

Evaluation of the Trial of Assistance Dogs as an Adjunct to Therapy for Veterans with Posttraumatic Stress Disorder (PTSD)

Final Report (Abridged) – September 2022

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Executive Summary

- The Trial recruited 20 veterans and their associated support person, with 17 veterans and 16 support persons remaining in the Trial at completion.
- A mixed method approach was utilised with measures considered at baseline, pre-delivery of assistance dog, six-months post-delivery of assistance dog, and from six-months post-delivery to completion of the Trial.
- The Trial involved a relatively small sample size, and as such, outcomes should be considered indicative trends and not conclusive statistical statements.
- The Trial has demonstrated that both the training program and the assistance dog have provided an overall positive impact for veterans in relation to both PTSD symptomology and treatment, and broader personal gains.
- Specific benefits observed for veteran participants, based on statistical significance and qualitative findings, include:
 - o Reduction in PTSD symptom severity
 - o Decrease in social isolation
 - o Decrease in anger
 - Decrease in anxiety and hypervigilance
 - Decrease in fatigue
 - Improved participation in social roles and activities
 - o Improved sleep quality and reduction in sleep disturbances
 - o Improvement in communication and relationships with family and others
 - Increased confidence and independence in using public transport and accessing community and social activities.
- Benefits are consistent with international studies, where veterans demonstrated a reduction in PTSD symptom severity following the handover of their assistance dog, though they still retain a diagnosis of PTSD.
- Multiple veterans and support persons reported that the presence and intervention of the assistance dog has been pivotal in preventing self-harm and suicide.
- Qualitative findings indicated that veteran participants' ability to participate in social roles and
 activities (such as leisure activities, activities with family or friends, or work activities including
 those around the home) improved. However, this was not reflected in quantitative findings
 which indicated a small but statistically significant decrease following receipt of the assistance
 dog. It is unknown what influence the ongoing impacts of COVID-19 restrictions limiting social
 activities across much of the Trial period had on this outcome.
- Minimal change was reported regarding burden experienced by the veteran's support person, based on outcomes of survey findings. However, qualitative feedback indicated improvement in perceived burden for some, due to the veteran becoming more confident to attend public outings on their own (e.g., through independent use of public transport, and going to shops and other activities with their assistance dog), or through the support person feeling more comfortable about leaving the veteran at home alone, knowing the assistance dog would provide support and comfort if required.
- Where the support person lived in the same household as the veteran, the level of support
 person burden due to the assistance dog increased, particularly during the transition period
 where additional care responsibilities for a young dog were required. For many support persons

this burden reduced the longer the assistance dog lived in the home; however, it is noted that some support persons continued to experience challenges relating to behaviours of the assistance dog.

- No statistically significant differences, based on quantitative measures, were found for the following veteran outcomes:
 - Emotional Distress Depression/Sadness
 - Physical Functioning
 - o Pain Interference
 - General Self-Efficacy
 - Social Support perceived by the veteran in relation to the support person and other family/friends.
- Treating clinicians indicated a number of potential benefits to using an assistance dog program as an adjunct to treatment of veterans with PTSD. They observed improvements in psychological outcomes in veterans with an assistance dog, as well as positive impacts on social interactions, interpersonal and family relationships, and community access. However, clinicians indicated a more developed approach to linking an assistance dog program with therapy will be needed to realise maximum benefit.
- Continuity of the assistance dogs program throughout the COVID-19 pandemic, and in particular
 the extended lockdowns in Victoria, presented an unintended benefit for veteran and support
 person participants as it assisted in minimising the potential impacts of self-isolation and 'stay
 at home' restrictions.
- It is noted that some outcomes may have been influenced by factors unrelated to the assistance dog or Trial involvement, such as COVID-19 restrictions and impacts of lockdown, or ill health, injury and surgery (of the veteran or their family members). It is also noted that the evaluation is based on only one specific training program and that these findings may not be replicated in other training programs. More reliable or conclusive trends which accounted for these external influences would require a much larger sample size, a model where these factors were known or anticipated, and/or a control group available for comparison. Notwithstanding these limitations, the current evaluation has demonstrated clear trends which indicate clinical utility of specifically trained assistance dogs as an adjunct to evidence-based treatment for PTSD in a veteran population, and this would warrant further investigation with a larger sample size and control group, across a range of approaches of training programs.

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Introduction

This report provides a comprehensive overview of the findings of the independent evaluation of the Trial of Assistance Dogs as an Adjunct to Therapy for Veterans with Posttraumatic Stress Disorder (PTSD) (the Trial). The Trial was conducted over four years, from 2018 to 2022, and was funded by the Australian Government's, Department of Veterans Affairs' (DVA) which committed \$1.9 million to assess the impact of an assistance dog for veterans with PTSD. The overall aim of the evaluation was to advance the understanding of the clinical utility of assistance dogs to veterans with PTSD and potential reduction of carer burden on members of their support team.

DVA engaged LTU, in collaboration with the Centre for Service and Therapy Dogs Australia (CSTDA; the 'training provider'), to deliver the Trial, including to select, train, allocate, provide ongoing support for, and monitor assistance dogs as an adjunct to evidence-based treatment for veterans with PTSD, so that the following outcomes could be determined:

- 1. The clinical utility of using specifically-trained assistance dogs as an adjunct to evidence-based treatment for PTSD in a veteran population;
- 2. The benefits of specifically trained assistance dogs used by veterans with PTSD in decreasing related support person burden; and
- 3. Provide policy and program insights to ensure the DVA assistance dog program is positioned to provide evidence-based informed care.

The objective of the evaluation was to determine the extent to which the Trial achieved its objectives and to provide advice to DVA about:

- 1. The feasibility of using specifically trained assistance dogs as an adjunct to evidence-based treatment for PTSD in a veteran population;
- 2. Any unintended positive or negative impacts on veterans, their families and carers from participation in the project;
- 3. Any unintended positive or negative impacts on the assistance dogs from participation in the project; and
- 4. Key considerations and adaptations to the model required for input into policy and program development that would enhance the current DVA Psychiatric Assistance Dog (PAD) Program.

Methodology

A mixed methods approach was utilised in the design of this study. To meet the specific evaluation objectives, selection of participants was limited to 20 veterans, their support persons and stakeholders participating in the Trial.

Data collection methods included:

- The use of established and validated surveys, to measure PTSD symptomology, quality of life, general health and carer burden, to provide measurable and less subjective conclusions to be drawn regarding outcomes experienced by veteran and support person participants.
- The use of qualitative interviews to enable richer data to be gained to supplement survey findings and to provide information relating to the implementation of the program itself and key considerations relating to future scalability of the model used in the Trial.
- The use of surveys to collect feedback from clinicians in relation to recruitment and training
 processes and veteran outcomes following receipt of their assistance dog. These surveys
 provided for both quantitative measures and free-text responses to capture the experiences
 and observations of treating clinicians.
- The methodology included the collection, collation and analysis of data relevant to the Trial. This data provided information on activities, outcomes, Trial components, factors impacting outcomes (both individually and program wide), successes and challenges. Data collected incorporated both whole of Trial and individual results.

- 1. Baseline score at the veteran's commencement of the Trial
- 2. Pre-delivery of the assistance dog (average of 9-12 months following commencement of Trial)
- 3. Six-months post-delivery average score during the first 6-months *post-delivery* of the assistance dog
- 4. Greater than six-months post-delivery average score after the initial 6-months post-delivery of the assistance dog to conclusion of the Trial.

COVID-19

As 18 of the 20 veteran participants recruited to the Trial resided in Victoria for the majority of the Trial period, of particular relevance to this Trial are the impacts of COVID-19 in Victoria and the events that followed during the period of March 2020 to the end of the Trial in June 2022. Victoria's response to the pandemic involved six lockdown periods totalling 267 days¹ with restrictions imposed in Melbourne (and regional areas when required) during these periods. In addition, where veterans had moved interstate during the Trial, border closures prevented the training provider from providing inperson training at times, resulting in longer periods in between training sessions (however, phone support continued to be available during these times). Victoria experienced several extended lockdown periods during the time of the Trial.

Multiple research studies have been undertaken in relation to the impacts that COVID-19 lockdowns and restrictions have had on the general population. A study which examined the changes in the

¹ Boaz, J. (2021, Oct 4). Melbourne passes Buenos Aires' world record for time spent in COVID-19 lockdown. *ABC News*. Retrieved 10 May 2022 from https://www.abc.net.au/news/2021-10-03/melbourne-longest-lockdown/100510710

mental health of Australians aged 15 years and older during the pandemic found that the COVID-19 lockdowns were associated with a modest negative change in overall population mental health². The findings included a small but statistically significant effect of lockdown on mental health, with greater decline for residents of Victoria in 2020 than for those in the rest of Australia.

Researchers undertook a meta-analysis of all of the studies on mental health conducted during the first year of the pandemic (33 published papers) which examined the association between government-imposed social restrictions and mental health outcomes³. The report indicates that COVID-19 social restrictions were significantly associated with increased mental health symptoms overall, including depression, stress and loneliness, but not anxiety. The strictness and length of restrictions was also found to have divergent effects on mental health outcomes⁴.

Similarly, the Australian Institute of Health and Welfare (AIHW)⁵, reported on the impacts of widespread restrictions of movement, social distancing measures, physical isolation and lockdowns implemented from March 2020. They note that the sudden loss of employment and social interaction, with added stressors of moving to remote work or schooling, and impacts of sudden, localised lockdowns to prevent further outbreaks were found to have negatively impacted the mental health of many Australians.

Throughout 2020 and 2021, there was a rise in the use of mental health services and an increase in psychological distress, however, this was not associated with a rise in suspected deaths by suicide⁶. According to the statistics presented by the AIHW, crisis support services available to support adult Australians experiencing mental health issues reported increased demand for their services in March 2020 and following this, fluctuations in activity during the pandemic.

As a result of the uncertainty surrounding the greater impact of COVID-19 on the wider community, the training provider initiated a precautionary strategy to take effect in March 2020 to ensure that the impact of the pandemic on the Trial and veteran participants would be minimised. The training provider instigated two key activities within this strategy:

- 1. Early handover of dogs to six veterans recruited in the first intake; and
- 2. When mandatory lock-down measures were introduced, ensuring the training provider obtained state-government approved 'Essential Service' status to be able to continue to deliver services within COVID-19 restrictions.

Findings

Recruitment and goals

This report explores the experience of the veteran participants selected to participate in the Trial spanning March 2019 through to June 2022. All participants have provided scheduled feedback to the evaluation team since commencement.

