Tails of Canine Co-Counselling

Dr Bronwyn Robson (BAppSci (Micro/Biochem); BAppSci (Hons-PopGen); GradDipEdStud; MCouns; PhD) – The University of Queensland, Student Services – Student Affairs Division.

Having animals in their lives can provide people with physical health, mental health and social benefits (Fung, 2017). At the University of Queensland, an Animal Assisted Therapy (AAT) program has been trialled, which aims to validate the value of this treatment modality in a tertiary context. A team of counsellor, trained therapy dog and professional dog handler worked individually with students experiencing a range of well-being concerns. The program has demonstrated that a therapeutic Animal-Assisted Intervention (AAI) program can be successfully implemented in a university counselling service to provide measurable (using the Feedback Informed Treatment Outcomes Rating Scale/Session Rating Scale measure (Miller & Bargmann, 2012)) benefits to students. A small number of therapy sessions equivalent in length to standard counselling sessions, and utilising a primarily Solution Focused Brief Therapy approach, has provided the best results to date. Further potential refinements are explored.

Key words: *Animal Assisted Therapy, Animal Assisted Intervention, tertiary education support, university counselling, tertiary counselling, pet therapy*

INTRODUCTION

Animals have played an integral part in the lives of human beings for millennia. With domestication, some animals have moved into more complex roles – as beast of burden and in working capacities, but also as protectors, friends and companions. For example, dogs have been engaging in behaviours to benefit people in agricultural communities for 9,000 years (Clutten-Brock, 1995). The animals present in people's lives have not only shaped human societies (Wu, 2018), but they have also shaped human beings as a species (Shipman, 2010). Having companion animals in their lives provides owners with numerous benefits (Fung, 2017; Hunt, Al-Awadi, & Johnson, 2008), such as entertainment, safety and the meeting of attachment needs (Krause-Parello, 2012; Kwong & Bartholomew, 2011; Meehan, Massavelli, & Pachana, 2017; Sable, 1995; Walsh, 2009). Physical and mental health are both stimulated through animal companionship (Bardill & Hutchinson, 1997; Brodie & Biley, 1999); for

example, through improved cardio-vascular health (Allen, 2003; O'Haire, 2010), by supporting specific health concerns such as seizures (Assistance Dogs Australia, 2018), managing symptoms of dementia (Katsinas, 2001; Perkins, Bartlett, Travers, & Rand, 2008) and through decreasing symptoms of anxiety and depression (Holman, Wilkerson, Ellmo, & Skirius, 2020; Krause-Parello, 2012; Kumasaka, Masu, Kataoka, & Numao, 2012; Kunz-Lomelin & Nordberg, 2020; Souter & Miller, 2007). Moreover, having pets helps owners to stay engaged and connected with others (Krause-Parello, 2012; McConnell, Brown, Shoda, Stayton, & Martin, 2011; Meehan et al., 2017). Unfortunately, not all people's life circumstance allow them to have a pet of their own. However, it is not necessary for an animal to be a person's own pet for them to be able to form a strong and positive relationship and therefore reap some of these benefits (Chandler, 2017). Just the sight of an animal can decrease physiological tension in some, because the neutrality of the visual stimulus allows them to shift focus to something other than the source of tension (Furst, 2006), and distress has been noted to decrease in individuals by such simple activities as petting or interacting with an animal (Crossman, 2017).

Using animals in a therapeutic context is not a new one (Brodie & Biley, 1999; Chandler, 2017, p. 19; Crossman, 2017; Krause-Parello, 2012). In the 21st century, Animal Assisted Therapy (AAT) was formally recognised as a new field by the American Psychological Association in 2008 through the creation of a new journal – the Human-Animal Interaction Bulletin (Chandler, 2017). Commonly, domestic animals are most frequently used in Animal-Assisted Activities (AAAs) (Jorgenson, 1997; Souter & Miller, 2007); however, other animals (Fine, 2010; Preece-Kelly, 2017) can also be used to create a range of reactions and provide varying supports for different individuals. AAAs include many activities that simply utilise an animal to enhance quality of life (Souter & Miller, 2007), and many have no specific therapeutic goals of plans other than pleasure for the participants (Osband, 2012; Pichot & Coulter, 2014). Examples of AAAs include reading dogs in schools to assist students struggling with performance anxiety (Fung, 2017); facility cats or dogs in nursing homes to provide residents with companionship, care giving opportunities and mental stimulation (Jorgenson, 1997; Katsinas, 2001; Perkins et al., 2008); and inmate-animal interaction programs in prisons to allow skill building and improved self-confidence in inmates (Holman et al., 2020; Kunz-Lomelin & Nordberg, 2020; Strimple, 2003).

However, the use of trained therapy animals involves much more deliberate use with specific therapeutic goals in mind (Delta Society, 2018; Pichot & Coulter, 2014). Therapy animals are distinct from service/assistance animals in that they are specifically trained to interact with a wide range of individuals (rather than providing support to just one individual) including strangers, and through their presence to provide affection and comfort as well as more specific supportive interactions and stimulating therapy (Alliance of Therapy Dogs, 2017; Chandler, 2017, p. 2). Therapy dogs behave in ways which show them to be friendly, reliable, confident and desiring of positive human companionship (Chandler, 2017). These dogs have relatable

behaviours, can help to catalyse interactions between clients and clinicians, and can contribute to the creation of a calm, safe, friendly and accepting therapeutic environment (Bardill & Hutchinson, 1997). Therapy animals can be used passively – where their presence provides comfort and/or calm, and to help build a therapeutic alliance; actively – where the client engages in specific, goal-based interactions with the animal, for example trick training to build confidence (Connecticut Counseling Association, 2014); and as an exemplar – where the animal is used to as a reference or context for a particular experience, for example, being in the present moment (Robson, 2019) or for experience of teaching and learning (Bardill & Hutchinson, 1997). These treatment approaches are known specifically as Animal-Assisted Therapy (AAT). The first documented usage of AAT was in 1792 by a Quaker group at the York Retreat in England (Furst, 2006). Therapy animals are increasingly being utilised in private practice situations, not simply in pleasurable Animal Assisted Activities (AAAs), but in therapeutic Animal Assisted Interventions (AAIs) (Chandler, 2017; Sacks, 2008).

Tertiary students experience a plethora of general stressors as well as mental health difficulties (Castellano, 2015; Tartakovsky, 2016), yet many are often on limited incomes which may reduce their access to costly psychological support. Tertiary education establishments across the globe are incorporating AAAs (such as petting zoos, puppy play dates and resident dogs) in a bid to support the well-being of their students (Bell, 2013; Callahan, 2017; Crossman, 2017; Deaf Dogs Rock, 2018; Moore, 2015; Raymond, 2016). However, it is unusual to find actual AAI/AAT taking place in colleges and universities. Qualified therapy dogs have the potential to benefit the tertiary student population in many ways (Callahan, 2017). AAT has the potential to reduce anxiety, loneliness, stress and other mental health concerns in the student population (Brooks, Rushton, Walker, Lovell, & Rogers, 2016; Fiocco & Hunse, 2017; O'Haire, Guérin, & Kirkham, 2015). Moreover, any activity that can augment the therapeutic alliance has the potential to enhance the benefits of counselling (Chandler, 2017, p. 2; Crossman, 2017) and the presence of a dog is something that many find pleasant. For those clients who struggle in social situations, the presence of a dog may be beneficial because, as colloquially expressed, "a dog is a conversation waiting to happen". Additionally, the appeal of interaction with a dog may help to over the stigma that may otherwise be associated the more conventional therapeutic approaches (Crossman, 2017). Therefore, the decision was made to explore how qualified therapy dogs could potentially benefit the students of the University of Queensland.

