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Dog therapy for staff in a pediatric emergency department: A quality improvement project

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Abstract

Background: Recent surveys of our pediatric emergency department staff showed a decrease in staff morale related to increased stress, indicating the need for intervention. Animal-assisted therapy has been shown to have multiple other positive effects in various populations including decreased stress and anxiety reduction. Our existing dog therapy program was unpredictable and inconsistent, resulting in limited staff involvement. The purposes of this project were to determine whether a consistently offered dog therapy program in our pediatric emergency department would be utilized by staff and to elicit staff feedback on the program.

Methods: A therapy dog was scheduled for one hour twice weekly for staff to visit when they were available. All staff in the ED were encouraged to attend these sessions.

Results: Staff responses were collected via pre- and post-intervention questionnaires. The percentage of staff who were not able to visit the dogs pre-intervention was 33%, decreasing to 15% post-intervention. Prior to project initiation, 60% of staff indicated that dog therapy was not offered enough, compared to only 37% after project completion. Staff reported the program was a morale booster and added positivity to the unit. Barriers to participation and suggested improvements were identified.

Conclusions: Staff were able to participate in dog therapy more often during the project than prior to project implementation, meeting the overall goal of providing more accessible dog therapy to staff. The program was well-received and has now become a standard offering for our emergency department staff.

Keywords: animal assisted therapy, professional burnout, emergency departments, job-related stress, complementary therapy, compassion fatigue

Introduction

Emergency departments (ED) are stressful environments that require staff members to make difficult, complex decisions. Physical, mental, and emotional stress experienced by ED staff may lead to compassion fatigue, which has the potential to adversely affect patient care (Ginex, et al., 2018). In order to provide the best care possible to patients, it is essential that ED staff have a way to combat work-related stress. Animal-assisted therapy has been shown to reduce stress in hospital staff (Bert et al., 2016).

Background

Prolonged work-related stress among healthcare staff can contribute to compassion fatigue and job burnout, ultimately leading to increased turnover rates and additional costs for healthcare facilities (Ginex, et al., 2018; Abrahamson, et al., 2016). According to Kline et al. (2020), 55% to 70% of ED healthcare professionals are at risk of leaving their jobs due to burnout. Burnout scores in these healthcare professionals are inversely correlated with self-perception of empathy, leading to loss of empathy and compassion towards patients (Kline et al., 2020). The cost of replacing registered nurses (RN) is 75% to 125% of their annual salaries, in some cases costing up to $145,000 per nurse (Pine & Tart, 2007).

Between August 2018 and August 2019, nurse turnover and new hire rates were especially high in our ED. Reasons for the full-time equivalent (FTE) changes included nurses reducing their FTE hours to attend graduate school, nurses taking positions outside the ED, and nurses taking travel positions out-of-state. Two additional buildings were also opened during this period and were staffed by existing ED nurses. The staff turnover and

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increased new hires adversely affected the remaining staff due to understaffing and an increased need for preceptors. In the most recent staff satisfaction survey, conducted quarterly to yearly by the ED nursing administration, low ED staff morale and decreased satisfaction due to perceived lack of support from management and peers were revealed. To address this issue, we began searching for courses of action to retain staff.

One approach to increasing retention rates was to improve staff morale. The ED employs multiple staff support clinicians: behavioural health professionals who are independently-licensed professional clinical counsellors or licensed independent social workers. The staff support clinicians provide support to staff through private meetings with staff members and rounding on the unit. In response to the survey results, the unit's staff support clinicians initiated more regular monthly "check-in" meetings focused on providing emotional support to the ED staff that included interventions such as aromatherapy and tea or coffee breaks. These sessions allowed staff to leave the unit and talk to the support clinician or simply have a small break.

The ED staff support clinician added dog therapy to some of these monthly check-in meetings based on staff requests and studies demonstrating, for example, that exposure to therapy dogs buffers stress responses (Fiocco & Hunse, 2017) and enhances mood (Brown et al., 2019). Ginex et al. (2018) noted that healthcare staff reported higher compassion toward their patients and lower burnout compared to baseline when participating in a dog therapy program on their unit. Stress reduction in healthcare professionals can occur as quickly as five minutes after the initial interaction with a therapy dog, as evidenced by a decrease in both salivary cortisol and self-reported anxiety levels (Hoffman et al., 2009; Kline et al., 2020), suggesting that ED staff could reap benefits of dog therapy even in short visits.

