

# Equine-Assisted Psychotherapy for adolescents experiencing depression and/or anxiety: A therapist's perspective

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## Abstract

Animal-Assisted Interventions (AAIs) are thought to overcome some of the limitations of traditional therapies as they do not rely exclusively on language as a medium for change. One such Animal-Assisted Therapy (AAT) approach involves horses as a therapeutic medium. Equine-Assisted Psychotherapy (EAP) comprises a collaborative effort between a licensed therapist and a horse professional working with clients to address treatment goals. The purpose of the present Australian-based qualitative study was to examine EAP facilitators' perspectives on the biopsychosocial benefits and therapeutic outcomes of EAP for adolescents experiencing depression and/or anxiety. The findings suggest a range of improvements within adolescent clients, including increases in confidence, self-esteem and assertiveness, as well as a decrease in undesirable behaviours. The effectiveness of the therapy was thought to be due to the experiential nature of involving horses in therapy. The lack of understanding in the wider community about EAP was seen as a barrier to recognition and acceptance of EAP as a valid therapeutic intervention.

## Keywords

Animal-Assisted Interventions, Equine-Assisted Psychotherapy, adolescent mental health, depression, anxiety

## Introduction

### *Global trends of anxiety and depression in adolescents*

The World Health Organization (WHO) considers depression and anxiety to be two of the leading causes of worldwide disability (WHO, 2012). Furthermore, depression is the third leading contributor to the global disease burden (Collins et al., 2011). In the adolescent population, depression is a highly prevalent mental health condition (O'Kearney, Kang, Christensen, & Griffiths, 2009; Rushton, Forcier, & Schectman, 2002). For example, results taken from the

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National Comorbidity Survey – Adolescent Supplement (NCS-A) in the United States show that over 15% of adolescents have experienced depression by the time they are 17 to 18 years old (Merikangas et al., 2010). In Germany, depressive disorders show a lifetime prevalence of 16.8% among adolescents between the ages of 14 and 24 years (Wittchen, Nelson, & Lachner, 1998). Often coexisting with depression, anxiety poses a subsequent threat that appears to be most common among American and Australian youth (Barrett, Farrell, Ollendick, & Dadds, 2006; Merikangas et al., 2010; Williamson, Forbes, Dahl, & Ryan, 2005). For the global population, there is a high lifetime prevalence of 16.6% of anxiety disorders (Starcevic, 2006). In Australia, depression and anxiety are two of the most common mental health presentations, with 14–15% of adolescents reporting symptoms of depression (Bhatia & Bhatia, 2007; Farrell & Barrett, 2007) and 13–14% reporting symptoms of anxiety (Australian Bureau of Statistics (ABS), 2012; Farrell & Barrett, 2007). Furthermore, Australian adolescents are being diagnosed with depression at an increasing rate each year, with approximately 160,000 young people between the ages of 16 and 24 years exhibiting signs or symptoms of depression (ABS, 2008). Within the 12 months prior to the National Survey of Mental Health and Wellbeing, 26% of Australians aged 16–24 years had experienced a mental health disorder, indicating that emotional well-being is challenging for many adolescents (ABS, 2008).

### *Current interventions and treatments for depression and anxiety for adolescents*

Depression in children and adolescents is a substantial and persistent public health problem that can destabilise social and school functioning, generate family stress and requires considerable use of mental health services (Angold et al., 1998; Clarke, DeBar, & Lewinsohn, 2003; Patel, Flisher, Hetrick, & McGorry, 2007). Furthermore, depression is also linked to an increased risk of other psychiatric disorders (Angold & Costello, 1993; Merikangas et al., 2010) as well as drug use and suicide (Brunstein Klomek, Marrocco, Kleinman, Schonfeld, & Gould, 2007; Gould et al., 1998; Nock et al., 2013; Rohde, Lewinsohn, & Seeley, 1991). The extent, impact and long-term consequences serve as a rationale to search for effective treatment options (Bhatia & Bhatia, 2007; Hankin, 2006).

Since Butler, Mieozitis, Friedman, and Cole (1980) conducted the first randomised trial of psychosocial interventions for childhood depression, many other research projects have attempted to develop and test treatments, particularly in the field of cognitive-behavioural therapy (CBT); these studies concluding that CBT treatment groups yielded higher recovery rates than control groups (Cartwright-Hatton, Roberts, Chitsabesan, Fothergill, & Harrington, 2004; Clarke, Rohde, Lewinsohn, Hops, & Seeley, 1999; Ishikawa, Okajima, Matsuoka, & Sakano, 2007; Spirito, Esposito-Smythers, Wolff, & Uhl, 2011). In a meta-analysis examining the effects of psychotherapy for depression in children and adolescents, researchers found that the current treatments appear to produce effects that are significant (i.e. reliable treatment effects); however, as the authors acknowledge, they are only modest in their strength, breadth and durability (Weisz, McCarty, & Valeri, 2006). As an example, it is not clear how long lasting the effects from treatment were in the included studies, limiting the ability to generalise results.