² Butterworth, P., Schurer, S., Trinh, T., Vera-Toscano, E & Wooden, M. (2022). Effect of lockdown on mental health in Australia: evidence from a natural experiment analysing a longitudinal probability sample survey. *The Lancet*, 7, published online April 21, 2022, https://doi.org/10.1016/S2468-2667(22)00082-2

³ Knox, L., Karantzas, G.C., Romano, D., Feeney, J.A. & Simpson, J.A. (2022). One year on: What we have learned about the psychological effects of COVID-19 social restrictions: A meta-analysis. Current Opinion in Psychology, 46, 101315. Advance online publication. https://doi.org/10.1016/j.copsyc.2022.101315

⁴ Knox, et al. (2022)

⁵ Australian Institute of Health and Welfare. (2022). *Mental health services in Australia*. Retrieved 27 July 2022 from https://www.aihw.gov.au/reports/mental-health-services/mental-health-services-in-australia

⁶ AIHW (2022)

On commencement in the Trial, veterans reported reasons for wanting to participate and what they hoped to achieve by participating and receiving an assistance dog. Goals within the Trial were found to be consistent with those achieved in other studies where dogs were trained to alert/interrupt anxiety, calm anxiety, create space for the veteran when in public and/or 'protect' the veteran from others, watch the veteran's back, wake from a nightmare, and help the veteran to greet others. In

reporting these goals, some indicated a strong belief that an assistance dog would be able to assist them meet their goals, and others indicated a willingness to try, but reduced belief as to what could be achieved. Untrained characteristics or behaviours included in other studies were provision of companionship and love, being non-judgemental, giving the

"I was sceptical (about the program) at first, but am thankful that I participated in the program"

veteran a sense of calm, happiness, or independence, permitting the veteran to leave the house or connect to family, providing a routine for the veteran, and helping the veteran make friends (Rodriguez et al., 2020). Veteran goals specific to this Trial included:

- Companionship and reduction of loneliness
- Positive impact of reduction in, or better management of, PTSD symptoms
- Improve mental and physical health and sense of well-being
- Lessen anxiety and depression
- Increase stability in mental health and regain some normality in life
- Regain trust in society, improve confidence and independence in public settings and activities and improve ability to get out more
- Reduce medication or try a non-medical/non-medication solution to mental health issues
- Recommended by psychologist and spouse
- Relieve burden and strain on spouse and family
- Contribute to evidence of benefits of assistance dogs in relation to veterans with PTSD, to assist future veterans.

"I have achieved my goals and more. I am mentally and physically in a better place and get more joy out of life" Quantitative and qualitative data gathered from veterans and stakeholders indicates that the implementation of a structured, goal-oriented program that includes regular engagement of veterans with PTSD is helping address and influence veteran and support person interactions with each other, family members and the general community. The training process successfully guided 17 veterans through the program to the point of receiving their own assistance dog to live with them in their home. As veteran participants progressed to

the point of readiness to receive their assistance dog, the provider determined specific goals with each veteran participant. The most commonly reported goals included:

- Reduce anxiety/anger by redirection, distraction and grounding and prevent escalation into full panic/dissociation/unacceptable reaction
- Improve quality of life by improving work/life balance, self-care, quality time with partner
- Increase safety in public especially during dissociation
- Enable better sleep at night and reduction of nightmare effects
- Regular community access (at any time of the day) and public transport access and social
 interaction, to go to new places independently, without feeling crowded or threatened,
 especially by strangers from behind, without consequent exhaustion from hypervigilance
- Improve relationship with children, enhancing communication
- Become healthier, increase activity, improve daily routines and morning moods

Support person participants were also asked at the commencement of the Trial to indicate what they hoped that they and/or the veteran would achieve through the Trial and in receiving an assistance

dog. Responses primarily focused on outcomes that the support person hoped could be achieved for the veteran, including:

- Improved quality of life through decrease in panic/anxiety attacks during activities; assistance
 to remain grounded during daily episodes of anxiety and trauma; support mechanism during
 panic attacks
- Reduction in nightmares/night terrors
- Calmer, more well-adjusted veteran both at home and in public
- Better concentration and ability to focus on tasks
- Improved mood, well-being and pleasure in things
- Increased emotional support and companionship
- Sense of unconditional love
- Someone to motivate the veteran to get out of bed and feel that they are being cared for, and to provide motivation overall
- Decreased periods of silence
- Improved physical strength and fitness through walking and other exercise
- Assisting to balance priorities
- Increased socialisation
- Provide other interest to widen focus in life
- Feeling of safety in public, resulting in enjoyment of being out again or going out as a family
- Increased independence while support person is not available/present and in attending activities, appointments and errands

Responses which were focused on hopes for what may be achieved in relation to impacts especially for the support person included:

- Reduced need for support person to focus closely on monitoring the veteran at home and while out
- Improved relationship between veteran and support person ability to bond over the process of preparing to receive and the actual assistance dog

At the point of preparing for dog-handover, feedback from support person participants indicated commonly reported goals that they hoped the veteran would achieve through use of the assistance dog. Qualitative and quantitative data indicated that veterans and support persons have reported a continuation of personal growth and movement towards goal attainment associated with dog-delivery. Early phases of the training program indicated an initial positive response to the training from both veteran and support person participants and further progress towards achievement of goals post-dog delivery was also evident. Key areas of goal attainment included:

- Reduction in heightened behaviour and anxiety
- Improved communication
- Increase in activities and community engagement
- Greater freedom in the community
- More balanced approach to social gatherings, including reduced alcohol intake.

While positive progress of attaining goals was evident, several veterans reiterated the importance that the assistance dog plays as a part of a holistic approach, emphasising that it should not be considered a standalone support or solution, but part of a scope of services and approaches.

"The program must not be viewed as a cure and used as a conduit to other DVA services. The role of the trainer cannot be misused or replace other mentoring services offered to veterans"

Veteran experience with the training program

The model used in the Trial immersed the veteran (and support person) throughout 12-18 months of training to prepare, match and support both the veteran and the selected dog to facilitate a positive outcome. Although this process was initially daunting for many veterans and support persons, all recognised the importance of the approach used by the training provider, and following their personal experience, reported viewing this as a necessary and minimum standard.

All veterans reported having a positive experience with the Trial, even where challenges had been experienced. Feedback provided reinforced the benefit gained from the regular and targeted interaction with both the trainer and experienced training dog during the initial training (pre-handover of own assistance dog). Veterans collectively stated that the training introduced a structured and regular routine which has assisted with individual motivation and overall engagement.

Feedback obtained relating to the impact of the Trial on the veterans' daily living indicated that all stages of the Trial have had an overall positive impact. These impacts related to both mental and physical health and day-to-day activities. Most veterans reported an improved sense of calm during training sessions, improved confidence, reduction in anxiety, a positive distraction and redirection of triggers. Also reported were improvements in "freedom", access to transport, a sense of responsibility and purpose and companionship. Although it is noted that these freedoms have been impacted due to the COVID-19 lockdowns in Melbourne, it should also be noted that veterans highlighted the benefit of participating in the Trial during this time from a mental health perspective.

"My lifestyle has changed considerably since having the dog. Prior to the program I was having regular panic attacks and isolating myself to avoid public interactions. Since working with the training team and receiving the dog I have now attended wine festivals, an AFL match for the first time in seven years and gone camping"

Some challenges encountered by veterans during the training program continue to be an ongoing challenge in public, including the increased visibility of disability and being viewed as a recipient of an assistance dog, managing encounters with the public, public access, feelings of apprehension and at times difficulty following the training program. While these challenges were reported, veterans stated these in a manner which indicated that it was not a negative in relation to the program, but rather aspects relating to their own concerns that need to be effectively managed. All veterans within the Trial reported at least one instance of public access refusal or uncertainty to the bona fide of the dog.

"Having a dog with a jacket in public was like a flashing light advertising that something was different about me. I found this hard at first and would use different strategies to deal with this. Often, I would adopt the role of a dog trainer to take the focus off me"

These challenges are consistent with earlier studies, stating that the responses of the general public could be challenging due to public ignorance of assistance dogs, for example, by people approaching the dog and distracting her from her work, or because the veteran felt a sense of stigma when in public⁷. Also consistent with earlier studies were difficulties in accessing

⁷ Krause-Parello, C. A., & Morales, K. A. (2018). Military veterans and service dogs: A qualitative inquiry using interpretive phenomenological analysis. *Anthrozoos*, *31*(1), 61-75;

Lessard, G., Vincent, C., Gagnon, D. H., Belleville, G., Auger, É., Lavoie, V., Besemann, M., Champagne, N., Dumont, F., & Béland, E. (2018). Psychiatric service dogs as a tertiary prevention modality for veterans living with post-traumatic stress disorder. *Mental Health & Prevention, 10,* 42-49;

Nieforth, L. O., Craig, E. A., Behmer, V. A., Wadsworth, S. M., & O'Haire, M. E. (2021). PTSD service dogs foster resilience among veterans and military families. *Current Psychology*, 1-14;

Nieforth, L. O., Rodriguez, K. E., & O'Haire, M. E. (2021). Expectations versus experiences of veterans with posttraumatic stress disorder (PTSD) service dogs: An inductive conventional content analysis. *Psychological Trauma: Theory, Research, Practice, and Policy*; Vincent, C., Belleville, G., Gagnon, D., Auger, É., Lavoie, V., Besemann, M., & Dumont, F. (2017). A logic model as the sequence of needs and experience that lead PTSD patients to seek a service dog and concerns related to it: a stakeholders' perspective. *International Journal of Neurorehabilitation*, *4*, 268.

public places where assistance dogs are legally entitled to go, but which are typically off-limits to pet dogs⁸.

Challenges associated with the dog's transition into the veteran's home were evident with key areas of concern relating to the commitment of caring for the dog, disruption of daily routine and logistics

of transporting and attending venues with a dog. However, the impact of this was different for each individual and influenced by existing family dynamic. Veterans with more complex family/living situations (i.e., children living at home, support person working full time) and those who had relocated away from Melbourne during the Trial expressed greater challenges during this period. It is important to note that the associated time commitment required by the veteran and support person was underestimated by participants and became a burden during this period.

"The dog handover was the hardest period of the training and I wasn't prepared for the impact that having a dog would have on my daily life. I wanted to quit. It took three months for me to settle into a routine post hand over. I am so glad I was supported by my family and the program to continue as it has changed my life"

It is important to note that the training provider was involved in the broader roll-out of the DVA Psychiatric Assistance Dog Program during the Trial which placed pressure on their training resources and ability to support the veterans within the Trial to the level that was first experienced. Almost all veterans reported a reduction of support and disjointed training post completion of the Public Access Test (PAT) of their dog. This was especially evident for veterans who resided outside of Melbourne, with all reporting that they felt that the dog and veteran required more training to fully achieve the goals and regression in the dogs' behaviour. Veterans without the availability of a trainer in close proximity indicated they would like to have the option to engage support from a local dog training organisation to assist training support. It must also be mentioned that the management of veteran expectations, including in relation to continuation in frequency or duration of support, and the ability of an assistance dog to achieve these expectations is critical to the perceived success of the program.

Other issues raised by some veteran and support person participants included that the intensity of training was at times very demanding (primarily in the hand-over period), resulting in disruption of family routine; difficulty with integration with children; challenging dog behaviour at home and in public; limited exposure to situations due to COVID-19 restrictions; and the intensity of handover requirements.

