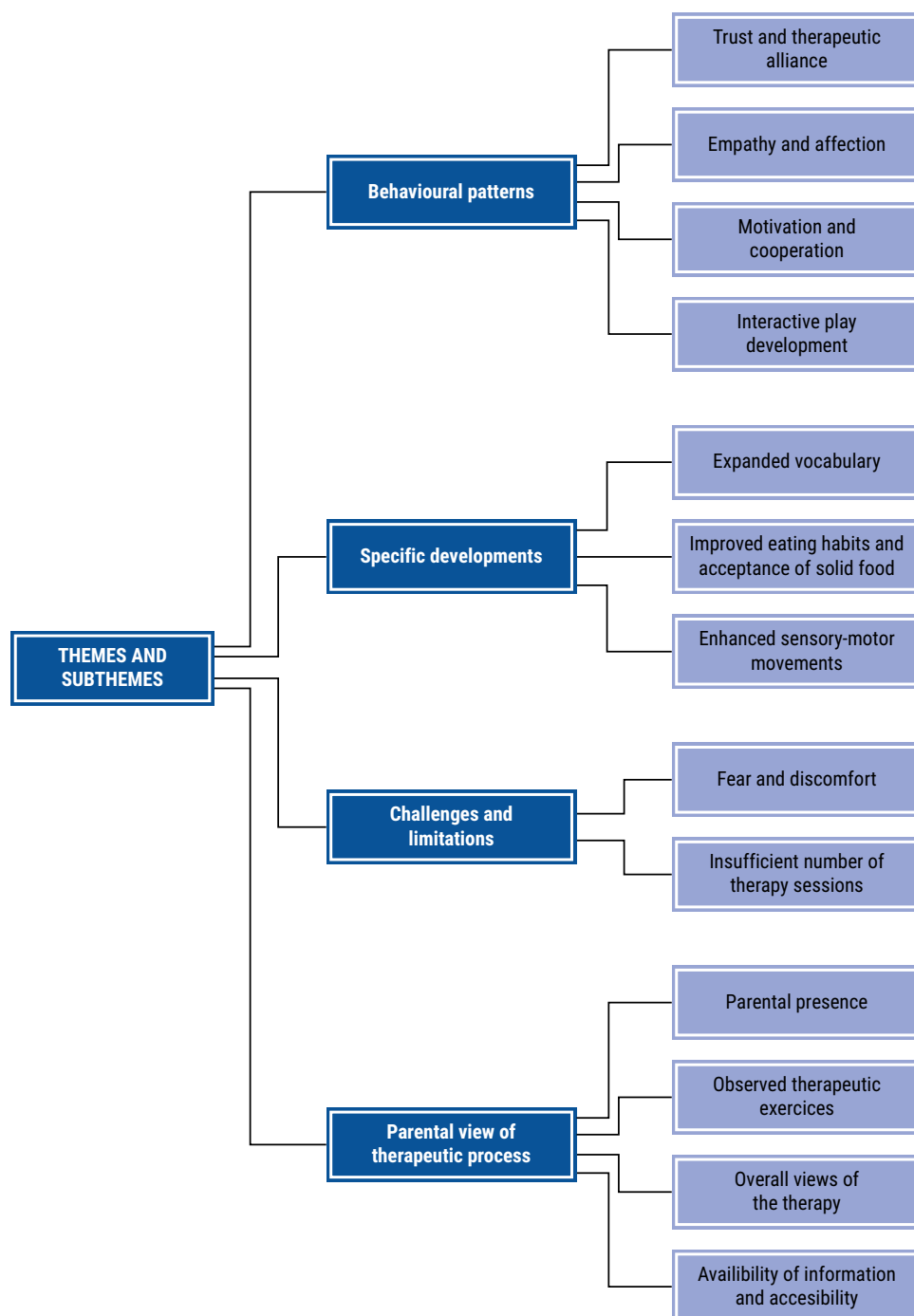


Figure 1. Themes and sub-themes emerged from shared interview codes.

of how children's experiences with DAT manifest in observable behaviors and developmental changes, the difficulties encountered, and how parents perceive and interpret the therapeutic process.

