

WellBeing International

## WBI Studies Repository

10-2018

### Prison-Based Dog Training Programs: Standard Protocol

Tyler M. Han  
*University of Denver*

Erin Flynn  
*University of Denver*

Joseph Winchell  
*University of Denver*

Emily Gould  
*University of Denver*

Jaci Gandenberger  
*University of Denver*

*See next page for additional authors*

Follow this and additional works at: <https://www.wellbeingintludiesrepository.org/anitobe>



Part of the [Animal Studies Commons](#), [Comparative Psychology Commons](#), and the [Other Anthropology Commons](#)

---

#### Recommended Citation

Han, T. M., Flynn, E., Winchell, J., Gould, E., Gandenberger, J., Barattin, D., Tedeschi, P., & Morris, K. N. (2018). Prison-based dog training programs: Standard protocol. Denver: Institute for Human-Animal Connection.

This material is brought to you for free and open access by WellBeing International. It has been accepted for inclusion by an authorized administrator of the WBI Studies Repository. For more information, please contact [wbisr-info@wellbeingintl.org](mailto:wbisr-info@wellbeingintl.org).



---

**Authors**

Tyler M. Han, Erin Flynn, Joseph Winchell, Emily Gould, Jaci Gandenberger, Dana Barattin, Philip Tedeschi, and Kevin N. Morris



**STANDARD PROTOCOL**

# **PRISON-BASED DOG TRAINING PROGRAMS**

**OCTOBER 2018**



Photo by Cpl. Anabel Abreu Rodriguez



**UNIVERSITY** of  
**DENVER**

GRADUATE SCHOOL OF SOCIAL WORK  
Institute for Human-Animal Connection

## **Prepared by**

Tyler M. Han, Erin Flynn, Joseph Winchell,  
Emily Gould, Jaci Gandenberger, Dana  
Barattin, Philip Tedeschi, & Kevin N. Morris



## **WHO WE ARE**

Housed within the Graduate School of Social Work at the University of Denver, the Institute for Human-Animal Connection (IHAC) is an internationally recognized center for research, ethics formation, and clinical training, as well as a respected source of scientific and scholarly information on human-animal connections.

## **VALUES**

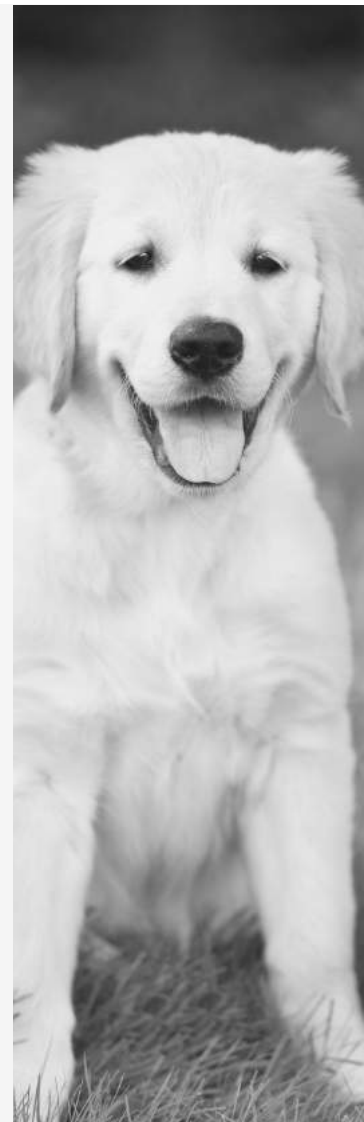
We believe that the quest for new knowledge about human-animal connections and social-ecological systems must reflect respect for social justice, cultural diversity, and beneficial social change.

# ACKNOWLEDGMENTS

We would like to acknowledge all of the dedicated individuals, both incarcerated and not incarcerated, who work tirelessly to continue the work of prison-based dog training programs across the United States.

A special thank you to the following individuals and organizations for their contributions to this project:

**Canine CellMates**  
**Canine Companions for Independence**  
**Colorado Correctional Industries**  
**Death Row Dogs**  
**DoggoneExpress**  
**Drew Webster, CPDT-KA**  
**Friends of Second Chance Adoption Shelter**  
**Happy Hounds**  
**Inmate Dog Alliance Project of Idaho**  
**Illinois Department of Corrections**  
**Montana Department of Corrections**  
**New Mexico Corrections Department**  
**Paws Giving Independence**  
**Paws in Stripes**  
**Pit Sisters**  
**Prison Greyhounds**  
**Puppies for Parole**  
**Red Dog Project**  
**Refurbished Pets of Southern Michigan**  
**Second Chance Homeless Pet Society**  
**Second Chance Pups**  
**Washington Department of Corrections**



# SUMMARY

Across the United States, the number of prison-based dog training programs (PDPs) has increased substantially over the past several years. Currently, there are approximately 255 PDPs across 47 states that operate in a variety of correctional settings; however, there is little information available on how to successfully develop and implement a PDP. As a result, the research team from the Institute for Human-Animal Connection (IHAC) has developed a standard protocol to help guide PDP development and implementation.

This report identifies common practices of PDPs and incorporates both general and context-specific recommendations that were gathered from interviews with PDP staff, relevant literature, and content experts. In total, 21 interviews with 20 programs were conducted. PDPs were asked about several program features, including policies and procedures, key personnel, funding, materials, physical spaces, supervision and monitoring, safety considerations, animal welfare, handler selection and training, and program benefits.

This report highlights the benefits of PDPs to dogs, humans, prisons, local communities, and society as a whole and identifies challenges related to funding, staffing, and operating in a correctional setting. Findings from the protocol point to the importance of planning, staffing, communication, internal support, and training curriculum in successful program implementation.

# CONTENTS

## INTRODUCTION

|   |   |
|---|---|
| Overview of the Guidelines              | 1 |
| Number of PDPs Across the United States | 2 |
| Development of the Guidelines           | 3 |
| Importance of the Guidelines            | 3 |
| Limitations of the Guidelines           | 4 |
| The Five Freedoms                       | 5 |
| Least Intrusive, Minimally Aversive     | 6 |

## PROGRAM INFORMATION

|                                  |    |
|----------------------------------|----|
| Program Purpose                  | 7  |
| Program Duration                 | 8  |
| Funding                          | 8  |
| Staff Roles and Responsibilities | 9  |
| Program Materials                | 11 |
| Program Benefits                 | 14 |

## POLICIES AND PROCEDURES

|                         |    |
|-------------------------|----|
| Communication Practices | 17 |
| Record Keeping          | 18 |
| Safety                  | 19 |
| Restricted Access       | 21 |
| Sanitation              | 21 |

**FACILITY REQUIREMENTS**

|                                   |    |
|-----------------------------------|----|
| Program Office and Supply Storage | 22 |
| Housing                           | 22 |
| Training Space                    | 23 |
| Outdoor Space                     | 24 |

**DOG INFORMATION**

|                            |    |
|----------------------------|----|
| Dog Welfare                | 25 |
| Dog Selection Process      | 27 |
| Transportation of the Dogs | 28 |
| Training Methodology       | 29 |
| Adoption Protocol          | 29 |

**HANDLER INFORMATION**

|                                    |    |
|------------------------------------|----|
| Handler Roles and Responsibilities | 31 |
| Handler Qualities                  | 32 |
| Handler Selection Process          | 33 |
| Handler Selection Criteria         | 34 |
| Handler Training                   | 36 |
| Handler Monitoring and Evaluation  | 37 |

**RECOMMENDATIONS** 39**REFERENCES** 40



# INTRODUCTION

## OVERVIEW OF THE GUIDELINES

**255**

Number of PDPs  
across the  
United States

**47**

Number of  
states with PDPs

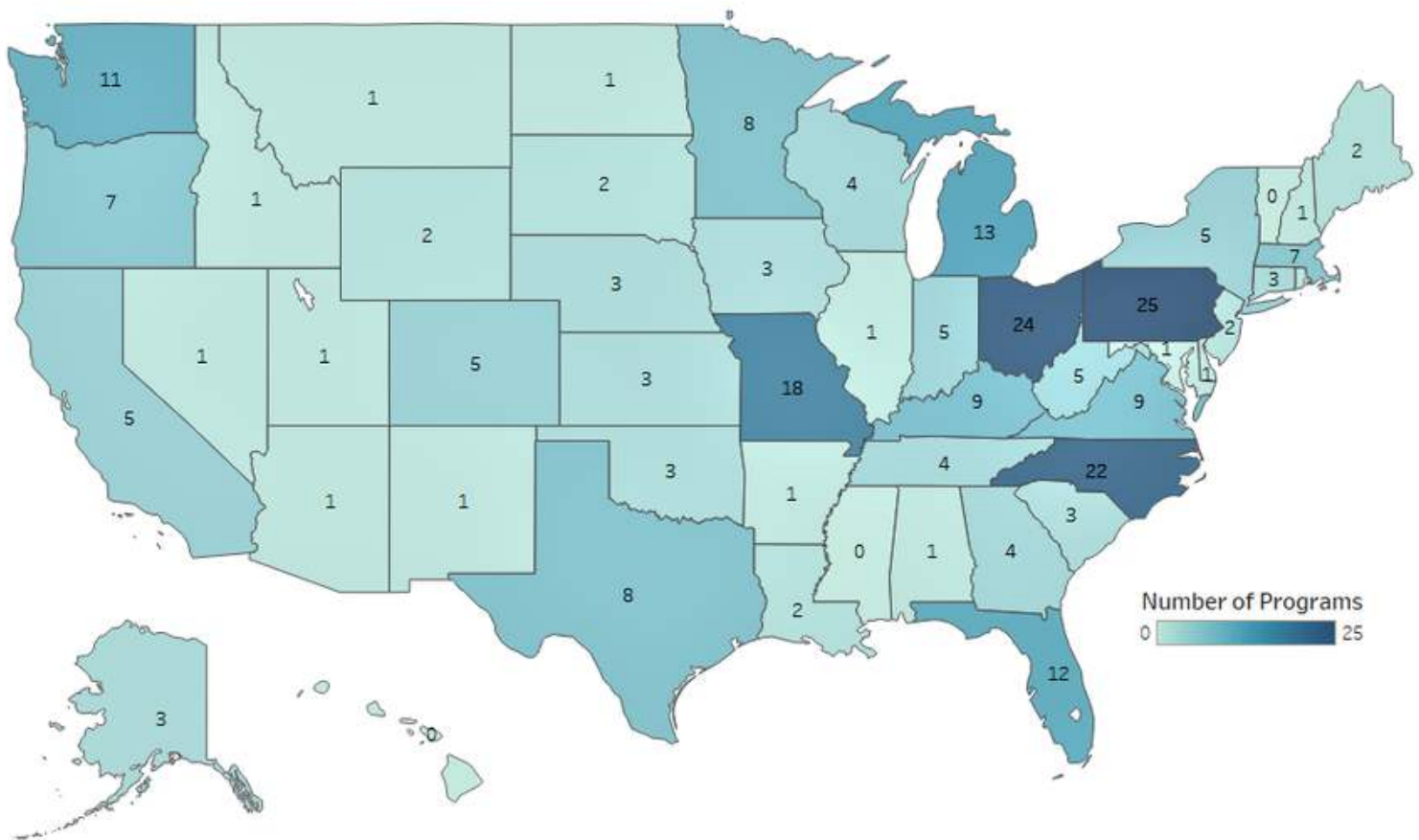
**20**

Number of  
programs  
interviewed

In recent years, prison-based dog training programs (PDPs) have expanded rapidly across the United States. Currently, there are a little over 250 PDPs in 47 states that operate in minimum, medium, and maximum security facilities at the local, state, and federal levels. Due to a number of factors, including variations in funding and diversity in prison populations and settings, programs are extremely varied. The highly contextualized nature of these programs makes knowledge sharing between PDPs critical to the advancement of the field. However, there is little communication between programs, which makes the development of new PDPs and improvement of current PDPs challenging.

