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Therapy Dogs in Pediatric Care: Outcomes of Animal-Assisted Therapy in Acutely Distressed, Hospitalized, Female Pediatric Patients

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Abstract

Hospitalization can be a distressing experience for patients, particularly in the pediatric population. It often results in increased anxiety, emotional withdrawal, and reduced cooperation with medical care. Traditional pharmacologic interventions may not adequately address the emotional and psychosocial needs of these children. Animal-assisted therapy (AAT), particularly involving certified therapy dogs, has proven to be a promising complementary approach to promote emotional well-being in clinical settings.

This case report describes the outcomes of therapy dog interventions in three cases of acutely distressed, hospitalized children aged 6 to 10 years. All patients were admitted to the pediatric inpatient unit for non-surgical, acute illnesses and were noted to exhibit signs of heightened anxiety, emotional lability, and poor adaptation to the hospital environment.

Each child participated in a single therapy dog session during their hospital stay. The sessions were facilitated by a certified therapy dog-handler team in coordination with a representative from the child wellbeing staff. Each session was a guided interaction consisting of gentle petting, storytelling, and calm companionship tailored to the child's comfort level.

Across all three cases, therapy dog interactions were associated with notable reductions in observable distress, improved willingness to engage with medical staff, and positive verbal expressions of emotion. Nursing staff and caregivers reported improved mood and cooperation, and reduced need for behavioral interventions.

This report supports existing literature suggesting that AAT with therapy dogs can offer immediate, non-invasive emotional benefits for hospitalized children. Although limited by the small sample size and subjective outcomes, these cases highlight the feasibility and therapeutic potential of integrating therapy dogs into inpatient pediatric acute care. Further research with standardized tools and larger populations is warranted to establish efficacy and best practices.

Categories: Integrative/Complementary Medicine, Pediatrics
Keywords: complementary alternative medicine, inpatient pediatrics, of animal-assisted therapy, pediatric case, therapy dog

Introduction

Animal-assisted therapy (AAT) is a structured intervention that incorporates certified animals and trained handlers into therapeutic settings to promote emotional and physical well-being. It is grounded in psychological and physiological theories, including the human-animal bond and the biophilia hypothesis, which suggest that interactions with animals may reduce stress and foster healing environments [1]. Therapy dogs are commonly used in AAT because of their gentle temperament, approachable nature, and ability to engage children in calming, non-threatening interactions.

In pediatric populations, AAT has been associated with several positive emotional and behavioral outcomes. Previous studies have demonstrated that therapy dog visits may reduce anxiety, lower cortisol levels, improve mood, and promote social interaction among hospitalized children [2]. These potential benefits are particularly relevant for children experiencing acute emotional distress, who may have difficulty with emotional regulation, communication, and cooperation during hospitalization [3]. Additionally, AAT has been associated with greater willingness to participate in medical care and improved interactions with healthcare professionals, potentially contributing to a more positive hospital experience [4].

Despite these encouraging findings, the existing evidence regarding AAT in pediatric inpatient settings has several limitations. Much of the published literature consists of small pilot studies, observational investigations, or surveys that primarily evaluate general outcomes rather than describing individual patient

experiences and clinical responses. Furthermore, differences in study populations, intervention protocols, and outcome measures make it difficult to compare findings and determine which children may benefit most from AAT. Assessing emotional distress in hospitalized children also presents unique challenges, as children's ability to recognize, communicate, and articulate their emotional experiences varies with age, developmental stage, and cognitive maturity. Acute illness, pain, unfamiliar surroundings, separation from caregivers, and anxiety surrounding medical procedures may further complicate the recognition and assessment of distress. Consequently, improvements in emotional well-being may be difficult to capture using standardized assessment tools alone, underscoring the value of detailed clinical observations and descriptions of individual responses to therapeutic interventions.

In this context, descriptive case reports may provide complementary insights into how AAT is implemented in real-world pediatric inpatient settings and how individual children respond during periods of acute emotional distress. Unlike studies focused primarily on aggregate outcomes, the present case series offers a clinical perspective on the use of therapy dog visits as a supportive intervention for hospitalized children experiencing acute distress. The objective of this report is to describe three cases of hospitalized pediatric patients, aged 6 to 10 years, who received therapy dog visits during episodes of acute emotional distress. These cases aim to illustrate observed emotional and behavioral responses, highlight the feasibility and practical considerations of implementing AAT in pediatric inpatient care, and contribute to the growing literature on its potential role as a complementary supportive intervention.