A trial pilot was conducted at the University of Queensland in 2018. This paper reports the results of two new trials, whose methodology was adapted on the basis on the results of this trial pilot. The aims of these new trials were three-fold: first to add to the existing knowledge regarding the practicality of the application of therapeutic AAIs in a tertiary context to provide students with improved social, emotional and/or cognitive functioning; secondly, to determine whether single standalone therapy sessions of 50 minutes would provide students with a beneficial therapy experience; and thirdly, to explore the ORS/SRS feedback informed

treatment assessment tool as a potential way of assessing outcomes for AAI in a tertiary context.

PARTICIPANTS

In both semesters, the intervention team consisted of the same counsellor (female) and qualified dog handler/owner (female) of the therapy dogs, plus the student clients. Two therapy dogs (Rex - a 9 year old male red Kelpie X Staffordshire Terrier who is more quiet but affectionate; and Freya – a 6 year old female Dalmatian X Border Collie who is more playful and active) were utilised. The Semester One trial consisted of 11 participants (1 male, 10 females), while the Semester Two trial consisted of 18 participants (1 male, 17 females), with 3 students participating in both semesters. No students explicitly identified as transgender or gender non-binary. The attending students included domestic and internationals students, undergraduates and post graduates. Over the two semesters, students presented for issues of general anxiety, social anxiety, depression, ongoing suicidal ideation as a result of childhood trauma, grief, relationship difficulties, poor self-worth, feeling easily overwhelmed, unrealistic academic expectations, stress, perfectionist thinking, communication difficulties, trauma from sexual abuse, poor life balance and loneliness. Some participants had a pre-existing relationship with the counsellor through standard counselling sessions (2 in Semester 1 and 3 in Semester Two), while for others it was a new relationship. In Semester One, all students worked with Rex, while Freya was introduced in Semester Two, with half of the students interacting with her.

ETHICAL CONSIDERATIONS

All data from the study was coded in a re-identifiable manner (with the exception of the anonymous survey results) and stored confidentially, so that they were unable to be readily linked to any individual person. Participants were free to withdraw from the study at any time without prejudice or penalty. Although the dog handler is not a mental health professional, as a registered dog trainer, she is also bound by confidentiality. The limits of this confidentiality were explained to the participants, and they were given alternative options for discussing sensitive information. Participants signed both "Terms of Participation" and "Consent to Conduct Research" forms before undertaking the Canine Co Counselling.

In order to ensure the physical well-being of the student participants, UQ contracted an experienced handler trained through the Delta Society, who utilised registered therapy dogs. These dogs were regularly groomed and vaccinated to reduce the risk of zoonotic disease transmission, as well as trained to meet specific standards of behaviour. Students were free to determine how much interaction they had with the dogs, and were encouraged to inform the handler if they were uncomfortable with any of the dogs' behaviour.

In order to ensure the well-being of the therapy dogs, students were provided with information regarding how to approach an unfamiliar dog and signs of distress in a dog, as well as specific information about any "out of bounds" areas for a particular dog (eg Rex does not enjoy being touched on the top of his head and so will move away from that sort of contact). The students were also informed that the dogs would never be forced to interact, and that if there were any signs of distress, the dogs would be temporarily removed from the session. One of the roles of the handler in the sessions was to ensure the well-being of the dog.

METHOD

The original trial of AAT at the University of Queensland was conducted in Semester One of 2018 and consisted of up to 6 twenty-five minute sessions over a 12 week period, based on a Solution Focused Brief Therapy Framework (Robson, 2019). The common model for AAT is for a counsellor to work with their own dog (Chandler, 2017); however, in this situation, no counsellor had an appropriately trained therapy dog who could be used in the program. In this trial, a team of counsellor, therapy dog and dog handler worked together to provide a novel intervention to students who had been identified by Student Services staff as those who may potentially benefit from the program. The effectiveness of the program was assessed using an affect grid tool (Killgore, 1998) that was implemented before and after each session as well as a ten item survey conducted approximately 1 month after the last session. The results of the first trial program were positive (Robson, 2019) and the decision was made to conduct additional trials in 2019, with changes made based on both the perceptions of the counsellor, dog handler and the student survey responses.

Although some research suggests that no additional psychophysiological benefit may be gained in sessions longer that 25 minutes (Odendaal, 2000), the original survey feedback was taken into consideration and it was decided that longer sessions could provide other additional therapeutic benefits, including the opportunity to use a more eclectic therapeutic approach rather than focusing on a SFBT approach. As the usefulness of the previously utilised Affect Grid (Russell, Weiss, & Mendelsohn, 1989) measure was called into question because of the apparent dependency of the two variables (Kuppens, 2008) and the inconsistency with client usage (Robson, 2019; Swindells, MacLean, Booth, & Meitner, 2006), it was decided that the assessment measure for the next round of AAT needed to be one that was less open to interpretation regarding student satisfaction with the intervention, and one in which individual measures were more discrete and independent (Robson, 2019). The Outcomes Rating Scale/Session Rating Scale (ie ORS/SRS) (Miller & Bargemann, 2012) was explored as an alternative, to assess the effectiveness of the intervention.

The adapted Canine Co-Counselling program was carried out at UQ Student Services, St Lucia Campus. Individual sessions of 50 minutes were run as a one-off adjunct to standard counselling sessions (with some exceptions, where a small number of students had additional

sessions, due to last minute availability). A risk assessment was carried out to ensure that phobic, culturally averse, allergic or immunocompromised students were excluded from the program and that those included had appropriately reduced contact with the dog, hair, saliva or dander. The handler was present and directly involved in sessions, answering questions about the dog, the dog's experiences, animal behaviour and animal communication, as well as demonstrating behaviours. The dog could be used in session passively, as an exemplar or actively. These sessions predominantly incorporated an integrated approach to psychotherapy, drawing on ACT (Hayes, Strosahl, & Wilson, 2012), CBT (Beck, 2011) and Narrative Therapy (Madigan, 2011) approaches as well as SFBT (Ratner, George, & Iveson, 2012). Students were asked to complete an ORS/SRS rating tool (Outcomes Rating Scale/Session Rating Scale - (Miller & Bargemann, 2012)) in each session, in order to assess how the student felt the session went and whether it met their needs. Results were record via pseudonym, to protect client confidentiality. At the end of both trials, the students were also asked to complete a post-trial survey. The individual results of the survey were anonymous although the respondents as a group were identifiable. The post-trial survey consisted of 11 questions. Questions 1 and 3-9 allowed for the following responses:

0 – Rarely; 1 – Occasionally; 2 – Less than half the time; 3 – More than half the time; 4 – Often; 5 – Almost Always or Uncertain

Q1 Did Canine Co Counselling meet your expectations?

Q3 Was the 50-minute Canine Co Counselling session of an appropriate/useful length?

Q4 Did you find that the Canine Co Counselling session helped with your issue of concern in the moment/on the day?

Q5 Did you find that your Canine Co Counselling session helped with your issue of concern in the week following?

Q6 Did you find that your Canine Co Counselling session helped you with your issue of concern in the following month?

Q7 Do you feel that compared with standard counselling sessions, canine co counselling sessions were as effective in supporting you with your issue of concern?

Q8 If you had the option of engaging in counselling using an Animal Assisted Intervention again in the future for the same or another issue, would you choose to work with a therapy animal again?

Q 9 Would you recommend Canine Co Counselling as a counselling option to a friend?

Questions 2 and 10 were Yes/No response with the request that Yes answers be briefly expanded upon.

