



# Understanding Strategies for Matching Service Dogs to Military Veterans With PTSD

**JAMES WHITWORTH**

**CHRIS STEWART**

\*Author affiliations can be found in the back matter of this article

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## **ABSTRACT**

Using a multiple case study design, we sought to understand existing matching strategies used to pair service dogs with US military veterans dealing with posttraumatic stress disorder (PTSD). Three different US-based service dog agencies (one large, one midsize, and one small) participated, allowing the principal investigator to conduct in-depth interviews with agency staff and leaders to understand and observe their matching/pairing practices. Participants described their agencies' matching practices, factors/characteristics about veterans used in the matching process, and factors/characteristics about dogs considered. Each agency utilized thorough processes to assess and match veterans with service dogs. Special emphasis was placed on assuring candidate dogs have nonaggressive temperaments, seek human attention, pass scent testing, and have the physical ability to perform as service dogs. Findings revealed limited differences between the matching practices of the participating agencies. All three purport to find the "best fit" for each dog/veteran team considering the veteran's specific needs/goals, physical/mental abilities, lifestyle, level of PTSD symptoms, expectations of their service dog, experience/knowledge caring for a dog, and their home/work environment. Findings highlight the need for standardized research-informed assessment tools and strategies to match veterans to service dogs.

## **CORRESPONDING AUTHOR:**

**James Whitworth**

UCF, United States

[james.whitworth@ucf.edu](mailto:james.whitworth@ucf.edu)

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Roughly 7% of US military veterans will have PTSD at some point in their lives (National Center for PTSD, 2024). Service dog training programs have emerged as a viable alternative or complementary intervention option for veterans with PTSD (US Department of Veterans Affairs, 2020). However, service dog programs for military veterans lack standardization and research-informed strategies for matching their participants to service dogs (Benbassat et al., 2021). Limited research to identify current matching strategies for pairing veterans with a service dog exist. Most matching decisions made by service dog agencies are solely based on anecdotal evidence and the experience of dog trainers. Major knowledge gaps in the field of human-animal practice remain, with no standardized pair-matching tests, nor any standardized temperament tests for dogs (Barnard et al., 2012; Dowling-Guyer et al., 2011; Herron & Melese, 2014), which greatly hampers the ability to formulate optimal canine to human matches. To contribute empirical information, this study sought to understand and summarize the matching practices of three US-based service dog programs.

## LITERATURE REVIEW

There is growing evidence that the use of service dogs for veterans with PTSD may be particularly helpful for those who do not respond to or who are hesitant to participate in standard research-supported interventions. Veterans paired with service dogs in nine efficacy studies consistently described and noted statistically significant or nearly significant decreases in their PTSD symptoms (Bergen-Cico et al., 2018; Farmer, 2021; Kloep et al., 2017; O'Haire & Rodriguez, 2018; Rodriguez et al., 2020; Scotland-Coogan et al., 2020; US Department of Veterans Affairs, 2020; Whitworth et al., 2019; Yarborough et al., 2018; Yount et al., 2012).

It should be noted that service dogs are trained at a higher level than most canine companions. Unlike emotional support dogs or companion dogs (i.e., pets), service dogs perform specific roles for veterans needing assistance due to their disabilities (National Center for PTSD, 2024). Service dogs are defined as canines that are individually trained to do work or perform tasks for people with disabilities (ADA.gov, 2020). They help the veteran with PTSD-related symptoms including avoidance, hyperarousal, or trauma-related nightmares, and they complete explicit behaviors when symptoms are present. For some veterans, especially those who have mobility issues in addition to PTSD, dogs help them accomplish physical and occupational tasks including maintaining balance, retrieving dropped items, or reminding the veteran to take medication. Service dogs can

also help the veteran with their psychological well-being including waking them from distressing nightmares and alerting them to potential triggers.

Veterans participating in service dog programs have reported feeling less depressed and experiencing improved mood management once they received and trained their canine (Kloep et al., 2017; O'Haire & Rodriguez, 2018; Scotland-Coogan, 2019). Family members have consistently reported that veterans have notably decreased levels of anger after receiving and owning their service dog (Kloep et al., 2017; Rodriguez et al., 2020; Whitworth et al., 2020). Two studies reported that veterans experienced fewer suicidal ideations once they have a service dog (Scotland-Coogan et al., 2020; Yarborough et al., 2018). Veterans repeatedly described a greater desire to be around other people outside of their immediate family members due to owning their service dog (Bergen-Cico et al., 2018; Krause-Parello & Morales, 2018; O'Haire & Rodriguez, 2018; Rodriguez, et al., 2020; Scotland-Coogan, 2019; Scotland-Coogan et al., 2020; Whitworth et al., 2019).

Some professional service dog agencies provide general guidance on matching veterans with a service dog. The Association of Service Dog Providers requires in their standards that affiliate agencies match service dogs with veterans based on the "best fit" for each dog/veteran team (Association of Service Dog Providers, Service Dog Agency Standards, Veteran/First Responder Training section, n.d.). They also direct their agencies to consider each veteran's mental and physical abilities along with assessing the dog's temperament when making a match. They further recommend that agencies consider the veteran's family, work/school life, lifestyle, and other responsibilities when seeking to make the best fit for pairing. Most agencies require participating veterans to have a good conduct discharge from the military along with no reported history of violence to humans or animals.