### *Behavioral patterns*

The theme of behavioral patterns captures participants' perspectives on behavioral improvements and benefits stemming from the occupational DAT. It includes sub-themes such as trust and therapeutic alliance, empathy and affection, motivation and cooperation, and interactive play development. Trust and therapeutic alliance refer to the development of trust between the child, the therapist, and the therapy dog, especially to create safe and trusting atmosphere in first few therapy sessions. Empathy and affection involve the child learning to be gentler and more considerate around animals and humans and show emotional development. Motivation and cooperation describe the child's increased willingness to participate in the therapeutic process, with the therapy dog serving as a motivating figure. Interactive play development refers to the child's engagement in play activities with the therapy dog, which fosters social and interactive skills.

### *Trust and therapeutic alliance*

Participants reported a notable development of trust between their children, the therapist, and the therapy dog, which most of them attributed to the unique dynamic created by the presence of the therapy dog, which facilitated trust building for their children and served as an "icebreaker".

*[...] I think it's easier to get close to them, the approach is better because they don't immediately accept just anyone, you kind of have to win the kid over a bit, you can't just stand there. You need to reach them a bit with emotions, with trust... because the kid feels everything. And when the dog is there, then it's different. In an emotional sense, it's much easier to start something and make progress when the dog is there.*

*[...] I think the therapist is a warm person, and kids like her, but Dora [the dog] is there to bring them closer. She really is there to bring them closer. That initial fear when kids come to the doctor, you can really see it when they come in all those white coats... Dora is the one who breaks that.*

*[...] He [the child] has this fear of the unknown. But, like, he would only go in if Dora came to get him.*

The child-dog-therapist relationship appeared to play a crucial role in helping children feel more secure and open during therapy sessions, thereby enhancing the overall therapeutic process according to the parental observations.

### *Empathy and affection*

Most of the participants mentioned empathetic behavior development, explaining that a presence of the therapy dog provided a unique opportunity for children to practice empathy and affection in a tangible way.

*[...] Now, he involves himself in play, like taking a teddy bear and pretending to feed it syrup or candies. He wasn't interested in that before. Now, he's developing a closeness with toys.*

A few parents stated that therapists guided the children on how to be gentle with the dog, explaining that it would withdraw from interaction if the child was too harsh. They stated that therefore this dynamic motivated the children to adjust their behavior to gain the dog's attention and affection.

*[...] Dora is the same, a being, I mean... she is alive. She must be cared for in the same way, I think the therapist also takes care of her dog... and since he [the child] is a bit reckless, maybe she also warns him about what is allowed and what isn't.*

*[...] He didn't have the sense that he was hitting someone hard or that he was quite stiff and firm, but since Dora, he somehow developed a sense of tenderness... now he hugs her more gently and all that [...]*

Some parents noted that these lessons in empathy extended beyond interactions with the dog, as they saw improvements in their children's empathetic behaviors and affection towards others, suggesting a broader impact on their social and emotional skills.

*[...] I see how much they progress here, they have fewer panic attacks, and are like... are more connected with loved ones, and learn to hug, which they didn't do before.*

### *Motivation and cooperation*

Parents observed a marked increase in their children's willingness to participate in therapy sessions. One parent compared how their child was motivated to come to DAT each time, while they struggled to stop him from crying in other therapies that they had tried, while others mentioned how the therapy dog was the main motivator for children to come into the therapy room in the beginning.

*[...] He has this fear of the unknown. But, like, he would only go in if Dora [the dog] came to get him. Like, that first contact with Dora was super positive for him... and it stayed that way. So, he was scared to come here and he would just stand in front of the door, Dora would come to get him, sit there and wouldn't want to go in until he did. It meant so much to him... how Dora wouldn't go play without him.*

The presence of the therapy dog served as a powerful motivator, making children more eager and happier to return each time. The therapy dog acted as a positive reinforcement, encouraging children to cooperate more with the therapist.