> Q2 Did you have specific expectations about canine co counselling?

> Q10 Do you feel that additional sessions of Canine Co Counselling would be beneficial to your issue of concern?

Question 11 allowed for a short response regarding additional comments/feedback. All questions required a response except question 11.

Trial 2: Trial 2 was conducted over seven weeks of Semester 1 of 2019, enabling up to 21 students to access AAT. For this second trial, student referrals could be made by not only Student Services Staff, but also by the UQ Psychology Clinic (no referrals were actually received) and the UQ Health Care staff (General Practitioners – 2 referrals received). Students were emailed preparatory material about the program prior to their session. As a result of unattended, unfilled and cancelled appointments, a total of 11 students participated in the program. This means that 52% of the available appointments were filled during this trial.

Trial 3: Trial 3 was conducted in Semester 2 of 2019. The major change made for the third trial, was that students were able to self-refer into the program, by registering on the Student Services website. They were asked the following questions, and had to tick a box to acknowledge agreement:

1. You do not have any of the following that would preclude you from working with a dog. a. Dog fear/phobia b. Allergy or skin/respiratory sensitivity c. Immune-compromised or other medical condition of concern

2. Are you prepared to come into contact with the therapy dog, their hair, and their saliva?

They were also asked to give a short response asking why they wanted to participate in the program. This third trial ran over 15 weeks, approximately fortnightly, allowing for up to 24 students to participate. All available appointments were filled, there were no last minute cancellations and there were only 3 unattended appointments (although 3 students had a second appointment). This means that 87.5% of appointments were filled – a significant improvement in uptake compared to previous trials.

RESULTS

ORS/SRS: The data collected across both trials was compiled and has been displayed (Diagrams 1 and 2) using box and whisker plots, in order to show a range of information. The coloured boxes indicate the range of the second to third quartiles. The "whiskers" show the maximum

and minimum scores for each assessment category, while the middle line of the box indicates the median score. The mean is represented by the "x" inside each box. Data outliers are indicated by dots. Exact figures for each medium and mean has been included. The ORS means and medians in each semester indicate that the population of students attending Canine Co Counselling is a clinical one, while the SRS means and medians suggest that students were predominantly satisfied with their experiences. One subject ('Yvette') was in significant distress at the time of her session and chose to respond to the ORS scores with negative numbers (-10) which disqualified her data from further analysis.

ORS/SRS Results for Multiple Sessions: A number of students had multiple sessions (Diagram 4). Two students had one session each semester ('Bruce' and 'Kristen'), 'Gretchen' has 1 session Semester One and 2 sessions Semester Two, while 'Patricia' and 'Rochelle' had two sessions each in Semester Two. Mean changes in ORS scores are positive, while mean changes in SRS scores are more ambiguous.

Post Trials Survey Results – 2019 Total: As per the Methods section, the results of the post survey are presented in Diagrams 5-8. In diagram 5, question 6 has only 13 responses because one student gave two different responses to the one question, and therefore their response was removed from analysis. Diagram 5 incorporated numerical responses to survey questions, while diagram 6-8 show additional comments.

DISCUSSION

Referral Process: Self-referral via the Student Services website appears to be more efficient way to offer the program to a broad range of students. Moreover, this seems to increase accountability for attendance, as shown by the significantly increased appointment uptake rate seen in trial 3. One difficulty was that despite the waiver form and the website questionnaire, a student still presented with dog allergies, which she did not report until after the session (and which she commented on in the feedback survey – reported to the counsellor). However, the increased booking and appointment retention rate outweighs these difficulties with the forms. These can be readily overcome by reiterating the main points before beginning the session and potentially making website information more detailed/explicit.

ORS/SRS Assessment Tool: The ORS/SRS was chosen as an assessment tool for several reasons. First, it is a simple, brief measure which takes very little time to complete and score (Low, 2012; Miller & Bargemann, 2012), as hoped, it proved to be the case that its utilisation was minimally intrusive on the session. There was not much variation in ORS/SRS totals between Semester One and Two.

Secondly, it provides real time feedback (Low, 2012) allowing the practitioner to both focus the intervention for the student's needs and assess the therapeutic alliance. The ORS component allowed for valid measurement of participant well-being, as low scores indicate a

low degree of well-being (or increased distress) (Miller & Bargmann, 2012). It was found that how the ORS/SRS was presented to the participants made a large difference to their responses. If the students were simply asked to complete the tool, the SRS results were usually quite high. This may reflect the students' desire to be pleasant and maintain a connection with the counsellor, a desire to give positive feedback because of a love of dogs or a desire for the program to continue, or from a fear of some sort of retribution if they give a negative response (Miller & Bargmann, 2012). Once the students were asked to complete the form as honestly as possible, so that improvements could be made for future rounds of the program and so that any concerns could be addressed immediately, responses seemed to become more genuine.

Thirdly, the approach can be applied irrespective of the type of therapeutic intervention (Miller & Bargemann, 2012) which proved to be valuable in this integrative and novel approach. Moreover, it is an assessment tool that has been demonstrated to be valid, consistent and reliable (Low, 2012). Although the ORS/SRS is ideally used to assess changes in client functioning and success with therapeutic alliance over time (Miller & Bargemann, 2012), it was deemed to be useful for this trial as one of the aims was to improve the application of AAT as an intervention, and the SRS combined with the conversations that it allows with the client, provide valuable insight into the practitioner's effectiveness with the intervention.

Lastly, UQ Student Services Counselling is intending to implement this measurement tool across all counselling sessions, thereby allowing for a more direct comparison of AAT with standard counselling sessions. The results of this study indicate that the ORS/SRS is a useful tool in terms of determining the state of participants' distress and the therapeutic alliance, as well as monitoring change over treatment for those having multiple sessions. It has provided valuable information about participant presentation, the therapeutic approach and the therapeutic relationship, and therefore will be utilised again in future canine co-counselling programs. Moreover, a comparison between standard appointments and AAI appointments has the potential to provide vindication for an expansion of the existing program.

Miller and Bargemann (2012) indicate that a total ORS score of 25 is considered to be the cut off between a clinical and a non-clinical population. As would be expected, the 2019 cohort as a whole is a clinical population (Diagram 2), with students presenting for issues of general anxiety, social anxiety, depression, ongoing suicidal ideation as a result of childhood trauma, grief, relationship difficulties, poor self-worth, feeling easily overwhelmed, unrealistic academic expectations, stress, perfectionist thinking, communication difficulties, trauma from sexual abuse, poor life balance and loneliness. The cut off score for the total SRS is 36, with scores below 36 considered to warrant concern and should indicate the need for a discussion between the counsellor and the client (Miller & Bargemann, 2012). The SRS component of this tool allowed the practitioner to not only identify the existence of possible concerns regarding the therapeutic alliance, but it also allowed for identifying where these concerns may be coming from, and for the counsellor to address them immediately. Five subjects in trial 3

had total scores below the cut off of 36, so discussions were had regarding how the approach could be improved. 'Bruce' indicated that his lower score (34.6) stemmed from dealing with a number of issues briefly, but no issue in depth. 'Kristen' had a low overall score (27.2) which was attributed to her low mood and her difficulty opening up to others. 'Tracey' indicated that her low score (33.8) was a result of not delving deeply into her issues but focusing on management strategies. 'Uma' (25.3) reported that she felt she needed "more direct questions about her issue of concern". 'Violet' (30.6) also reported that she felt the need to delve deeper into her underlying issue, but she acknowledged the difficulty of this in a single session modality. In this context, it was identified that the arenas of goals/topics and approach/method were of some concern generally (Diagram 2). This identification allowed for discussions with the participants to aim for improvements to the canine co-counselling intervention in future. The lower scores in the areas of goals/topics may support the idea of maintaining a stricter adherence to a SFBT approach to Canine Co-Counselling Sessions. The lower approach/method scores may be indicative of either invalid expectations of participants, or because of a decreased utilisation of the dog as an intervention (see below, Canine Co Counselling as an Animal Assisted Intervention). The majority of subjects in the 2019 cohort appeared to be well-satisfied with the sessions they experienced (Diagram 2).