Considerations of animal welfare, and more specifically what is best for canines participating in service dog programs, are largely unexplored in the broader literature addressing animal-assisted therapy (AAT) and in research regarding the use of service dogs. This is a true oversight in the research to date, since as noted by one researcher, "Companion animals do not ask or voluntarily sign up to be a part of a therapeutic team, and their natural traits of love and sociability can easily be misinterpreted and exploited" (Winkle et al., 2020, p. 1). Winkle et al. (2020) have outlined a framework for including a dog in AAT, which provides a helpful systemic process for considering canine welfare in these programs. The first consideration is the identification of the handler profile, detailing specific, necessary characteristics of animal handlers such as their personality, activity level, dog training, skill level, and

leisure activity interests. Secondly, the process requires a clear delineation of the job characteristics required for each AAT to ensure the selection of the right dog for the role. The next consideration requires the clarification of the needed animal profile outlining the overall set of skills and capabilities that each dog should have, including traits that should not be present. The profile should include “A robust temperament, adaptability/flexibility, adequate training status and responsiveness, secure attachment with the handler, self-motivation for the job, quick recovery when startled, and willingness to engage in the sessions” (Winkle et al., 2020, p. 8). The process also requires team preparation and training combined with evaluation/re-evaluation of processes and skills of the team.

This study aimed to identify existing matching/pairing strategies for service dogs with US military veterans dealing with PTSD. A better understanding of these strategies can lead to the formation of common practices that can be examined to determine which approaches lead to the most optimal results for veterans and service dogs, potentially increasing standardization in this field of practice.

## DESIGN AND METHODS

This study employed a multiple case study design. Case studies are a method of qualitative research that involves in-depth and detailed research examination methods to understand actual phenomena in their own genuine setting (Swanborn, 2010). This method can be used to extrapolate key themes and findings that help illuminate formerly unknown factors and issues that can be applied to practice (Mills et al., 2010). Case studies often focus on a single subject of analysis, but they are increasingly used in multiple case study designs to compare differences and commonalities between two or more subjects. This type of multi-case study includes studying two or more cases that share some common features, but also differ in some characteristics (Mills et al., 2010). It expands beyond understanding a single case to allow for an understanding and analysis of the differences and similarities between cases. The multi-case design is established in classical grounded theory (GT), an inductive qualitative research approach, to understand service dogs and matching study strategies (Glaser, 1992). This investigative approach is frequently applied when scant knowledge is published or available regarding a research topic, as is the case with service dog matching strategies.

## SAMPLE

Three agencies that provide service dogs for veterans participated in the study. Two of the agencies are in

Florida and one is in Virginia. One of the agencies matched 50 or more veterans with service dogs per year, another matched at least 20 each year, while the other agency has approximately 10 matches per year. All three agencies do not charge veterans to receive their service dog or for any of their services. All are 501C3 nonprofit organizations that have been providing these programs to veterans for 10 years or more. Two of the agencies have the veteran train a dog to become their service dog, which takes at least 6 months. One agency first trains the service dog before matching and then conducts joint training with the veterans and service dog after the pairing. Training at each of the programs is provided in person at the actual agency facility. All three participating agencies provide service dogs to veterans that they have found at shelters, their own breeding programs, and other sources. However, one of the agencies almost exclusively provides one specific breed of dog (purpose-bred German Shepherds) in their program. Two of the programs allow some veterans to train their own canine companion to become their own service dog if that canine meets rigorous requirements. All service dogs involved at the agencies train them for a minimum of 6 months before they are considered service dogs. Two of the three agencies are members of The Association of Service Dog Providers and meet all of the association’s standards required to train and maintain service dogs. This association is not affiliated with Assistance Dogs International.

## PROCEDURE

The principal investigator (PI) spent 3 to 5 days at each of the agencies to interview dog trainers, program directors, veterinary technicians, and other staff members, and to understand and observe their matching/pairing practices. Such an interview schedule is common in multiple case studies and was necessary since the PI needed to travel several hours to get to each of the agencies. Each participant completed one to three interviews based on the amount of information obtained and agency work constraints. During in-depth interviews, the PI solicited information regarding the agencies’ matching practices, factors/characteristics about veterans that were used in the matching process, and factors/characteristics about dogs that they consider in this process. The pre-identified open-ended interview questions, provided below, were used during these interviews with respondents encouraged to provide detailed responses. Following qualitative interviewing guidance provided by Hennink et al. (2011), the questions were revised slightly to solicit more information about dog and veteran characteristics that participants had noted in the earlier interviews and from other interviewed participants.

Interviews took from one to three hours and were recorded with a hand-held audio recorder. They were manually transcribed by the PI with no assistance from artificial intelligence (AI) technology. They were conducted by means of a semistructured format that allowed for the use of the pre-identified questions and those that emerged during the interview based on each participant's responses. During multiple daily visits to each of the agencies, the PI also observed matching practices employed by staff. After the visits, written summaries of interviews and observations were provided to primary participating subjects at each agency to help ensure that the PI accurately understood and summarized their responses. The study was approved by the Institutional Review Board at The University of Central Florida.

## INTERVIEW QUESTIONS

1. What characteristics about each dog tell you that they are a good match for a specific veteran? This could include any details regarding the dog's temperament, size, activity level, desire to be with humans, attention/focus ability, skill levels, and much more.
2. What characteristics or personality factors about the veteran (in addition to your basic application criteria listed on your forms that you provided me with and your website) tell you what is the best service dog for that veteran?
3. When/if you have an unsuccessful match between a service dog and a veteran, how do you know it is not working? What do all do when the matching results in an unsuccessful pair?

## ANALYSIS

Using a GT approach, data analysis is a recurring process through which model and theory can evolve from thoughtful observations. The PI initially analyzed data from the interviews and observations, which consisted of the interview transcriptions and notes. The PI first independently openly coded line-by-line interview content using a top-down approach to inductively formulate initial codes that were then reviewed by the co-investigator (CI). They then jointly identified major themes found in the initial codes with differences resolved through in-depth discussion and negotiated consensus. The researchers reached saturation at the point in initial coding when no new codes arose from the data and again during theme development when the review of the data failed to identify any further emergent themes (Hennink et al., 2016).