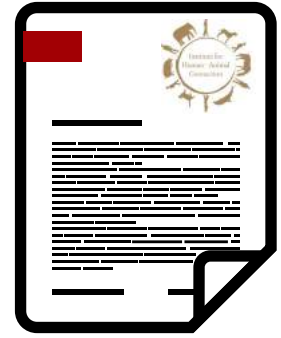
PDPs are beneficial to both dogs and humans, yet information on program development and implementation is limited. As a result, the research team from the Institute for Human-Animal Connection (IHAC) has developed a standard protocol to help guide PDP development and implementation. This resource is intended to promote the welfare of dogs in correctional institutions and to highlight the value of human-animal interactions for inmates. This document presents guidelines that are based on relevant research, practice knowledge from PDP practitioners, and information from content experts. As social science researchers with a person-in-environment lens that is rooted in values of social justice, the IHAC research team is well-positioned to discuss these findings and their applications to current and future PDPs. The research team hopes that this information will help optimize outcomes of PDPs for dogs, humans, prisons, local communities, and society as a whole.

## NUMBER OF PRISON-BASED DOG TRAINING PROGRAMS ACROSS THE UNITED STATES



This map represents the best knowledge currently available on the number of PDPs across the United States; however, it is not without limitations. Information gathered on the number of programs was restricted to web searches. As a result, programs without an online presence are not reflected in this map. Also, some of the information contained on websites may not be accurate or may no longer be up to date. Still, this is the most comprehensive information on the number of PDPs currently available.

These numbers also include dog training programs that occur in jail settings. While PDP is technically an inaccurate term, there is no other phrase that has been used to describe these programs. Therefore, we will use the term PDP to refer to all dog training programs that occur in correctional institutions.



## DEVELOPMENT OF THE GUIDELINES

These guidelines were developed through a multi-phase process. First, the IHAC research team conducted a thorough review of relevant research, which included literature on animal welfare considerations in animal-assisted interventions as well as literature on the efficacy of PDPs and other prison-based animal programs. Second, the team carried out systematic web searches of PDPs in all 50 states to create a database of programs. Using this database, the team contacted programs via email to inform them of the current project and to request for participation in an interview. Third, the team conducted semi-structured interviews with 20 programs across the United States. Common practices were then identified from the interviews. Finally, the team consulted content experts and reviewed materials shared by established PDPs, including administrative forms, training manuals, and policy and procedure documents, to help inform the guidelines.

## IMPORTANCE OF THE GUIDELINES

The presence of animals in correctional settings was first documented in the United States during World War II.<sup>1</sup> Since then, a variety of prison-based animal programs have been developed, including pet visitation, livestock care, wildlife rehabilitation, and dog training programs, which are the most common.<sup>2</sup> Established in 1981 by Sister Pauline and Dr. Leo Bustad, PDPs have grown substantially over the past several years.<sup>1, 3</sup>

Research shows that PDPs improve the mental and physical health of handlers<sup>4-7</sup> and that simply interacting with dogs decreases levels of cortisol in inmates.<sup>8</sup> When comparing outcomes of PDPs to other correctional treatment programs, PDPs perform as well if not better than other programs.<sup>9</sup> PDPs also help handlers learn valuable skills that can assist them in gaining employment upon release from prison.<sup>10</sup> Most notably, preliminary studies on PDPs support their efficacy in decreasing rates of recidivism.<sup>7, 9</sup>

The presence of dogs in correctional settings also improves the prison environment by enhancing communication and fostering relationships among inmates and between inmates and staff<sup>6, 12-16</sup> and by decreasing infraction rates and other prison misconduct.<sup>9, 12, 17-19</sup>



Despite their numerous benefits, efforts to advance PDP development and implementation have been limited. Well-implemented PDPs have the potential to reduce the cost of prison spending by creating safer prison environments and by decreasing recidivism rates. On the other hand, poorly implemented PDPs may be ineffective at best and could pose a threat to both animals and humans at worst.<sup>20</sup> As a result, it is essential to consider what has and has not been successful for other programs along with relevant research to move the field forward and to help ensure the best outcomes.

## LIMITATIONS OF THE GUIDELINES

These guidelines identify “common practices” rather than “best practices.” In many cases, research does not yet support a definitive statement on what is considered best. Often, this may depend on the particular population and setting of the program. When more or less desirable practices are identified, they are based on existing research and consultation with practitioners and experts as outlined above. The team acknowledges that this is a growing field that needs more research to identify best practices. The team also recognizes that interviews may not reflect all practices in each program. For instance, PDPs may use methods to minimize stress to the dogs that were not discussed in the interviews.

These guidelines are not intended to be a definitive prescription for every program. Instead, they are meant to be initial suggestions. To be used effectively, these guidelines require recognition of site-specific circumstances. For example, practices that may be necessary in a maximum-security prison may not be ideal for a minimum-security setting. Wherever possible, the team has attempted to identify context-specific recommendations so that practitioners can select what best suits their environment and goals. Before implementing a PDP, it is important to conduct your own research and to consult with the appropriate experts.

## THE FIVE FREEDOMS

In 1979, the United Kingdom's Farm Animal Welfare Council created the Five Freedoms in response to public outcry over the widespread inhumane treatment of livestock.<sup>21</sup> Since that time, the Five Freedoms have become a widely recognized international standard for animal welfare. The Five Freedoms should serve as a framework when developing practices and policies to ensure the safety, well-being, and dignity of the dogs involved in PDPs.

### THE FIVE FREEDOMS



#### FREEDOM FROM HUNGER AND THIRST

by ready access to fresh water and a diet to maintain full health and vigor.



#### FREEDOM FROM DISCOMFORT

by providing appropriate environment including shelter and a comfortable resting area.



#### FREEDOM FROM PAIN, INJURY OR DISEASE

by prevention or rapid diagnosis and treatment.



#### FREEDOM TO EXPRESS NORMAL BEHAVIOR

by providing sufficient space, proper facilities and company of the animal's own kind.



#### FREEDOM FROM FEAR AND DISTRESS

by ensuring conditions and treatment which avoid mental suffering.



## **LEAST INTRUSIVE, MINIMALLY AVERSIVE**

Least intrusive, minimally aversive (LIMA) is the framework IHAC uses in training and behavior modification programs. LIMA advocates for the use of positive reinforcement as the primary approach in achieving behavior change and opposes the use of punishment in place of other interventions and strategies.<sup>22</sup> LIMA respects the importance of choice for the dogs and takes into account individual differences in temperament, preferences, abilities, and needs.<sup>22</sup> To further understand LIMA, it is important to be familiar with the four quadrants of operant conditioning: (1) positive reinforcement, (2) negative reinforcement, (3) positive punishment, and (4) negative punishment.

There are often inconsistencies in how the terms of operant conditioning are used, as many tend to think of reinforcement as good and punishment as bad. Instead, IHAC's Canine Programs Manager, Drew Webster, CPDT-KA suggests that positive and negative should be thought of as addition and subtraction. For example, positive means adding something to a situation (e.g., producing an unpleasant sound), and negative means taking something away (e.g., removing an unpleasant sound). Similarly, reinforcement should be thought of as increasing the frequency of a behavior and punishment as decreasing the frequency. Therefore, making an unpleasant noise to stop a dog from barking would be positive punishment, and releasing pressure from a dog's body after it has sit would be negative reinforcement. The research team will use these definitions when referring to the terms reinforcement and punishment and will make efforts to clarify the language used by programs when necessary.

# PROGRAM INFORMATION

## PROGRAM PURPOSE

Dog training programs in correctional institutions have three primary purposes: (1) basic obedience training, (2) socialization, and (3) service dog training. When developing a PDP, it is important to identify its purpose to help guide decision-making. Some elements that will differ by program purpose include program duration, materials, and expectations of dogs, handlers, staff, and other inmates. For example, service dog training programs often place more restrictions on inmates' interactions with the dogs than socialization programs due to their focus on task training.

Programs that focus on obedience training cover a range of topics, including potty training, crate training, loose leash walking, basic commands, and trick training. The goal of these programs is to increase the adoptability of the dogs and to decrease the likelihood that the dogs will be returned once adopted.

Service dog training programs teach the dogs a variety of specialized tasks, including opening doors, turning on lights, retrieving items, alerting, and bracing for mobility support. The specific training tasks taught to the dogs will depend on the needs of the service dog recipients— that is, dogs intended to work with children with autism will learn different tasks than dogs intended to work with individuals with limited mobility.

Though less common, socialization programs may have minimal if any training components and instead concentrate on providing dogs exposure to and positive experiences with other people and dogs. More often, programs choose to focus on both obedience training and socialization.

Along with these primary purposes, programs can also have a secondary purpose. Programs may have a grooming component, in which handlers groom the dogs in the program or provide grooming services to the community at a reduced rate. Programs may also have a board-and-train component, in which dogs from the community receive intensive training while being housed at the institution, again at a reduced rate. Programs that have the capacity to provide these services benefit from added financial stability and improved community relations.

## PROGRAM DURATION

The duration of PDPs will depend on a number of different factors, including program purpose, flexibility in program length, and housing for the dogs while awaiting adoption. Generally, programs that train service dogs are longer than programs that teach basic obedience due to the additional time needed to train the dogs for specialized tasks. Some obedience and socialization programs are flexible and will allow dogs to stay past the program end date if the dogs need additional support to become eligible for adoption. For dogs that need less intensive support, a foster home may be a good option if available. While most PDPs will move dogs out of the facility after they've completed the program, others will house the dogs at the institution until they are adopted. All these factors should be considered when determining program duration since they affect a PDP's capacity to take in and train new dogs.