There did not appear to be a substantial difference between the semesters in terms of ORS or SRS total results (Diagrams 3). Given that one of the main purposes of this assessment tool was to assess the effectiveness of canine co counselling as a therapeutic intervention, it is relevant to examine the SRS results specifically for the approach/method (Diagram 2). For 2019, the mean result was 9.1 and the median was 9.5, which would seem to be indicative of satisfaction to the approach. However, 8 subjects of the 26 participants gave scores below 9.0 across the two semesters (4 in Semester One and 5 in Semester Two). The semester two post-trial survey results may shed more light on their dissatisfaction, as results are anonymous.

Multiple Sessions: Of the twenty-one canine co counselling appointments that were conducted in Semester Two, 3 students had previously had sessions in Semester One (and one of those had 2 sessions in Semester Two) and 2 students had two sessions in Semester Two. Results were included for all sessions. Across multiple sessions, even when students experienced a decrease in individual ORS measures between sessions, all students saw improvements in some areas and in total, which would suggest that they may have received benefit from the canine co counselling sessions. On average, all 5 students saw a positive improvement in all ORS arenas (Diagram 4). 'Bruce' and 'Gretchen' saw an improvement across sessions in every ORS domain, which was reflected in their affect in their final session. 'Kristen's' total ORS score change was the lowest, which is consistent with the fact that she presented in both sessions appearing very low in her mood. It is however, interesting to note that despite comments that she doesn't like or trust others, her interpersonal and social scores actually improved after AAI. 'Patricia' presented with only limited change in any domain, which was consistent with someone presenting with academic stress. 'Rochelle' showed improvement individually and

overall but small decreases interpersonally and socially. These small decreases may simply be artefacts of the somewhat subjective nature of ranking experience by placing an X on an unnumbered scale. Across the group, participants saw the largest average positive change in the overall category, indicating their general sense of well-being had improved.

The changes in SRS scores initially appear more difficult to interpret. By looking at the mean SRS results of the whole group (Diagram 4) a general positive trend can be since across most arenas. However, the arena which falls short, is that of the approach itself. Based on Miller and Bargmann's (2012) assertion that even single point SRS scores changes between sessions should be considered at risk of poorer outcomes, the student who was of most concern had a mean change for approach/method that was greater than -1. This is at odds with the fact that in her session she reported that she "found the presence of the dog as well as using the dog as a common reference to be useful in terms of approach". Another student's negative change (-0.8) for the approach/method could be attributed to the fact that he felt the session "covered all of the areas that he wanted to talk about but because we had covered so much it would take time to process". Other observed negative changes to SRS domains were less than -0.5 and therefore were considered to be likely artefacts due to the subjective ranking process.

Overall it would seem that these five students who had multiple sessions (either 2 or 3) demonstrate that a small number of AAI sessions has the potential to contribute to an improved state of well-being. This provides further vindication for the expansion of the program, so that participating students have access to multiple sessions.

Survey Results: In comparison to the post-trial survey results from the first trial in 2018 (unpublished), there were a few disappointing results with trial 2 and 3. Only 6 of 11 participants responded in Semester One and 8 of 18 in Semester Two. The feedback from the Semester One trial was more negative than the first trial in that more students found that Canine Co Counselling did not meet their expectations. Moreover, one student found that it was rarely helpful on the day, while another found it was rarely helpful in the following month. Two participants felt that it wasn't as effective as standard counselling, and two were quite ambivalent about working with a therapy animal again. The feedback that was received from the Semester Two survey was generally as positive as or more positive than that received in Semester One. Students were more inclined to report that the program met their expectations, and that the session helped with their issue of concern on the day more than half of the time. Most students (responses more than half the time or more) in Semester 2 reported that Canine Co Counselling helped in the following week (79%), that the sessions were as effective as standard counselling sessions (64%) and that they would be inclined to recommend the program as a counselling option to a friend (86%). However, in both semesters most students found that the longer (50 minute) sessions were an appropriate length.

With respect to the students who gave extended responses to survey questions (Diagrams 6-8), for Q2 (Did you have specific expectations about canine co counselling?) one reported that they thought it would be just like normal counselling but with a pet present. This is reflective of the novel approach of using the therapy dog actively during session. Four said that they expected more interaction with the dogs. This may be as a result of moving away from the SFBT approach, in which the dogs are using more frequently, and to the more integrated approach, which tended to me more like a standard counselling session with the dogs used passively. The student who reported being pleased that the dogs were not too playful, validates the idea that different dogs with varying traits may be better suited to particular students. One reported surprise at the presence of the handler. And attempt to overcome this has been made in the newest incarnation of the program, by making it explicit in email communication, in the consent paperwork that students complete and by reiterating it before the first session.

For Question 10 (Do you feel that additional sessions of Canine Co Counselling would be beneficial to your issue of concern?), the majority responded yes (11 to 3). All those who gave additional comments were in the affirmative, and most (8 of the 11) indicated that they would like a large number (more than 4) of sessions. Although this has not been able to be implemented to date, it does add validity to the assertion that the program be expanded to allow for a larger number of sessions per student. The additional comments and feedback from Question 11 again emphasised the value of additional sessions. Moreover, some valuable constructive criticism about the survey questions was provided that will be implemented in the future. It is interesting to note that only one student did indicate that the presents of the handler may have been detrimental. It is uncertain if this is the same student who was surprised by the handler's presence, but this seems likely. Other students have casually reported about the benefit of the handler's knowledge. Additionally, the handler's presence is likely to be beneficial for the well-being of the dogs themselves. Therefore, at this stage, the intention remains for the handler to work together with the counsellor as an integral part of the therapeutic team. Having said that, this concern will be further explored in future sessions through both informal ORS/SRS initiated conversations as well as through future surveys.

Of the total of 10 students across the year whose SRS scores for the approach/method were below 9.0, two from trial 2 and three from trial 3 responded to the post-trial survey. So of the 14 respondents to the survey, 5 of those (ie 36%) were those who may have been dissatisfied with the Canine Co-Counselling approach. This may bias the survey results, as they make up only 19% of the total participants. 'Gretchen' responded to the survey in both semesters. She was the only participant to have more than one session who also completed the survey. As only 48.3% of participants committed to completing the post-trial survey, despite signing consent to conduct research documentation that clearly stipulated the requirement, there is room for improvement in this area of data collection.

Overall, there still appear to be some unrealistic expectations in participants. The on-line registration page and the pre-session information sheets may need to be edited to make clear the presence of the dog handler in session, and how the dog may be expected to be utilised in session. The fact that students were less likely to report that AAT was effective in supporting their issue of concern after 1 month, and the comments regarding expecting more interaction with the dog may be remedied by implementing a new program structure, whereby once participants sign on, they are allocated multiple appointment slots immediately. This has the potential to combine the benefits of the first trial of ongoing sessions, with the pace of the second and third trials. Moreover, students' issues could be addressed in greater depth, as desired. However, limitations with the handler's time, service finances and the counsellor's removal from standard counselling sessions means that sessions will have to be limited to 2 or 3 in total. If the comparison between Canine Co Counselling and Standard Counselling indicates that outcomes are better for this AAT approach, then more sessions may be justified and able to be made available in the future.