Themes developed during analysis were then sent to the directors or leading staff at all three agencies to confirm accuracy and for them to provide their suggestions and feedback. Requesting this type of review from participants during the analysis, known as member checking, aids in verifying and validating preliminary qualitative results (Doyle, 2007). All three agencies responded to the request for member checking by providing instructive feedback used to formulate final themes.

Findings from all interviews and observations are summarized below in themes addressing (a) service canine/veteran assessment processes/tools, (b) matching processes used by the agencies, (c) the veteran and service dog factors/characteristics considered in the matching processes, and (d) any identified differences in these areas between the three agencies.

## CANINE ASSESSMENT PRACTICES/TOOLS

Each of the participating agencies completes a thorough assessment of each canine before they are considered as a candidate to be a service dog. This assessment process includes repeated observations in realistic challenging scenarios, foster care stays, multiple behavioral practice evaluations, and successful completion of standardized canine assessment tools. As one of the agency staff members stated, "We test before pairing to avoid surprises."

Two of the agencies in the study do not begin their assessments and training processes with dogs prior to 17 weeks after birth with some agencies waiting until a minimum of 6 months. They do not consider the dogs developmentally ready (physically or cognitively) for assessment and training before they reach these time periods. One of the agencies purports to start training their dogs immediately after birth, first with noise desensitization, then basic obedience starting at 5 weeks. Two of the agencies require candidate dogs to participate in lengthy stays (3-5 months) in foster care to learn and be evaluated for "house manners." Special assessments are also completed for canines who might serve as "mobility dogs" for veterans who require assistance due to their physical disabilities (i.e., needing help with standing/walking, doing activities of daily living [ADLs], or assistance with tasks after recovering from recent surgery). These dogs will often be trained to pick up items for the veteran. They must be large enough to support a veteran's weight if needed. All dogs at each of the agencies complete a thorough exam by a licensed veterinarian who helps determine each dog's ability including if they are physically capable of serving as a "mobility dog" without causing any harm to the animal.

Dogs with physical injuries or medical issues were disqualified from becoming service dogs by all of the

agencies in the study. In particular, they avoid dogs with walking issues indicating that they have hip dysplasia or arthritis because this could be an ongoing problem. All three agencies require candidate dogs to pass the Canine Good Citizen (CGC) program assessment from the American Kennel Club (2024), which is a 10-step test that certifies dogs who have good manners at home and in their community. One of the agencies in the study requires the dog to successfully pass this test before matching while the other two require it after the veteran trains their own service dog. Each of the 10 steps in the CGS test (see Table 1) assesses realistic minimum initial requirements for a canine to be considered to become a service dog. Two of the agencies require their service dogs to pass the Public Access Test (PAT) from Assistance Dogs International (2014), which seeks to ensure that dogs that have public access are “stable, well-behaved, and unobtrusive to the public, that the client has control over the dog, and the team is not a public hazard” (p. 2). This test gauges 14 different skill areas (see Table 2) that the client must demonstrate with the prospective service dog.

Each of the agencies in the study also conducts “scent testing” with their candidate service dogs. Dogs have a sense of smell that’s between 10,000 and 100,000 times more acute than humans (American Kennel Club, 2024). Their keen ability to smell allows them to detect when veterans are becoming more agitated or anxious (i.e., when they produce more stress hormones such as cortisol or adrenaline). Scent-based task tests help the agencies gauge the dog’s ability to complete distinct tasks that rely on scent detection.

All three agencies specifically seek to eliminate any dogs early on in their assessment process who express any

Test 1: Accepting a Friendly Stranger
Test 2: Sitting Politely for Petting
Test 3: Appearance and Grooming
Test 4: Out for a Walk (Walking on a loose lead)
Test 5: Walking Through a Crowd
Test 6: Sit and Down on Command Staying in Place
Test 7: Coming When Called
Test 8: Reaction to Another Dog
Test 9: Reaction and Distraction
Test 10: Supervised Separation

**Table 1** Canine Good Citizen Test Items.

Note: American Kennel Club, Canine Good Citizen Test Items, retrieved from. <https://s3.amazonaws.com/cdn-origin-etr.akc.org/wp-content/uploads/2022/06/06120546/cgc-test-items.pdf>.

1. Controlled Unload of Vehicle
2. Approaching the Building
3. Controlled Entry Through a Door-Way
4. Heeling Through the Building
5. Six Foot Recall on Lead
6. Sits on Command
7. Downs on Command
8. Noise Distraction
9. Restaurant
10. Off-Lead
11. Dog Taken by Another Person
12. Controlled Exit
13. Controlled Load Into Vehicle
14. Team Leadership

**Table 2** Assistance Dogs International Assistance Dog Public Access Certification Test.

Note: Assistance Dogs International. (2014, May). *Assistance dog public access certification test*. <https://www.k9events.com/public-access/ADI.PublicAccessTest.updated.MAY14F-2.pdf>.

aggression or over-protection behaviors toward humans or other animals. This practice is recommended by the Assistance Dogs International (2024, “Dog breeds for assistance dogs” section) who note in their policies that

An assistance dog’s job is to assist a disabled individual to live an independent lifestyle, not to protect them. It is very important that everyone is safe when encountering an assistance dog in public. A trained assistance dog should never show aggression to any person or other animals while out in the public.