## FUNDING

Funding is critical to the viability of PDPs, yet receiving and maintaining funding is one of the greatest challenges. Due to the instability of funding sources, PDPs must rely on a variety of mechanisms to fund their activities. Sources of funding can include adoption fees, service fees from grooming and/or board-and-train services, individual donors, local businesses, private foundations, charitable organizations, and state or local governments. Often, governments provide the greatest amount of funding; however, these funds are unpredictable because they are highly vulnerable to budget cuts. Adoption and services fees tend to be the most stable as they are generated by the programs themselves. The use of online platforms, such as GoFundMe, to solicit monetary donations can be a useful strategy in expanding a program's pool of donors.

The most financially secure PDPs rely on a variety of funding sources and are resourceful in obtaining funding. For example, partnering with a local professional sports team is a creative way to generate funds while promoting the program and building relationships with local communities. Another inventive option is to offer individuals the opportunity to sponsor a dog in the program. In exchange, the sponsor would receive updates on the dog and would be invited to attend the dog's graduation ceremony. While funding options for each program will vary, it is important for PDPs to be able to engage the resources available to them given the context in which they are operating.



PDPs should also consider donations of goods and services to offset program costs. Donations for food and veterinary care are particularly beneficial since they are the greatest cost for PDPs. For food, PDPs can partner with local pet stores or may seek corporate sponsorship from pet food companies to obtain food for free or at a reduced cost. For veterinary care, local veterinarians may be inclined to offer their services at a reduced cost in exchange for steady business. Veterinary schools may be another option for PDPs, as they sometimes run low-cost clinics or provide services at a reduced cost. PDPs may also receive donations from individuals for various items, such as blankets, toys, or dog treats, and can use an online registry like Amazon Wish List to request specific items.

Some other costs to consider when thinking about funding PDPs are transportation costs, which can include transporting the dogs for participation in the program, for veterinary care and socialization trips once in the program, and to the shelter for adoption after completion of the program. The transportation costs may be a one-time fee or may be ongoing and include vehicle maintenance, gas, and insurance. Programs that receive their dogs from another part of the country have the largest transportation costs and must also factor in the cost of parasite management during transport. Liability insurance should also be a consideration when thinking about funding for PDPs.



## STAFF ROLES AND RESPONSIBILITIES

Successful PDPs rely on a combination of strong internal support from prison staff and good external partners.<sup>11</sup> Staffing, which is dependent upon funding and availability of personnel, should consist of dog program staff, prison staff, a dog trainer, and a veterinarian. While others, such as shelter staff, are helpful, they are not essential to the operation of PDPs. Instead, these responsibilities are fulfilled by core staff who often act in multiple roles. In many cases, dog program staff consists of one person who acts as the dog trainer and performs most (if not all) administrative duties like obtaining materials for the program and

maintaining program records. At any rate, good training for all staff is absolutely necessary for PDPs.<sup>11</sup> Staff who are not familiar with a correctional setting should be oriented to safety and security issues and be prepared as thoroughly as possible for the environment in which they will be working.<sup>11</sup>

### ***Dog Program Staff***

Dog program staff work in coordination with correctional officers and other key personnel at the institution. Responsibilities can include acquiring dogs for the program, maintaining clear lines of communication with prison staff, coordinating adoptions, and transporting animals to and from veterinary visits, shelters, and adoption events. Typically, program staff also participate in selecting inmate participants by reviewing applications and conducting interviews. They may also maintain materials required for the program, including documents and animal care supplies. Although this role is often unpaid, this is not recommended. Based on interviews, the position is not sustainable if unpaid, and a degree of continuity in this position is important for the long-term success of a PDP. Some program staff are also dog trainers, which can reduce costs by decreasing the number of paid positions required for the program. At times, dog program staff are employed by the prison. When this is the case, the programs tend to be well-developed because of the amount of time staff is able to invest in the program and because of their increased capacity for communication and collaboration with prison staff.

### ***Prison Staff***

Prison staff can include a number of different people like the warden and other administrative staff; however, correctional officers often play the largest role in the day-to-day operation of PDPs. As a result, they should be familiar with the program's policies and procedures. Correctional officers provide general supervision to ensure that the handlers and other inmates adhere to institutional rules and offer timely communication with dog program staff to inform them of any issues that may arise. PDPs that do not have full-time dog program staff on site rely more heavily on correctional officers to provide daily oversight. This can involve case management, monitoring the handlers' training of the dogs, and overseeing the general safety of the dogs. Prison staff may also participate in the selection of handlers by distributing announcements and screening applicants for program eligibility. Because correctional officers play a vital role in the functioning of PDPs, it is important that they are supportive of the program. When they are not, it can undermine the efficacy of the program and potentially jeopardize the welfare of the dogs.

### ***Dog Trainer***

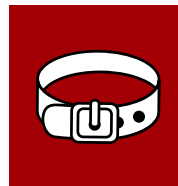
The dog trainer may work independently or may be part of the dog program staff. Trainers are often the first position to be paid due to their specialized knowledge and expertise. Trainer responsibilities include developing curriculum for the program, providing training for the handlers, and assisting with the screening of dogs and handlers for the program. Trainers have the capacity to oversee handlers working with dozens of dogs;<sup>14</sup> however, the individual needs of the handlers, the dogs, and the capacity of the trainer should determine exact program numbers. Not attending to these factors can lead to potential oversight by dog trainers and can compromise the efficacy of the training.

### ***Veterinarian***

Programs should partner with a local veterinarian to provide routine care for the dogs as well as a veterinarian that can provide emergency care as needed. Typically, veterinary care includes spaying and neutering, vaccinations, parasite management, and other routine care.

### ***Shelter Staff***

Shelter staff complete a variety of tasks that support the functioning of PDPs. Some of their duties include identifying dogs for participation in the program, transporting the dogs to and from the shelter, coordinating adoptions, and taking dogs on socialization trips outside of the facility. These trips are important, particularly for dogs in service training, because they help the dogs become comfortable with environments outside of the prison.<sup>10, 23</sup>



## **PROGRAM MATERIALS**

The training materials and program supplies used in a PDP should align with the goals of the particular program and the safety policies of the particular institution. Listed on the following pages are some basic materials needed for a PDP.

## Basic Materials



### Collars and Harnesses

Recommend Martingale or flat buckle collars and harnesses. Martingale collars may need to be removed during play to prevent dogs from getting tangled and injuring each other. Gentle leaders may be used. Prong or choke collars are not recommended. Prisons may require programs to avoid anything with metal.



### Leashes

Short leash (3-6 ft) for inside and long leash (15-30 ft) for outside training. May need to avoid anything with metal.



### Food and Feeding Supplies

Food and water bowls, food storage containers, and measuring cups. Kongs or Kong wobblers (if permitted) and snuffle mats to provide enrichment and to prevent dogs from eating too quickly. High-quality food brands are recommended. Canned pumpkin or yogurt can be used for upset stomachs.



### Kennels, Crates, and Bedding

Kennels and crates of multiple sizes to accommodate different sized dogs. Prisons may require a certain amount of free floor space, which can be achieved by elevating beds and placing crates under (if permitted).



### Toys

Kongs, Nylabones, and rope toys (if permitted), squeaky toys, other durable toys, and plastic pools. Damaged toys should be removed immediately to prevent them from being used to hide contraband.



### Medicine

General medications (e.g., Benadryl) and flea and heartworm preventatives. Should be stored in a secure location and administered by staff.



### Grooming Supplies

Soft bristle brushes, nail clippers, scissors, tubs, shampoo, towels, and items to clean ears and teeth. Some of these items may need to be kept secured and checked out as needed.



### Cleaning Materials

Waste bags, disinfectants, and paper towels



### Clothing

Winter coats may be needed for added protection from the cold depending on the climate, dog breed, and amount of time spent outdoors.



### Stress Management

ThunderShirts, Calming Caps, and blends of calming herbs and scents

## Training Materials



### Clicker

Clickers for positive reinforcement training. May be distracting if being used by several handlers in a small space, or may be banned by the facility.



### Training Treats and Treat Bag

Small treats for training (e.g., Zuke's Mini Naturals Training Treats)



### Agility Equipment

Hoops, tunnels, small jumps, ramps, and stackable boxes. Agility work should be done either in an unpaved outdoor space or on a cushioned floor to protect the dogs from injury.



### Service Dog Training Equipment

Programs that train service dogs need to acquire materials to recreate, or mimic as closely as possible, the circumstances in which the dog will be asked to perform. Common equipment includes wheelchairs, walkers, light switches, fake counters, and empty pill bottles.



### Dog Training Information

Books, magazines, manuals, worksheets, handouts, videos, etc. Different types of training materials help accommodate different learning styles of the handlers.



## PROGRAM BENEFITS

### *Benefit to Dogs*

Across programs, dogs benefit from participating in PDPs. Additional training from handlers increases their chances of adoption, and interactions with humans provide restorative experiences to dogs who have not been appropriately or adequately socialized.<sup>4, 25</sup> By simply having positive interactions with people, the behavior and stress levels of sheltered dogs improve, as long as they have the opportunity to retreat and rest when needed.<sup>26-29</sup> Ultimately, participation in PDPs results in a decreased likelihood of euthanasia for dogs.

### *Benefit to Handlers*

PDPs offer handlers unique benefits that are difficult to achieve through traditional correctional programs because they provide opportunities to build skills while allowing handlers to be engaged physically, mentally, and emotionally.<sup>30</sup> Through participation in PDPs, handlers receive institutional benefits, gain vocational skills, experience personal growth, and develop prosocial skills. Perhaps most importantly, findings from surveyed programs and the literature support the efficacy of PDPs in reducing recidivism.<sup>7, 9</sup>

The most basic benefits that handlers receive as a result of participation in PDPs are those that are given to them by the institution. For example, handlers often receive additional privileges (e.g., frequent or free access to the outdoor space) to be able to perform their required duties (e.g., pottyng, training, and exercising the dogs). Handlers may also receive more favorable housing accommodations, such as a one- or two-person cell, to have sufficient space to house the dog. Because the nature of the program requires handlers to maintain work hours well beyond a typical assignment, they often receive a higher wage

than other prison assignments. Though institutional benefits are the least frequently cited, they are important to mention. Because of these advantages, PDPs can attract inmates who may not have an interest in training dogs or who may not have the necessary commitment required. As a result, appropriate screening of potential handlers is key in helping to support the proper care and training of the dogs.