Canine Co-Counselling as an Animal Assisted Intervention: Less strict adherence to a SFBT framework during the sessions had both positive and negative effects. The integrated approach to intervention allowed for a more personalised approach that could be specifically adapted to suit the needs of each student. It also allowed for continuity between therapy sessions for those participants who were also seeing the counsellor for standard counselling. However, both the counsellor and the dog handler felt that the integrated approach decreased the focus on the dog as an intervention tool. This appears to have been reflected in the feedback from the participants, as a number indicated in the survey that they expected more interaction with the dog. A second possibility is that the decrease in interaction with the dog is an artefact of the single session model, as much of the single session time it taken up with hearing the student's narrative. A multiple session model may improve this ability to interact with the dog over the course of the program, and this would be recommended for future iterations of the program. It is also possible that the decreased interaction with the dog may be attributed to the fact that the therapy dog Rex is slowing down somewhat as he ages. While he is still very keen to interact in a therapy setting, Rex often falls asleep (yes, and snores, which injects lovely humour into the session) if he is not directly engaged.

The recommendation for future implementation of Canine Co Counselling would be to adhere more closely (but not exclusively) to a SFBT framework, possibly referring students to standard sessions to work more intensely using other therapeutic modalities deemed potentially valuable. For students who have/are seeing the counsellor in standard counselling sessions, it needs to be made clear that the AAT sessions are goal oriented and separate from their standard session, and not a continuation of those. A further recommendation would be attempt to allocate Rex and Freya to specific days, so that students can be better paired with the dog of appropriate temperament/energy levels. It may also be valuable to assess the results for each dog independently, to explore whether the observed effects were because of the intervention type or the specific animal (Crossman, 2017). However, the practicalities involved in both

booking students into available appointments and having a particular dog on site, may mean that this goal would be problematic to achieve.

LIMITATIONS

There were some limitations to the current study. First, the participants were limited to students from the University of Queensland able to access the St Lucia campus, and therefore may not encompass the difficulties or benefits that may be present at other campuses and/or other tertiary education providers. Secondly, the high proportion of female participants (23 out of 25 total) may indicate some sort of bias. As the program was broadly advertised to all potential participants, this may indicate that female students were more likely to pursue this type of therapeutic approach, or simply that they more readily engage in help-seeking behaviours generally, which would be consistent with the figures for general counselling in the service. Thirdly, the fact that some students had a pre-existing therapeutic relationship with the counsellor while others did not may have influenced student responses to the SRS measure, as a pre-existing positive rapport may have made them less likely to highlight any problems with the program, in order to be supportive and encouraging to the counsellor. This difficulty further advocates for the implementation of the ORS/SRS measure in standard counselling sessions, as this would allow for direct comparisons between the student/counsellor outcomes with and without the dog, as well as being able to compare the counsellors overall outcomes in standard sessions compared to Canine Co Counselling sessions. Fourth, there was the low completion rate of the post-trial survey, which decreased the sample size to examine ongoing effect of the AAI. Lastly, the fact that the program was run for quality assurance within a clinical setting limited the ability of the researcher in terms of applying recruitment strategies, data collection, control group availability and to rigorously interrogate the data as per a more stringent, research based program.

CONCLUSION

The value of Animal Assisted Therapy (AAT) is becoming more widely recognised around the world (Chandler, 2017; Connecticut Counseling Association, 2014; Pichot & Coulter, 2014; Robson, 2019). Simultaneously, there is more and more recognition about the stresses, adverse experiences and mental health concerns impacting tertiary populations (Bjick, 2013; Brooks et al., 2016; Fiocco & Hunse, 2017; O'Haire et al., 2015). The "Canine Co Counselling" animal assisted intervention program at the University of Queensland has been examining how using trained therapy dogs in true on campus AAT could benefit students experiencing a range of concerns. Although the more common model for AAT would be for the therapist to work with their own dog (Chandler, 2017), working as a team with the dog handler has proven to be beneficial, for ensuring the well-being of the therapy dogs (as therapy animals can also experience stress from work (Chandler, 2017)), but also for the invaluable contributions made by the handler in terms of her knowledge of animal behaviour and communication.

These most recent research trials certainly show that students can benefit from such an AAT program. Full length sessions of 50 minutes, combined with multiple sessions utilising a predominantly SFBT therapeutic approach appears at this time to be the best combination of variables to meet the needs of students. However, there is still room for improvement in the program's execution and exploration of alternative variables. If the program is to be substantially expanded in the future, it may become necessary for a counsellor to use their own therapy dog. Although this would mean losing the benefit of the handler's knowledge and focus on the wellbeing of the dog, it would allow an increased number of sessions and therefore greater accessibility for students. Moreover, observing the bond between counsellor and dog could model healthy attachment, increase trust with the client and improve the therapeutic process (Chandler, 2017).
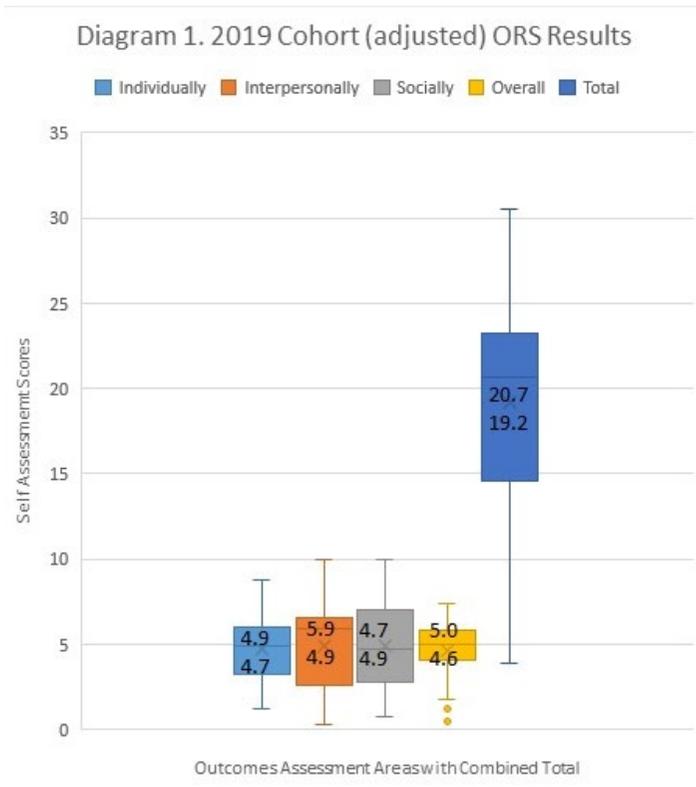
CONFLICTS OF INTEREST

The author declares that there are no conflicts of interest regarding the publication of this paper.