When service dogs display aggressive behaviors, it conflicts with their role of supporting their handler and can lead to them both being excluded from public areas (Rooney et al., 2016). Many candidate service dogs are rejected due to aggressive behaviors. Aggression when present is a major concern and generally means a dog cannot be considered as a candidate to be trained as a service dog. Many canine behaviors indicate aggression. Two highly noticeable behaviors are when the dog growls frequently or if they lunge at humans or other dogs. As described by a trainer at one of the agencies, “We have to be careful to protect the veteran from such aggression and people will not want to approach the veteran in public or private places if the dog is demonstrating aggressive behavior.” Some dogs



can be overly protective of their veteran. One agency in the study identified several breeds that are frequently overly protective and therefore they do not consider them as candidates to be service dogs. These breeds include chows, Akitas, Italian mastiffs, and most doodles. The trainers and evaluators assess aggression through the use of several repeated tests such as a large human lunging toward them where they seek to elicit these behaviors in response to multiple specifically selected stimuli and stressors. They pay close attention to the dog's behaviors during these assessment tests and also during the training process if they are approved for training. Tests of aggression are repeated multiple times in different challenging situations before dogs are eliminated from being trained as service dogs.

Regarding temperament in general, one of the agencies stated that they seek to find dogs that explicitly and regularly desire human affection and display an attention-seeking drive. They stated, "We want dogs whose number one job is to focus on what the veteran needs at any given time and those that care more about people than they do about other dogs." This agency particularly prefers yellow Labradors, Labrador mixes, some golden retrievers, and German shepherds because they perceive these dogs as better capable of serving veterans. They also stated a preference for dogs that can have some "impulse control" and those that are "alert but relaxed." Impulse control refers to the dog's ability to manage their impulses in certain situations, such as resisting the desire to chase after a squirrel or to bark at a stranger. One trainer described the best service dogs for veterans as those that "seem like they are addicted to their veteran" in that they are nearly always focused on the veteran. Another agency noted that they avoid "obsessive dogs" that like something too much such as skateboards or other toys. Agencies also train their veterans to make sure that they give their service dogs time to be "off duty" and function as typical pets within their households. This includes allowing them to be around other household members and pets, regular rest, walking, feeding, and playing.

### **VETERANS ASSESSMENT PRACTICES**

All veterans at the three participating service dog programs are required to meet the following minimum criteria to be a part of the program: (a) They must be US military veterans who are 18 years of age or older with an honorable discharge identified through a DD 214 long form issued by the US Department of Veteran Affairs that identifies the veteran's condition of discharge; (b) they are also required to be diagnosed with PTSD by the VA, a licensed therapist, psychologist, or psychiatrist; and (c) they need to have the physical ability to care for a service dog.

Each of the agencies conducts extensive interviews of veterans applying to their program. They also conduct home visits to assess the appropriateness of the household environment where the service dog will be staying. During these visits, agencies seek to confirm that the veterans have a stable and suitable living environment for a service dog. This includes factors like having appropriate space for the dog, the ability to provide proper exercise/play, and if there are other dogs in the household. Some also incorporate spouses or partners into these interviews to assess their level of support and understanding of the service dog's role in the veteran's life along with the requirements of having such an animal in their residence. Evaluators from the programs seek to determine during these interviews if the veteran is in a stable mental and emotional state to obtain or train a service dog and they learn key information about their needs, strengths, home situation, and personalities that will be used as factors in the process of matching them with a canine. Agencies also seek to ensure that each veteran has the financial ability to care for a service dog along with obtaining written commitments from them that they will appropriately care for the dog.

During interviews, one trainer asks the veteran to make a list of three to five things that they want a service dog to do for them. This list might include anything such as going to the store, jumping out of a plane, starting yoga or meditation, or spending more time with family members. They don't promise the veteran that their service dog will be able to do all the items on their list, but he tells them "I will give you a dog that will give you the confidence to do those things." He also regularly asks veterans to revisit their list throughout the training process and he encourages them to discuss their three to five things with others in their lives who are trying to help them (i.e., spouses/partners/doctors/counselors). This list becomes a central component in the matching process and the veteran's eventual treatment plan during the training.

### **MATCHING PROCESSES**

The process of matching veterans to the best service dog to meet their needs is a complex one where multiple veteran and canine factors are considered and discussed by dog trainers, administrators, and other key staff members. All three agencies dedicate time during a designated "pairing meeting" to jointly review all of these factors in seeking to find the most optimal match. One of the agency directors who is also a trainer described their matching process as "an arranged marriage that often takes some time and effort to find the best dog for a veteran." Matches are made based on the veteran's lifestyle characteristics, personality level of mobility/exercise/movement, social style (i.e., extrovert vs. introvert), goals, general energy

level, and additional service dog and factors described in the following sections. Matches are also based to a degree on the dog's preference for which veteran they would like to be paired with.

Two agencies in the study conduct what can be described as "matching circle" exercises that are done as part of their pairing process. During these exercises, veterans seeking a dog to train will sit in a circle while candidate service dogs walk amongst and around them. Veterans are instructed to sit calmly and not react or respond while the dogs approach them during the exercise. Eventually, and with encouragement from trainers who are guiding the exercise, most of the dogs will position themselves close to one of the veterans. When instructed, the veterans will then initiate some play or petting of the dog that is closest to them. This is one way that two of the agencies seek to consider each dog's preferences and what is best for the canines being considered as possible service dogs.

Two of the three agencies observe the veteran interacting with several candidate dogs to see how they are reacting to each other. These observations provide information vital to the matching process about both the veteran and the dog. Agencies may sometimes have a veteran interact with multiple dogs over a period of time until an optimal match can be achieved. One agency trainer stated "I really look to see how the veteran is responding to a dog. For example, do they get excited about the dog and does the dog see this response and respond back in a similar manner to the veteran?"

To improve the chances of a successful "arranged marriage" agencies state that they generally plan for the veteran/dog pair to be together for a minimum of 5 years. They attempt to gauge the dog's and veteran's future functioning and needs. They also try to avoid matches that might heighten the veteran's symptoms such as causing them to be more reactive or experience more hyperarousal.