*[...] The benefits are clear when Dora [the dog] is around. I think the dog is essential alongside the therapist. The dog motivates everything. When she walks and [the therapist] works with him, he follows her. The dog is a motivator.*

*[...] Maybe it's also because she really loves dogs so much and is so excited about them that she'll do anything.*

*[...] My [child] is quite distrustful... he didn't want to eat at all without me... actually, Dora was the turning point. Dora was there the whole time next to him, and she was eating with him and all that. And the second time I came, I brought bread, and he didn't want to put it in his mouth at all, despite Dora being there. Dora hid under the table because he started panicking, crying... and when we got home, he was sad because Dora didn't want to be next to him... and he says, 'Come on, mom, next time bring bread, and I'll chew so Dora eats with me.' And so he started chewing after two and a half months.*

This increased motivation and cooperation were evident in the children's improved engagement and responsiveness during therapy for almost all children, ultimately enhancing the effectiveness of the therapeutic process. Parents highlighted how the therapy dog's involvement made the sessions more enjoyable for their children, fostering a positive association with the therapy itself.

## Interactive play development

A few parents emphasized that their children showed a heightened interest in free play and various activities, such as playing with soap bubbles and balls. One parent explained that the presence of the therapy dog stimulated the child's curiosity and engagement in these playful activities and improved concentration.

*[...] Overall, things are much better. Before, he wouldn't join in any games with others or anything like that. He lost focus easily, like in basketball, but she [therapist] managed to redirect his focus to other things that interest him now in a short period of time.*

*[...] He [the child] spends more time playing with one thing and even comes up with his own games...at home, he's built himself a little obstacle course... all sorts of things, he's progressed quite a bit, and I think it's better when Dora [the dog] is involved in that play, there was some ball throwing involved.*

Parents also noted that their children not only enjoyed these activities more, but also included the therapy dog in their play. This interaction with the dog during playtime further enhanced their social and interactive skills, as they started to take a more interest in their environment and how to use it for play and amusement outside of therapy sessions.

## Specific developments

The theme of specific developments encompasses notable improvements reported by participants, regardless of whether they stemmed from the therapy dog's presence or other therapeutic means. This theme includes subthemes such as expanded vocabulary, improved eating habits and acceptance of solid food, and enhanced sensory motor movements. Expanded vocabulary refers to the child's increased language skills. Improved eating habits and acceptance of solid food describe positive changes in the child's dietary behaviors. Enhanced sensory motor movements indicate improvements in the child's physical coordination and motor skills.

### Expanded vocabulary

Some parents reported significant improvements in their child's language skills.

*[...] He only had three words: mom, dad, grandma, grandpa, but with this early intervention, he's already learned two or three new words.*

*[...] So we got to the four/five words, and before... it was literally just Smoki [a popular Croatian puffed corn snack].*

While the vocabulary of majority of children included in DAT was, according to parental observations, initially limited to just a few essential words, early intervention has led to the acquisition of new words. This indicates an improvement in the children's ability to communicate, suggesting that the interventions are effectively supporting language development. Parents described that these gains were not only in quantity but also in functional use, as children began to use words spontaneously to request, greet, or comment, reflecting meaningful improvements in communication. Several parents highlighted that the child's increased vocabulary positively impacted daily interactions and social engagement, suggesting that the interventions effectively supported both language development and broader communicative competence.

*[...] He hardly spoke at all before, and when he did, it was mostly disconnected. Now he has a few new words, which also makes it easier for me, for example, “water” when he is thirsty, or “more” when he wants more food.*

This subtheme captures patterns across participants in which structured interactions with the therapy dog facilitated observable improvements in expressive language.