Therapy dog programs are generally operated by volunteers and are provided without charge for hospital staff. In combination with a strong program of recruitment and appropriate hiring practices, dog therapy has the potential to improve nursing job satisfaction in the stressful ED environment. Improved job satisfaction will, in turn, improve retention, potentially saving the unit hundreds of thousands of dollars per year (Pine & Tart, 2007; Hillman & Foster, 2010). The purpose of this quality improvement (QI) project was to implement a consistent and frequent dog therapy program in our Pediatric ED to provide enhanced opportunities for staff to relieve work-related stress.

Methods

Design and Setting

This QI project was conducted between the months of October and December 2019 in a large metropolitan pediatric hospital ED with approximately 550 staff members. While research regarding nursing was heavily evaluated in our planning, this QI project was made available to all ED staff, due to the stress perceived by all disciplines in this specialty.

Dog Therapy Program

Participation in this QI project was open to all ED staff in both clinical and non-clinical areas. Prior to initiation of this QI project, staff support clinicians scheduled dog therapy once every one-to-two months for one-hour increments. The dog therapy sessions for this QI project differed only in the frequency, not in the delivery. During October and December 2019, a therapy dog was scheduled twice weekly for one hour, a 700% to 1500% increase compared with previous dog therapy opportunities. Different dogs were scheduled during various time slots during ED shift changes at 1100h, 1500h, and 1900h. One dog handler and one therapy dog were present at each visit, and a total of seven handlers volunteered for this program. The therapy dog visits took place in a non-patient-care area per hospital epidemiology policies. During these scheduled therapy times, all staff on the unit were welcome to visit at any point during the scheduled hour and could stay as long as they liked.

Project Approvals

Prior to initiating the project on the unit, human subject research determination forms developed by the local institutional review boards (IRB) were completed by the project lead for both of the project's affiliated institutions. This QI project was deemed exempt from IRB oversight.

Measures

Outcomes were measured using a five-item pre- and post-intervention questionnaire developed by the project lead based on the literature review (see Appendix A). The items focused on staff perceptions of therapy dogs' availability on the unit and any barriers to participation experienced when dog therapy was available. Item 1 allowed only a single response; items 2-4 allowed multiple responses. Comment boxes for each question allowed staff to offer additional thoughts or suggestions. The anonymous questionnaires were offered to all staff members prior to initiation and upon completion of the eight-week dog therapy intervention. To maintain anonymity, data were not collected on staff characteristics, such as professional discipline, years of ED employment, or age.

Procedure

The questionnaires were loaded into Survey Monkey, and the link was distributed by email to all ED staff members. A printable version was also attached to the email to either be emailed back or printed and placed in a secure mailbox on the unit, which was emptied regularly by the project lead. The pre-intervention questionnaires were available to staff for two weeks prior to project initiation. The post-intervention questionnaire link was available for two weeks after the last therapy session was completed.

Unit leadership was notified of the QI project start date of October 2019, approximately one month prior to initiation. The project lead contacted the volunteer services coordinator to obtain contact information for dog therapy handlers interested in volunteering for this QI project. Seven handlers volunteered, and the project lead worked with them individually to schedule one-hour therapy visits in the ED over eight weeks. Information (including the schedule for therapy dog visits) was added to the daily change-of-shift staff huddles and publicized through flyers posted at staff gathering areas throughout the unit.

Dog therapy sessions were conducted in two non-patient care areas: the ED conference room, which was on the unit and easily accessible to staff, and the education conference room, located one floor below the ED. The therapy dogs and handlers entered the hospital through the main entrance and were guided by the

project lead to the conference rooms through non-patient care areas. Prior to starting the QI project, all dogs were certified through Therapy Dogs International and had previous experience in the hospital setting.