## **VETERAN FACTORS USED IN THE MATCHING PROCESS**

### **Specific Needs and Goals**

Two of the participating agencies stated that they place the specific needs and goals of the veteran as their number one priority when making matches. As reported by one agency director,

We focus on identifying and addressing the specific tasks that each veteran needs from their SD during the matching process. For example, if the veteran needs and wants an active dog or a calmer dog we try to match them with that type of dog if they are able to care for and maintain them.

One of the agencies reported that they equally consider the needs of the veteran and the canine on the same level in their pairing decisions. This particular agency, unlike the other two, retains actual legal ownership of the service dog even after they are assigned to the veteran. This legal difference in formal ownership of the dog appears to not impact the human-animal bond between the veterans and their service dogs.

### **Physical/Mental Abilities**

All three of the participating programs place a great deal of importance on the veteran's physical and mental abilities during the matching process. This is because an increasing number of veterans participating in these programs are dealing with other injuries secondary to their time in the service or due to their age. They want to ensure that the veteran is physically and mentally capable of caring for the dog that they are paired with. If the veteran cannot manage the majority of their own ADLs or if their psychological condition(s) keep them from being able to understand or recognize their dog's caring giving needs, then they may not be a good candidate for owning this type of dog. The veteran may need their service dog to help them with balance and mobility.

Some veterans are dealing with the consequences of traumatic brain injuries and may need assistance with daily tasks. These veterans may have a spouse or partner who functions as their caregiver. So, knowing what that caregiver can do or the degree to which they will be involved with the dog is therefore highly relevant to the matching process. Each of the agencies also provides training to the veteran's caregiver(s) or other involved family members to help them understand the role and needs of the service dog. All of the agencies noted that the age of the veteran is often quite relevant in the matching process, since older veterans usually need bigger and calmer dogs who are 1 to 2 years old. For younger veterans who have children, they prefer to match them with dogs that have "happy-go-lucky attitudes." Some veterans need help with mobility and/or balance support. So, they are matched with bigger dogs who have the physical size and ability to serve that role for the veteran. The agencies will seek to identify the veteran's mobility level, how much range of motion they have, and the degree of independent physical functioning the veteran is capable of doing before matching so that this can be considered as part of the matching process.

### **Lifestyle**

The lifestyles of veterans participating in these service dog programs can vary greatly ranging from highly active to sedentary. The agencies stated that they seek to address

this variability in their decisions by trying to match active veterans with more energetic dogs and generally sedentary veterans with dogs that are comfortable with less activity. Some of the examples they provided include, if a veteran likes participating in water sports such as kayaking, they then try to match them with a dog who enjoys being in the water. Many veterans like to go to the shooting range. Their service dogs must not be overactive to loud sounds like those from a gun being fired. Some of the programs assess/test each dog's response to gunfire by exposing the dog to a "starter gun" to see how they respond before matching. Having a service dog can potentially change their lifestyle to be more active as they experience fewer PTSD symptoms and feel more comfortable in more public settings (O'Haire & Rodriguez, 2018; Rodriguez et al., 2020; Scotland-Coogan, 2019). This possibility is also factored into the pairing decisions.

### Level of PTSD Symptoms

Some veterans need quieter, calmer, less active service dogs if they are experiencing higher levels of hyperarousal and hypervigilance as part of their PTSD. For veterans who are experiencing more moderate or lower levels of PTSD or depression symptoms, the agencies can be more flexible with the type of service dog that they can be matched with.

### Veteran's Service Dog Expectations

Although the agencies seek to understand and meet the veteran's goals for having a service dog, they also want to help them to have realistic expectations for what their canine can do for them. Veterans sometimes have false expectations for what a service dog can do for them, or what the dog is capable of learning or doing. Some veterans only want a certain breed or type of dog to become their service dog. From the beginning of their assessment and engagement process, each of the agencies purposely seeks to inform veterans about realistic expectations. The agency informs them that they cannot always meet such requirements, and, in the end, the veteran will need to be matched with the dog that they feel is the best available one for the veteran.

In conjunction with their matching and training processes, each of the agencies strongly encourages their participating veterans to participate in some form of ongoing mental health or medical therapy along with building their own support system. These agencies appear to acknowledge that veterans with PTSD benefit from a spectrum of support and care services. As described by one agency director "We are a follow-on treatment (i.e., adjunctive) to their primary medical or mental health care." They focus on helping the veteran not become overly

attached to or dependent on their service dog. Agencies believe that their service dogs provide veterans with a relational bridge to reconnect them with others who care about them and to additional community support/services (Whitworth et al., 2020). One trainer stated this sentiment in the following quote, "The service dog serves as a tool in their toolbox, but they are not the whole toolbox. We teach the service dog to be a 'piece of medical equipment' for the veteran, but we can't teach them everything." Some of the agencies encourage the veterans to sometimes do activities without their service dog such as going for a walk to the mailbox or a drive without the service dog. They report that they believe this helps veterans feel more competent with daily activities and manage their PTSD symptoms.

### Experience/Knowledge Caring for a Dog

If the veteran has valuable knowledge and experience with dogs including having already owned a dog before then there's a possibility that they will understand the importance of the daily training which helps them to be matched with a broader range of dogs. Their valuable experience and understanding of canines may help them to be able to adjust to different breeds and sizes of dogs. However, given the unique and special roles of service dogs, the agencies also noted that they often need to "retrain" veterans to maintain and care for their canine because they may have learned and maintained unhelpful dog training skills that they would likely try to use with their service dog.

### Home/Work Environment

All three of the participating agencies place a high level of importance on multiple factors related to the veteran's home and work environment when making their matches. They emphasize the magnitude of the overall home and work environment in deciding on an appropriate pairing for the veteran such as others present in the environment including spouses, partners, children, other adults, other animals, and coworkers. One agency noted,

The environment changes the dog. The more optimal the environment, the better the service dog will be able to serve and continue to serve in their role. The opposite is true. When a service dog is in a difficult environment, they won't be able to function in their role. For example, if the veteran is often angry and/or yelling this will cause the dog to shut down.