While existing treatments can provide benefits, many clients drop out or do not respond to treatment (Farrell & Barrett, 2007; Fisak, Richard, & Mann, 2011). Researchers believe that most children and adolescents do not receive the mental health treatment they need, with more than 70% of adolescents not receiving the appropriate treatment (Bhatia & Bhatia, 2007; Wicks-Nelson & Israel, 2012). This is due to a lack of resources, the stigma associated with mental health illnesses and insufficient trained health care workers (WHO, 2012), as well as incorrect diagnosis and inadequate mental health care insurance (Bhatia & Bhatia, 2007; Fisak et al., 2011). Given the extent

of adolescent depression and/or anxiety, this substantiates the need for further effective, evidence-based interventions pertinent to practice.

### ***Animal-Assisted Therapy***

Literature states that animal-based therapy was founded as early as 1792 at the Quaker Society of Friends York Retreat in England. Furthermore, the US military promoted the use of dogs as a therapeutic intervention with psychiatric patients in 1919 at St Elizabeth's Hospital in Washington, DC (Velde, Cipriani, & Fisher, 2005). However, most literature states the early work of child psychologist Boris Levinson. In the late 1960s, Levinson began to include his dog into his therapy sessions and found that the dog acted as a 'social lubricant' between the therapist and child, allowing for a more relaxed atmosphere conducive to self-disclosure (Friesen, 2010; Levinson, 1969).

Animal-Assisted Therapy (AAT) has been applied to a wide variety of clinical problems, including autistic spectrum symptoms (O'Haire, 2013; Redeker & Goodman, 1989), various medical conditions (Havener et al., 2001), compromised mental functioning (Kanamori et al., 2001), emotional difficulties (Barker & Dawson, 1998), undesirable behaviours (Nagengast, Baun, Megel, & Leibowitz, 1997), physical problems (Nathanson, de Castro, Friend, & McMahon, 1997) and children experiencing trauma (Dietz, Davis, & Pennings, 2012). Moreover, people who have engaged in AAT have noted a 57% reduction in mood disturbances (Coakley & Mahoney, 2009).

AAT involves animals in the treatment process to help address the clients' goals and objectives during therapy, thereby helping clients improve their cognitive, social, physical and emotional functioning (Kruger & Serpell, 2006). 'Animal-Assisted Therapies offer a number of practical approaches to helping clients identify and challenge irrational beliefs and self-defeating behaviours which is particularly important in the treatment of mental health issues' (Chandler, Portrie-Bethke, Minton, Fernando, & O'Callaghan, 2010, p. 360).

The inclusion of an animal in therapy is thought to be beneficial given that animals appear to have a natural tendency to create a bond with people (Endenburg & Van Lith, 2011). As an alternative to 'talk therapy', AATs are thought to overcome some of the limitations of traditional therapy in counselling (Shultz, 2005). Many traditional therapies rely exclusively on language as a medium for change, which may not be the most effective way to facilitate change in all clients, particularly adolescents. As identified in the work of Berman and Berman (1995), traditional therapies often involve verbal interchanges between psychotherapist and adolescent client. This is not always an effective way of communicating, particularly for those with limited verbal skills, or adolescents who may be resistant to talking or who lack trust in adult authority figures. Furthermore, Equine-Assisted Therapy may offer a way for therapists to communicate through the animal, so the emphasis is not solely on talk and focusing on the adolescent.

### ***Equine-Assisted Psychotherapy***

'Equine-assisted therapy is a specialized form of psychotherapy using the horse as a therapeutic tool' (Schultz, Remick-Barlow, & Robbins, 2007, p. 266). Selby and Smith-Osborne (2013) contend that involving a horse as a therapy medium offers many unique qualities that are not accessible through other forms of treatment. During the therapy, the horses are utilised as agents of change to allow for the processes of development, learning and growth within the client (Selby & Smith-Osborne, 2013). It has been suggested by Bachi, Terkel and Teichman (2012) that the presence of the horse offers both emotional and physical comfort, and therefore, the development of trust and confidence, which is something that the therapist is not always able to provide. Bachi (2013) likens this experience to therapies using attachment theory, due to EAP, including features

such as providing a safe environment and affect mirroring, as well as ‘non-verbal communication and body experience’ (Bachi, 2013, p. 190). Gustavson-Dufour (2011) and Lentini and Knox (2009) claim that a horse, who has a well-developed ‘fight or flight’ instinct, is much more sensitive to the body language and emotions unconsciously projected by a client than a human therapist. This view is supported by Smith-Osborne and Selby (2010) who clarify that a horse as a herd and prey animal is extremely aware of its environment and the intent of those who are in its surroundings. In this way, the horse offers more therapeutic benefits than a cat or a dog that are considered predatory by nature.

The Equine-Assisted Psychotherapy (EAP) programmes included in this study use the guidelines provided by the Equine-Assisted Growth and Learning Association (EAGALA). EAGALA is one of the international non-profit associations leading the use of EAP in mental health therapy, and defines EAP as a collaborative treatment method facilitated by a qualified mental health professional, an equine specialist and one or more horses working together with the client to achieve the clients’ therapy goals (EAGALA, 2010b). The EAP session is focused on ground-based activities (not horse riding activities) with the horse, requiring the client to learn and then apply particular life skills. Other organisations such as PATH Int. often offer other equine-related therapies such as hippotherapy, therapeutic riding and therapeutic vaulting, to which EAGALA does not offer (Professional Association of Therapeutic Horsemanship International (PATH Int.), 2014).