The project lead was present for each dog therapy session to record the number of staff participants. The number of staff members at each visit was summed over the period of the QI project. No names were recorded.

Results

The average number of ED staff participating in each of the dog therapy sessions was 21. There was a minimum of four participants and a maximum of 42 participants at these visits. Questionnaire responses were received by 121 staff members pre-intervention (approximately 22%), and 102 staff members post-intervention (approximately 19%).

Frequency of Participation

Staff visited the therapy dogs more during the eight-week QI project than in the eight weeks prior to project implementation (see Figure 1). The percentage of staff respondents that were able to visit the dogs one to two times decreased from pre-intervention (56%, $n = 68$) to post-intervention (34%, $n = 35$) and the percentage of staff respondents that were able to visit three to four times increased from pre-intervention (11%, $n = 13$) to post-intervention (41%, $n = 42$). Pre-project, none of the staff were able to visit therapy dogs at least six times, whereas 10% ($n = 10$) were able to visit at that frequency during the QI project. The number of staff respondents unable to visit the dogs decreased from 33% ($n = 40$) pre-intervention to 15% ($n = 15$) post-intervention.

Barriers to Participation

The largest reported barrier in both pre- and post-intervention questionnaires was time limitations (see Figure 2). Prior to project initiation, 57% ($n = 69$) of staff respondents indicated they were "too busy" to visit the therapy dogs. Post-intervention, this response increased to 82% ($n = 84$).

Comments indicated that staff were not scheduled to work when therapy dogs were on the unit ($n = 26$; 13%) or that they were working at an off-site location during the sessions ($n = 2$; 2%). One staff member commented that the dogs were inconveniently located when the visits took place in the conference

Figure 1

Percentage of staff interactions with therapy dogs before QI project initiation and after project completion

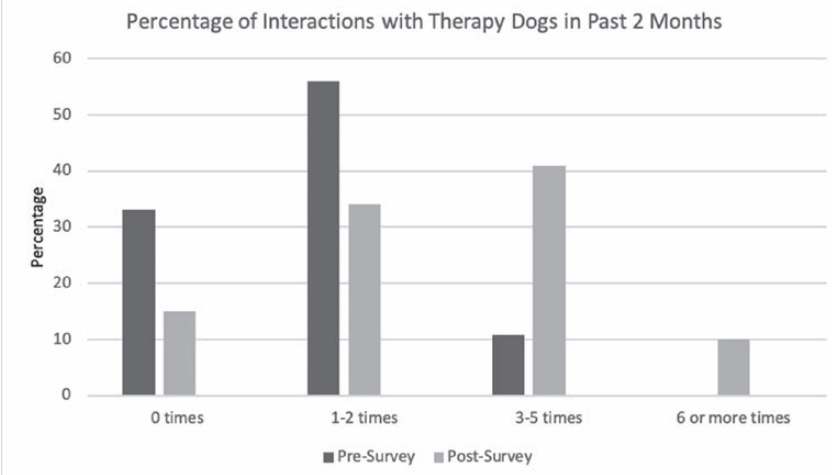
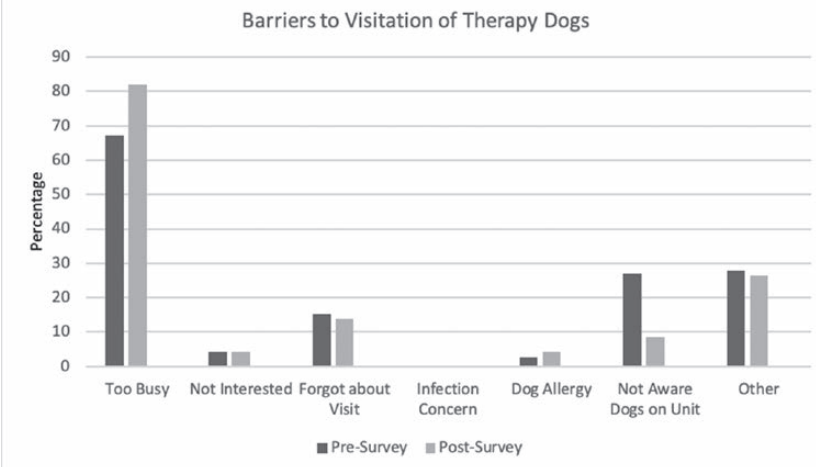