Research shows that vocational programs and employment are associated with decreased rates of recidivism.<sup>31-35</sup> The required documentation of programs (e.g., incident reports and training journals) has increased literacy for many handlers, which is a foundational job skill. Programs can further promote handler employability by providing opportunities for them to earn different certifications for grooming, pet care, dog training, or apprenticeship. Certifications can be obtained through the state or other accrediting bodies, including the Department of Labor, local colleges and universities, International Professional Groomers, Inc., or the International Boarding and Pet Services Association. Overall, handlers gain a variety of skills that help improve employment prospects upon release. In this way, PDPs can be valuable in reducing recidivism.<sup>5, 36</sup>

Through participation in the program, handlers experience personal growth in several ways. In training the dogs, handlers gain a sense of accomplishment and often receive praise from others, which builds their self-esteem and improves feelings of self-worth.<sup>9</sup> Training the dogs also helps handlers develop patience, learn to manage their emotions, enhances their decision-making and problem-solving skills, gives them a sense of purpose, and allows them to give back to communities as a way of repairing harm. As handlers are given the task of caring for and training the dogs, they learn responsibility and accountability. In addition, handlers develop prosocial skills by learning how to communicate and collaborate with other handlers and people in the institution in order to train and socialize the dogs.

Aside from the tasks of training and caring for the dogs, simple human-animal interactions alone provide opportunities for personal growth in handlers. Interactions with the dogs can encourage self-reflection in handlers as they often see parallels between the dogs' experiences and their own. At times, this self-reflection acts as a catalyst for re-establishing or repairing relationships with family, which can be important, as there is a consistent relationship between

family contact and lower rates of recidivism.<sup>37</sup> In these interactions with the dogs, handlers are able to experience unconditional love and affection and learn empathy and compassion for other living beings. In this way, PDPs are unique because they are able to provide tangible skills while serving a therapeutic purpose.

### ***Other Benefits***

PDPs offer numerous benefits to correctional institutions and to society as a whole. Within institutions, PDPs break down barriers between correctional officers and inmates by providing opportunities for communication and by humanizing inmates in the eyes of correctional officers, which promotes a more pleasant environment. In addition, the presence of the dogs serves to calm housing units and improves the mood of other inmates, which creates a safer prison environment.<sup>3, 14, 16</sup> For communities and society, PDPs offer well-trained dogs at an affordable price and increase the capacity of shelters and rescues to serve more dogs. Service dogs trained by PDPs benefit specific populations, such as military veterans with PTSD.<sup>20</sup> Some programs also provide services to prison staff and the community (i.e., grooming and board-and-train) at a reduced rate. Many handlers also serve the community upon release by volunteering for shelters and rescues. These interactions between handlers and communities can help to reduce the stigma of incarceration. Finally, surveyed PDPs reported decreased rates of recidivism in handlers compared to inmates not in the program, which promotes public safety and can reduce the cost of prison spending for taxpayers.







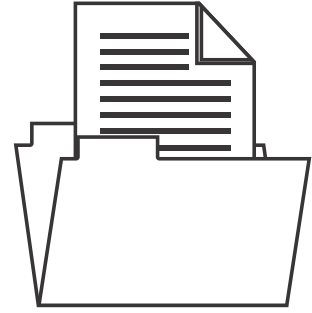
# POLICIES AND PROCEDURES

The use of clear and well-documented policies and procedures helps set appropriate expectations and promotes communication among those involved in PDPs. Presenting detailed and specific plans for how a PDP will be run is invaluable when soliciting support from correctional institutions. It is essential that established policies and procedures are continually applied and revised as needed to fit the context in which the PDP operates.

## COMMUNICATION PRACTICES

Effective communication within PDPs supports program outcomes and helps promote safety within the institution. Some programs have structures in place that allow handlers to have direct communication with dog program staff when they are not at the facility, while others require communication with program staff to go through correctional officers. When possible, it is recommended that handlers be able to communicate any needs or concerns directly to program staff, as this encourages timeliness in reporting and addressing issues. If communication must go through prison staff, policies that have been agreed upon by both dog program and prison staff should be in place. These policies should dictate the timeliness of reporting based on the urgency of the issue. For example, general concerns unrelated to the dogs' safety or welfare that have been reported to correctional officers must be communicated to program staff within 48 hours, while illness or injury to the dogs that could be life-threatening must be reported to program staff immediately upon being communicated to correctional officers.

Written documents are necessary to clearly outline the roles, responsibilities, and expectations of those involved in PDPs. Important documents include policies and procedures manuals, handler release forms, training manuals, and memoranda of understanding (MOUs). MOUs are particularly useful when developing partnerships because they help ensure that all parties are in agreement about their expected contributions to the PDP. Investment in good communication practices with all stakeholders from the beginning of the process sets the stage for successful program coordination across multiple complex systems and results in improved outcomes in the long term.



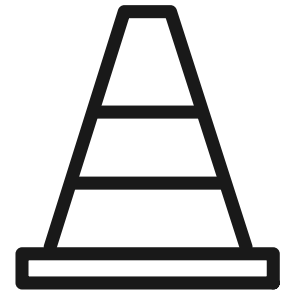
## RECORD KEEPING

A variety of information is routinely documented by PDPs for program maintenance and oversight. Accurate record keeping to track program materials is important in ensuring adequate stock of items and can help prevent misuse of materials. Dog program staff are often responsible for taking inventory of the majority of program materials; however, correctional officers may be better suited to track materials that are kept at the facility since they are present more often.

Incident reports are another form of documentation that support program oversight. These documents are completed by handlers, dog program staff, and prison staff for a variety of reasons. Occasions that require an incident report will vary by program and should be detailed in the program's policies. In addition, the process for completing the report should be detailed in the program's procedures. Some reasons for completing an incident report include a policy violation, conflict among handlers, and illness or injury to the dogs. At times, incident reports will require action from staff (e.g., possible mistreatment of a dog), while other times, incident reports are simply for documentation purposes (e.g., a dog eliminated outside of the designated space).

Extensive records are often kept on the history, health, training, and needs of each dog. This information can help match dogs with adopters, as dog size, behavior, personality, and level of training are factors that have a significant perceived influence on adoption success.<sup>38</sup> Also, handlers are often asked to maintain journals where they note the progress their dogs have made during training and identify areas for continued growth. Journaling helps determine next steps in training or whether the dogs are ready for adoption and assists handlers in learning valuable, transferable skills.<sup>10</sup> Some of the information in the dogs' records may be given to adopters to offer guidance on how to best support their new dog. When possible, adopters should be given information or resources to help address any ongoing behavior or training needs.

Tracking of program outcomes is valuable in determining the efficacy of PDPs; however, record keeping and sharing of information is limited. Though dog program staff regularly collect data on program outcomes for dogs, they may not

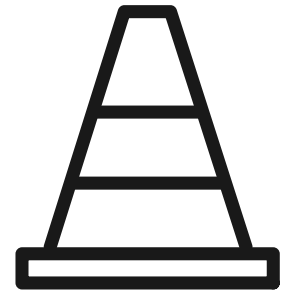


share this information with prison staff, since the main concern of prisons is handler outcomes. On the other hand, prison staff may collect data on handler outcomes, but this information is difficult or impossible for program staff to access. As a result, program staff must resort to anecdotal evidence in considering the impact of PDPs on recidivism. In order to truly develop best practices for PDPs and to promote expansion of these programs, information on program outcomes must be shared to support advancement of the knowledge base.

## **SAFETY**

The safety and well-being of the dogs, handlers, other inmates, and staff is a top priority of PDPs. Appropriate sanitation and veterinary care are critical in minimizing the spread of infectious diseases and parasites. *See Sanitation and Dog Welfare sections for additional information.* To minimize the risk of bite injuries, dogs should be screened for aggressive behaviors prior to participation in the program. In most situations, PDPs are not appropriate settings for dogs who have a history of involvement in dogfighting and/or who display aggressive behaviors. Often, these programs do not have the appropriate resources nor do handlers have the highly specialized knowledge required to effectively and safely manage these extremely difficult cases. Further, prison policy typically does not permit dogs who display aggressive behaviors into the facility. *See Dog Selection section for additional information.* For dogs who display aggressive behaviors, namely biting, while in the program, they may be removed as a general rule, or they may be allowed to stay in the program if it is determined that they were unreasonably provoked by another inmate or dog and if the injury is not severe. In these cases, the handler should receive additional training to help manage these situations. As an additional safety measure and to protect the well-being of the dogs, inmates and prison staff should not approach or pet the dogs unless given permission by the handlers.

Materials commonly used in PDPs can present some safety risks. As a result, consideration of the use and management of these objects is warranted. Further, staff must closely track all tools and supplies and secure items that may pose an additional

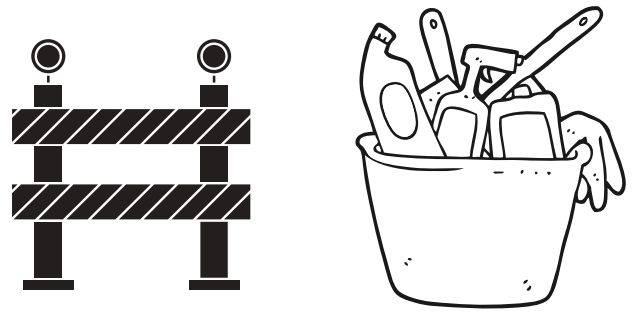


risk. To the extent possible, accommodations should be made to align the materials and policies of the PDP with those of the institution. For example, if banned by institutional policy, Kongs can be replaced by a slow-feeder bowl if used for feeding purposes or a snuffle mat if used for enrichment.

All parties must come to an agreement regarding how the use of materials will be regulated as well as who will be responsible for regulating their use. Nail clippers are typically not allowed in many correctional settings, but trimming nails is important to the health of the dogs. So, one option is for dog program staff to bring nail clippers with them to the institution at set intervals to trim the dogs' nails on site and to take the clippers with them when they leave. Another option is for the nail clippers to be kept on site in a secure area. Here, program staff may trim the dogs' nails, or either dog program or prison staff may be present when handlers trim the dogs' nails to ensure that the clippers are used appropriately and are secured after use. A third option is for dog program staff to transport the dogs outside of the facility to trim their nails, though this option presents its own challenges and safety risks related to moving the dogs in and out of the facility. In cases where grooming is an additional component of the program, a check-in/check-out system may be used to track supplies.