ACKNOWLEDGEMENTS
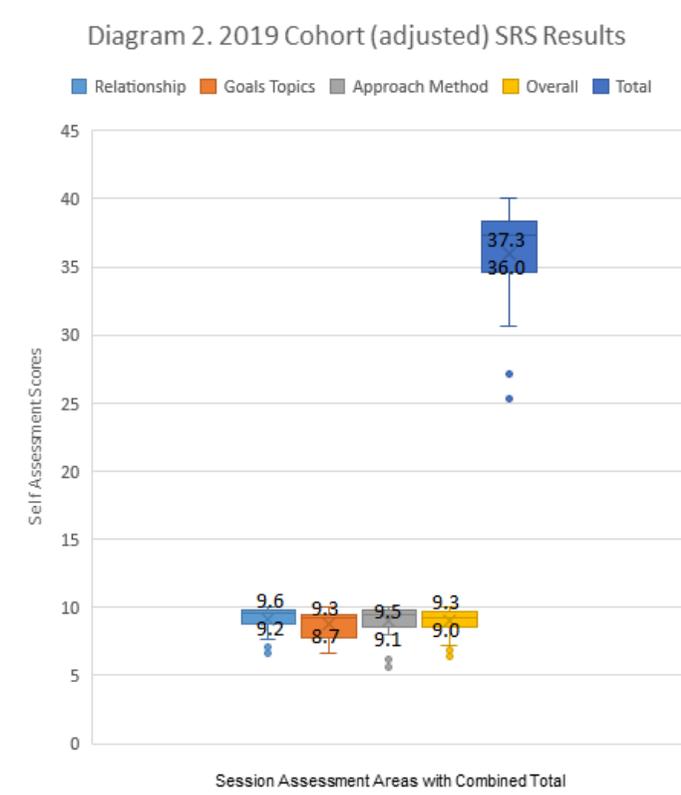
DIAGRAMS

Diagram 1. Box and whisker plot showing 2019 entire cohort (without Yvette) minimum and maximum ORS scores for each individual category (out of 10) and their combined total (out of 40), with medians (top) and means (bottom).

Diagram 2. Box and whisker plot showing 2019 entire cohort (without Yvette) minimum and maximum SRS scores for each individual category (out of 10) and their combined total (out of 40), with medians (top) and means (bottom).

Diagram 3. Comparison of means and medians for ORS and SRS between semesters (without Yvette).

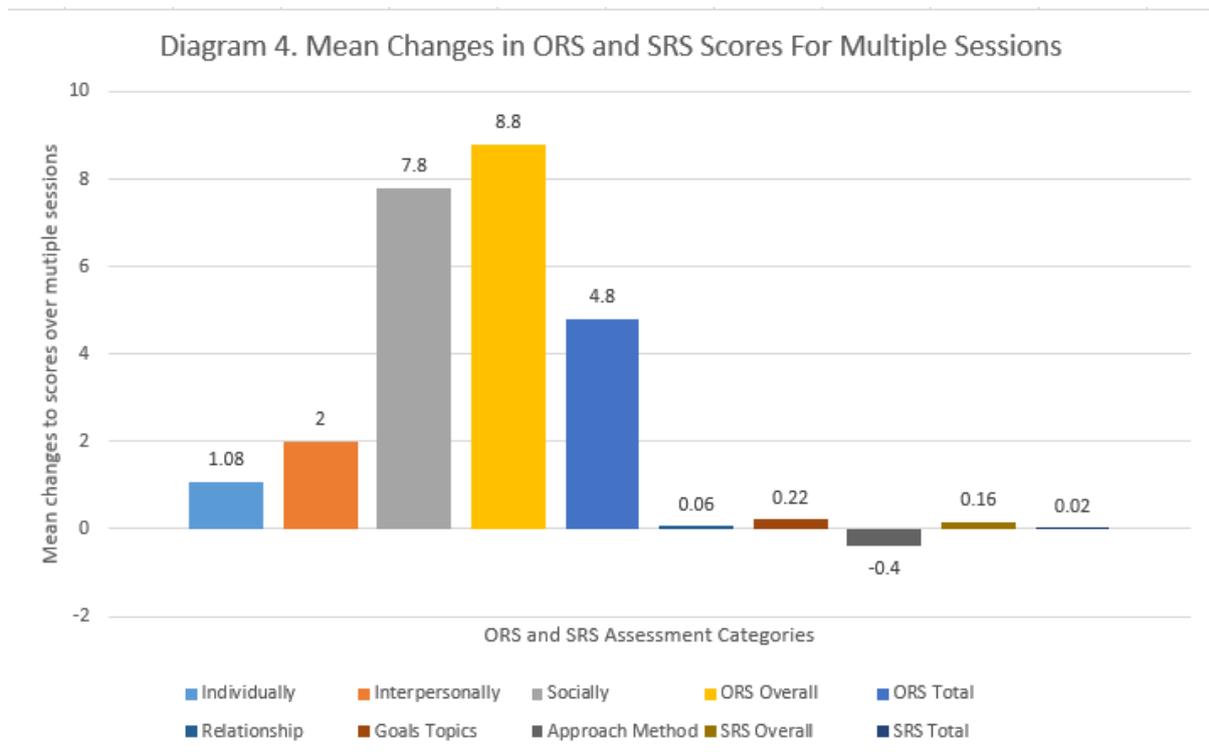| ORS/SRS	ORS Total Median	ORS Total Mean	SRS Total Median	SRS Total Mean
Semester 1	18.9	19.3	37.4	36.0
Semester 2-Adjusted	21	19.1	36.8	35.9

Diagram 4. Mean change in ORS and SRS scores for each assessment category, for all participants having multiple sessions.
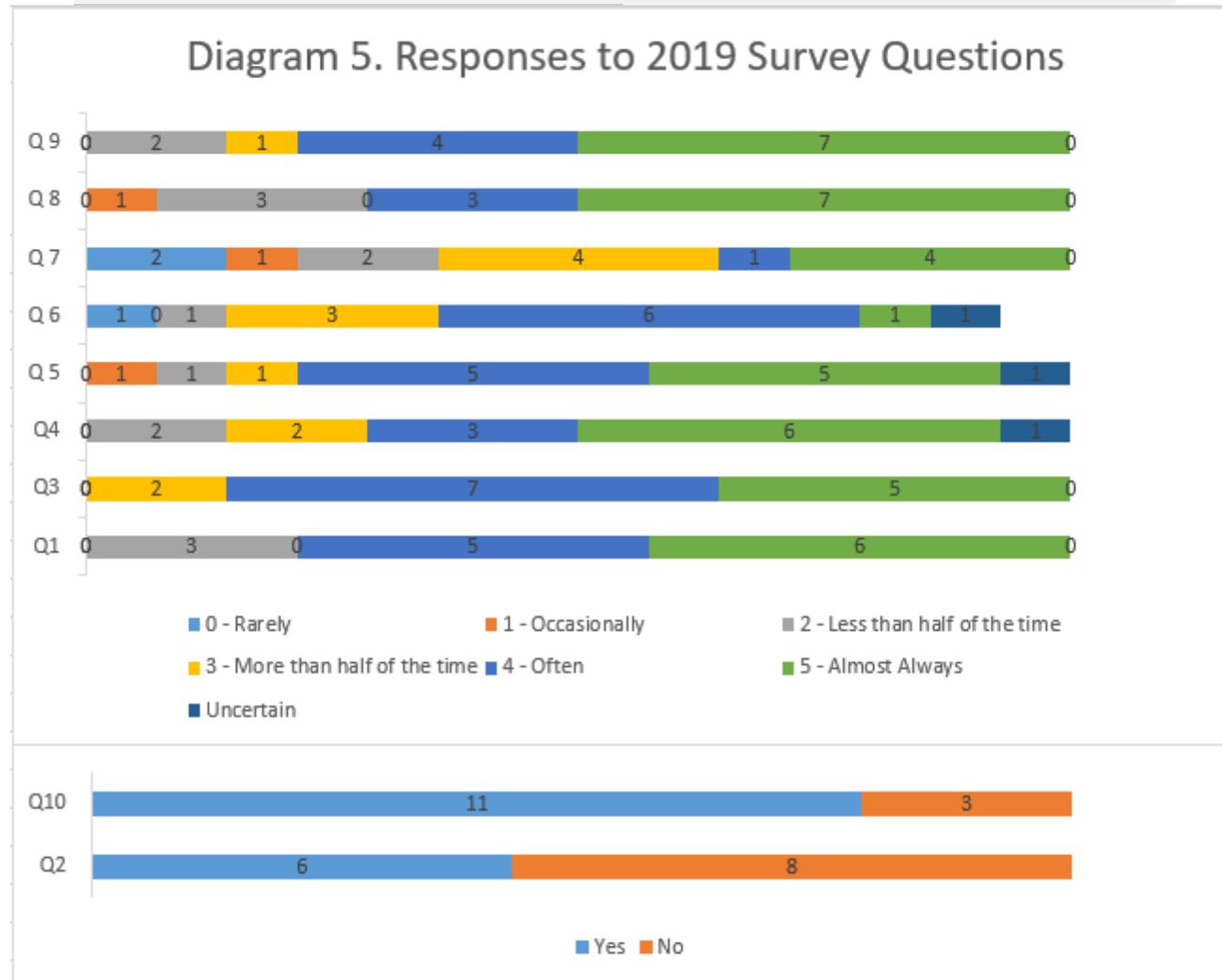
Diagram 5. Responses to 2019 Survey Questions regarding participants impressions of Canine Co Counselling, including Yes/No questions.