Figure 2

Percentage of respondents identifying barriers to attending dog therapy before QI project initiation and after project completion



room, off the unit. Another staff member reported an aversion to dogs due to religious purposes as a reason for not participating in the sessions, stating, "In Islam, we're not allowed to touch dogs due to their tongues being considered dirty…"

Staff Responses to Dog Therapy in the ED

Prior to project initiation, 60% (n = 73) of respondents indicated that dog therapy was not offered enough (see Figure 3). This decreased to 37% (n = 38) after project completion. Pre-intervention, 14% (n = 17) of respondents indicated dog therapy was offered just the right amount; post-intervention 40% (n = 41) of respondents agreed the newly increased frequency was the right amount. No respondents indicated that dog therapy was offered too often at either pre- or post-intervention. The issue of therapy dog sessions not matching with staff schedules decreased from 41% (n = 50) pre-intervention to 23% (n = 23) post-intervention. Staff indicated that the dog therapy sessions usually fit their schedules more often post-intervention (19%, n = 19) when compared to pre-intervention (12%, n = 15). Never utilizing the dog therapy program was reported by 5% (n = 6) of respondents pre-intervention and 6% (n = 6) of respondents post-intervention.

Suggested Improvements

Both the pre- and post-intervention questionnaires indicated that staff would like dog therapy offered more often (65% [n = 79] and 51% [n = 52] respectively; see Figure 4). Pre-intervention, 66% (n = 80) of respondents indicated that they would like dog therapy offered at different times, as compared to 38% (n = 39) post-intervention.

Respondents commented post-intervention that staff coverage when the therapy dogs visited would be helpful. Two respondents suggested the sessions be offered at different times to allow for more staff participation, requesting more therapy dog visits on evenings and weekends. Many staff members commented post-intervention that they would be more likely to visit the therapy dogs if the visits took place in the unit conference room rather than a location off-unit. Two respondents suggested that the dogs visit off-site areas. One staff respondent requested that other animals be offered for those with an aversion to dogs. In addition, a respondent commented, "I know this is probably out of our control, but it seems that some of the dogs we have

Figure 3

Percentage of staff perceptions of therapy dog availability before QI project initiation and after project completion

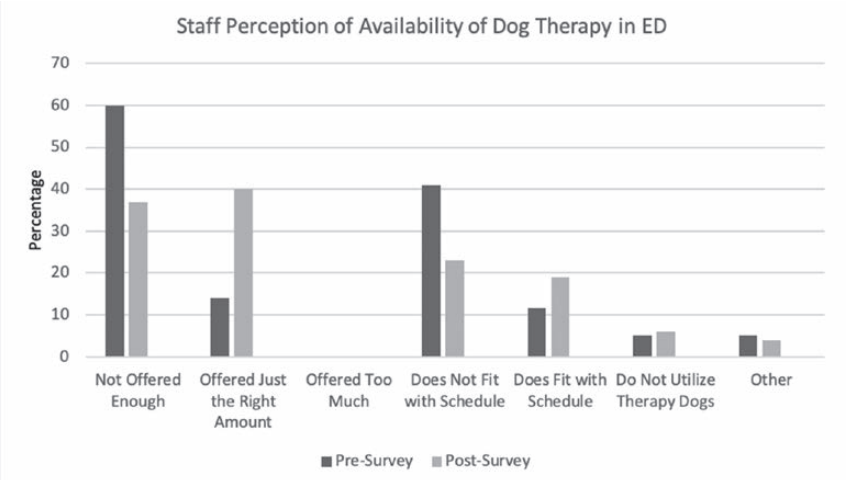
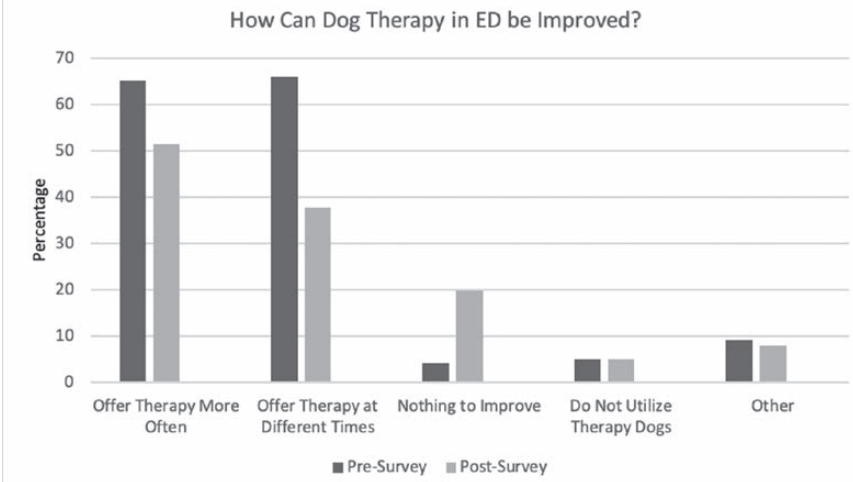