Case Presentation

Study design

A retrospective, observational case report was conducted from January to June 2025 at South Texas Health System (STHS) Children’s Hospital in Edinburg, Texas. Therapy dog visits were conducted weekly and offered to all pediatric inpatients who met the inclusion criteria and were willing to participate. Three cases were subsequently selected for inclusion in this report, each highlighting a different aspect of patient care. Case selection was guided, in part, by the patients’ observable level of distress at the beginning of the therapy dog visit, with particular attention given to cases in which notable distress provided an opportunity to document changes in patient affect, emotional regulation, and functional behaviours.

Setting

STHS Children’s is a pediatric hospital in Edinburg, TX, that treats children from birth to 19 years of age. The child wellbeing department provides a variety of services to ensure patients feel safe, welcome, and comfortable during their hospital stay. STHS Children’s offers Therapy Dog visits once weekly with a certified therapy dog-handler team on the pediatric inpatient unit (Figure *1*). The program aims to provide comfort and emotional support to patients and their families while visiting the hospital.



FIGURE 1: Animal-assisted therapy during pediatric hospitalization

A certified therapy dog visits a hospitalized pediatric patient in an inpatient hospital room.

Therapy Dog Team Details

The therapy dog program involved in this case report operated under a structured institutional protocol, designed to ensure safety, effectiveness, and compliance with healthcare infection control standards. The therapy dog and handler were evaluated and certified through the St. John Ambulance Therapy Dog program in 2024. This certification required the dog to be evaluated on various temperament and obedience tests to ensure that they demonstrated a calm demeanor in public settings. The therapy dog maintains updated vaccinations, antimicrobial preventatives, and veterinary health records. The handler was required to undergo training in patient privacy (HIPAA) and infection prevention. The handler is also in compliance with hospital volunteer protocol, ensuring vaccinations and tuberculosis testing is current. These efforts minimized infectious disease risk.

Protocol for Patient Interaction

Therapy dog visits were coordinated by the Child Wellbeing staff with the therapy dog's handler. Prior to each visit, patients were screened for eligibility. Factors such as allergies, fear of dogs, and immunocompromised status were considered. The parents/guardians of eligible patients were informed about the therapy visit and provided verbal consent. Sessions were conducted in patients' rooms and lasted approximately 15-30 minutes. The sessions typically consisted of activities like petting, storytelling, offering treats, trick demonstration, and gentle companionship, guided by the child's preferences and comfort level. A staff member (nurse or child support staff) was present with the therapy dog and handler to monitor the interaction.

Infection Control Measures

To minimize infection risk, the therapy dog was groomed regularly to maintain coat hygiene and minimize shedding and allergens. The therapy dog was restricted from high-risk areas such as critical care units and sterile procedure rooms. To prevent spread of infectious diseases, patients diagnosed with a contagious

disease requiring droplet or contact precautions were excluded from therapy dog visits. Hand hygiene was also performed by patients and staff before and after each interaction, and surfaces that the dog encountered were always disinfected.

Inclusion Criteria

The inclusion criteria were: 1. Age range - Children over the age of two years demonstrated the ability to engage meaningfully with the therapy dog and communicate their emotional responses; 2. Diagnosis - Eligible participants were hospitalized for acute medical conditions, such as minor injuries, or illnesses that did not require droplet or contact precautions.

Data Collected

Three cases were selected from the Therapy Dog Program for this case report. These patients were females aged 6-10 years old and demonstrated increased emotional distress as identified by healthcare providers, including symptoms such as social withdrawal, anxiety, crying, or non-cooperation with care. Patients were screened for eligibility, and verbal consent was obtained. The therapy dog entered the room, guided by the handler. Based on the patient's capability and enthusiasm, the therapy dog is instructed to either sit calmly at the bedside, stand with her front paws on the bed, or jump onto the bed and lie by the patient so the patient could actively interact with the dog. In the first case, the patient proceeded to walk around the hallways with the therapy dog providing company. In the second case, the therapy dog lay across the patient's legs to provide deep pressure therapy. In the third case, the therapy dog demonstrated tricks while receiving treats, which encouraged the patient to eat.

Cases

Case 1

A 10-year-old girl presented with gastritis. The patient was hospitalized with a history of diffuse abdominal pain and persistent vomiting. Despite continuous pharmacologic pain relief, the patient was still very upset, screaming, moaning, and constantly complaining of pain, as reported by nursing staff. The patient was uncooperative with nurses and physical therapists. She refused to get out of bed and often refused interventions such as routine vital sign checks. When introduced to the therapy dog, the patient's demeanor changed completely. She was smiling and talkative as she pet the therapy dog. When asked if she wanted to go for a walk in the halls with the therapy dog, she happily agreed. She proceeded to walk an entire lap around the pediatric floor (approx. 1200 ft.). She lit up with excitement as she shared stories about her pet dog at home. The entire therapy dog visit was approximately 20 minutes in duration. For the remainder of the afternoon, the patient reports mentioned a decrease in agitation and an increased willingness to participate in her care. One hour prior to the visit, the patient reported her pain was a 6/10 and a 4 was documented on the Face, Legs, Activity, Cry, Consolability (FLACC) scale [5]. After the visit, she reported her pain as a 0/10 and a 0 on the FLACC scale was also documented.