As the Trial continued, the Trial funding guidelines and provision of consumables, veterinary services and insurance for the dog was raised as an ongoing challenge by the veteran participants. Veterans indicated their preference to take ownership (correlating with greater empowerment) of the direct purchasing of this using the already established purchasing arrangements directly from DVA and not having to rely on the training provider to supply these.

Overall, the data and feedback collected throughout the Trial in relation to the experience of both the veteran and support person has provided greater insight into the potential longer-term positive impacts that an assistance dog, when used as an adjunct to therapy, can provide for veterans. At the same time however, a number of challenges have been identified that will warrant further strategies to improve the efficacy of this adjunct.

⁸ Nieforth, L. O., Rodriguez, K. E., & O'Haire, M. E. (2021). Expectations versus experiences of veterans with posttraumatic stress disorder (PTSD) service dogs: An inductive conventional content analysis. *Psychological Trauma: Theory, Research, Practice, and Policy;* Vincent et al., 2017;

Williamson, L., Dell, C. A., Osgood, N., Chalmers, D., Lohnes, C., Carleton, N., & Asmundson, G. (2021). Examining changes in posttraumatic stress disorder symptoms and substance use among a sample of Canadian veterans working with service dogs: An exploratory patient-oriented longitudinal study. *Journal of veterans studies, 7*(1).

Veteran outcomes

Statistically significant changes have been observed in many of the survey measures as they relate to PTSD symptoms, mental health impacts, physical impacts and interactions. These changes have been supported by qualitative findings.

PTSD symptoms

PTSD-score, as measured by the PCL-5 (a screening tool for assessing PTSD), was considered for all participants across the duration of the Trial. All veteran participants continued to meet the minimum criteria for diagnosis of PTSD throughout the training and early post-delivery stages of the Trial, however, reductions in the severity of PTSD scores were observed across this time. Interestingly, the average PCL-5 score at the time point where the assistance dog had been living with the veteran for longer than six-months had fallen below the PCL-5 cut-off score for a provisional PTSD diagnosis (i.e., between 31 and 33). Even though further exploration within a clinical or therapeutic treatment setting would be required to confirm this, the findings show a statistically significant and positive reduction in overall PTSD symptoms for veterans with an assistance dog, with potential sub-threshold symptoms of PTSD evident. The reduction in average PCL-5 score reduced from 49 (out of a maximum possible score of 80) at commencement of the Trial, to 35 and then 29 at the subsequent post-delivery periods.

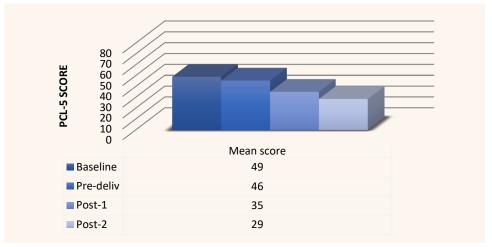


Figure 1: PCL-5 mean scores

Examination of the subscale scores measured by the PCL-5, including 're-experiencing', 'avoidance', 'negative alterations in cognition and mood items' and 'hyper-arousal', indicated significant changes of note for each of the four sub-scales. For all sub-scales, the results indicate that significant reductions appear related to the delivery of the assistance dog, with statistically significant reductions occurring between the baseline and both post-delivery periods, but not between baseline and pre-delivery periods for any sub-scale.

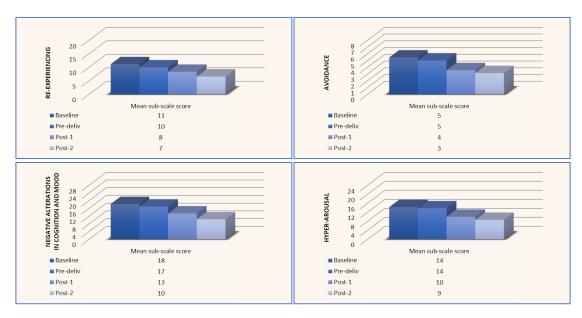


Figure 2: PCL-5 sub-scale mean scores

These findings directly correlate with the qualitative information collected from veterans throughout the trial who indicated the relationship with the dog has been a positive for mood and mental health. Veterans reported an increased sense of calm and feeling of safety outside of the home when accompanied by their dog. A number of veterans made specific reference to a reduction in hyper-vigilance and feeling more comfortable in moving through the local community and shopping centres. The most acute demonstration of this is the number of veterans (n=5) who have been able to successfully relocate from Melbourne to different towns or states during the program. A veteran who was living alone at the commencement of the program, reported that without the dog he would still be living in his inner suburban apartment in the middle of Melbourne with limited contact to the outside world and is now living interstate in a new and positive relationship with a partner.

The positive impact that the presence and intervention that the assistance dog has had on multiple veterans in relation to suicidal ideation or self-harm behaviours must be recognised. Four veterans (and corresponding feedback from two of their support persons) clearly indicated that the dog was pivotal in preventing self-harm

"Life has been terrible for me recently and without the dog I'm not sure you would be talking to me"

and suicide. The importance and power of this feedback cannot be underestimated given the recent research which highlights that ex-serving males and females were more likely to die by suicide than the general Australian population (Australian Institute of Health and Welfare, 2021).

Although PTSD symptoms are still experienced by the veterans, the reduction in symptom severity is encouraging in relation to the potential benefits of the impact of the presence of an assistance dog.

Social Isolation

The analyses indicated a statistically significant decrease in social isolation between the baseline and post-delivery periods. The average social isolation score significantly reduced from the baseline and pre-delivery periods to the post-delivery periods. The association of the reduction with delivery of the assistance dog is further strengthened given there was no significant difference between baseline and pre-delivery periods, during which time the veterans experienced increased social exposure through interactions with the trainers during

the training program. Overall a reduction in social isolation appears to be associated with presence of the assistance dog.

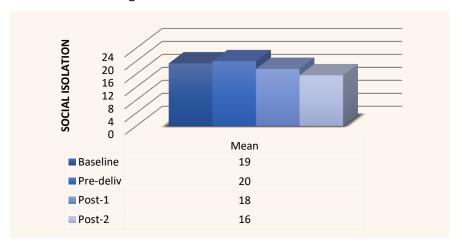


Figure 3: Social isolation mean scores

This was consistent with veteran feedback indicating that the dog assists in social environments, provides a discussion point and reduces anxiety. All veterans reported an increase of community engagement and participating in more daily living activities outside of the home with more confidence. Having the increased responsibility of caring for the dog has attributed to this due to the frequency required to exercise the dog. Feedback indicates that as the dog is a very interactive animal it makes the veteran more interactive with others in the community. Veterans reported a marked improvement with quality of life, leaving the house and interacting in unstructured environments. Veterans also indicated that they are shopping with less anxiety and panic attacks and have a greater sense of safety and confidence while away from home.

Emotional Distress – Anger

The findings indicate a statistically significant reduction in anger from the baseline to post-delivery period. There was no change in anger from baseline throughout the training period, with the reduction being observed following receipt of the assistance dog, which may suggest that the presence of the assistance dog contributes a reduction effect in anger. This is further strengthened with the continued reduction in anger the longer the assistance dog resides with the veteran, and not only in the initial phase post-delivery.

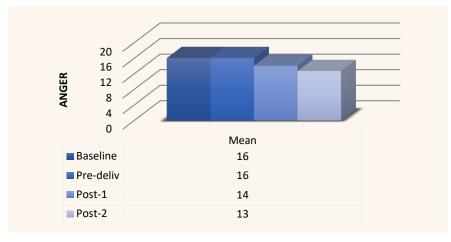


Figure 4: Anger mean scores

"I am calmer and less reactive to certain situations than I was. I seem to get more respect from people" Qualitative feedback supports this reduction with many veterans talking about the 'grounding' and ability of the dog to refocus their thoughts during times of tension. Veterans reported the ability of the dog to help regulate their mood and stay on "an even keel". To a lesser extent, the dog's ability to alert the veteran before the escalation of conflict and provide comfort post-conflict was also reported.

Anxiety

Findings suggest that there has been a significant reduction in anxiety associated with delivery of the assistance dog, with significant change found following delivery of the assistance dog.

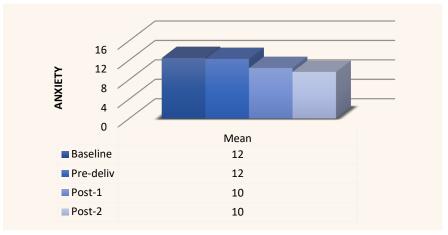


Figure 5: Anxiety mean scores

Again, qualitative feedback supports a reduction in anxiety experienced by veterans in many settings throughout their home life and when interacting in community and social settings, with the veterans attributing much of this reduction to the ability of the dog to assist in grounding them, alerting them when anxiety levels started to escalate, and providing comfort and refocusing of their attention and mood.

"The dog has reduced my anxiety and I am sleeping better. I am still taking my medication and seeing my psychologist but I am having less episodes and daily living is easier"

Fatigue

There was an overall trend of reduction in fatigue across the Trial, with this reduction reaching statistical significance between the baseline period and once the assistance dog had been living with the veteran for longer than six months.

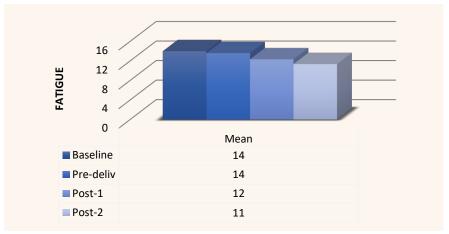


Figure 6: Fatigue mean scores

All veterans reported an increase of physical activity and fitness as a result of the Trial. This initially resulted from the introduction of the trainer and training dog into the veteran's weekly routine and then continued to build throughout the Trial as the veteran took full-time responsibility for the dog. The program provides a minimum expectation of daily exercise for the dog, which the veteran is responsible for implementing. This has resulted in a positive unintended consequence of greater fitness and less fatigue.

Ability to participate in social roles and activities

The results indicate a trending reduction in the ability to participate in social roles and activities over the course of the Trial, with a statistically significant difference between the pre-delivery period and across the post-delivery periods. It is noted however, that due to the impact of COVID-19, lockdowns directly limited social activities across much of the Trial period and this may have influenced this result external to any impacts associated with the training program or presence of an assistance dog. As such, in considering the direct impacts on social roles and activities associated with the COVID-19 pandemic, this should be taken into account.

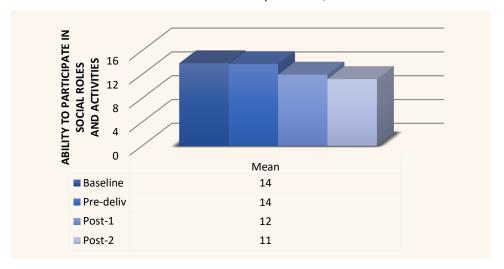


Figure 7: Ability to participate in social roles and activities mean scores

The ability to participate in social activities and community events presented as a key barrier for many of the veterans at the beginning of the Trial, as reflected in the goals they set at the commencement of the program. All veterans have indicated a substantial improvement, even with the impact of COVID-19 lockdowns on the program. Interestingly, many veterans viewed COVID-19 as having a positive impact on their ability to re-engage with the community, attend shopping centres and manage their interactions with the general public. The ability to have an exemption to continue training throughout the COVID-19 lockdowns allowed veterans to learn and train with the trainer and dog in a less threatening environment with less people and variables to manage. The disadvantage of this scenario was that post COVID-19 lockdowns and a return to a 'normal' setting, the dog had not been exposed to some of the scenarios that the veteran would be experiencing and further training has been required.