Medications and grooming tools if left on site should be stored in a secure location and distributed by dog program or prison staff to prevent potential misuse. Additionally, supplies should be inventoried at the end of each shift and reported to dog program staff. This ensures that staff are made aware of any discrepancies in a timely manner and also notifies them when supplies are low and need to be re-ordered.

Every setting presents unique challenges, so it is important that policies regulate the types of tools used by the program and that resource tracking and management policies are developed that best fit the particulars of the location. The potential benefit of incorporating a material or tool should always be weighed against its potential risk. As a final safety consideration, PDPs should develop emergency protocols for facility lockdowns or natural disasters common to their specific region that details how dogs will be moved in and out of the facility if needed.



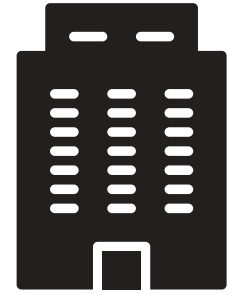
## RESTRICTED ACCESS

In general, dogs are allowed in most areas of the institution. This is beneficial because it allows them to have additional socialization opportunities through exposure to diverse situations, stimuli, and people. In some cases, dogs are not permitted in the dining or kitchen areas due to health codes or the infirmary for hygienic reasons. Dogs may also be prohibited from the metal shop, the wood shop, or the gym for the safety of both dogs and humans. Some facilities do not allow dogs in the visiting area as a safety precaution since it is difficult to predict or control how visitors might respond to or interact with the dogs.

## SANITATION

When introducing animals into a controlled environment, it is critical to adhere to standards of cleanliness.<sup>39</sup> Ideally, sanitation standards will be developed and periodically reviewed with a veterinarian who is experienced in shelter medicine.<sup>39</sup> Proper ventilation should be maintained, as fresh air can promote good health and limit the spread of infectious diseases.<sup>10</sup> Cleaning schedules should be created for cells, common areas, and training rooms to help ensure that facilities are being sanitized at regular intervals. Keeping program areas clean reduces allergens in the facility, decreases the risk of attracting pests, and helps control the spread of diseases.<sup>10</sup>

Sanitation standards also apply to the removal of animal waste. Designated relief areas for dogs helps maintain cleanliness by confining waste to a specific area. Solid waste should be picked up immediately, disposed of in designated receptacles, and emptied on a regular basis. Relief areas should be hosed down every few days and cleaned weekly to minimize odors. PDPs that do not have an outdoor space where dogs can eliminate can use indoor pads and other indoor relief systems. The same procedures for waste disposal should be followed; however, indoor receptacles and relief areas, particularly those that do not have appropriate ventilation, will need to be emptied and cleaned more frequently to minimize odors and maintain cleanliness.



# FACILITY REQUIREMENTS

Facilities differ in their available space; however, PDPs need a minimum amount of space to function effectively. Programs need space to house, train, and exercise the dogs and areas for the dogs to eliminate. Without the appropriate space, the welfare of the dogs and the integrity of the program may be compromised.

## PROGRAM OFFICE AND SUPPLY STORAGE

If a PDP has a full-time dog program staff member who is employed by the institution, then a dedicated office space that allows for the secure storage of records and other documents should be provided. Because dog program staff who are not employed by the institution often have another office space where records and documents can be securely stored and because they are not at the facility as often as a full-time staff member, they may or may not need their own office.

If program spaces are shared with others, equipment should not be left and instead must be stored in a secure area. Storage space for equipment and other program materials is necessary so that dog program staff and trainers do not have to bring materials in and take them out each time they visit the institution. This places an additional burden on those staff and may discourage their continued participation in the program. Secured storage spaces should also keep medications and other materials with the potential for misuse.

## HOUSING

Dogs are commonly housed with their handler either in cells or in a group dorm setting. Programs with primary and secondary handlers often share a cell to support training of the dogs. For programs that rotate dogs among different handlers, the dogs' sleeping arrangements also rotate so that they are housed with their current handler. Dogs that live in cells are housed in crates that are placed either next to or underneath their handlers' bed. The exact placement of the crates is often dictated by institutional policy.



Programs must consider the minimum amount of free space needed for both dogs and handlers to move around. If allowed, beds can be raised to meet minimum free space requirements. Institutional policy and free space requirements should be considered because it can limit the size of dogs that programs are able to accept.

Programs that operate in jail settings often have group dorms. In these cases, dogs may live in a communal space with their handler and other inmates who may not be in the program. This environment may prove too stressful for some dogs due to the increased amount of activity in the space that limits their ability to rest.

Programs may house handlers and dogs separately if space does not permit them to live together, but this is not ideal. Housing them in the same space allows handlers to be responsive to the dogs' needs and can aid in socialization. Dogs who are in service training, in particular, should be housed with their handlers since it is more likely to simulate their living conditions as service dogs. There, the dogs may be expected to maintain close proximity to their owner while sleeping to be able to respond to their needs at any moment. In instances when programs act as a shelter, dogs are housed in another building on facility grounds.

## **TRAINING SPACE**

Programs should have access to indoor training space in addition or as an alternative to outdoor space. Indoor space allows for training when the weather outside is too hot or too cold to permit safe training. For programs that do not have an additional outdoor space, the training space may also act as an exercise space. In these cases, special pads may be needed to allow the dogs to gain sufficient traction. Programs that train service dogs may require additional space due the materials needed for training. Handlers may also use this space for their classes, or they may have a separate space.



## **OUTDOOR SPACE**

Outdoor spaces are used for exercise, training, and elimination. PDPs may have their own dedicated outdoor space, or it may be shared with other inmates. If shared, dogs must remain on leash when other inmates are present as a safety precaution. Sufficient outdoor space is necessary because it allows for multiple dogs to share the area at once and for handlers to practice recall with the dogs. If the area is large enough, it may be beneficial to fence off a smaller section for dogs who are older or who have mobility issues that would make interacting in the larger group challenging. If outdoor space is not available, indoor spaces may be used for the dogs to train and recreate. Programs that do not allow handlers to have free access to outdoor areas and do not permit the dogs to eliminate indoors should have correctional officers available to grant access to outdoor space when needed.





# DOG INFORMATION

## DOG WELFARE

Maintaining the health and well-being of dogs is essential to the viability of PDPs. This starts with restricting the number of dogs in the program to an amount that can be suitably cared for.<sup>10</sup> When first beginning a program, it is important to start with just a few dogs and handlers and then gradually increase their numbers as the program finds success.<sup>10</sup>

Dogs and humans live in close quarters for the duration of the program, which makes timely and proactive veterinary care key in avoiding the spread of infectious diseases and parasites. Prior to entering the program, dogs are required to pass a basic health screen, which includes ensuring that the dogs are spayed or neutered, up-to-date on vaccinations, and receiving flea and heartworm preventatives. Spaying and neutering not only decreases the birthrate of animals, but also leads to a rapid decrease in spraying, marking, and fighting, which reduces stress levels for both dogs and humans.<sup>10</sup> PDPs that partner with shelters may be able to coordinate health screenings with the shelter veterinarian. Most PDPs will admit dogs with medical issues to the program on a case-by-case basis. These decisions are often based on the program's capacity to afford care and the type of care that will be required— that is, programs may not be able to accommodate dogs whose treatment and care needs to be given by a veterinarian on an ongoing basis due to issues related to frequently moving the dog in and out of the facility or regularly getting the veterinarian to come to the facility.

Once in the program, dogs continue to receive veterinary care to ensure health and wellness, which maximizes the chances for successful adoption. PDPs work closely with a primary veterinarian for routine care and an on-call veterinarian for emergency care. Protocols should be in place to move the dogs in and out of the facility in emergency situations. An additional consideration related to the health of the dogs is nutrition. Some dogs may require special diets to meet their nutritional needs. In these cases, food may need to be prepared by dog program staff and brought to the institution or by handlers at the institution.



Adequate exercise is another important aspect of dog health, which can be accomplished by incorporating walks and play time into the daily schedule. If the outdoor space is shared, the dogs should be kept on leash when other inmates are present as a safety precaution. Otherwise, they can enjoy off-leash play time. Depending on the type of collar being worn, it may need to be removed during play to prevent dogs from getting tangled and injuring each other. Basket muzzles can also be used during play time if there are concerns about safety. When outdoors, animals should be monitored to ensure that they are protected from extreme heat and cold.<sup>10</sup>

Across programs, a significant factor related to behavioral health is the presence of environmental stressors. There is mixed evidence as to whether dogs find prolonged stays in shelter environments to be stressful. Outcomes seem to vary by the particular dog and shelter environment, so all dogs should be monitored for signs of stress.<sup>40, 41</sup> Handlers should pay close attention to the dogs' body language and other indicators of stress to identify environmental stressors.<sup>42</sup> Daily routine, relief time for eliminating, interactions (or lack thereof) with people and dogs, recovery time after interacting or working, and diet are all factors that may influence stress.<sup>43, 44</sup> When possible, handlers and staff should take measures to reduce or eliminate stressors. It is unavoidable that dogs will experience a degree of stress in this environment; however, stress can be managed by using compression wear (e.g., ThunderShirts and Calming Caps), maintaining a routine that includes time to rest, play, and exercise, and allowing the dogs to acclimate gradually to potentially aversive stimuli, such as unfamiliar objects, loud sounds, and large groups of people.

Crates with soft and washable resting surfaces provide a safe space where dogs can retreat without being disturbed;<sup>10, 45</sup> however, dogs should not be kenneled for more than 4-6 hours per day before being allowed to exercise and relieve themselves.<sup>39</sup> Appropriate crate size is important because if there is not sufficient headspace, it can have a negative impact on the general activity level, social interactions, and vocalizations of the dogs.<sup>46</sup> Therefore, programs should have multiple crates to accommodate dogs of different sizes.



Opportunities to socialize with humans and other dogs is another key component of dogs' behavioral health. Minimally, dogs should be provided with toys and auditory and olfactory stimulation; however, social contact with humans and other dogs is the most important form of enrichment for dogs, particularly those in confined environments.<sup>47, 48</sup> Unstructured play time should be part of the daily schedule to allow for socialization with other dogs.

Research suggests that positive human contact may reduce the fear response of dogs to humans, though further research is needed.<sup>27</sup> Socialization can also be achieved through community outings or weekend trips with dog program or shelter staff. These socialization trips may assist dogs in transitioning to their new environment and are especially important for service dogs to help them gain exposure to stimuli that cannot be recreated in the institutional environment, such as elevators, traffic, and children. Extended periods of time alone in a cell or kennel should be limited based on the age and temperament of the dogs. In many institutions, it is appropriate and warranted for the dogs to spend time on leash with their handlers in common areas like classrooms, recreation areas, and other spaces where dogs can be in proximity to people who behave in varied and sometimes unpredictable ways. To support adjustment to the facility, dogs may have a special indicator (e.g., a bandana) to let others know not to approach the dog. This may also be done for dogs who are especially fearful or for service dogs in training who are learning to ignore distractions when performing service duties.