If the veteran has a spouse or partner, the agencies want to be sure that they are fully supportive of having



a service dog in their home and that they understand all of the required maintenance and care guidelines that the veteran will need to ensure for the canine before the match. The agencies want to see the service dog form a close bond with the veteran so they will be the primary person managing their feeding and care and not others in the home. With children, the agencies want the dog to be able to easily tolerate their behaviors and not be fearful of them. They noted that some dogs could care less if a child is in a room and others want to give them lots of affection which distracts from their role in serving the veteran.

Each agency pays particular attention to the consideration of matching veterans with a service dog when there are other pets (i.e., other dogs and cats) in the home. One of the agencies does not like to place service dogs into homes where there are other dogs; however, they also acknowledge that they cannot control if they are already in the home, but this becomes an important factor in their matching decision. When there are other dogs already in the home, two of the agencies require the veteran to bring them to the agency to have them evaluated to determine if they are compatible with a service dog before matching. One agency will not pair a service dog with a veteran when there is a puppy or a nonservice dog already in the home because they are concerned about the impact this will have on their dog. Their rationale as noted by one of the trainers participating in the study is that “Dogs pick up the worse traits of the non-SDs versus the other way around.” Another agency avoids placing service dogs into homes where they have one or more cats stating that they “will be distracted by and will go after the cat.” One agency does a “rabbit test” where they assess how the dog responds to rabbits being present. They note “If the dog is OK with the rabbit (and don’t over-respond or chase them) then they will likely be OK with the cat in the home.” All of the agencies require veterans who have backyards to also have a working fence to safeguard the service dog; while one agency alternatively requires a 30-foot lead to ensure the person retains control of the dog, which also allows the dog to still get exercise and play.

For work considerations, some veterans travel a lot which may make it difficult for them to be paired with a dog which is a consideration when matching. The agencies noted that when veterans work outside of the home, they need to provide evidence that they have an employer who is understanding and supportive of the role of the service dog for the veteran. Before matching, dogs are tested for a wide range of various work situations. For example, if there is a dog that can’t handle loud noises (they are very sensitive, including their hearing), then they avoid pairing them with a veteran who works in such a setting.

## **SERVICE DOG FACTORS/CHARACTERISTICS**

As described earlier, each of the agencies utilizes extensive assessment practices and tools to identify canines that will meet the necessary characteristics to become service dogs. Once they meet those criteria, the agencies then focus on similar important factors/characteristics in the dogs as they do for humans when making their matching decisions. Beyond those factors, each dog’s activity level, mobility, personality/temperament, and relationship skills/ability are also considered in their match with a veteran. As described by one agency director “If there is a very active, fun-loving, dog, he could go to a person that’s able to keep up with the energy level or someone we know would benefit from that type of energy level.” Similarly, they attempt to match dogs that enjoy being around groups of humans to veterans who prefer higher levels of social involvement. Some dogs desire calmer settings or only being around one or two humans at a time. So, the agencies try to pair them with more introverted or less socially active veterans. These larger canines can sometimes aid veterans by helping them to balance themselves and providing them with physical support to stand, walk, or get around barriers. These “mobility dogs” must be large enough to support a veteran’s weight if they require assistance due to their disabilities (i.e., they need help with standing/walking, doing ADLs, or recovering from recent surgery). These dogs will often be trained to help the veteran pick up items for them.

## **UNSUCCESSFUL MATCHES**

Each of the agencies acknowledged that a small number (less than 5%) of their veteran-to-service dog matches resulted in a pair that could not work together. Some of the reasons for the unsuccessful match included veterans who were unprepared to maintain a service dog, unforeseen veteran medical problems, and lack of fit between the veteran’s personality and their service dog’s temperament. All three agencies maintain close contact with the veteran through their aftercare programs for at least 1 year after their match and all training has been successfully completed. When there is an unsuccessful match, the agencies take back the dog and will try to arrange for a new match if the veteran is fully capable of having a service dog. The agencies support the veteran and canine through this difficult process by providing counseling services to the veteran and re-evaluating the canine to see if they can be matched with another veteran who is a better match. If the dog is not capable of being successfully matched with a veteran, the agencies usually find a suitable home for them to live as a pet/companion dog. One agency staff member summarized what happens in these situations in the following exemplary quote:

We know the reality is that not all pairs are going to be a match. Sometimes we think a person is ready (or the person believes they are ready) and when they go home with the dog, reality sets in. I try to prepare people as best I can during the detailed application as well as during orientation and when we do our face-to-face with the trainer present. I mention there is a honeymoon phase and just like a marriage, they have to work on the relationship, and both have to be 50/50 in order for the team to succeed. Just like a marriage though, sometimes there's not a good fit. In the event that happens, we will retrieve the dog, "reset" the dog, and determine if the dog can be repaired or has to be career changed (depending on the reasons for the return). As far as the individual, we put them on the priority list in order to be repaired once we locate another dog.

## DISCUSSION

All three of the participating service agencies employed highly detailed and thorough processes to assess and match veterans with service dogs. Canine assessment practices emphasize the importance of assuring that candidate dogs have non-aggressive temperaments as measured by standardized assessments (i.e., CGC and the PAT), that they seek human attention, that they pass scent testing, and have the physical ability to serve in this role. However, as described in prior research (Barnard et al., 2012; Dowling-Guyer, et al., 2011; Herron & Melese, 2014), agencies do not have a standardized, reliable, or valid temperament test for dogs to ensure they have an appropriate disposition needed to be a service dog. The CGC assessment simply purports to confirm that dogs have basic manners, while the PAT only gauges if they are stable, well-behaved, and unobtrusive to the public. Having a scientifically based assessment tool to specifically evaluate canine temperament in multiple challenging settings required of service dogs would provide agencies with a standardized tool to greatly aid in screening and matching. It might also aid in increasing public and business owner awareness of the need and vital role that service dogs play for veterans with PTSD.