Sleep Quality

Subjective sleep quality – the findings suggest that perceived improvements in sleep quality have occurred following delivery of the assistance dog, with statistically significant differences observed between the baseline/pre-delivery period and throughout the post-delivery period. A lack of statistically significant change between baseline and pre-delivery period scores may indicate that the presence of the assistance dog has contributed to improved perceptions of sleep quality.

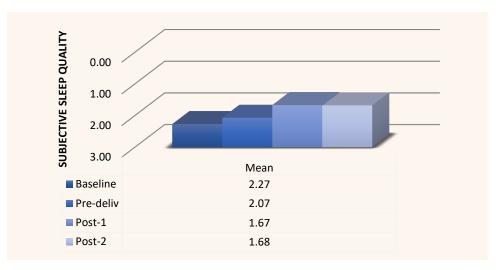


Figure 8: Subjective sleep quality mean scores

Sleep disturbances – the findings demonstrate a trend in reduced sleep disturbance across the life of the Trial, with statistically significant reductions when comparing the baseline score with scores gained when the assistance dog had lived with the veteran for longer than six-months. These findings may suggest that the presence of an assistance dog may contribute to reduced sleep disturbance, with this reduction occurring gradually throughout the transition period, reaching a statistically significant reduction once the initial transition period is complete.

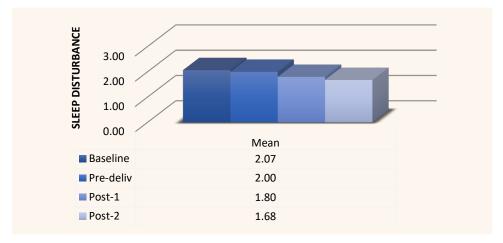


Figure 9: Sleep disturbance mean scores

Anecdotally, almost all veterans reported that the dog has played an active part in increasing their sleep health. The management of the dog in relation to sleep is different for each veteran and is also determined by their personal relationship of having or not having a partner. Veterans whose sleep has improved have reported a reduction in the impact that their nightmares have on them as the dog is able to alert them to their restlessness or agitation before becoming embedded in their dream. A small number of veterans reported that since having the dog living with them they have been able to sleep through the night for the first time in many years.

Non-statistically significant findings

Although some of the outcomes were found to be non-statistically significant, trends and qualitative feedback suggest some changes which merit further discussion.

Emotional Distress – Depression and Sadness
 Although not reaching statistical significance, there is a trend of reduced depression/sadness following delivery of the assistance dog.

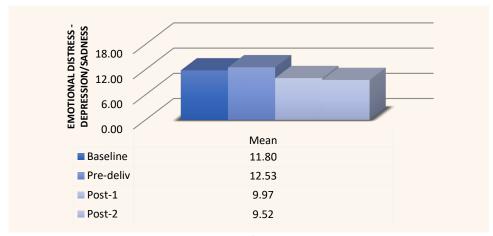


Figure 10: Depression/sadness mean scores

Physical Functioning

It is important to delineate the difference between physical function and physical activity or fitness when looking at this result. Although no statistical difference was observed in relation to physical function (such as completing chores like vacuuming or yard work, navigating stairs, walking at least 15 minutes and running errands), anecdotally, all veterans reported an improvement in physical activity and fitness associated with the program with many veterans reporting a significant reduction in weight and co-morbidities.

• General Self-Efficacy and perceived social support

Qualitative feedback from veterans relating to the need
for, or reliance on, the support person for social
support and community engagement clearly indicated
that the dog has been a catalyst in motivating and
assisting them to re-engage in their community and
undertake a wider range of social activities. Many
veterans reported that the dog has enabled them to
attend events not only independently, but for the first
time, with or without their support person, in many
years. This includes events such as large sporting
events, watching their children participate in sport,
attend wine festivals, go camping and ultimately
relocate to a different state or town.

"As a single veteran living alone, the dog has completely changed my life. It has provided me with the support and motivation to increase my community interaction and has resulted in me relocating to a different state, finding a new partner and leading a healthier life"

Veteran withdrawal

Three veteran participants withdrew from the Trial leaving the total participant numbers at 17 on completion of the evaluation. Exit interviews were held with the three participants to gain feedback relating to their experience in the program and reasons for withdrawing. Although each veteran cited different reasons for their decision, these were personal in nature and not systemic to the training program.

All three veterans reported a similar experience with the program, indicating that:

- Training provided was exceptional and additional interaction with trainers provided mental health benefits
- Training process was thorough and detailed; high level of consideration and matching of the dog was applied
- Training "unlocked" their social anxiety and provided motivation to engage and re-establish a routine
- Training provided an insight into the benefits of a trained assistance dog and what they can achieve for people
- The veterans continued to engage with their clinician throughout the program and jointly decided to suspend the program
- Liaison and communication with the trainers were conducted without pressure and in the veteran's best interest.

Through their experience in the training program, each of these veterans reported short-term benefits similar to those who did receive, and continued to work with, an assistance dog. On exiting the Trial, feedback indicated that:

- Veterans found that the program had a positive impact on their mental health and had been the catalyst for greater community engagement
- The program required and encouraged them to become more active and helped to reconnect socially
- Although the program provided a 'kick start', it became evident that taking full-time care of the dog is more challenging and demanding than expected
- One veteran had become concerned that they could not provide the assistance dog with the training and attention that was required on an ongoing basis
- Veterans felt well supported by the trainers and their clinician throughout the program and although disappointed, were comfortable with the decision to withdraw.

Support person findings

In relation to Trial impacts on those providing support to the veteran, feedback provided by support person participants highlighted that there has been an overall positive impact of the Trial on the veteran, and in most cases the family unit; however, the dog transition to the home and behaviour management of the dog are challenging. As most support persons are not required to attend training with the veteran throughout the program, the support person comments reflected their experiences and observations of the veteran post-training, between training sessions and the integration of the dog into the home. Most veteran participants were reported to be demonstrating a positive change in many elements of their mental health, including enthusiasm, engagement, increased sense of responsibility and improved self-esteem. In addition, for most, the timing of handover was reportedly beneficial due to increased anxiety surrounding COVID-19 impacts.

Challenges experienced by the veteran, as perceived by the support person based on their observations and interactions, included: management of anxiety and managing "ups and downs" and the impact that this has on the dog; feeling conscious of additional responsibility of having a dog in

the home; managing expectation of the impact of the dog; readiness to be perceived as a person with an assistance dog; managing confrontation when the dog's entry or accessibility is questioned; and keeping an open mind as veteran expectations of the program are high.

It is important to recognise the change in household dynamics that extended COVID-19 lockdowns have had on veteran and support person participants. This includes recognising that the introduction of the assistance dog has not come without challenges to the support person participant where they are also living in the same household. Although qualitative feedback relating to veteran achievements was generally

"I feel as though I need to be trained and included in public access accreditation as I have to take care of the dog when my veteran is unwell and cannot get out of bed"

positive, there are mixed reports regarding the benefit to the support person, with minimal improvement noted. These results are in keeping with findings of surveys completed by support

"The training was intense, and we found it difficult to manage the requirement of daily training during the hand over and had to cut it down to three times per week. We needed down time and needed to fail to work out what skills we needed to work on"

persons, and also with previous research where the dog reduced partner stress while simultaneously placing an additional care burden on the partner (Nieforth, Craig, et al., 2021). The impact on the support person of the added commitment to care for the dog, and continuing the training of the dog, cannot be underestimated and needs to be at the forefront of future programs.

Analysis of survey data indicates minimal change for support persons across the life of the Trial in relation to measures associated with impacts on burden and social support, however

qualitative feedback indicates that, for some, there has been a reduction in aspects of carer burden, and a perceived improvement in their relationship with the veteran.

Support person burden

No statistically significant change was evident for perceived burden experienced by the support person throughout the Trial. In examining the average scores of each of the time points, very minimal change was observed from baseline to pre-delivery or throughout the period following delivery of the assistance dog.

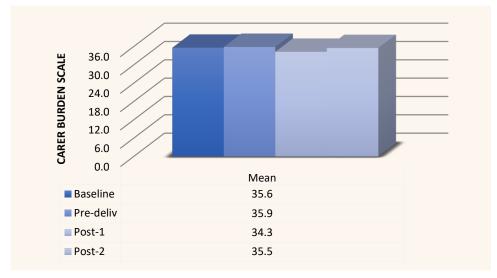


Figure 11: Support person burden

During interviews however, support persons provided mixed feedback relating to the burden of care experienced during the Trial. Each veteran's and support person's experience is unique and influenced by many variables such as living arrangement, family, existing relationships, personal health, and expectation of the program, all of which impact their experience and

perception of the program. It was evident that the support person of the veteran intrinsically views their role as carer and support for the veteran, and throughout the Trial had difficulty reflecting on the value of having an assistance dog in the house as it related to the impact on themselves rather than on the veteran.

Although survey data indicated that there was no statistically significant change to the perceived burden of care for support persons, qualitative feedback suggests that this fluctuated throughout the program, with the dog hand-over phase and transition of the dog to living in the

"Having the dog at home gives me greater peace of mind that he will be okay"

"The dog has been able to reduce my role as motivator and manager of the daily routine to the point where I have gained new employment working shift work. This is the first time I have been able to do something for myself and have taken a position that does not revolve around having to be at home to support him"

home being the most stressful, and in effect, increased the burden of care for support persons. This was especially evident for support persons with children or in full time employment. The handover period was reported as intense and added another layer of responsibility to the support person, especially if the veteran was unwell (mentally or physically) and unable to carry out the training of the dog. For veteran and support person partnerships where they co-habited without dependants, or where there had not been a decline in health, feedback was more positive and a reduction in the burden of care

was reported. Some support persons reported that since the assistance dog has been living with the veteran in the home, the burden on their time and their mental health has reduced due to reduction in concern about the veteran and the presence of an additional support other than the support person, to the point where some have been able to re-engage in additional external activities independently of the veteran.

Many support persons commented on the imposition and preparation that the dog requires before being able to leave the house to run simple errands or for a night out. The imposition is also compounded by the increased attention on veteran and support person due to the dog, and visibility of the assistance dog jacket. This suggests that giving greater consideration to the family dynamics and individual impact on each support person would be of benefit in future programs.

Social Support

The survey findings indicate that there is no statistically significant change in perceived positive or negative interactions and associations of the support person with the veteran or with other family/friends over the course of the Trial.

Interestingly however, qualitative feedback does not mirror this finding, with many support persons indicating that their relationship with the veteran has improved through increased conversation and connection, increased attendance at social and family outings and shared mental and physical health benefits of exercising the dog.