## **DOG SELECTION PROCESS**

Dogs in PDPs tend to come from animal shelters but also come from rescue groups and less frequently from breeders who donate dogs to the program. Shelter staff or dog program staff must assess dogs for their suitability in the program. This assessment should include testing for aggression towards food, people, and other dogs. It should not include extreme situations that might push any dog past a normal stress tolerance threshold. Instead, natural assessment activities that mirror what the dog would be expected to do once adopted (e.g., walking, socializing, playing) are more indicative of a dog's typical personality and behavior.<sup>49</sup> In most cases, dogs with a history of

involvement in dogfighting and/or who display aggressive behaviors are not appropriate for the program. The background and history of the dogs have implications for the skill level that will be required by the handlers to successfully train the dogs and the level of additional resources that will be required to support the dogs. As such, these dogs may not be a feasible option for all programs. PDPs should also consider their institution's policy on allowing dogs with a history of aggression into the facility. After dogs are temperament tested, they must pass a health screen. *See Dog Welfare section for additional information.* In general, the dog selection process should be structured in a way that considers the resources needed and expertise required to successfully train and care for the dogs with respect to the type of training (e.g., obedience or service training) and limitations of the specific facilities in which the programs will operate.

## TRANSPORTATION OF THE DOGS

PDPs that receive dogs from another part of the country need to make additional arrangements to transport the dogs over great distances. Programs often choose to receive dogs from farther away based on relationships developed with shelters and rescues in a particular area or because of a specific event that may have displaced a large number of dogs. More common transportation purposes include transporting the dogs for veterinary care, socialization outings, and adoption events. Transportation in these cases is almost exclusively provided by dog program or shelter staff. In rare cases, an emergency veterinarian may make a trip to the institution. In any case, clear policies and procedures should be in place regarding how and when dogs may be transported.



## TRAINING METHODOLOGY

Positive reinforcement, specifically through treat motivation, is the most common training methodology used in programs. Clickers can be used if permitted by the institution; however, in confined spaces, clickers may be distracting to both dogs and humans. Positive reinforcement is recommended over punishment-based methods or methods that use force to achieve a desired behavioral outcome. While it may not be possible to use positive reinforcement alone, the LIMA framework should guide training of the dogs. Training that relies heavily on punishment (whether positive or negative) is more likely to generate undesirable side effects, such as fear and aggression.<sup>24</sup> PDPs should carefully consider the implications of using different training methods. Several programs noted that punishment-based, forceful, or overly harsh methods are not ideal in working with inmates. Teaching handlers to focus on positive behaviors rather than negative behaviors and to use motivation rather than force may be more likely to change how they view and relate to themselves and others. In this way, the use of a positive reinforcement training methodology has the potential to produce beneficial outcomes in a way that other training methodologies cannot.

## ADOPTION PROTOCOL

For most programs, the primary goal is for the dogs to be adopted upon completion of the program, either through a general adoption process or through placement as a service dog. When developing an adoption protocol, PDPs should consider institutional policies regarding visitors as well as the feasibility of taking dogs into the community to meet potential adopters. If working with a shelter, their adoption policies should also be taken into account.

Adoption of the dogs can be promoted through community events, social media, or other online platforms. For example, Petfinder and Facebook are two online platforms that can be used to reach a broader pool of potential adopters and to provide more detailed information on each dog in the program. When possible, it is beneficial for programs to host or to participate in adoption events in the community where potential adopters can meet dogs who are still in the program. These practices support efforts to secure placements so that the dogs can move directly into their new homes rather than to a shelter before transitioning into their new home. This also reduces the amount of additional resources that are required to care for the dogs beyond their time in the training program.



Adoption marks the conclusion of the handler-dog relationship. Graduation ceremonies are a good way to facilitate the end of this relationship and to celebrate training successes. Graduation ceremonies that adopters are permitted to attend help build community relations by allowing adopters to see the care and dedication of the handlers and by allowing handlers to see the positive impact they can have on others.

Finally, an important component of the adoption process is screening of adopters. In general, the decision to adopt a dog is influenced by the dog's appearance, compatibility with the owner's lifestyle, previous dog ownership experiences, and cost.<sup>50</sup> An understanding of the adopters' expectations will help shelters better match, educate, and prepare them for their lives with their companion animal.<sup>51</sup> It is important to make clear to potential adopters that while trained, the dogs are not perfect and will need ongoing training once in their new homes. Helping adopters set appropriate expectations of their dogs can decrease feelings of frustration and minimize the likelihood that the dogs will be returned. Some dogs may receive additional training from the dog trainer or through the shelter after completing the program, which reduces the likelihood that the dogs will be returned and provides owners additional opportunities to receive support in managing any challenges.<sup>52</sup>



# HANDLER INFORMATION

## HANDLER ROLES AND RESPONSIBILITIES

At the core of PDPs are handlers who are responsible for the training and general welfare of the dogs. Programs typically maintain a 1:1 or 2:1 ratio of handlers to dogs. This ratio is dependent upon the staff's capacity to monitor handlers, the availability of dogs, and the program's structure. Programs with a 2:1 ratio often use primary and secondary handlers, with primary handlers maintaining responsibility for the dogs and secondary handlers providing support. Primary handlers tend to be more experienced, perform the bulk of caretaking and training tasks, and may mentor secondary handlers. Secondary handlers may step in when primary handlers are unavailable, when they have gone to a part of the facility where the dogs are not allowed, or when primary handlers need a break. They may have another job assignment but often live in the same housing unit as the other handlers. Some programs also utilize lead or senior handlers who facilitate training groups and help monitor other handlers. Some institutions do not allow one inmate to have authority over another, so in cases where there is a 2:1 handler-to-dog ratio, each handler shares equal responsibility for the dog.

One of the main priorities for handlers is basic caretaking, which includes feeding, pottying, exercising, bathing, and grooming the dogs. Bathing is the best way to minimize odors that may be bothersome to prison staff and other inmates who share space with the dogs. Depending on the climate of the area, handlers may need to bathe the dogs more or less frequently to minimize odors. The other main priority for handlers is training, though their responsibilities will vary by program purpose.

Other handler responsibilities include attending classes (if offered by the program), maintaining appropriate documentation (e.g., incident reports and training journals), communicating any issues or needs to the appropriate staff, and maintaining the equipment and program spaces through cleaning, sanitation, and proper waste disposal. Handlers are also expected to provide education to other inmates and staff about how to properly interact with the dogs, which may be different depending on whether the dogs are being trained for general obedience and socialization or for service tasks. In any case, handlers must be able to set limits and appropriate

boundaries with others and to remove dogs from unsafe situations. Handlers also need to monitor interactions between the dogs and others within the institution to prevent possible injury to both dogs and humans. Handlers may also evaluate the dogs to help in finding a good adoption fit. While providing this training to handlers might be an initial burden, it would benefit shelters and rescues by saving them money in the long term.

Programs may choose to rotate dogs among different handlers to support their ability to learn across different situations. This may also be done when there are concerns that a dog will bond with only one person and potentially have difficulties when transitioning to its new home. Frequently rotating dogs who have difficulties with transitions is not recommended. Being overly stressed can be detrimental to a dog's general well being and can interfere with its training.

It is recommended that programs review and have handlers sign a document explicitly stating expectations of their behavior while in the program and reasons for removal from the program to help prevent any possible misunderstandings related to their responsibilities and conduct. Reasons for removing handlers from the program should include mistreatment or abuse of the dogs, mishandling of supplies, and disciplinary issues. Programs may choose to have some flexibility in the type or frequency of disciplinary issues that are cause for removal from the program. Each PDP should evaluate their own needs and develop policies that best fit their environment and align with the desired outcomes of the program. Because of the important role handlers play in PDPs, special attention should be paid to their selection, training, and evaluation.

## **HANDLER QUALITIES**

In working with handlers, staff have identified several qualities that are characteristic of successful handlers. Some qualities may be personal attributes of the handlers, while others are developed through participation in the program. These qualities are used both to select inmates whom staff believe will be successful in the program and to evaluate their performance in the program.

Staff often look for handlers who have a love of animals, as this relates to their motivation for participating in the program. Being a handler is not an easy task. Staff routinely state that handlers train their dogs 24/7, so having the appropriate motivation not only helps handlers stay committed to the demanding training requirements but also encourages them to behave accordingly to remain in the program.



Generally, compassion, empathy, and a positive attitude are key attributes of skilled handlers. Other handler qualities that support successful training are the ability to encourage and praise the dogs and to remain calm when interacting with the dogs. Some research suggests that dogs mirror their handler's anxiety level<sup>53</sup> and that dogs' physiological measures and hormone levels are affected by their handler's stress level,<sup>54</sup> which makes it important to find handlers who are able to regulate or can learn to regulate their emotions. Handlers who make the most progress in their training are those who are eager to learn and are willing to accept feedback.

Once in the program, handlers must be able to work as a team and to communicate effectively with others. Handlers are working towards the collective goal of training and socializing their dogs and often need support from the dog trainer and others to do so. In particular, these qualities are essential in programs that use primary and secondary handlers or in programs that have a mentoring structure. Teamwork and communication optimize training by ensuring that strategies used with the dogs are consistent across different handlers. For programs that use prison staff and other inmates to help socialize the dogs, handlers must be able to communicate to others what is acceptable when interacting with their dogs and to set clear boundaries to support the training goals and the general well-being of the dogs. Additionally, successful handlers also demonstrate appropriate anger management and conflict resolution skills that support their ability to work with their dogs and with others.

## **HANDLER SELECTION PROCESS**

A standard process is used to select inmates for participation in the PDP. This includes recruitment and screening of the inmates along with an application and interview process. It is critical to the success of the program that both dog program and prison staff agree upon what the selection process will entail and that both parties have some influence in choosing participants. Some challenges related to limited cooperation between parties include an inefficient selection process that wastes valuable time and resources, inappropriate selection of handlers who are motivated by additional privileges only, and an inability to reliably ensure the safety of the dogs. If a joint effort is not possible, at minimum, each party should have a clear understanding of their role in the process through written policies.