Diagram 6: Yes answers to Question 2

Yeah. I thought it was just like counselling but with a pet.

Yes, more interaction with pets.

Yes. I thought there would be activities and the dog would be quite playful. However, I was pleasantly surprised for that to not be the case as I believe it would have overwhelmed me.

Yes, a lot of interaction with a pet.

I expected more interaction with the doggie.

No, not really. I was expecting the dog to want more attention or interaction, and I was surprised his handler was there.

Diagram 7: Yes Responses to Question 10

Yes. 9

Yes 2

Yes 3 or 4

Yes 5 to 6

Yes, I believe 4-5 would be beneficial.

Yes. 2!

Yes, I think one session a month would be beneficial (nine a year throughout the university semester). One session was nice but it only helps for about a week.

Yes 8

Yes, 5 to 6 sessions.

Diagrams 6 and 7. "Yes" Responses to Questions 2 and 10.

Diagram 8: Additional comments and feedback from Question 11

No it was an awesome and cathartic experience that was very helpful ☺

I think the survey responses could have been better worded. As most people only had 1 session, it was difficult to answer with frequency-based responses. Strongly agree-strongly disagree I think would have been more useful.

One session is nice but I would have liked to go back more often.

I think having the dog handler there may impede the session's flow. Especially, the therapist-client connection and focus on each other. I didn't feel that way in my session but I could see it happening. And looking back I think it would be better to just have the therapist. Perhaps the handler can be called in if an issue arises.

Diagram 8 - Additional Comments and Feedback Question 11

REFERENCES

Allen, K. (2003). Are pets a healthy pleasure? The influence of pets on blood pressure. *Current Directions in Psychological Science, 12*(6), 236-239.

Alliance of Therapy Dogs. (2017). What is the difference between a therapy dog vs a service dog? Retrieved June 21, 2018 from: https://www.therapydogs.com/difference-therapy-dog-vs-service-dog/

Assistance Dogs Australia. (2018). FAQs: What does an assistance dog do? Retrieved Januray 3 2019 from: https://www.assistancedogs.org.au/about-us/faqs/

Bardill, N., & Hutchinson, S. (1997). Animal-assisted therapy with hospitalized adolescents. *Journal of Child and Adolescent Psychiatric Nursing, 10*(1), 17-24. doi:10.1111/j.1744-6171.1997.tb00208.x

Beck, J. S. (2011). Selected sections In *Cognitive behavior therapy: Basics and beyond, 2nd ed.* (pp. xix, 391). New York, NY, US: Guilford Press.

Bell, A. (2013). Paws for a study break: Running an animal-assisted therapy program at the Gerstein Science Information Centre. *Partnership: The Canadian Journal of Library and Information Practice and Research, 8*(1), 1-14. doi:10.21083/partnership.v8i1.2403

Bjick, M. (2013). *The effects of a therapy animal on college student stress and arousal.* (151), St Catherine University, University of St. Thomas, Retrieved from https://ir.stthomas.edu/ssw_mstrp/151 (5-2013)

Brodie, S. J., & Biley, F. C. (1999). An exploration of the potential benefits of pet-facilitated therapy. *Journal of Clinical Nursing, 8*, 329-337. doi:10.1046/j.1365-2702.1999.00255.x

Brooks, H., Rushton, K., Walker, S., Lovell, K., & Rogers, A. (2016). Ontological security and connectivity provided by pets: a study in the self-management of the everyday lives of people diagnosed with a long-term mental health condition. *BMC Pscychiatry, 16*(1), 409. doi:10.1186/s12888-016-1111-3

Callahan, M. (2017). Therapy dogs on campus: the benefits to students, faculty. Retrieved June 7 2018 from: https://webcpm.com/articles/2017/07/06/therapy-dogs.aspx

Castellano, J. (2015). Pet therapy is a nearly cost-free anxiety reducer on college campuses. Retrieved June 7 2018 from: https://www.forbes.com/sites/jillcastellano/2015/07/06/pet-therapy-is-a-nearly-cost-free-anxiety-reducer-on-college-campuses/2/#5738269b79ac

Chandler, C. K. (2017). *Animal-Assisted Therapy in Counselling* (3rd ed.). New York: Routledge.

Clutten-Brock, J. (1995). Origins of the dog: domestication and early history. In J. Serpell (Ed.), *The Domestic Dog: Its evolution, behaviour and interactions with people*. New York: Cambridge University Press.

Connecticut Counseling Association. (2014). A counselor's best friend: The use of a registered therapy dog in the counselling office. Retrieved June 21 2018 from: https://ccacounseling.com/a-counselors-best-friend-the-use-of-a-registered-therapy-dog-in-the-counseling-office/

Crossman, M. K. (2017). Effects of Interactions With Animals On Human Psychological Distress. *Journal of Clinical Psychology, 73*(7), 761-784. doi:10.1002/jclp.22410

Deaf Dogs Rock. (2018). 10 Colleges with successful pet therapy programs. Retrieved June 7 2018 from: https://deafdogsrock.com/10-colleges-with-successful-pet-therapy-programs

Delta Society. (2018). What are therapy dogs? . Retrieved June 21 2018 from: https://www.deltasociety.com.au/pages/slide1.html

Fine, A. H. (2010). Incorporating animal-assisted therapy into psychotherapy: guidelines and suggestions for therapists. In A. H. Fine (Ed.), *Handbook on Animal-Assisted Therapy (Third Edition)* (pp. 169-191). San Diego: Academic Press.

Fiocco, A. J., & Hunse, A. M. (2017). The buffer effect of therapy dog exposure on stress reactivity in undergraduate students. *International Journal of Environmental Research and Public Health, 14*(7), 707.

Fung, S.-C. (2017). Canine-assisted reading programs for children with special educational needs: Rationale and recommendations for the use of dogs in assisting learning. In (Vol. 69, pp. 435-450): Routledge.

Furst, G. (2006). Prison-based animal programs: A national survey. *The Prison Journal, 86*(4), 407-430. doi:10.1177/0032885506293242

Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (2012). *Acceptance and commitment therapy: The process and practice of mindful change, 2nd ed*. New York, NY, US: Guilford Press.