"The program has helped reignite some of the things in the person I fell in love with and has been missing for many years"

Clinician experience

Feedback was sought from treating clinicians at three time points throughout the Trial. The first point of feedback related to the clinician's experience with the screening and recruitment processes for the Trial; and the subsequent points related to the clinician's experience and perceptions relating to the impacts of the Trial for the veteran and in relation to its use as an adjunct to therapy, based on knowledge of their veteran client's experiences and outcomes since being involved in the Trial. The number of clinician responses received included seven at the recruitment phase, four at the early post-handover phase and one at Trial completion. Although response rates were low, the feedback provided is valuable and reflective of the experience of participating clinicians.

Recruitment and screening processes

Understanding of the Trial

Overall, treating clinicians felt that they had been provided with a clear understanding of the Trial prior to referring potential veteran clients for assessment of acceptance into the Trial. One clinician suggested that the process could have been improved for them through the addition of a phone call or 'case conference' to discuss suitability of individual participants in more detail. It is noted however, that documentation provided to treating clinicians did provide contact details where clinicians could seek additional information or clarification if needed. Two clinicians indicated that they had utilised this option to seek additional information in relation to inclusion or exclusion criteria relevant to their particular client, and noted that their information needs had been effectively met through this.

Suitability of acceptance criteria

Overall, treating clinicians felt that the inclusion and exclusion criteria required to be met by potential participants were appropriate. However, one clinician indicated that where a client had not yet received a formal PTSD diagnosis, but was engaged in counselling and displayed the relevant symptoms, that consideration should potentially be given to PTSD symptoms in relation to determining their eligibility for the program. However, another clinician noted that an appropriate approach of using case-by-case consideration had been given where uncertainty existed in relation to a particular criterion for one of their clients, reinforcing this avenue was available.

• Ease of the screening and recruitment process

All treating clinicians indicated that the process for screening of veterans in relation to the inclusion and exclusion criteria had been practical. Most clinicians indicated that they did not feel that any improvements were needed in relation to this process, however one clinician communicated that their veteran client had experienced frustration following acceptance into the Trial, due to being required to wait for a period before the training program commenced.

Perceptions towards the requirements of the Trial

In relation to the time commitment required by veterans to participate in the Trial, on average, clinicians indicated that they considered it to be moderately demanding. However, most also indicated that they felt the demand was appropriate and also linked with likely positive outcomes and impacts. Suggestions as to why the required time commitment was appropriate included that:

- o Time is needed to build a relationship with their dog;
- Time would be needed to achieve the required level of success and training outcomes relating to the assistance dog; and
- o The project itself needs veterans to be committed for success.

Suggestions as to why the required time commitment was considered likely to be linked with positive outcomes and impacts included:

- Focussing on the assistance dog program would create demands in a positive way, providing
 positive distraction given that veterans are often very busy or pre-occupied with other
 issues;
- Working with a trained assistance dog, prior to receiving their own dog, would provide a challenging but appropriate opportunity to extend the veteran's emotional selfmanagement in contexts in which they have previously learned or acquired a rapid reaction PTSD response such as anger or anxiety; and
- Engagement in the Trial and maintaining the required level of commitment well into the Trial will provide a sense of responsibility.

Only one clinician indicated that they had chosen not to refer a potential veteran to the Trial due to considering the program requirements to be too demanding for that individual. However, they indicated that there was no particular aspect that they could identify to be too demanding, but that at that early stage they felt it was too difficult to judge the actual impacts of the demand, and as a result, they had 'selectively chosen' veterans due to the uncertainty.

In considering any challenges encountered when referring veterans for consideration in the Trial, most indicated that they had not experienced any challenges. One clinician indicated that one of their veteran clients had expressed concern about the time commitment and another clinician noted that some potential veteran clients had been hesitant to be referred as they already owned a pet dog or cat and were reluctant to have a second dog.

Overall, the feedback received from treating clinicians indicated that they had found the selection and recruitment criteria and processes to be effective, with no significant need for change or improvement identified.

Experience and impacts of the Trial

• Clinician relationship with the veteran

While the majority of veterans continued to be engaged in therapy with a clinician (either their original referrer or a new clinician), two had ceased therapy. For one of these, cessation of treatment had been indicated to have been based on decreased need for therapy due to improvement in mental health and PTSD symptoms (the other reason was not provided).

The average frequency of treatment sessions varied from weekly to monthly, depending on the individual needs of the veteran.. An increase in sessions to weekly was noted to have occurred for two veteran clients at the time of dog handover to assist them with the change in lifestyle. Another had reduced their frequency of therapy to monthly since working with their own assistance dog. Other veteran clients were noted to have variable and changed frequency due to impacts of COVID-19, hospital admission to address various health concerns, and considerable stressors or events occurring in their personal life.

Program perceptions

In considering their view of the assistance dogs program as compared to the point of referral, two clinicians indicated that their view had changed, and two indicated that it had remained the same. Feedback indicated that more positive outcomes had resulted than had been anticipated in relation to the program, including:

- o In one case, the program had worked alongside the clinical therapeutic interventions (for example, with the veteran being trained to mediate with the dog for emotional regulation);
- The program assisted veterans to be more confident in public surroundings and in social situations;
- A veteran, who had spent a lot of time at home alone recovering from illness, had really looked forward to having their dog for support and to enrich their life;
- o The program was much more detailed and considerate of the family unit; and

 There was more support from dog trainers and program staff in ensuring sound fit between dog and client.

Treating clinicians indicated that the level of contact from the training provider during the training program had been appropriate and helpful, however some indicated that an increase in coordinated contact would be beneficial to better link therapeutic interventions with assistance dog activities and goals.

Based on knowledge of the program, once treating clinicians had observed and experienced the impacts for their veteran clients, all indicated that the program is, or has the potential to be, of benefit as an adjunct to therapy for veterans with PTSD. It was reported that the dog training program has assisted veterans to interact in social situations, developing their confidence and enhancing the trauma therapy provided by the clinician. The majority of clinicians indicated that they would consider recommending other veterans with PTSD to similar programs in the future. Of those that indicated that they would refer, their reasons included that:

- The Trial has shown that the veterans have derived major benefits with building confidence and reducing emotional dysregulation;
- The program has significantly improved psychological outcomes; and
- o The program assists veterans to operate at their optimal level by gaining and building confidence through positive activities with the dog.

• Impacts of the assistance dog

- o *Impact on veteran's life overall* all treating clinicians indicated that inclusion of an assistance dog as an adjunct to PTSD therapy has been significantly beneficial on the veteran's life overall. Reasons for this included:
 - The training period has been useful for building attachment between dog and veteran; this attachment process has been pivotal with building confidence with social interactions especially in terms of experienced trauma and a usual operating mode of extreme avoidance of social relationships and crowded public places;
 - The veteran has become attached to the dog as they have spent a lot of time at home on their own while the spouse worked part time; the veteran has built up tolerance of open spaces and public transport while using the dog;
 - It has improved the veteran's emotional state and they have enjoyed the dog walks which have helped their physical recovery following hospital admissions;
 - The dog has been an enjoyable companion during periods of loneliness and during recovery from surgery;
 - Improved mood and a reduction in depression;
 - Improved veterans' self-esteem and confidence as well as reduced their anxiety;
 - Increased confidence with social interaction with people;
 - Use of the dog to help regulate hypervigilance and anxiety, especially in public places;
 - Reduction in overall arousal and better able to regulate / switch focus /de-escalate by interaction with their assistance dog; feeling more grounded overall in this context; and
 - The veteran seemed more willing to leave the house and engage in some exposure activities with the dog.
- Mental health and/or PTSD symptoms treating clinicians have noted a significant improvement in the mental health and/or PTSD symptoms for the majority of veterans. Observations included:
 - Reduction in anxiety;
 - Reduction in depression;

- Reduction in nightmares and flashbacks;
- Improved confidence;
- Assisted in significantly improved psychological outcomes for multiple veterans as evidenced in the DASS 21 and AUDIT scores;
- Development of emotion regulation skills and improved family relationships; and
- Through attachment to the dog, caring for it and discussing it with other veterans, improvement in feeling much happier and a greater sense of wellbeing.
- Change in medication or treatment regime although some of the veteran clients were indicated to have had a change in their medication or treatment regime since becoming involved in the Trial, there was a mix of this being related to the program or to external events. For two veterans, their change was reported considered to specifically relate to their involvement in the assistance dog program:
 - Cessation of treatment due to improved mental health and PTSD symptoms; and
 - Due to an issue with their first assistance dog, the veteran needed to receive a replacement assistance dog; there was a period where this veteran was without an assistance dog and they were prescribed more medication by their treating practitioner to cope with stress during this time; the veteran uses less medication when they have the support of their dog.

Other veterans were indicated to have had a change in treatment regime to more effectively control trauma symptoms following personal events, such as a sudden grief experience or to treat a chronic physical illness.

- o Change in social activity treating clinicians have noted a significant improvement in the amount of social activity engaged in by veterans. Observations included:
 - Increased attendance at RSL and veterans' events;
 - Increased participation in social outings;
 - Increased use of public transport;
 - Increased participation in family events and outings;
 - Building more friendships;
 - Attending more regular exercise classes;
 - Increased social circle of friends, engaging with a veteran's sailing group and participating in more themselves lunches and dinners with their social network; however, during the COVID-19 restrictions this activity did not occur and the dog walks were a significant comfort in the daily routine; and
 - The veteran appeared more willing to engage in social activity with the assistance dog; once the dog was not there, the veteran tended to revert to old patterns of remaining at home unless accompanied by their spouse or mother to places (it is noted that this veteran needed to replace their original assistance dog and experienced a gap while waiting for second dog).
- Change in accessing the community/public places treating clinicians reported significant improvement in veterans accessing the community and public places. Observations included:
 - Increased use of trains and trams to attend events, errands and appointments;
 - Increased visits to shopping centres;
 - Increased visits to movies;
 - Going to community events;
 - Going out to lunches and cafes; and
 - Increased visiting the RSL and participating in RSL commemorations.