Typically, staff recruit inmates to participate in PDPs by posting sign-up sheets, distributing informational materials about the program, or by identifying potential candidates through caseworkers and correctional officers. Next, inmates complete and submit applications to determine if they meet basic program requirements and to help staff gauge their motivation, character, and level of interest in participating in the program. If an inmate passes the initial application screening, they are then interviewed by dog program staff, prison staff, or both to assess whether the inmate has the potential to make constructive contributions to the collaborative, peer-based program. As an additional measure, inmates may be asked to provide a reference and/or the selection committee may consult with prison staff who are familiar with the inmate. This is useful when more information is needed to determine whether the inmate is likely to have the responsibility, maturity, and trustworthiness required to be successful in the program. On a practical level, this mirrors a typical job application process, which can be useful in preparing inmates to engage in this process upon release.

## **HANDLER SELECTION CRITERIA**

Appropriate selection of handlers helps guard against potential abuse of the dogs and helps maintain safety in the institution. Handlers who participate in PDPs are given additional privileges like frequent or free access to the yard for dogs to exercise, train, and eliminate and have responsibilities that allow access to items with the potential for misuse, such as medications or grooming tools. Therefore, handlers must have a demonstrated history of trustworthiness and good behavior during their time at the institution to be considered for participation in the program.<sup>23</sup>

Applicant screening is done using established inclusion and exclusion criteria. Common inclusion criteria include having or being in the process of obtaining a high school diploma or GED. This is often a requirement of vocational programs because not having the minimum required education limits job opportunities for inmates once released. Non-vocational programs may also have this requirement to ensure literacy, as handlers are often required to keep journals, write reports, and read training materials. Handlers may be required to have a certain medical care level to ensure that illness or injury does not prevent them from being able to fulfill their handler responsibilities. There may also be a minimum amount of time that inmates are required to have been at the facility before applying to the program, which helps staff assess for trustworthiness and

other characteristics necessary for the program. Additionally, inmates may be required to have a minimum amount of time remaining on their sentences to be considered for the program. Investing time into training a handler that is only able to participate in the program for a few months before leaving may not be a valuable use of resources for many programs.

Common exclusion criteria for PDPs are criminal histories, institutional infractions, and inmate classification levels. Violent crimes, sexual abuse, and animal abuse are often cause for exclusion from PDPs.<sup>11</sup> Without exception, programs exclude inmates with a history of animal abuse for the safety of the dogs. For other crimes, it depends on the program or may be decided on a case-by-case basis. For instance, an inmate with a history of domestic violence may be given further consideration if no physical violence was involved. For programs that operate in maximum security prisons, a violent crime exclusion is likely not realistic since a history of violent crime may be common. Instead, other factors should be used to determine suitability as discussed above.

Inmates who receive infractions within a certain time frame before applying to be a handler are often excluded from the program, as this speaks to their ability to follow directions and adhere to rules. While this time frame ranges, 6 months to 1 year is the most common. Too short of a time frame (e.g., 1 month) may not appropriately screen for long-term ability to maintain good behavior. Too long of a time frame (e.g., 18 months) may deter participation and may be discouraging to inmates who are striving to maintain good behavior to be eligible for the program. Some institutions will distinguish between minor and major infractions and may allow for minor infractions on a case-by-case basis. Inmates who have been determined to display unpredictable or impulsive behaviors based on aggression level or mental health level are not permitted to participate in the program, again for the safety of the dogs.

Staff also look for personal qualities that are important for success in the program. For example, staff accept inmates who appear cooperative and show integrity and reject those who exhibit arrogance, deception, or an unfavorable attitude. Whatever criteria programs use to select handlers, they should be documented in the program's policies.



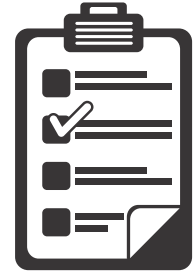
## HANDLER TRAINING

Handler training is an integral component of any PDP. The training structure, content, and level of support that handlers receive greatly influence program outcomes and are determined by the availability of staff and resources. While many programs are unable to employ full-time dog trainers, funding this position is critical. The knowledge and expertise they hold may be needed to achieve training outcomes, particularly for PDPs that train service dogs.

Programs may require handlers to receive training prior to receiving their dogs. These trainings can cover topics related to the care and training of the dogs or related to personal development (e.g., anger management). This advanced preparation may be done to help handlers be successful in the program or may be done as a way of assessing whether handlers have the motivation required for the program.

Handlers receive much of their training by attending classes. Few programs have a structured training curriculum and schedule, but those that do tend to have paid full-time staff who are available to assist in curriculum development and implementation. Classes are typically held once a week but might be held as often as 5 days a week or as little as once every other week depending on the capacity and goals of the program. Classes cover a range of topics, including canine body language, dog bite prevention, breaking up dog fights, name recognition, house training, and how to communicate with your dog. Classes for vocational programs may cover additional topics (e.g., canine diseases and disorders or AKC dog breeds) that are aimed at providing handlers further knowledge to support their professional development. Programs may also offer pet first aid and CPR as an added safety measure. If obtaining certification, there will likely be specific curriculum requirements as well as a final test that handlers must pass. Because many programs allow indefinite participation of handlers, it may be beneficial to have different levels of training curriculum. Advanced curriculum allows handlers to gain a sense of mastery over the topic and encourages continued growth while in the program.

Outside of class, dog trainers make themselves available to handlers to address training challenges when possible; however, their capacity to do so is often limited if they are working on a volunteer basis. Handlers also have access to a variety of materials, including books, magazines, manuals, worksheets, handouts, or a video library, that they can use when they are unable to receive direct support from a dog trainer. Various types of training materials are helpful in accommodating different



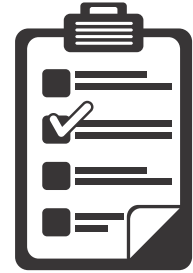
learning styles and can be offered as an alternative or in addition to classes. Handlers may also receive personalized training binders for each dog that detail their specific training cues and other pertinent information. Binders are an especially important tool for training models that regularly rotate dogs to new handlers because they help promote continuity in the care and training of the dogs across multiple handlers.

Peer mentoring is another key element used to enhance the training process. Though not ideal, this structure can be used as an alternative to direct guidance by a dog trainer. Preferably, peer mentoring is used in addition to working regularly with a dog trainer so that the dogs and handlers may benefit from the unique learning opportunities that each provides. Through peer mentoring, handlers can reinforce new skills by teaching others, which may accelerate the learning process. Additionally, this structure assists handlers in developing collaborative skills by working through common challenges together. As handlers progress in the training program, a peer mentoring structure offers opportunities for leadership roles that can strengthen a handler's sense of competence, confidence, and agency. Lead handlers may further develop professional skills in management, teamwork, and communication, which can serve to build their resumes and increase job prospects upon release.

## **HANDLER MONITORING AND EVALUATION**

Effective handler monitoring helps ensure adherence to policies and training requirements and promotes safety in the facility. Video surveillance is often used to monitor handlers since it is a resource that is readily available. Prison staff oversee this system but will often share concerning or questionable video recordings with dog program staff and trainers. When dogs are housed in a dorm setting with other inmates who are not in the program, dogs and their crates should be strategically placed relative to the cameras and monitoring station for supervision.

Monitoring also occurs in person by dog program staff, prison staff, and other handlers. Dog program staff supervise the care and training of the dogs, while prison staff oversee institutional rules. When there is limited in-person monitoring by dog program staff, prison staff take on those additional responsibilities. Even when this is not the case, prison staff often communicate any concerns they have about the dogs' care and



training to dog program staff. As such, a good working relationship and open communication between staff is imperative. In addition, programs frequently use informal peer-to-peer monitoring; however, lead handlers tend to have a more formal role in monitoring other handlers. While programs have formal mechanisms in place for one handler to report another for misconduct, this rarely occurs unless there is suspected abuse of a dog. Dog program staff and dog trainers must understand the act of reporting in the larger context of the institutional environment. Prison culture dictates that inmates should not inform on one another. As a result, the reporting process should be confidential to protect the safety of the reporting party and to increase the likelihood that handlers will communicate any concerning behaviors to staff.

The most common measure of adherence to training is assessment of the dog. Dog program staff evaluate handlers through progress their dog has made as well as the dog's response to the handlers. If dogs are not making the progress that is expected, then program staff know that handlers have not been following the training schedule. Staff then must determine the reason why handlers are not complying with the training. If the handler is lacking skill, then dog program staff, lead handlers, or other handlers should provide additional training. They should also discuss with the handler the importance of communicating their needs in order to best help the dog progress in the program. If the handler is lacking commitment, then program staff will need to decide whether to document the incident or to remove the handler from the program. If dogs seem fearful of or ignore their handler, dog program staff know that the relationship between the dog and the handler is not strong. This may be due to challenges the dog or the handler has in developing a bond with the other or because a handler might be too harsh in their tone or approach. Programs that rotate handlers allow for additional evaluation by comparing the dog's response to different handlers. Again, depending on the cause of the challenge in the handler-dog relationship, this might require additional training, sanction, or removal from the program.

# RECOMMENDATIONS

Based on the protocol, we have identified the following recommendations:

- 1) Programs should clearly define their purpose, goals, and objectives to help guide development and implementation of the PDP.
- 2) Programs should engage a variety of funding sources and be creative in utilizing the resources at their disposal for improved financial security.
- 3) Programs should educate themselves on issues related to working in a correctional setting, including safety considerations and institutional culture, and orient themselves to the specific policies and procedures of the institutions in which they will operate.
- 4) Programs should involve prison administration and staff in the development of policies and procedures when possible to encourage strong internal support and buy-in and to facilitate effective communication. In the very least, policies and procedures must be agreed upon by all parties.
- 5) Programs should have clear policies and procedures that detail, among other things, staff roles and responsibilities, communication practices, documentation, sanitation, movement of the dogs in and out of the facility, care and training of the dogs, and handler selection and termination from the program.
- 6) Programs should attend to the training, monitoring, and evaluation of handlers to support successful outcomes for dogs and handlers.
- 7) To promote the success and sustainability of the PDP, program staff should be paid.