Case 2

A 6-year-old girl presented with an abdominal ileus. The patient was hospitalized for abdominal pain, nausea, and dehydration. The patient expressed displeasure with being in the hospital and said she wanted to go home. Due to her lack of appetite and oral intake, she was not ready to be safely discharged. The patient was upset by this, which negatively impacted her willingness to participate in her care and accept interventions. When the patient was offered a visit with the therapy dog, she agreed. She smiled with excitement and stood at the side of her bed while the therapy dog approached her. She proceeded to happily pet the dog. The therapy dog handler offered to demonstrate some tricks, giving the therapy dog treats as a reward. The patient's mother commented that the patient needed to eat like the therapy dog so that she could go home. Immediately, the patient proceeded to grab an open bottle of PediaSure from her tray and begin drinking it. The patient's mother and nurse were surprised at the patient's enthusiasm to consume the beverage despite her previous unwillingness. The therapy dog visit was approximately 15 minutes in duration. After the visit, the patient continued to show improvements in her appetite and was able to be discharged.

Case 3

An 8-year-old girl presented with acute otitis media. The patient was hospitalized for fever and severe pain in her ear and became very upset while getting initial labs drawn. The patient was visibly upset, crying, hyperventilating, and whimpering. When asked if she would like to visit with the therapy dog, she nodded her head slightly and gave a quiet "yes". However, she remained lying supine in the bed and did not want to sit up. The patient was asked if the therapy dog could join her on the bed so that she could reach her better, and she accepted. The therapy dog was trained in deep pressure therapy, so she carefully jumped onto the bed, guided by her handler, and lay across the patient's legs. The patient proceeded to hold the therapy dog's front paw, massaging the fur with her thumb. Immediately, the patient settled down, stopped crying, and

began interacting with the handler and parents. Her mood completely transformed, and she was engaging in conversation and even smiling and laughing. The therapy dog visit was approximately 15 minutes in duration, and the patient was significantly calmer by the end of the visit.

Results

All three cases demonstrated an obvious reduction in patient stress following therapy dog sessions. This was displayed by cessation of crying, decreased reported pain, increased participation in care, and increased appetite. See Table *1* for a summary of observations.

Case #	Age (years)	Diagnosis	Key observations	Staff feedback	Sex
1	10	Persistent vomiting and abdominal pain, gastritis	Reduced distress, reduced pain	Increased acceptance of/participation in care	F
2	6	Abdominal pain and ileus	Reduced distress, improved mood, improved appetite/willingness to eat	Increased acceptance of/participation in care	F
3	8	Acute otitis media	Reduced distress, abrupt cessation of crying, resolution of hyperventilation	Visible reduction in anxiety	F

TABLE 1: Summary of cases

Ethical Considerations

All procedures involving AAT in this case report were carried out according to institutional ethical guidelines for pediatric care and human-animal interactions. Prior to each therapy dog visit, families were informed of the purpose, nature, and duration of the visit, as well as the safety protocols in place. Informed consent was obtained from each child's parent or legal guardian, and assent was sought from each pediatric patient in a developmentally appropriate manner.

Children were encouraged to actively express their comfort levels and preferences throughout the sessions. At no point were patients pressured to engage with the therapy dog, and all interactions were supervised by trained clinical staff to ensure emotional and physical safety.

Consent for publication of each case report was obtained from the patients' guardians using a written consent form.

This case report involved a retrospective review of standard-of-care AAT sessions and did not include any directly identifying patient information. Accordingly, it was deemed exempt from formal Institutional Review Board (IRB) review. Nevertheless, all applicable ethical standards regarding patient privacy, confidentiality, informed consent, and voluntary participation were upheld.

Discussion

This case report highlights the potential benefits of AAT with certified therapy dogs for acutely distressed pediatric inpatients. All three cases display consistent patterns: each child demonstrated a marked reduction in emotional distress, improved affect, and increased engagement in care activities. This included enhanced participation in physical therapy, improved cooperation with nursing staff, and, in one case, immediate improvement in oral intake. These outcomes suggest that AAT may serve as an effective complementary approach to promote psychological and behavioural regulation in hospitalized children.