- Change in relationships with family and/or friends treating clinicians reported a significant improvement in reported change relating to relationships with the veteran's family and/or friends for the majority of participants, including:
 - The veteran's children now accompany them on dog walks and their grandchildren enjoy going on dog walks as well; the veteran reported that their relationships with family and friends have improved as they spend more time having dinners and lunches together; the veteran has reported less episodes of conflict in the family;
 - The veteran and their spouse have improved their communication and have less episodes of conflict;
 - Improved interactions with extended family where previous relationship has been difficult;
 - Less conflict with immediate family and children;
 - Improvement in friendships; and
 - Increased contact with people (although COVID-19 restrictions have hampered this).
- o Change in use of alcohol or other non-prescription drug use treating clinicians indicated that several veterans had decreased the level of alcohol or other non-prescription drug use.
- Benefit to those providing support to the veteran treating clinicians familiar with their veteran client's family and support relationships indicated that inclusion of the assistance dog has been highly beneficial for those providing support to the veteran, such as their spouse, children and friends. No clinicians indicated that it had not been beneficial, however, several felt that they were unable to comment in relation to this. Observations relating to the benefits included:
 - The family members experience increased positive feelings about having the dog;
 - The family members have enjoyed going for walks with the dog and being noticed by members of the public;
 - Spouses, children and grandchildren all report enjoying the dog and including the dog in family activities;
 - Working as a team to support the dog;
 - A renewed positive sense of purpose with the dog included in outings and events;
 - Improved experiences with grandchildren; and
 - The veteran is able to access the community themselves and ultimately is able to spend time by themselves with an assistance dog; this provides much respite to family/supports.
- Integration with therapeutic approach

Treating clinicians indicated that the use of an assistance dog as an adjunct to therapy is considered to be beneficial. However, additional information or training would assist clinicians to better understand and utilise dogs in therapy. Suggestions relating to how to improve this included:

- o A comprehensive training program and manual for clinicians linked to stages of the training;
- Programs and written resources that demonstrate how dogs are used in therapy;
- o Guidance on how the dog may be used as a specific support to achieve therapy outcomes;
- Upfront clarity on the role of the assistance dog in the veteran's life, specifically with regard to the range of support that the dog can offer (such as waking the client from nightmares, sensing early anxiety); and
- Occasional emails to remind or provide updates on developments.

In relation to their own experience with the assistance dogs training program, treating clinicians provided suggestions on ways that they felt the training program could be integrated with the therapy approach for veterans with PTSD, to increase the benefit of the program as an adjunct to

therapy. This also aligned with veteran feedback in relation to seeing the importance of both program and therapy working together. The main focus of suggestions from clinicians was that there needs to be closer alignment between the training program and therapeutic interventions and goals, for example:

"I still continue to see my clinician and the dog is the missing piece of the jigsaw to my treatment"

- The dog training program needs to be working more closely with the therapist so that tasks that promote emotion regulation can be identified for the trainer who is handling the dog;
- The dog training program needs to run in conjunction with the therapeutic interventions being provided;
- It is a hard job to make one lifestyle change to improve mood or trauma symptoms, so the clinical and dog training interventions need to be more systematically aligned to facilitate planning of clinical goals for lifestyle change to align with the dog training program as well as plan additional support for the veterans; and
- An early meeting with the client, treating clinician and program clinician to share therapy goals so that the treating clinician may have early awareness of how the dog may work to support therapy goals.
- Assistance dog attendance at therapy sessions

Feedback was received relating to only one veteran attending therapy sessions with their dog in attendance. For this veteran, the clinician indicated that they had appeared more confident and presented as less anxious with their dog accompanying them. It was observed that the relationship between the veteran and their dog was effective in supporting the veteran during discussions of traumatic events.

The clinician indicated that there were no issues encountered when the dog attended their premises, noting that they have a policy written up in the waiting room (relating to assistance dogs attending the premises) and have a mat and drinking bowl available for the dog to use.

"The veteran-dog relationship appears to be effective when talking about traumatic events as they stroke the dog and the dog sits closely beside them. The veteran presents as less anxious"

Overall, the assistance dogs program and its potential benefit as an adjunct to therapy has been well received by treating clinicians based on their experience and observations relating to their veteran

"This Trial has showed me that veterans have derived major benefits with building confidence and reducing emotional dysregulation"

clients. Although feedback has been received from a small number of treating clinicians, it is clear that they are seeing significant benefits to veteran participants in relation to PTSD symptoms, overall mental health and extended impacts such as social interactions, interpersonal relationships and access to community. Although there is a clear perceived benefit as to the utilisation of an assistance dogs program as an adjunct to a

therapy program, there is also an identified longer-term need for resources and structures to be developed which will more effectively align the two programs for the benefit of therapeutic outcomes and to provide education to clinicians to improve their understanding of the potential benefits and impact of such a program.

Assessment of veteran and assistance dog teams

Independent assessments of veteran and assistance dog teams demonstrates that the welfare and training of the dogs has been delivered and maintained to the highest standard and in line with Assistance Dogs International standards. Importantly, these assessments focussed on both the veteran and the dog to ensure the bond and welfare of the dog is cognisant for all participants.

Assessments were conducted with the veteran, assistance dog and trainer present. Each veteran and dog were assessed against public access criterion as outlined in the Queensland Government Guide, Hearing and Assistance Dogs Public Access Test (PAT), with additional general welfare and veteran impact feedback.

Assessments of the dogs indicated a positive relationship between veteran and assistance dog, as well as glowing report about the presentation, welfare and happiness of the dog.

Stakeholder considerations

Program Management

The managers and trainers overseeing and delivering the program have reported an overall positive response from veterans and support persons throughout the Trial. The training of veteran and dog progressed in line with the program's proposed model, with adjustments made to adapt to COVID-19 restrictions and lockdowns in Melbourne and across Australia. The continuation of the program throughout this period has been positive for both veteran and assistance dog.

The following challenges and considerations for future application of the program to veterans were highlighted by program managers and trainers:

- More in-depth screening of older veterans' health and physical abilities
- Monitoring and strategies for management of trainer/veteran dependency
- Introduction of a webinar prior to referral, for referring clinicians and veterans, to provide them with greater insight and understanding of the program
- Consideration of a trial training period or short course prior to commencement of the program; a trial period could help veterans and the program deliverers get to know each other and work out whether it is going to work and agree on whether to proceed
- Awareness and management of dog welfare and avenues for the assistance dog to have a respite option to allow the dog to have a rest or short break from the veteran
- Ongoing support is critical to both veteran and dog as behaviours and habits change within
 the veteran's environment; where changes have occurred, the dog must be "reset" to a state
 to pass the PAT; veterans tend to become nervous about PAT reaccreditation and also require
 support in relation to this.

Feedback to DVA

Throughout the evaluation, Evolution Research provided ongoing and iterative input into the DVA PAD program, which directly influenced changes to the program. Findings were used by DVA to guide and formulate changes of the broader roll-out of the DVA Assistance Dog Program, including:

- The strengthening of the DVA Assistance Dog Program Request Form and National Guidelines. In particular, assessment of the capacity, stability and suitability of the veteran to undertake the training and look after the assistance dog, including walking the dog. These encompassed ensuring the veteran has:
 - Stable and appropriate living arrangements to house an assistance dog
 - The ability to train and care for an assistance dog

- Support networks who can assist if necessary
- No history of perpetrating domestic violence or history of animal abuse, this includes all members of the household
- Not been admitted to hospital for suicide attempt/s or self-harm behaviour in the last 12 months; and
- Not misused drugs or alcohol in the last 12 months (as far as the assessing health provider is aware)

As a result, DVA modified their Request Form to better capture these requirements through the inclusion of directly targeted questions relating to the guidelines.

- 2. The need for the increased awareness of the assistance dog program among clinicians and for clinicians to be involved and to reinforce the adjunctive nature of the program. This has resulted in the inclusion for dog suppliers to have access to a mental health clinician to assess risk and handle clinical issues that may arise within the Provider contract.
- 3. Policy on holding dogs or withdrawing them from the veteran the support of the treating mental health clinician to assess suitability and stability for the program was emphasised
- 4. The Trial highlighted the importance of the veteran being able to manage both physically and mentally with the demands of the program. This resulted in the guidelines being updated to emphasise and reinforce the importance of the veteran being able to physically and mentally participate in the training program, including level of emotional resilience, the suitability of the home and outdoor spaces. In addition to this, the potential increased burden on the carer was reinforced and has become more of a focal point when assessing suitability.

Conclusion

The evaluation has found that the Trial has successfully achieved the objectives of determining the clinical utility of using specifically-trained assistance dogs as an adjunct to evidence-based treatment for PTSD in a veteran population, determining the benefits of these assistance dogs in decreasing related support person burden, and enabling program and policy insights to ensure that the DVA Psychiatric Assistance Dog (PAD) Program can be positioned to provide evidence-based care.

The Trial has demonstrated that the training program and the assistance dog have provided an overall positive impact for veterans in relation to both PTSD symptomology and treatment, and broader personal gains. It has also shown that while limited reduction in support person burden has been found, positive impacts were also experienced. These impacts have also been accompanied with a number of challenges.

Findings as they relate to the key evaluation questions are summarised below.

1. Does evidence support the clinical utility of using specifically-trained assistance dogs as an adjunct to evidence-based treatment for PTSD in a veteran population?

Data collected both qualitatively and through survey tools indicates that the application of an assistance dogs program has a real and significant positive impact on a veteran's PTSD symptomology and on many other aspects of their lives and overall mental health. In addition, the findings indicated that a program which utilises specifically trained assistance dogs has potential for use as an adjunct to evidence-based treatment of PTSD in a veteran population. In evaluating the extent of the effectiveness of this however, the extent to which this was possible was limited as the training program did not incorporate structured or regular review and communication between the training provider and treating clinician. It is considered that the program would have benefited from greater integration of goal setting and training activities with the therapeutic approach.

Based on statistically significant and qualitative findings, the benefits observed for veteran participants include:

- Reduction in PTSD symptom severity
- Decrease in social isolation
- Decrease in anger
- Decrease in anxiety and hypervigilance
- Decrease in fatigue
- Improved participation in social roles and activities
- Improved sleep quality and reduction in sleep disturbances
- Improvement in communication and relationships with family and others
- Increased confidence and independence in using public transport and accessing community and social activities.

Benefits are consistent with several international studies cited earlier in this report, where veterans have demonstrated a reduction in PTSD symptom severity following receipt of their assistance dog, but where their symptoms continue to remain above the clinical cut-off for PTSD. Similarly, the findings reflect those of international studies in relation to aspects such as reduction in depression and anxiety, and improvements relating to sleep quality and social isolation.

Treating clinicians have indicated that they see significant potential benefit to using an assistance dog program as an adjunct to their treatment programs with veterans with PTSD. They reported observing significant improvements in psychological outcomes of those who have received their assistance dog, as well as positive impacts on social interactions, interpersonal and family relationships, and community access. However, clinicians also indicated a more developed approach to linking an assistance dog program with therapy will be needed to realise maximum benefit.

In considering the program's impacts on areas such as veterans' ability to participate in social roles and activities or pain interference, it is noted that these changes may have been influenced by factors unrelated to the assistance dog or Trial involvement, such as COVID-19 restrictions and impacts and extensive periods of lockdown; or ill health, injury and surgery (of the veteran or their family members). It is also noted that these findings are based on evaluation of one specific training program and these findings may not be mirrored to the same extent through other training program approaches. More reliable or conclusive trends which accounted for these external influences would require a much larger sample size, a model where these factors were known or anticipated, and/or a control group available for comparison. Notwithstanding these limitations, the current evaluation has demonstrated clear trends which indicate clinical utility of specifically trained assistance dogs as an adjunct to evidence-based treatment for PTSD in a veteran population, and this would warrant further investigation with a larger sample size and control group, across a range of approaches of training programs.