Findings from this study revealed very few differences between the matching practices of the participating agencies. All three demonstrated that they diligently seek to find the "best fit" for each dog/veteran team with consideration of the veteran's mental and physical abilities and how they match with the dog's temperament. The

veteran factors they assess and consider in their matching processes include the veteran's specific needs/goals, physical/mental abilities, lifestyle, level of PTSD symptoms, expectations of their service dog, experience/knowledge caring for a dog, and their home/work environment. The practices found in this study, nevertheless, still lack the use of standardization and research-informed strategies for matching their participants to service dogs (Benbassat et al., 2021). This finding is unsurprising, given the very limited research into best practices in training and matching strategies for serviced dogs in general. Agencies still rely heavily on the experience of dog trainers and other staff and anecdotal evidence to make their assessment and matching decisions. As identified by Barnard et al. (2012), Dowling-Guyer et al. (2011), and Herron and Melese (2014), there remain major knowledge gaps in this field with no standardized pair-matching tests nor any standardized, reliable, or valid temperament tests for dogs limiting the capability to make the best service dog to human matches.

Each of the agencies in the study addressed some components delineated by Winkle et al. (2020) as a framework for considering canine welfare in these programs. Regarding identification of the handler profile detailing specific, necessary characteristics of animal handlers, each of the agencies in this study fully assessed key factors about each participating veteran including their specific needs for a service dog, personality, activity level, dog training, skill level, and leisure activity interests. They also appeared to identify the distinct job characteristics required for each different service dog, such as the environment they will be placed into, veteran abilities/disabilities, and breed restrictions depending on the variable needs of each veteran to ensure the selection of the right dog for the role. They also considered the specific needed canine profile, including the skills and capabilities that service dogs will need to be paired with a veteran such as a desired temperament, attachment with the veteran, and adaptability/flexibility. Each of the agencies provided a robust amount of initial and refresher training for veterans and their service dogs that included understanding and addressing the needs and care of their canines. Evaluation and re-evaluation of the skills of the veteran and service dog team occur throughout and after formal training. Each team at the participating agencies must pass an extensive behavioral skills assessment before graduation and when they are recertified.

The need for assuring animal welfare in these programs cannot be overstated. Any references to service dogs being considered "equipment or tools" are contrary to our understanding of dogs as sentient beings and wholly depreciate their equal significance with humans

when making these matches. All participants involved in the matching benefit from remembering this principle throughout this process.

## CONCLUSION

Our findings highlight the extensive efforts carried out by US-based service dog agencies in providing service dogs for veterans with PTSD and to make the most optimal canine/human pairing. Participants' responses and comments provide helpful insights into understanding the detailed actions these agencies take during this process. While a sample size of three is not intended to represent all organizations who provide these services, the in-depth qualitative responses provided here greatly aid in justifying the need for standardization based on future controlled research into best practices. This standardization may decrease the occurrence of unsuccessful matches and, once shared with the wider public, can greatly aid in the broader acceptance, endorsement, and financial support of service dogs for veterans with PTSD and others who benefit from having them.

## COMPETING INTERESTS

The authors have no competing interests to declare.

## AUTHOR AFFILIATIONS

**James Whitworth**

UCF, United States

**Chris Stewart**

University of Central Florida, United States

## REFERENCES

- ADA.gov.** (2020, February 28). *ADA requirements: Service animals*. US Department of Justice, Civil Rights Division. <https://www.ada.gov/resources/service-animals-2010-requirements>
- American Kennel Club.** (2024) *Canine good citizen test items*. <https://www.akc.org/products-services/training-programs/canine-good-citizen/canine-good-citizen-test-items/>
- Assistance Dogs International.** (2014, May). *Assistance dog public access certification test*. <https://www.k9events.com/public-access/ADI.PublicAccessTest.updated.MAY14F-2.pdf>
- Assistance Dogs International.** (2024). *Dog breeds for assistance dogs*. <https://assistedogsinternational.org/resources/dog-breeds-for-assistance-dogs/>
- Association of Service Dog Providers.** (n.d.). *Service dog agency standards, Veteran/First Responder training*. <https://drive.google.com/file/d/1lujPyESWU0UoFIZkxyUxazNvQ5FYaKBL/view>
- Barnard, S., Siracusa, C., Reisner, I., Valsecchi, P., & Serpell, J. A.** (2012). Validity of model devices used to assess canine temperament in behavioral tests. *Applied Animal Behaviour Science*, 138, 79–87. DOI: <https://doi.org/10.1016/j.applanim.2012.02.017>
- Benbassat, D., Buccellato, K. H., Nordstrom, M. J., Jaskot, E. M., Hager, N., & Pasquina, P. F.** (Accepted, 2021). Service dogs and wounded warriors: The state of the science. *The United States Army Medical Department Journal*.
- Bergen-Cico, D., Smith, Y., Wolford, K., Gooley, C., Hannon, K., Woodruff, R., Spicer, M., & Gump, B.** (2018). Dog ownership and training reduces post-traumatic stress symptoms and increases self-compassion among veterans: Results of a longitudinal control study. *Journal of Alternative and Complementary Medicine*, 24(12), 1166–1175. DOI: <https://doi.org/10.1089/acm.2018.0179>
- Dowling-Guyer, S., Marder, A., & D'Arpino, S.** (2011). Behavioral traits detected in shelter dogs by a behavior evaluation. *Applied Animal Behaviour Science*, 130(3–4), 107–114. DOI: <https://doi.org/10.1016/j.applanim.2010.12.004>
- Doyle, S.** (2007). Member checking with older women: A framework for negotiating meaning. *Health Care for Women International*, 8(10), 888–908. DOI: <https://doi.org/10.1080/07399330701615325>
- Farmer, S. M.** (2021). Integrating animal-assisted interventions in United States veterans with self-reported posttraumatic stress disorder. *The Journal for Nurse Practitioners*, 17(5), 619–622. DOI: <https://doi.org/10.1016/j.nurpra.2021.02.001>
- Glaser, B.** (1992). *Basics of grounded theory analysis: Emergence versus forcing*. Sociology Press.
- Hennink, M., Hutter, I., & Bailey, A.** (2011). *Qualitative research methods*. Sage Publications.
- Hennink, M. M., Kaiser, B. N., & Marconi, V. C.** (2016). Code saturation versus meaningsaturation: How many interviews are enough? *Qualitative Health Research*, 27(4), 1–18. DOI: <https://doi.org/10.1177/1049732316665344>
- Herron, E. M., & Melese, P.** (2014). *Choosing your new best friend*. In D. F. Horowitz, C. J. Ciribassi, & S. Dale. (Eds.), *Decoding your dog: The ultimate experts explain common dog behaviors and reveal how to prevent or change unwanted ones* (pp. 16–36). Houghton Mifflin Harcourt.
- Kloep, M. L., Hunter, R. H., & Kertz, S. J.** (2017). Examining the effects of a novel training program and use of psychiatric service dogs for military-related PTSD and associated symptoms. *The American Journal of Orthopsychiatry*, 87(4), 425–433. DOI: <https://doi.org/10.1037/ort0000254>
- Krause-Parello, C. A., & Morales, K. A.** (2018). Military veterans and service dogs: A qualitative inquiry using interpretive