The therapeutic effects observed align with previously proposed physiological and psychosocial mechanisms of AAT. Interaction with animals is thought to modulate stress by reducing activity of the hypothalamic-pituitary-adrenal (HPA) axis, thereby lowering cortisol levels and increasing the release of oxytocin, a hormone associated with bonding and emotional regulation [6]. Additionally, therapy dogs provide nonjudgmental companionship and sensory comfort, which can support emotional expression and reduce feelings of isolation or fear during hospitalization [7]. In Case 2, the therapy dog's use of deep pressure therapy may have functioned similarly to weighted blankets, which have been shown to help regulate autonomic responses in children experiencing heightened arousal or anxiety [8].

These findings are consistent with existing literature on AAT in pediatric care. Hinic, Kowalski, and Holtzman (2019) demonstrated that children who received AAT during hospitalization showed reduced anxiety and improved affective responses [2]. Similarly, Calcaterra et al. (2015) reported improvements in

behavioural regulation and parent-reported mood following therapy dog interactions in hospitalized children [7]. A systematic study completed by Pandey et al. (2024) suggested brief pet therapy visits served as a tool that decreased anxiety in children who were hospitalized and promoted family satisfaction [9].

Despite these promising observations, the present case report is limited by several factors. The author served a dual role as both the certified therapy dog handler and the primary data collector, documenting patient responses and observations during each AAT session. This dual role introduces the potential for observer bias, as the author's involvement in facilitating the intervention may have influenced the interpretation or recording of patient responses. Furthermore, observations were independently collected, limiting the ability to establish inter-observer reliability. These considerations are acknowledged as methodological limitations and should be taken into account when interpreting the reported outcomes. The small sample size and lack of a control group limit generalizability and preclude causal conclusions. Observations were largely qualitative and based on subjective reports by staff and caregivers, introducing the potential for observer bias. Additionally, standardized tools were not used consistently across patients to assess outcomes such as pain or anxiety. As cases were selected based on clinical observations rather than through a predefined systematic sampling strategy, selection bias cannot be excluded. Consequently, the cases presented may not be representative of the broader population of pediatric inpatients receiving AAT.

Nevertheless, this case report provides valuable insight into the feasibility and potential impact of incorporating therapy dogs into pediatric inpatient care. The observed improvements in mood, cooperation, and appetite underscore the need for further research with standardized outcome measures and larger, controlled samples. These cases support the idea that AAT may be a low-risk, high-benefit adjunct to traditional pediatric care, particularly in children experiencing acute distress.

Conclusions

These case reports illustrate the potential role of animal-assisted therapy (AAT) as a supportive intervention in pediatric inpatient care. Across the three cases, brief therapy dog interactions were temporally associated with observable improvements in patient affect, emotional regulation, participation in treatment, and functional behaviors such as mobility and oral intake. These individualized observations suggest that AAT may offer benefits extending beyond psychological comfort, potentially supporting functional goals relevant to recovery and discharge readiness. Collectively, these cases highlight the value of considering holistic, non-pharmacologic approaches within pediatric hospital environments. The calming presence and emotional connection provided by therapy dogs may help foster trust, alleviate situational distress, and enhance children's sense of comfort and control during hospitalization. However, these findings are preliminary and do not establish a causal relationship between AAT and the observed outcomes.

This report also demonstrates the practical feasibility of incorporating structured AAT visits into pediatric inpatient care within the specific clinical settings described. Although no adverse events were observed in these three cases, the limited sample size does not permit conclusions regarding the broader safety of AAT, particularly among medically vulnerable populations. Appropriate patient screening, infection prevention and control measures, and handler training remain important considerations when implementing AAT in clinical environments. Future research should build on these preliminary observations through larger and more diverse patient samples, standardized outcome measures, and controlled study designs. Further investigation into the physiological and psychological mechanisms underlying AAT, as well as its potential short- and long-term effects, will help clarify its role in pediatric healthcare and inform evidence-based recommendations for its integration into routine clinical practice.

Additional Information

Author Contributions

All authors have reviewed the final version to be published and agreed to be accountable for all aspects of the work.

Concept and design: Mackenzie Landers, Heidi Duarte, Eva H. Dolub

Acquisition, analysis, or interpretation of data: Mackenzie Landers, Heidi Duarte, Eva H. Dolub

Drafting of the manuscript: Mackenzie Landers, Heidi Duarte, Eva H. Dolub

Critical review of the manuscript for important intellectual content: Mackenzie Landers, Heidi Duarte, Eva H. Dolub

Supervision: Heidi Duarte

Disclosures

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