Figure 4

Percentage of staff recommending specific ideas for improvement before QI project initiation and after project completion



had shed excessively, so staff don't want to interact with them as much." Three staff members indicated that they did not participate due to dog aversion.

Additional Comments

Pre-intervention questionnaire comments included suggestions on how to proceed with future dog therapy visits. One staff member commented, "I think dog therapy programs could have an awesome impact on staff in the ED and wish they were available more often to staff members." Many of the post-intervention questionnaire comments offered praise for this QI project (n = 30; 29%). One respondent commented that the sessions were "Such a great morale booster for staff." Another respondent commented that they noticed more positivity in other staff members when the therapy dogs were on the unit, writing, "I think that this program brought a lot of joy to the department. I would see people speed walking down the hallway to get to the dogs."

Discussion

Evaluation and Lessons Learned

The purpose of this QI project was to assess the utilization of dog therapy by ED staff when offered on a more consistent and frequent basis. Overall, the QI project findings showed that implementation of a consistently scheduled dog therapy program allowed staff to participate more regularly in dog therapy and was well received. In addition, staff provided positive comments regarding the project implementation, as well as suggestions for continued dog therapy sessions.

The eight-week QI project duration affected the participation of the dog therapy volunteers, who reported that they would have been able to be more involved had the project took place over a longer period, and their visits could be more regularly scheduled. Due to the project's limited timeframe, the volunteers were scheduled on different days at varying times throughout the eight weeks, making scheduling a challenge. A consistent schedule for dog therapy sessions would also enable the staff on-unit to plan their participation.

Additional times and regular scheduling would also allow for better utilization of the unit conference room for dog therapy sessions. Many staff members reported that the location of the therapy dog affected their participation, i.e. the unit conference room was more accessible than the off-unit location. Due to hospital infection control policies, the therapy dog visits could only take place off-unit, where patient care was not conducted. The conference room on the unit was being utilized for other meetings during some of the dog therapy sessions, so these sessions were held in the conference room one floor below the ED, making visits more of a challenge for some staff.

Optimally, it would be beneficial for the ED staff support clinicians to have a designated therapy dog that was available not only for "check ins", but also for staff experiencing increased stress on the unit, such as trauma, death, or a difficult caseload. Indeed, having a consistent dog providing therapy may improve staff satisfaction with the program. Ideally, having a staff support clinician with a certified therapy dog would provide more access to this intervention during heavy census times due to multiple trauma or critical care patients. However, our hospital is not currently accepting applications for additional therapy dogs. Another option would be to have volunteer handlers "on-call" for assistance. However, it may be difficult for volunteers to commit to a regular schedule. This barrier may be overcome with additional monetary support to compensate volunteers for their time and cover dog therapy training costs for staff members.