### Improved eating habits and acceptance of solid food

While most of the parents observed positive changes in their children’s eating habits, such as the uptake of solid foods, few of them continued to face significant challenges.

*[...] He started eating solid foods.*

*[...] As we have that problem with eating all the time... and we don’t, at least at home, we don’t have any success, she refuses all food. But this is still under quotation marks beginning.*

This highlights that progress can vary considerably between children and the number of DAT sessions completed. Some parents reported that the therapy sessions helped children become more curious and willing to try new textures or flavors, particularly when the therapy dog was involved in playful mealtime simulations or reward-based interactions. For example, parents noted that children were more willing to take small bites when they saw the dog interacting with food or when the dog’s presence made the environment less stressful.

*[...] I’m not sure if it’s because of the dog and how she watches her while eating, so she imitates her, or if she’s just so focused on the dog that she doesn’t even notice that she’s eating herself. In any case, we are happy because this is a huge progress for her.*

However, other parents emphasized persistent difficulties with food refusal at home, indicating that while gains were visible in structured settings, generalization to everyday meals could require additional strategies, patience, and reinforcement. This subtheme captures both the successes and the ongoing challenges in improving eating habits and illustrates how DAT may support gradual progress in children’s acceptance of solid foods.

### Enhances sensory-motor movements

Parents reported improvements in their children’s sensory-motor movements, including better fine motor skills and increased tolerance for various tactile stimuli.

*[...] Well, in principle, his fine motor skills have improved. He concentrates more on something... from touching mud, we used to have problems with that touching, he would immediately go wash his hands... from holding scissors, pencils, playing with foam... all of that is getting much better.*

*[...] He’s very sensitive to sensory and tactile stimuli, but he’s made progress in that area, too.*

For instance, children showed progress in activities like holding scissors and playing with foam, which indicates enhanced sensory integration and motor coordination.

### Challenges and limitations

The theme of observed challenges and limitations encompasses participants’ attitudes and opinions on the downsides of the therapeutic process that have emerged or might emerge. This includes subthemes of fear and discomfort and an insufficient number of therapy ses-

sions. Fear and discomfort pertain to the concern that some children might feel insecure around or scared of dogs, or that they may have had previous negative experiences with them. The subtheme of an insufficient number of therapy sessions refers to the limited number of sessions established at the beginning of the therapeutic process.

When asked about limitations or challenges they have observed in DAT, almost all parents expressed that they felt there aren't any. However, later in the interview some parents mentioned the following limitations: fear and discomfort and insufficient number of therapy sessions.

#### Fear and discomfort

This potential limitation is important to consider, since few parents mentioned that the therapy dog was present but not involved in therapy, because the child was initially frightened when the dog came toward them during the first therapy session. While two of their parents reported their children surpassing these fears and adapting, one of them is still undergoing therapy without the dog being completely included, but still gradually introduced to the child.

*[...] Dora [the dog] did scare him a bit at first, so he's still a bit afraid of her, but he talks about her all the time and loves coming here. He enters (the therapy room) without any issues now, though he's still a bit scared [...] but she waits under the table.*

*[...] There was some fear initially. He kept his distance, but then it stopped when we gave her food and he fed her.*

Even though most of the parents highlighted the initial fear or negative encounters children might have had with dogs in the past as a potential limitation, they noted that their child wasn't scared at all.

#### Insufficient number of therapy sessions

The sub-theme of an insufficient number of therapy sessions was another concern. Some parents felt that the limited number of sessions set at the beginning of the therapeutic process was inadequate to achieve substantial and lasting benefits and to address each individual's needs.

*[...] We have it once a week, I would say that's okay, but the thing is that we have only eight sessions, we're on the seventh one. It would be better if we could go regularly every week, for as long as he needs, that would be another thing.*

*[...] Everything just fell into place perfectly, and I'm really sad that we have to move on. Honestly, we have the right to eight sessions. It's like counselling, and we're sad to leave.*

They suggested that more frequent or extended sessions could enhance the effectiveness of the therapy, allowing for greater progress and deeper engagement between the children, therapists, and therapy dogs.