Holman, L. F., Wilkerson, S., Ellmo, F., & Skirius, M. (2020). Impact of animal assisted therapy on anxiety levels among mentally ill female inmates. *Journal of Creativity in Mental Health, ahead-of-print*, 1-15. doi:10.1080/15401383.2020.1729918

Hunt, M., Al-Awadi, H., & Johnson, M. (2008). Psychological sequelae of pet loss following hurricane Katrina *Anthrozoös, 21*(2), 109-121. doi:10.2752/175303708X305765

Jorgenson, J. (1997). Therapeutic use of companion animals in health care. *Clinical Scholarship, 29*(3), 249-254.

Katsinas, R. P. (2001). The use and implications of a canine companion in a therapeutic day program for nursing home residents with dementia. *Activities, Adaptation & Aging, 25*(1), 13-30. doi:10.1300/J016v25n01_02

Killgore, W. S. (1998). The affect grid: A moderately valid, nonspecific measure of pleasure and arousal. *Psychological Reports, 83*, 639-642.

Krause-Parello, C. A. (2012). Pet ownership and older women: The relationships among loneliness, pet attachment support, human social support, and depressed mood. *Geriatric Nursing, 33*(3), 194-203. doi:https://doi.org/10.1016/j.gerinurse.2011.12.005

Kumasaka, T., Masu, H., Kataoka, M., & Numao, A. (2012). Changes in patient mood through animal-assisted activities in a palliative care unit. *International Journal of Medicine, 19*, 373-377.

Kunz-Lomelin, A., & Nordberg, A. (2020). Assessing the impact of an animal-assisted intervention for jail inmates. *Journal of Offender Rehabilitation, 59*(2), 65-80. doi:10.1080/10509674.2019.1697786

Kuppens, P. (2008). Individual differences in the relationship between pleasure and arousal. *Journal of Research in Personality, 42*(4), 1053-1059. doi:https://doi.org/10.1016/j.jrp.2007.10.007

Kwong, M. J., & Bartholomew, K. (2011). "Not just a dog": an attachment perspective on relationships with assistance dogs. *Attachment & Human Development, 13*(5), 421-436. doi:10.1080/14616734.2011.584410

Low, D. C. (2012). The Outcome Rating Scales (ORS) & Session Rating Scales (SRS): Feedback Informed Treatment in Child and Adolescent Mental Health Services (CAMHS). Retrieved July 2, 2019 from: https://www.aft.org.uk/SpringboardWebApp/userfiles/aft/file/Events/2012/David%20Low%20paper%20for%20CYP-IAPT.pdf

Madigan, S. (2011). *Narrative therapy*. Washington, DC, US: American Psychological Association.

McConnell, A. R., Brown, C. M., Shoda, T. M., Stayton, L. E., & Martin, C. E. (2011). Friends with benefits: On the positive consequences of pet ownership. *Journal of Personality and Social Psychology, 101*(6), 1239-1252. doi:10.1037/a0024506

Meehan, M., Massavelli, B., & Pachana, N. (2017). Using Attachment Theory and Social Support Theory to examine and measure pets as sources of social support and attachment figures. *Anthrozoös, 30*(2), 273-289. doi:10.1080/08927936.2017.1311050

Miller, S. D., & Bargemann, S. (2012). The Outcome Rating Scale (ORS) and the Session Rating Scale (SRS). *Integrating Science and Practice, 2*(2), 28 - 31.

Miller, S. D., & Bargmann, S. (2012). The Outcome Rating Scale (ORS) and the Session Rating Scale (SRS). *Integrating Science and Practice, 2*(2), 28 - 31.

Moore, B. (2015). 8 colleges that are harnessing puppy power to destress their students. Retrieved June 7 2018 from: https://barkpost.com/discover/colleges-therapy-dogs-puppy-rooms-destress/

O'Haire, M. (2010). Companion animals and human health: Benefits, challenges, and the road ahead. *Journal of Veterinary Behavior, 5*(5), 226-234. doi:https://doi.org/10.1016/j.jveb.2010.02.002

O'Haire, M., Guérin, N., & Kirkham, A. (2015). Animal-Assisted Intervention for trauma: a systematic literature review. *Frontiers in Psychology, 6*(1121), 1-13. doi:10.3389/fpsyg.2015.01121

Odendaal, J. S. J. (2000). Animal-assisted therapy — magic or medicine? *Journal of Psychosomatic Research, 49*(4), 275-280. doi:https://doi.org/10.1016/S0022-3999(00)00183-5

Osband, J. (2012). AAA vs AAT. Retrieved January 10 2019 from: http://dogtalk101.blogspot.com/2012/09/aaa-vs-aat.html

Perkins, J., Bartlett, H., Travers, C., & Rand, J. (2008). Dog-assisted therapy for older people with dementia: A review. *Australasian Journal on Ageing, 27*(4), 177-182. doi:10.1111/j.1741-6612.2008.00317.x

Pichot, T., & Coulter, M. (2014). *Animal-Assisted Brief Therapy : A Solution-Focused Approach*: Taylor & Francis Group.

Preece-Kelly, D. (2017). *Unleashing the Healing Power of Animals: True stories about therapy animals – and what they do for us.* . Dorset, England: Veloce Pub. Ltd.

Ratner, H., George, E., & Iveson, C. (2012). Selections In *Solution focused brief therapy: 100 key points and techniques.* (pp. xi, 254). New York, NY, US: Routledge/Taylor & Francis Group.

Raymond, J. (2016). Campus therapy dogs offer a helping paw to stressed students. Retrieved June 7 2018 from: https://www.nbcnews.com/feature/college-game-plan/campus-therapy-dogs-offer-helping-paw-stressed-students-n556576

Robson, B. A. (2019). The student experience is a little "ruff" - Pet therapy at UQ. *Counselling Australia, 19*, 37-43.

Russell, J. A., Weiss, A., & Mendelsohn, G. A. (1989). Affect Grid: A single-item scale of pleasure and arousal. *Journal of Personality and Social Psychology, 57*(3), 493-502. doi:10.1037/0022-3514.57.3.493

Sable, P. (1995). Pets, attachment, and well-being across the life cycle. *Social Work, 40*(3), 334-341.

Sacks, A. (2008). The therapeutic use of pets in private practice. *British Journal of Psychotherapy, 24*(4), 501-521. doi:10.1111/j.1752-0118.2008.00103.x

Shipman, P. (2010). The animal connection and human evolution. *Current Anthropology, 51*, 519-538. doi:doi:10.1086/653816

Souter, M. A., & Miller, M. D. (2007). Do animal-assisted activities effectively treat depression? A meta-analysis *Anthrozoös, 20*(2), 167-180. doi:10.2752/175303707X207954

Strimple, E. O. (2003). A history of prison inmate-animal interaction programs. *47*(1), 70-78. doi:10.1177/0002764203255212

Swindells, C., MacLean, K. E., Booth, K. S., & Meitner, M. (2006). *A case-study of affect measurement tools for physical user interface design*. Paper presented at the Proceedings of Graphics Interface 2006, Quebec, Canada.

Tartakovsky, M. (2016). Depression and anxiety among college students. Retrieved June 7 2018 from: https://psychcentral.com/lib/depression-and-anxiety-among-college-students/

Walsh, F. (2009). Human-animal bonds I: The relational significance of companion animals. *Family Process, 48*(4), 462-480. doi:http://dx.doi.org/10.1111/j.1545-5300.2009.01296.x

Wu, O. (2018). *The capacity for the human-companion animal bond: Dissociation, history of trauma, personality characteristics, and attachment styles.* (Ph.D.), Long Island University, The Brooklyn Center, Ann Arbor. ProQuest Dissertations & Theses Global database. (10797909)