- phenomenological analysis. *Anthrozoös*, 31, 61–75. DOI: <https://doi.org/10.1080/08927936.2018.1406201>
- Mills, A. J., Durepos, G., & Wiebe, E.** (Eds.) (2010). *Encyclopedia of case study research: Volumes 1 and 2*. Sage. DOI: <https://doi.org/10.4135/9781412957397>
- National Center for PTSD.** (2024, April 30). *How common is PTSD in veterans?* US Department of Veterans Affairs. [https://www.ptsd.va.gov/understand/common/common\\_veterans.asp](https://www.ptsd.va.gov/understand/common/common_veterans.asp)
- O’Haire, M. E., & Rodriguez, K. E.** (2018). Preliminary efficacy of service dogs as a complementary treatment for posttraumatic stress disorder in military members and veterans. *Journal of Consulting and Clinical Psychology*, 86(2), 179–188. DOI: <https://doi.org/10.1037/ccp0000267>
- Rodriguez, K. E., LaFollette, M. R., Hediger, K., Ogata, N., & O’Haire, M. E.** (2020). Defining the PTSD service dog intervention: Perceived importance, usage, and symptom specificity of psychiatric service dogs for military veterans. *Frontiers in Psychology*, 11, 1638. DOI: <https://doi.org/10.3389/fpsyg.2020.01638>
- Rooney, N. J., Clark, C. C. A., & Casey, R. A.** (2016). Minimizing fear and anxiety in working dogs: A review. *Journal of Veterinary Behavior: Clinical Applications and Research*, 16, 53–64. DOI: <https://doi.org/10.1016/j.jveb.2016.11.001>
- Scotland-Coogan, D.** (2019). Relationships, socialization, and combat veterans: The impact of receiving and training a service dog. *The Qualitative Report*, 24(8), 1897–1914. DOI: <https://doi.org/10.46743/2160-3715/2019.3590>
- Scotland-Coogan, D. E., Whitworth, J. D., & Wharton, T. C.** (2020). Outcomes of participation in a service dog training program for veterans with PTSD. *Society & Animals*, 30(5–6), 547–568. DOI: <https://doi.org/10.1163/15685306-00001682>
- Swanborn, P.** (2010). *Case study research: What, why, and how?* Sage Publications. DOI: <https://doi.org/10.4135/9781526485168>
- US Department of Veterans Affairs.** (2020, January 5). *A randomized trial of differential effectiveness of service dog pairing versus emotional support dog pairing to Improve Quality of Life for Veterans with PTSD*. Office of Research and Development. <https://www.research.va.gov/REPORT-Study-of-Costs-and-Benefits-Associated-with-the-Use-of-Service-Dogs-Monograph1.pdf>
- Whitworth, J. D., Scotland-Coogan, D. E., & Wharton, T.** (2019). Service dog training programs for veterans with PTSD: Results of a pilot controlled study. *Social Work in Health Care*, 58(4), 412–430. DOI: <https://doi.org/10.1080/00981389.2019.1580238>
- Whitworth, J. D., O’Brien, C., Scotland-Coogan, D. E., & Wharton, T.** (2020). Understanding partner perceptions of a service dog training program for veterans with PTSD: Building a bridge to trauma resiliency. *Social Work in Mental Health*, 18(6), 604–622. DOI: <https://doi.org/10.1080/15332985.2020.1806181>
- Winkle, M., Johnson, A., & Mills, D.** (2020). Dog welfare, well-being and behavior: Considerations for selection, evaluation and suitability for animal-assisted therapy. *Animals: An open access journal from MDPI*, 10(11), 2188. DOI: <https://doi.org/10.3390/ani10112188>
- Yarborough, B., Stumbo, S. P., Yarborough, M. T., Owen-Smith, A., & Green, C. A.** (2018). Benefits and challenges of using service dogs for veterans with posttraumatic stress disorder. *Psychiatric Rehabilitation Journal*, 41(2), 118–124. DOI: <https://doi.org/10.1037/prj0000294>
- Yount, R. A., Olmert, M. D., & Lee, M. R.** (2012). Service dog training program for treatment of posttraumatic stress in service members. *US Army Medical Department Journal*, 63–69.

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