#### Parental view of the therapeutic processes

The theme of parental view of the therapeutic process encompasses the overall observations and opinions regarding therapeutic aspects as perceived by parents. This includes sub-themes of parental presence, observed therapeutic exercises, overall views of the

therapy, and availability of information about DAT. The sub-theme of parental presence investigates whether parents stay with their child during the therapy or wait outside. The sub-theme of observed therapeutic exercises highlights the specific activities and interventions parents have noticed during the therapy sessions (*i.e.*, playing fetch, petting a dog, feeding a dog and other). The sub-theme of overall views on therapy captures parents' perspectives and feelings regarding DAT; and explores parents' feelings about including their child in DAT. Finally, the sub-theme of the availability of information assesses parents' opinions on how well information about DAT is disseminated to others and the accessibility of such information.

### Parental presence

The sub-theme concerning parental presence during sessions investigates whether parents stay with their child during the therapy or wait outside. Some parents preferred the former, feeling that their presence provided comfort and security to their child, while some opted for the latter, believing that their absence allowed the child to interact more freely with the therapist and the therapy dog, fostering independence.

*[...] Mostly we [the parents] are both there. But when it comes to X [child] with the therapist, initially both parents were there, then it was just one of us, and now sometimes no one is, but then we hear how [the therapist] is struggling with her.*

*[...] I was only there briefly because X [child] is independent and goes in by himself. I was only there the first time we came.*

*[...] He drives me out and says, "Mom, go outside".*

Two parents stated that their children even asked them to wait outside, showcasing that each child has their own preference in this sense.

### Observed therapeutic exercises

Parents observed their child engaging more in a wide range of activities, such as playing fetch, petting the dog, feeding the dog, and other interactive exercises, which they noted to positively impact the child's social, motor, and emotional skills.

*[...] [the therapist] has a playhouse and teaches him where things go, making him tell her.*

*[...] She always starts like she's gonna feed the dog, she finds that interesting...then somehow [the therapist] gives her one spoonful and she gives Dora [the dog] treats and manages to make contact so that she even accepts the food.*

*[...] When playing with a ball, at first he would run all over the room to catch it. Now, I can even see that he can catch smaller balls when playing with other children in the park, and it's also easier for him to give a toy to someone to look at. He no longer gets as upset when someone touches his toys.*

Parents emphasized that these exercises were sometimes challenging to replicate at home, particularly those requiring the dog's presence or specific guidance from the therapist. They noted, however, that they were happy to see their children successfully complete some activities, such as taking medicine, during therapy, as it was faster and easier than at home.

*[...] We were trimming nails and drinking syrup, [the therapist] says that Dora [the dog] won't play with her other games, with ball... until she drinks it...and then she drinks it.*

### Overall views of the therapy

None of the parents held negative views about the appropriateness of having a dog present in a hospital, with most of them feeling that it was highly beneficial and contributed positively to their child's therapy experience, while others commented that it was unlikely to cause any harm. However, it seemed that participants with pet dogs at home tended to provide more positive feedback.

*[...] I think this is an excellent program. Animals are here for a reason. They may not talk, but they feel, know, and understand, just without words. I'd love to see therapy dogs included in other therapies too... [the therapist] is excellent, a great instructor. Her approach really makes a difference. While the dog is also important, [the therapist] is the key to everything.*

*[...] My opinion hasn't changed, it's positive. I was really looking forward to the therapy, but I didn't even know how they (the child) would react and what to expect... for me, this has been a really positive experience and I would recommend it to everyone.*

*[...] Everything is positive. I think it's really the best thing for the child. I think the kids really bond with the animals [...]*

Additionally, almost all parents at some point in the interview mentioned how they know someone who they think could benefit from the DAT, potentially emphasizing the importance of education, awareness campaigns, and the expansion of this therapeutic approach.