2. As a result of participating in the Trial, were there any unintended positive or negative impacts on:

- a. Veterans
- b. Veterans' families and carers
- c. Assistance dogs

The Trial has shown to be beneficial to veterans throughout both the initial training phase and following delivery of the assistance dog.

With the training and delivery of the assistance dogs deemed an essential service during the COVID-19 lock-down periods in Victoria and Australia, this allowed the training to continue with minimal disruptions. This continuity presented itself as an unintended benefit reported by veteran and support person participants as it has assisted in minimising the potential impacts of the self-isolation and stay-at-home restrictions enforced in Melbourne during the pandemic. Interestingly, many of the benefits have been observed despite research reports indicating significant and adverse mental health impacts of COVID-19 on many people in the general population. In the absence of a similar PTSD control group and given the small sample size of the current study, however, this observation is one of interest only and its significance cannot be indicated other than through casual observation.

Key to the positive impacts observed from the early stages of the training program was the structure and delivery of training provided to the veterans. Training provided veterans with confidence and was highlighted to have been a positive experience with the interactions with both trainers and the provider's dogs.

Overall, veteran and support person participants did not report any negative impacts associated with their involvement in the pre-delivery training program phase. However, some participants experienced a degree of challenge while transitioning to having the assistance dog living with them, particularly where existing household and family responsibilities were high, or where the dog displayed challenging behaviours (both in and out of the home). In particular, many support persons indicated feeling increased burden during the transition phase due to their being required to take on additional care responsibilities associated with the dog. These challenges, however, were noted to be an ongoing area of intervention and training by the provider to work to resolve the concerns and to support the veteran and support person through and beyond the transition process. Some support persons indicated that if they had been more involved in the pre-delivery training that they may have felt better equipped to address some of these challenges.

There were no identified unintended positive or negative impacts on the assistance dogs themselves during the Trial. Although in two cases the first assistance dog assigned to the veterans needed to be replaced, there were no ongoing negative impacts to the dogs or their welfare. These dogs were found to be an unsuitable match for these veterans due to household factors or specific veteran need which could not be accommodated by the existing dog, and were re-homed to suitable environments

following assessment and relevant re-training by the training provider. In selecting a replacement dog, the training provider considered the reasons for the original dog's unsuitability and factored this into their selection and training process for the subsequent dog, including selection of a different breed in one case to provide a temperament more suited to the veteran's needs. Both of the replacement dogs were found to be suitable and no further issues had been identified in relation to either of the dogs.

3. Is there a decrease in related support person burden as a result of specifically trained assistance dogs used by veterans with PTSD?

Results indicate that there has been little change on the overall burden perceived by the support person in relation to the care they provide for the veteran, based on outcomes of survey findings. However, qualitative results indicate that there has been positive improvement in the overall perceived carer burden for some support persons due to the veteran becoming more confident to attend public outings on their own (e.g., through independent use of public transport with their assistance dog, going to shops and other activities), or through the support person feeling more comfortable about leaving the veteran at home alone, knowing the assistance dog would provide support and comfort if required in their absence.

It is important to recognise the change in household dynamics that extended COVID-19 lockdowns have had on both veteran and support person participants, as well as the indications that the introduction of the dog has not come without challenges to the support person.

Where the support person lived in the same household as the veteran, the level of support person burden arising due to the presence of the assistance dog, was found to have increased, particularly during the transition period where additional care responsibilities for a young dog were required. For many support persons this burden reduced the longer the dog lived in the home, however, it is noted that some support persons continued to experience challenges relating to behaviours of the dog and associated increased burden, that were not yet resolved at conclusion of the Trial (but continued to be addressed through support of the training provider).

4. What are the key considerations and adaptations to the model required for input into policy and program development that would enhance the current DVA Psychiatric Assistance Dog Program?

To ensure the maximisation of benefits to veterans and the successful implementation of the ongoing Assistance Dog Program, ongoing awareness of, and education in relation to, the utility of an assistance dog program as an adjunct to therapy, for clinicians and veterans, would be beneficial. Key findings of the current evaluation indicated:

Awareness and education

- The benefit of increased awareness of and understanding of potential benefits of an assistance dog for veterans with PTSD, to ensure veterans and support persons can make an informed decision as to whether this option is appropriate for their circumstances.
- The importance of veterans having the option of an initial self-referral mechanism into the program with subsequent engagement of and approval by their clinician, as well as maintaining the clinician-initiated referral mechanism; the benefit of increased awareness of the assistance dog program for clinicians and veterans followed increased reporting by DVA and mainstream media sources.
- The need for education, through mainstream media sources, to facilitate increased awareness and acceptance of the use of assistance dogs by veterans with PTSD to reduce challenges experienced in public access settings.

• Understanding of the program

Further development of program information for all stakeholders, veteran, support person and clinicians is required to ensure clear understanding of the intent of the program, the commitment required by all stakeholders and potential impact on the veteran's life, both positive and negative. It is important that the information presented clearly articulates the benefits of the program without overstating the potential benefit of an assistance dog, to assist in managing the veteran's expectations of the impacts that can be achieved. It is also important that real life examples and individual experiences of veterans who have received an assistance dog, including both positive outcomes and challenges, are included in this information.

Adjunct to therapy

- There is a clear need for development of resources to assist clinicians to better understand the benefits of assistance dogs as an adjunct to current evidence-based therapy approaches
- Better alignment of the assistance dog program with the clinical therapy approach is needed, to ensure therapeutic goals and activities being implemented by the clinician can be supported by the assistance dog program

Effective training

- The experience of the training provider, not only in providing reputably and effectively trained dogs, but also in relation to their understanding of PTSD and mental health assistance, appears to have been critical to the success of the Trial. The effectiveness of this could be increased through building of a closer, more regular communication with the treating clinician, as relevant to aligning the therapeutic approach and working towards individual veteran goals.
- Many veteran participants commented that they have experienced frustration at the behaviour of other assistance dogs in public places, trained by other providers, who they perceive to not have addressed the basic behavioural training needs. The current and emerging assistance dog industry is generally self-regulated with organisations conducting their own public access testing and accreditation. The increased awareness, positive impact and public funding of assistance dogs has the potential to lead to greater demand and opportunity for various training organisations to provide these programs. With this comes increased uncertainty of the quality of the training of both dog and veteran to have the complex skills necessary to be an assistance dog for a person with PTSD. It is considered therefore that to ensure the minimum acceptable standards are maintained, that independent oversight or audit of all training providers would be beneficial to achieving this.
- Training experienced by those with more complex home environments or for veteran's with more unique needs highlighted that effective training cannot be delivered using a one-size-fits-all approach and must be tailored to adapt to each individual's situation. This can include a wide range of considerations such as a complex family environment (for example, young children or others with disability care needs) to a veteran living independently.
- This evaluation focussed on the impact of training and delivery of the assistance dog for veterans with PTSD using only one training model. The model used immersed the veteran (and support person) in 12-18 months of training to prepare, match and support both the veteran and the dog to ensure a positive outcome. Although this process was initially daunting for many veterans and support persons, on reflection, all recognised the importance of the foundation approach, including the duration,

- used by the training provider and view this as a minimum standard. In addition, the importance of the pre-delivery training phase was highlighted by both qualitative and survey data indicating that veterans experienced improvements in many areas of their mental health, routines and confidence during the initial training period prior to receipt of their own assistance dog.
- Training participants reported that they experienced ongoing benefits from the inperson, regular contact with the trainers throughout the program, as well as the time available from trainers to support them at their pace and in line with their level of need. However, where in-person training was limited due to change in geographical location of the veteran, combined with COVID-19 border closures, these benefits were noted to have been felt to have reduced and perceived to have impacted the training progress of the veteran and assistance dog towards attaining desired goals. As experienced by veterans who received training and support outside of the metropolitan areas or interstate, the level and access to training and the dogs' role as an assistance dog diminished and the instances of behavioural issues with the dog increased. It is evident that the successful implementation of the dogs within this Trial is as a result of the foundation training provided to both veteran and dog. Many veterans highlighted the importance of the training provided to them to understand how to manage the dog and their role in the dog's development. It is therefore considered critically important that providers have the capacity to deliver the service and to support the veteran in-person, within their local environment/community.
- Following the transition phase of the assistance dog living with the veteran, many veterans reported feeling more comfortable with a reduced frequency of contact with the trainers. However, most reported that they would benefit from periodic access to a trainer on an ongoing basis to ensure that they were able to maintain the training and behaviours required for their assistance dog (to meet their goals and maintain competency of the dog, and meet ongoing public access test obligations). It is considered important to ensure that veterans have access to training support and advice when needed to address any challenges that arise with their assistance dog, whether this be a need for quick advice by telephone, or a more intensive training refresher session in-person to rectify more serious concerns or behaviours.

Recommendations

1. **Adjunct to therapy** – it is recommended that:

- a. Broader implementation of an assistance dog program continue to be made available to veterans with PTSD, with clear guidelines and support mechanisms utilised in the Trial to be maintained.
- b. Resources be developed to assist clinicians to better understand the benefits of assistance dogs as an adjunct to current evidence-based therapy approaches.
- c. Processes be developed to better align assistance dog programs with the clinical therapy approach for each individual veteran.

2. **Program information** – it is recommended that:

- a. Future implementation requires further development of program information for all stakeholders, veteran, support person and clinicians, including clear outline of the intent of the program, the commitment required by all stakeholders and potential impact on the veteran's and support person's lives, both positive and negative.
- b. Information resources be developed, specifically to inform each individual stakeholder (i.e., veteran and support person separately), on what to expect and what the program will involve, with consideration given to use of various approaches such as webinars or use of mentors already experienced in the program.

3. **Training Providers** – it is recommended that:

- a. DVA develop a credentialling process to ensure that only training providers with experience in PTSD and mental health assistance dog training are contracted to deliver the Psychiatric Assistance Dogs Program.
- b. Providers must have the capacity to deliver the service and to support the veteran inperson, within their local environment/community.

4. **Ongoing Support Mechanism** – it is recommended that:

a. A sustainable ongoing support mechanism be developed to ensure veterans have access to training provider advice and support relating to maintaining their assistance dog's competency and behaviours as needed for the life of their assistance dog.

5. **Peripheral Support Services** – it is recommended that:

a. A centralised case management model be delivered by DVA, or representatives of DVA, to support veterans and support persons and guide the assistance dog program provider, in relation to issues impacting the well-being of the veteran that are beyond the scope of the training provider's responsibility.

6. **Quality Assurance** – it is recommended that:

a. An external auditing/assessment framework be developed and implemented by, or on behalf of DVA, to ensure providers engaged to deliver assistance dogs training and services maintain the minimum standards outlined by Assistance Dogs International.

7. **Training Models** – it is recommended that:

 a. As the current evaluation involved only one training model, an evaluation be undertaken of the impact of other training models currently in use in the DVA Psychiatric Assistance Dog Program.

Case Studies

The case studies presented on the following pages provide an insight into the experience of veterans and support persons who have progressed through the program. All veterans have been de-identified using a pseudonym.