An unanticipated barrier to this QI project was the inability of some staff members to participate due to religious beliefs regarding dogs. Multiple respondents on the post-intervention questionnaire suggested having other therapy animals available for those that were unable to touch dogs. They indicated that in the Islamic faith, dogs are considered "dirty" and are not to be touched. Multiple staff members self-identified as Muslim and indicated that they were able to participate partially and did come to the therapy sessions, but they did not touch the dogs. While they may have experienced some positive effects, other animal-assisted therapies that may be implemented in the future should take into consideration that some staff may not receive full benefits due to such barriers.

Another barrier to participation was allergies to dogs or concern about returning to work with dog hair on clothing. One alternative to alleviate this barrier would be to offer staff isolation gowns to wear during the visits or suggest that staff bring extra clothing to change into after visiting the dogs. However, many respondents in the post-intervention questionnaire indicated that they were not aware of the therapy dog visits until the day they took place, preventing them from coming to work with an additional set of clothing. While isolation gowns would be a useful alternative, the use of hospital PPE for non-patient care would need to be approved by unit management for budget purposes.

An alternative to using live animals is the utilization of robot-assisted therapy animals. One of the robotic alternatives frequently reported in the literature is a socially assistive pet robot (PARO). PARO has the appearance of a baby harp seal and utilizes artificial intelligence to respond to light, temperature, and touch, and can "learn" to monitor changes in patients' emotions and health utilizing sensors (Park, et al., 2020; Yu, et al., 2015; Peterson, et al., 2016). PARO allows participation in animal-assisted therapy for those with an allergy to animals and fear or aversion to dogs, and alleviates the unpredictability of live animals (Yu, et al., 2015; Hung, et al., 2019). While animal-assisted therapy had larger positive effect on emotional well-being in elderly patients with dementia, Park et al. (2020) found PARO to be a viable alternative to animal-assisted therapy for the reduction of stress, anxiety, and depression in this population (Yu, et al., 2015; Peterson, et al., 2016; Hung, et al., 2019; Park et al., 2020).

The use of PARO in other populations has also shown benefits. Following this human-robot interaction, decreased salivary oxytocin, self-reported increased happiness, and an alleviation of pain sensations were found after one session with PARO in healthy young adults (Geva et al., 2020). These positive effects of PARO support including it as an option for stress reduction in ED staff.

The cost of PARO is currently $6,000, excluding the warranty and cost to care for the robot (Hung, et al., 2019). In addition, there is also a cost for maintenance and staff training (Hung, et al., 2019). PARO has been approved by the Food and Drug

Administration as a complementary medicine intervention and is billable to Medicaid in the United States. Government funding is available in some countries, such as Japan, for this alternative therapy, but other countries such as Canada have no government aid and would be responsible for the entire cost (Hung, et al., 2019). While these data are promising, it is unclear whether government aid would be provided for the use of PARO specifically for healthcare professionals.

Another option to alleviate allergy or fear of animals is the use of goldfish for pet therapy. The hospital does have multiple fish aquariums, including a large aquarium in our ED. In a systematic review, Clements et al. (2019) report that fish in aquariums can contribute to the overall well-being of humans of various ages. However, studies included in this review had small sample sizes, and an unclear risk of bias since some of those included in the testing groups were fish owners. Since there is no physical contact for fish, as there is in other animal-assisted therapy, fish in aquariums may be more suitable for some staff and could be a feasible option for staff with an aversion to dogs.

Finally, response rates to our survey were lower than anticipated. We believe that the volume of emails received by our staff increased the possibility of postponing survey completion or not reading our message because it was not urgent and not directly related to provision of clinical care. In the future, we recommend sending friendly, engaging reminders at least twice while the survey is open, including an estimated time of completion of the survey, providing verbal reminders during staff huddles and at staff meetings, and posting additional reminders in common staff areas. These reminders should include the value of staff input related to this intervention.

Moving Forward

This QI project was well received by the unit. Consistent and predictable scheduling of therapy dogs at specific dates and times in the future may increase involvement by enabling staff to plan their participation and also allowing therapy dog handlers to continue volunteering long-term. All of the therapy volunteers who were involved in this QI project expressed interest in continuing their participation. Staff support clinicians volunteered to continue the dog therapy program and develop an established dog therapy schedule. Volunteers will be scheduled regularly, and visits will only occur in the unit conference room to enhance staff participation. Lint rollers will be available for all staff to use after dog therapy to combat excess shedding issues. Other animal-assisted therapy or robot pet therapy needs are to be discussed further with hospital management to determine if it would be feasible for our department.