### Availability of information about DAT

Parents evaluated the accessibility and quality of information about DAT. Many indicated that they had actively sought out information and resources about therapy dog programs, often relying on personal networks, healthcare providers, or online sources.

*[...] I think people aren't well-informed enough. This kind of program should definitely be expanded.*

*[...] There should be open days for people to see how animals are involved, making it better for the kids.*

*[...] I saw it on the internet, on Facebook...in an article in journal Slobodna Dalmacija (local journal), I think.*

However, some expressed challenges in finding comprehensive and reliable information, suggesting a need for improved dissemination of information to facilitate informed decision-making about participating in DAT.

## Discussion

Using thematic analysis, we identified four primary themes – behavioral patterns, specific developments, observed challenges and limitations, and parental views of the therapeutic process – which together provide a comprehensive understanding of how DAT influences children's therapeutic experiences and outcomes from the parents' perspectives, thus following theoretical framework (19).

This study has several limitations that must be acknowledged. Firstly, since participants were recruited through a therapy program that is unique in Croatia, this might have introduced selection bias. It is also possible that the therapist who recommended participants may have favored those with positive experiences to reflect well on the therapy. Not ob-

taining detailed diagnostic information for each child was another potential limitation, which could have led to less individualized findings. Moreover, the researcher conducting the interviews and analyzing the transcripts was a student with no experience in qualitative research (LŠ), which may have affected the depth of the data collected and the rigor of the interpretation. However, the research process was conducted under the supervision of two experienced professors, which helped ensure methodological rigor and the credibility of the analysis. Furthermore, a potential limitation is that some children were approaching the end of their therapy at the time of the interviews. This might have influenced the interpretation of the results, though this factor was not explicitly examined. Although the inclusion criteria were set to a minimum of six weeks, most children were enrolled in therapy for eight weeks. Therefore, parents' attitudes during the interviews might have been guided and potentially altered by the fact that their children had only two sessions remaining, which some parents considered insufficient. This potential influence on participants' attitudes was not explored in the study. The results of the analysis were not returned to the participants due to the deadlines for writing this research paper, which might have prevented us from obtaining some additional insights based on their feedback.

Parents observed improvements in behavioral patterns, particularly in trust-building and therapeutic alliance formation, aligning with previous research on therapy dogs creating secure environments (7). Therapy dogs served as “icebreakers”, helping children overcome fears, consistent with findings on animal-assisted therapy easing engagement (8). The “common enemy effect”, where children and therapists bond over overcoming challenges with the therapy dog, was also observed in the present study, consistent with previous research (7). While the therapist is not an “enemy”, the therapy dog appears to facilitate overcoming obstacles, such as fear of the unknown.

Moreover, our findings regarding the growth of empathy and affection in children, as observed by parents, are consistent with a study by Buljan Flander (8), who also noted that therapists involved in AAT observe empathy development as a benefit of their work. This is further backed by research showing that children with pets tend to exhibit more empathy compared to those without (20).

Interestingly, nearly all the parents we interviewed pointed out that having a therapy dog present significantly boosted their children's motivation to engage in therapy sessions. This finding aligns with existing research indicating that therapy animals can greatly enhance motivation, particularly for children facing developmental or behavioral challenges. For example, research by Gee *et al.* (21) and Hart (22) indicates that animals can enhance motivation and engagement in therapeutic activities. Since research has shown that the impact of commonly used methods, such as CBT, on specific difficulties, could progress more slowly, leading to insufficient motivation among children and parents, making exercises uninteresting and monotonous (3), DAT seems to be the appropriate solution. The underlying idea is that having a therapy dog makes therapy sessions more exciting and fun, which can help lessen the challenge of tasks and encourage kids to participate (23). This view is further supported by our finding that children became much more enthusiastic about therapy activities when a dog was involved.