The case studies highlight the individual nature of the outcomes experienced by each veteran or support person, with some experiencing large positive impacts, others to a lesser degree, and some, while considering the overall impact for the veteran to be positive, experiencing some challenges and areas of concern.

Veteran – Brian

Brian believes that he has had PTSD for 20 years, however, was not aware or diagnosed until recently. Brian wanted to improve his health and his goal was to become more helpful in his relationship, go to the shops, drop his child to childcare and participate in general daily tasks. Brian had not considered an assistance dog as an option, until speaking with his friend who has his own assistance dog and also seeing an article in the DVA newsletter.

Brian found the process and program recruitment straight forward but initially did not understand why the training would take so long (12-18 months) before receiving a dog and found this challenging. Brian found the first few weeks of training difficult as it had been some time since having to concentrate for any length of time and learn new skills. As the weeks passed, he noticed that the training was providing significant benefit to him physically and mentally. He also realised the benefit of the process taking so long as he felt it was a life-changing process and ensured he would be as prepared as possible. Brian found the continuity of training throughout the COVID-19 pandemic lockdown in Melbourne was extremely beneficial, enabling him to keep his routine and maintain motivation. He had moments when he felt it was getting too hard and felt like giving up.

Very early in the training Brian experienced good progress working with the trainer's dog who would block people from entering his personal space which is a key trigger for him.

Brian felt the dog handover was the hardest period of the training and was not prepared for the impact that having a dog would have on his daily life. Two weeks into the handover he wanted to quit. Brian never felt pressured to make a decision to stay or leave and was given all the time he needed to make his decision. Brian was well supported by his wife because she was seeing the positive impact the program was having on him. Brian decided to stay in the program and it took three months for him to settle into a routine post-dog-handover.

Brian believes that he has been perfectly matched to his dog.

Before the dog he would be reactive to people in his personal space and constantly looking for an escape route and be ready to react when the environment escalated in his mind.

Brian feels as though that the training complemented his therapy without pressure or expectation, He felt confident with the trainer and would often talk about what was happening in his life during the training sessions which provided a great outlet.

"I was a hermit, I couldn't go to the shops on my own or drop the kids off to day care. I was prescribed antidepressants once diagnosed which have made a significant difference however did not provide me with incentive to leave the house"

"I am so glad I was supported by my family and the program to continue as it has changed my life. I now go to the shops, take the kids to care, have attended football games and shows, these are things I have not done for years"

"My wife says she "has the old me back", my parents have commented on the change the dog has had on me, with comments such as..."we haven't seen this bloke in 20yrs"

"The dog is loved by everyone in the family and snuggles with our son. This is special. My wife has her partner back, someone she can rely on" "I was totally 'cooked'. I hated people in general, felt worthless and had no desire to leave my house, go to social events or be near people. I have had years of psychology sessions with minimal impact, but the dog has made a difference to my life"

"When I have my children the dog sleeps with them and checks on me three or four times during the night which I love"

"I can't express enough how much this program has been of benefit. I have little doubt that my service dog has saved my life"

Veteran – John

John worked in law enforcement for over 25 years, which included a number of deployments to war-like areas as a Peacekeeper. John lives alone and has shared custody of his children; having the dog has provided him with companionship and added a positive focus to his family.

John has experienced a massive reversal in many symptoms of PTSD since having a dog. John is now very comfortable going out into the community, going to shops and events. John's PTSD is often triggered around dusk, and he would not leave the house during this time. The dog has required him to go out to walk the dog during this time and with her by his side he is able to do this without too many issues. John still has periods of feeling worthless and lonely and is extremely grateful of the companionship the dog provides. John feels he has re-integrated into the community and his life has considerably more value than it did. The dog has reduced his stress and worry about having to leave the house. John's children adore the dog. The benefits they get from her are massive.

John has found having a dog with a jacket in public difficult, as it is like a flashing light that something is different about him. John found this hard at first and would use different strategies to deal with this. John would adopt the role of a dog trainer/socialiser to take the focus off him and manage his interactions with the public.

John continues to see his psychologist every fortnight and although the dog is not the focus of his sessions, she is a positive part of the conversation. John's treatment and medication have remained consistent through the trial. He is reluctant to decrease medication and is cautious of the negative impact this could have.

The program has surpassed John's expectations. John was not a sceptic but the 'hole' he was in made him feel like nothing would help. The dog has certainly helped and made John value family, children and friends a lot more.

Veteran – Colin

Colin had a hard time facing up to his PTSD and tried everything before seeking professional help. Eventually, he sought help and his psychologist was supportive of him trying the (Assistance Dog) program.

Colin was feeling very isolated, lonely and agitated much of the time, was drinking too much and in declining general health.

Anxiety and depression were persistent, and triggers of his PTSD seemed to be occurring randomly.

Simply caring for the dog has been a wonderful focus and distraction from PTSD for Colin. The affection and attention the dog gives Colin is comforting, and her intervention and reaction when he exhibits signs of agitation and anxiety and anger is effective. Colin feels the bond he and his dog have is reliable and valuable, that she is devoted and attentive, and he finds this reassuring. Colin remains on a maximum dose of medication to treat his PTSD symptoms, however, feels he is getting his symptoms under better control, which makes him optimistic instead of desperate and fearful.

Colin's exercise has improved, he is walking the dog and this has drawn him away from a sedentary life. Colin has met, knows and greets fellow dog walkers in his neighbourhood. Colin's daughter loves the dog, as does his entire family circle including grandchildren. The dog has become a regular discussion point with Colin's psychologist and has really made a difference to his life.

"I was apprehensive at first, I didn't think I deserved a dog"

"It was scary for me, and interfered with my responsibilities as sole parent to my autistic daughter"

"I am less terrified of the world, gradually becoming less isolated and drinking a little less. Having to care for the dog and take her outside for a walk on days where I am not having a great day helps turn things around"

"I am still rebuilding self-esteem, wrestling sleep and nightmare issues"

Support Person – Jenny

Jenny is married to the veteran she supports, with two young adult sons. As a family, they moved from Melbourne during the early phases of training. The training continued to be delivered remotely with intensive blocks of one-to-one training when possible during the COVID-19 border closures. Jenny believes the program has been a positive impact on the family with early training regime (although intensive) having had an immediate positive impact on the veteran's mental and physical health.

Since moving interstate, Jenny believes the remote training and support has impacted the detail and targeted training in areas she was expecting the dog to be able to assist the veteran. The veteran and dog have been very well trained and as a team are able to negotiate most public settings; however, Jenny feels the body of work where the dog is trained to identify the veteran's anxiety and heightened behaviour has been missed due to COVID-19 and the training is not finished. She considers further intensive training is required for the dog to help the veteran achieve his overarching goal to alert and provide intervention when anxiety (and anger) is increasing and to help diffuse situations.

Many of Jenny's hopes have been achieved and the veteran is able to cope better with things he has no control over. His sleep and motivation has improved. Jenny feels he also enjoys the unconditional love from the dog no matter what his mood or state of mind. Overall, Jenny thinks most goals have been achieved, however the veteran is still working on other more involved tasks for the dog to assist to break his escalating of mood swings.

Jenny believes the dog has provided the veteran with motivation and purpose to self-initiate and undertake daily living activities on his own. Prior to introduction of the dog, the veteran had limited interaction or exercise during his day if left at home alone. He is still taking his medication and seeing a clinician and is taking more interest in his own health. He has recently decided to undergo a bariatric procedure to assist with weight loss due to an eating disorder he developed as a result of his PTSD. This is something he would not have considered prior to the program.

In relation to impacts on her own life and well-being, Jenny feels a great sense of a weight has been lifted off her and feels more assured that the dog will always be there for him no matter what.

Jenny believes that the program exceeded her expectations and that the staff were exceptionally helpful and committed to the success of the program.

"I was hoping that the veteran's mood swings, lack of motivation to leave the house, overall health and physical activity would improve during the program"

"I have more freedoms to do things that I like without feeling guilty or worrying about my husband. I cannot thank them enough for their dedication, patience and care shown to not only my husband but our entire family"

Support Person – Sharon

Sharon lives with her husband of 50 years and works full time. She feels she shoulders the burden of activities that many couples share. She keeps the relationship with their children and grandchildren solid and healthy, drives everywhere, deals with all tradesmen, and organises all social activities. Sharon shapes her and the veteran's life so he can keep a routine he can cope with. She hoped the program would help the veteran better engage in these everyday activities, including conversing more, driving more, exercising more, feeling less anxious about meeting people and perhaps even drinking less alcohol.

Sharon loves the dog and feels the dog loves her; however, she finds it quite stressful. Training was restricted due to COVID-19 and she feels that the dog is not as well trained as she should be. This is compounded as there is a responsibility on the veteran to implement strategies to manage the dog's behaviour which Sharon believes does not happen.

Sharon finds taking the dog to a restaurant or gathering to be stressful as she is not sure how it will behave and is not confident her veteran will manage its behaviour. The veteran tends to get panicky and exhibits behaviours he had towards their children when they were small.

Sharon finds the dog has resulted in additional restrictions on her life and hates having to consider what she does with the dog before she can organise anything. If friends have dogs she feels as though she cannot visit them as the dog does not deal well with other dogs. She does not want to go away for a weekend because of the dog and feels she restricts them quite a lot.

COVID-19 and the variable of lockdown has contributed to these issues, as training has been limited and interactions with others when they first got the dog was 'non-existent'. Not being able to be around people and travel to places means the dog has not had repeat exposure to situations where she could make a difference. Sharon is not confident with the dog's behaviour and is reluctant to take her to a restaurant where she barks if she sees a dog outside. The dog impacts Sharon's decision on where she goes with her veteran, for example, she feels she cannot take the dog to places such as the art gallery so chooses to go without the veteran. Sharon was hoping that the dog would enable her to do more with her veteran but feels she is doing less.

Sharon expresses her love for the dog, has a tight bond and enjoys cuddles on the lounge of a night time. However, the dog is difficult to manage and has made Sharon's life more problematic and stressful. She feels that more intense training is required as there is a training gap resulting from the impact of COVID 19.

"The program has delivered some assistance to my veteran such as daily exercise and companionship but outside of this I have not experienced any changes to our daily life"

"This might be due to my own anxiety I know, but it's a reality for me"

"As the support person, I do not feel supported and am left with the care of both the dog and veteran which impacts on my own mental health"

Support Person – Susan

Susan hoped the program would help her partner to 'get out of his own head' and to get some perspective on life's challenges. Susan indicated that therapy with a psychologist is useful, but it encourages her partner to relive trauma; the addition of the assistance dog helps break his cycle of self-absorption.

Susan believes that the training has had a positive impact on her partner and since undertaking the training and settling in with the dog, he is much calmer within himself. He is able to listen to suggestions when he is agitated, and the attention from the dog when he becomes agitated usually de-escalates his anxiety or stress. The program has resulted in her partner having fewer outbursts and uncontrollable rages.

Susan believes that the program has had such a positive impact on her partner that it should be implemented with as many veterans as possible.

"Conversations about difficult subjects have become approachable and easier. Our communication has improved in all aspects of our life"