Additional information on the effects of dog therapy can be obtained by continuing this project. The primary reason for the implementation of this QI project was to address low staff morale with the goal of reducing turnover. A future goal would be to measure the effect of regular dog therapy on staff morale and turnover rates. Staff morale and turnover rates could be collected 12 months following project initiation and compared with the pre-project period to meet this goal. This timeframe correlates with the information gathered during the 12 months prior to this QI project's initiation and allows for a larger picture of the ebb and flow of staffing changes in the ED. Based on previous literature, results would likely support the continuation of this project in the ED and possibly expanding to other units of the hospital.

Conclusion

Implementation of a consistent dog therapy program successfully increased ED staff utilization of this intervention. Recommendations for improvements were received from staff and implemented in this ongoing dog therapy program. Evaluation of effects of participation in dog therapy on staff morale, job satisfaction and retention is recommended.

Implications for Emergency Clinical Practice

1. Nursing in the ED is highly stressful and it is imperative that nurses care for their mental and physical well-being to care for their patients adequately.
2. There is a need for interventions that improve healthcare staff morale and overall emotional satisfaction.
3. Providing a regularly scheduled, consistent dog therapy program to healthcare professionals working in stressful environments has the potential to enhance emotional wellness and, in turn, alleviate burnout and decrease turnover rates.

About the authors

Haley Mash, DNP, RN, CPN, was born and raised in Columbus, OH and traveled to Duquesne University in Pittsburgh, PA for her BSN. She started her career as a nurse at Nationwide Children's hospital in 2012 in the Infectious Disease Ambulatory Clinic after undergraduate training. During her time in the ambulatory clinic, she attended multiple conferences and presented on the topic of communication barriers occurring between providers and pediatric patients and families who do not speak English. She transitioned to the Emergency Department at Nationwide Children's Hospital in 2015 where she still works part time. Haley was accepted into the BSN to DNP program at OSU and graduated with her Masters Degree specializing in Acute Care Pediatrics, and then with a DNP the following year during which time she completed her DNP project entitled "Dog Therapy for Staff in a Pediatric Emergency Department." Haley also worked as a graduate teaching assistant for the University throughout her graduate school experience, and started full time with OSU as an Assistant Professor of Clinical Practice in 2021, where she currently teaches clinical for BSN and graduate entry students in the pediatric inpatient setting. She currently lives in Grove City, OH with her family and pets and her hobbies include doing yoga, spinning, gardening, and traveling. She travels out west as much as possible to visit the mountains where she enjoys hiking, camping, and being outdoors.

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Appendix A

Emergency Department Dog Therapy Questionnaire

1. How many times have you been able to interact with the therapy dog in the past 2 months as a staff member in the Emergency Department?
1 = 0 times
2 = 1-2 times
3 = 3-5 times
4 = 6 or more times

2. If you were unable to visit the dog, what kept you from doing so? (Select all that apply
1 = Too busy
2 = Not interested
3 = Forgot to go
4 = Worried about infection
5 = Allergic to dogs
6 = Not aware therapy dogs were available
7 = Other (please comment)

Comments:

3. How do you feel about the **availability** of dog therapy in the Emergency Department? (Select all that apply)
1 = Not offered enough
2 = Offered just the right amount
3 = Offered too much
4 = Therapy times usually DO NOT fit with my schedule
5 = Therapy times usually DO fit with my schedule
6 = N/A – do not utilize therapy dog program
7 = Other (please comment)

Comments:

4. What could be done to improve the current dog therapy program? (Select all that apply)
1 = Offer therapy more often
2 = Offer therapy at different times
3 = Nothing to improve
4 = N/A – do not utilize therapy dog program
5 = Other (please comment)

Comments:

5. Do you have any additional comments?

Comments:

Look for supplemental materials such as author interviews and podcasts at www.CJEN.ca

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