When it comes to the topic of developing interactive play, this study has shown that parents report noticeable improvements in their children's imaginative play and overall play skills. However, it is important to note that there is a lack of previous studies to back this up. Still, it would be worthwhile to explore whether there is a connection between the improvement in interactive play and existing research indicating that dogs can motivate children to engage in more physical activities through play (1-3). The parents in our study observed an expansion in their children's vocabulary, which is consistent with studies showing that therapy dogs improve communication skills, particularly in children with developmental challenges (4, 13).

The improvement in eating habits and acceptance of solid foods mentioned by a few of our participants aligns with broader research on AAT's influence on health behaviors and should be further investigated. Jennings *et al.* (24) found that AAT positively impacts mood and stress levels, which can be hypothesized to influence eating behaviors of children. The biophilia hypothesis (25) suggests that therapy dogs can help alleviate anxiety around mealtimes, potentially leading to more positive eating experiences and greater openness to trying different foods.

Studies have documented improvements in motor skills and coordination through therapy dog interactions (21). Sensory integration theory suggests that engaging with therapy dogs aids sensory processing and motor development (2). This aligns with findings that petting a dog fulfills sensory needs and promotes controlled movement, while guiding a dog improves coordination (3), as also recognized by the parents in our study. However, while adult dog owners benefit from increased activity due to dog walking, more research is needed on how child-dog interactions impact physical activity levels (1-3).

According to the parents, their children's experiences with the therapy dogs correspond to the study of Hüsgen *et al.* (4) and Ang and MacDougall (13), where it was reported that children experience some amount of anxiety or fear when they initially start AAT. This initial resistance can affect the therapy's effectiveness, as noted in previous studies, which highlight the need for a careful introduction and gradual acclimatization to therapy animals (3), where therapists seemed to have an important role.

Regarding parental attitudes, previous research indicates that parents of children with disabilities generally support therapy dogs in rehabilitation (3), consistent with our findings. Parents appreciated the therapy dog's role in making sessions engaging. However, the availability of information on DAT was a recurring concern, highlighting the need for better dissemination of details to help families make informed decisions. Since no research specifically addresses this issue, future studies could use surveys to assess the impact of information accessibility on families' engagement with DAT. Furthermore, future research could include detailed diagnostic information, as it would resolve our issue of having to make broader, less individualized observations.

In terms of parental views of the therapeutic process participants, often discussed parental presence during therapy sessions. As there is little research on this topic, future studies could investigate how parental presence impacts the effectiveness of the treatment and whether it influences parents' attitudes regarding the therapy.

Furthermore, participants observed various exercises during the therapy sessions. This diversity could be explained by the fact that contemporary approach to occupational therapy emphasizes the therapeutic value of participation itself, making it a potentially beneficial addition to the spectrum of interventions in child and adolescent mental health, as it can be adapted to each child (26).

Future studies could also examine the impact of concurrent therapies, that is, participation in other interventions during the same period as DAT, to determine whether this influences outcomes. Previous research has already indicated that children and adolescents who participated in DAT alongside psychotherapy had noticeable improvements in several areas, such as emotional balance and social engagement (8).

Additionally, given the observed improvements in children's eating habits, it might be worthwhile to investigate DAT as a targeted intervention for feeding disorders. As there is limited research on the most effective interventions for this issues, further evaluation of this therapeutic approach could help mitigate the challenges of the long and complex process involving multiple medical and clinical specialists for both children and their parents (27). Future research could aim to investigate individual cases of diverse disturbances in children to better navigate and examine occupational DAT.

Interest in DAT is growing, particularly in child health. However, research in Croatia remains limited, with only one DAT program available. By analyzing the only Croatian DAT program for children from a parental perspective, this study provides insights into the parents' perceived benefits of DAT for their children and possible limitations. It could thus help researchers and practitioners refine therapeutic interventions, ultimately enhancing the effectiveness and accessibility of DAT.

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