**As a final note, while informal support networks for those involved in PDPs are in place, a formal support network through an online website or registry may be beneficial in increasing access to support for those in isolated areas. Additionally, this network can serve as a resource for ongoing information sharing that engages the expertise of those involved in the work.**

# REFERENCES

1. Strimple, E. O. (2003). A history of prison inmate-animal interaction programs. *American Behavioral Scientist, 47*(1), 70-78.
2. Furst, G. (2006). Prison-based animal programs: A national survey. *The Prison Journal, 86*(4), 407-430.
3. Britton, D. M., & Button, A. (2005). Prison pups: Assessing the effects of dog training programs in correctional facilities. *Journal of Family Social Work, 9*(4), 79-95.
4. Bachi, K. (2013). Equine-facilitated prison-based programs within the context of prison-based animal programs: State of the science review. *Journal of Offender Rehabilitation, 52*(1), 46-74.
5. Cooke, B. J., & Farrington, D. P. (2014). Perceived effects of dog-training programmes in correctional settings. *Journal of Forensic Practice, 16*(3), 171-183.
6. Minton, C. A., Perez, P. R., & Miller, K. (2015). Voices from behind prison walls. *Society & Animals, 23*(5), 484-501.
7. Moneymaker, J. M., & Strimple, E. O. (1991). Animals and inmates: A sharing companionship behind bars. *Journal of Offender Rehabilitation, 16*(3-4), 133-152.
8. Koda, N., Watanabe, G., Miyaji, Y., Kuniyoshi, M., Miyaji, C., & Hirata, T. (2016). Effects of a dog-assisted intervention assessed by salivary cortisol concentrations in inmates of a Japanese prison. *Asian Journal of Criminology, 11*(4), 309-319.
9. Cooke, B. J. & Farrington, D. P. (2016). The effectiveness of dog-training programs in prison: A systematic review and meta-analysis of the literature. *The Prison Journal, 96*(6), 854-876.
10. Huss, R. J. (2014). Canines (and cats!) in correctional institutions: Legal and ethical issues relating to companion animal programs. *Nevada Law Journal, 14*, 25-62.
11. Smith, J. & Unti, B. (2016). Second chances: Pen Pals, Inc., the Dixon Correctional Institute and Louisiana's post-Katrina animal rescue legacy. *Corrections Today, January/February*, 40-44.
12. Fournier, A. K., Geller, E. S., & Fortney, E. V. (2007). Human-animal interaction in a prison setting: Impact on criminal behavior, treatment progress, and social skills. *Behavior and Social Issues, 16*(1), 89-105.
13. Furst, G. (2007). Without words to get in the way: Symbolic interaction in prison-based animal programs. *Qualitative Sociology Review, 3*(1), 96-109.



14. Hogle, P. S. (2009). Going to the dogs: Prison-based training programs are win-win. *Corrections Today*, 71(4), 69-71.
15. Lai, J. (April 1998). *Literature review: Pet-facilitated therapy in correctional institutions*. Retrieved from <http://www.csc-scc.gc.ca/publications/fsw/pet/pet-eng.shtml>
16. Minke, L. K. (2017). Normalization, social bonding, and emotional support—A dog's effect within a prison workshop for women. *Anthrozoös*, 30(3), 387-395.
17. Haynes, M. (1991). Pet therapy: Program lifts spirits, reduces violence in institution's mental health unit. *Corrections Today*, 53(5), 120-122.
18. Osborne, S. J., & Bair, R. (2003). Healing inmates' hearts and spirits with man's best friend. *Corrections Today*, 65(2), 122-123.
19. van Wormer, J., Kigerl, A. & Hamilton, Z. (2017). Digging deeper: Exploring the value of prison-based dog handler programs. *The Prison Journal*. 97(4), 520-538.
20. Furst, G. (2016). Helping war veterans with posttraumatic stress disorder: Incarcerated individuals' role in therapeutic animal programs. *Journal of Psychosocial Nursing and Mental Health Services*, 54(5), 49-57.
21. Conklin, T. (2014, February 25). *An animal welfare history lesson on the Five Freedoms*. Retrieved from [http://msue.anr.msu.edu/news/an\\_animal\\_welfare\\_history\\_lesson\\_on\\_the\\_five\\_freedoms](http://msue.anr.msu.edu/news/an_animal_welfare_history_lesson_on_the_five_freedoms)
22. International Association of Animal Behavior Consultants. (n.d.). *IAABC position statement on LIMA*. Retrieved from <https://m.iaabc.org/about/position-statements/lima/>
23. Harkrader, T., Burke, T. W., & Owen, S. S. (2004). Pound puppies: The rehabilitative uses of dogs in correctional facilities. *Corrections Today*, 66(2), 74-79.
24. Fernandes, J. G., Olsson, I. A. S., & de Castro, A. C. V. (2017). Do aversive-based training methods actually compromise dog welfare?: A literature review. *Applied Animal Behaviour Science*, 196, 1-12.
25. Hennessy, M. B., Morris, A., & Linden, F. (2006). Evaluation of the effects of a socialization program in a prison on behavior and pituitary–adrenal hormone levels of shelter dogs. *Applied Animal Behaviour Science*, 99(1-2), 157-171.
26. Bergamasco, L., Osella, M. C., Savarino, P., Larosa, G., Ozella, L., Manassero, M., & Re, G. (2010). Heart rate variability and saliva cortisol assessment in shelter dog: Human-animal interaction effects. *Applied Animal Behaviour Science*, 125(1), 56-68.
27. Conley, M. J., Fisher, A. D., & Hemsworth, P. H. (2014). Effects of human contact and toys on the fear responses to humans of shelter-housed dogs. *Applied Animal Behaviour Science*, 156, 62-69.

28. Haubenhofer, D.K., & Kirchengast, S. (2007). Dog handler's and dog's emotional and cortisol secretion responses associated with animal-assisted therapy sessions. *Society and Animals*, 15(2), 127-150.
29. Hennessy, M. B. (2013). Using hypothalamic–pituitary–adrenal measures for assessing and reducing the stress of dogs in shelters: A review. *Applied Animal Behaviour Science*, 149(1), 1-12.
30. Deaton, C. (2005). Humanizing prisons with animals: A closer look at "cell dogs" and horse programs in correctional institutions. *Journal of Correctional Education*, 56(1), 46-62.
31. Gordon, H. R., & Weldon, B. (2003). The impact of career and technical education programs on adult offenders: Learning behind bars. *Journal of Correctional Education*, 54(4), 200-209.
32. Seiter, R. P., & Kadela, K. R. (2003). Prisoner reentry: What works, what does not, and what is promising. *Crime & Delinquency*, 49(3), 360-388.
33. Wilson, D. B., Gallagher, C. A., & MacKenzie, D. L. (2000). A meta-analysis of corrections-based education, vocation, and work programs for adult offenders. *Journal of Research in Crime and Delinquency*, 37(4), 347-368.
34. Hopper, J. D. (2013). Benefits of inmate employment programs: Evidence from the Prison Industry Enhancement Certification Program. *Journal of Business & Economics Research*, 11(5), 213-222.
35. Nally, J. M., Lockwood, S., Ho, T., & Knutson, K. (2014). Post-release recidivism and employment among different types of released offenders: A 5-year follow-up study in the United States. *International Journal of Criminal Justice Sciences*, 9(1), 16-34.
36. Cooke, B. J., & Farrington, D. P. (2015). The effects of dog-training programs: Experiences of incarcerated females. *Women & Criminal Justice*, 25(2), 201-214.
37. Hairston, C. F. (1991). Family ties during imprisonment: Important to whom and for what. *Journal of Sociology & Social Welfare*, 18(1), 87-104.
38. Hill, S. E., & Murphy, N. C. (2016). Analysis of dog adoption success and failure using surveys with vignettes. *Journal of Applied Animal Welfare Science*, 19(2), 144-156.
39. Association of Shelter Veterinarians (2010). *Guidelines for standards of care in animal shelters*. Retrieved from <https://www.shelternet.org/assets/docs/shelter-standards-oct2011-wforward.pdf>
40. Protopopova, A. (2016). Effects of sheltering on physiology, immune function, behavior, and the welfare of dogs. *Physiology & Behavior*, 159, 95-103.
41. Titulaer, M., Blackwell, E. J., Mendl, M., & Casey, R. A. (2013). Cross sectional study comparing behavioural, cognitive and physiological indicators of welfare between short and long term kennelled domestic dogs. *Applied Animal Behaviour Science*, 147(1-2), 149-158.

- 420 Part, C. E., Kiddie, J. L., Hayes, W. A., Mills, D. S., Neville, R. F., Morton, D. B., & Collins, L. M. (2014). Physiological, physical and behavioural changes in dogs (*Canis familiaris*) when kennelled: Testing the validity of stress parameters. *Physiology & Behavior*, *133*, 260-271.
43. Burrows, K. E., Adams, C. L., & Millman, S. T. (2008). Factors affecting behavior and welfare of service dogs for children with autism spectrum disorder. *Journal of Applied Animal Welfare Science*, *11*(1), 42-62.
44. Sandri, M., Colussi, A., Perrotta, M. G., & Stefanon, B. (2015). Salivary cortisol concentration in healthy dogs is affected by size, sex, and housing context. *Journal of Veterinary Behavior: Clinical Applications and Research*, *10*(4), 302-306.
45. Hewison, L. F., Wright, H. F., Zulch, H. E., & Ellis, S. L. (2014). Short term consequences of preventing visitor access to kennels on noise and the behaviour and physiology of dogs housed in a rescue shelter. *Physiology & Behavior*, *133*, 1-7.
46. Normando, S., Contiero, B., Marchesini, G., & Ricci, R. (2014). Effects of space allowance on the behaviour of long-term housed shelter dogs. *Behavioural Processes*, *103*, 306-314.
47. Kiddie, J. L., & Collins, L. M. (2014). Development and validation of a quality of life assessment tool for use in kennelled dogs (*Canis familiaris*). *Applied Animal Behaviour Science*, *158*, 57-68.
48. Wells, D. L. (2004). A review of environmental enrichment for kennelled dogs, *Canis familiaris*. *Applied Animal Behaviour Science*, *85*(3-4), 307-317.
49. Patronek, G. J., & Bradley, J. (2016). No better than flipping a coin: Reconsidering canine behavior evaluations in animal shelters. *Journal of Veterinary Behavior: Clinical Applications and Research*, *15*, 66-77.
50. Bir, C., Widmar, N. J. O., & Croney, C. C. (2017). Stated preferences for dog characteristics and sources of acquisition. *Animals*, *7*(8), 59.
51. O'Connor, R., Coe, J. B., Niel, L., & Jones-Bitton, A. (2016). Effect of adopters' lifestyles and animal-care knowledge on their expectations prior to companion-animal guardianship. *Journal of Applied Animal Welfare Science*, *19*(2), 157-170.
52. Diesel, G., Pfeiffer, D. U., & Brodbelt, D. (2008). Factors affecting the success of rehoming dogs in the UK during 2005. *Preventive Veterinary Medicine*, *84*(3-4), 228-241.
53. Schoberl, I., Wedl, M., Beetz, A., & Kotrschal, K. (2017). Psychobiological factors affecting cortisol variability in human-dog dyads. *PLoS ONE*, *12*(2), 1-18.
54. Dreschel, N. A., & Entendencia, K. (2013). Stress during certification testing in prison drug detection dogs and their handlers. *Journal of Veterinary Behavior: Clinical Applications and Research*, *8*(4), e28.