EAP is considered to be uniquely suited to adolescent treatment due to its popularity and proposed effectiveness (Burgon, 2011; Trotter, Chandler, Goodwin-Bond, & Casey, 2008). It is an experiential therapy, whereby participating in therapy sessions with the horses, and reflecting upon clients’ behaviours and feelings, the clients learn about themselves and this promotes emotional learning and growth (Bachi et al., 2012). As an experiential therapy, EAP often uses metaphors to ‘encourage client insight’ through the actions and responses of the horse (Schultz et al., 2007). The clients can use what they have learnt through interacting with the horse and apply it to other situations and human relationships (Gustavson-Dufour, 2011). These include tools such as non-verbal communication, creative thinking, assertiveness, problem-solving, teamwork, confidence and leadership skills (EAGALA, 2010b). Through participating in EAP, the research suggests that the clients show increases in self-esteem, self-efficacy and awareness of personal space and boundaries (Karol, 2007; Rothe, Vega, Torres, Soler, & Pazos, 2005; Schultz et al., 2007). They also manifest reduction of attachment issues and improvements in socialisation skills (Smith-Osborne & Selby, 2010). However, there are few studies to substantiate the therapists’ perspective on the therapeutic outcomes of EAP for adolescents experiencing depression and/or anxiety (Esbjorn, 2006; Frame, 2006). The major purpose of this study is to fill the research gap by examining EAP therapists’ views in treating adolescents experiencing anxiety and/or depression. Exploring therapists’ perceptions of EAP with adolescents, and how they use EAP and define practices may improve future clinical training and practice. Such knowledge is essential for developing appropriate therapeutic interventions aimed at preventing and treating emotional disorders among adolescents.

## **Method**

### ***Research framework – qualitative methods***

Qualitative research is concerned with exploration of meaning. In order to gain an in-depth understanding with regard to how people experience and create meaning, data are collected through detailed investigations of individuals’ perspectives and interpretations, together with personal interactions (Ritchie & Lewis, 2003). Such participant-defined meanings mean that variables are

not predicted or defined by the researcher (Merriam, 2002; Willig, 2013). In the context of this study, such descriptions of experience allow for the development of themes, which develops an understanding of EAP as a therapeutic intervention, and further growth in the field.

### *Phenomenology*

The phenomenology framework endeavours to create knowledge and an understanding of the lived experience of individuals in regard to a particular phenomenon (Liamputtong, 2013). When considering research data from a phenomenological perspective, one seeks to 'return to the phenomena themselves' through the consciousness and lived experience of the participant (Terre Blanche, Durrheim, & Painter, 2006, p. 463).

### *Participants*

The study was conducted in Victoria and New South Wales (Australia) among therapists currently registered with the EAGALA and offering EAP to adolescents diagnosed with depression and/or anxiety. The majority of the EAP programmes in Australia run under the EAGALA guidelines, so these programmes were eligible for participation to ensure a level and ethical standard across the participants. In order to be certified under the EAGALA, therapists need to complete both Part 1 and 2 practice training models as well as submitting a professional development portfolio (EAGALA, 2010a). To be certified as the mental health professional of the EAGALA team, therapists need to have a university level degree in a mental health field, as well as staying within their scope of practice and run under a governing body that is able to hold the therapist accountable (EAGALA, 2010a). To be certified as the equine specialist of the EAGALA team, the specialist must have over 6000 hours of hands-on experience working with horses, and 100 hours of continued education in the horse industry with 40 of these hours completed within the previous 2 years (EAGALA, 2010a). Purposive sampling, whereby selection is based on criteria relevant to the research question (Willig, 2013), was used to recruit participants. Saturation theory was applied to assist in determining the sample size for the study. Once there was no longer any new data being generated, saturation had occurred and data collection was concluded (Liamputtong, 2013).

All Australian EAP therapists working under the EAGALA model of therapy were eligible for inclusion in the study. However, due to the limited resources and time frame of the study, participants were limited to those practising in Victoria and New South Wales. Potential participants were obtained through a Google search for EAP programmes in Australia. Potential participants were initially contacted via email inviting the therapist to participate in the study. Therapists who expressed interest in participating were contacted at a later date to confirm interest in participating, and to schedule an interview time. Three of the eight participants were registered psychologists (thereby able to provide 'psychotherapy'), three participants held relevant undergraduate and post-graduate degrees in psychology (thereby able to provide counselling) and qualifying them under EAGALA's criteria to practice as the 'mental health professional' in an EAP team. The final two participants were horse specialists on EAP teams, who also held qualifications in psychology, enabling them to provide a deeper insight on the horses' behaviours in therapy sessions.

### *The researchers*

The principle researcher who conducted the interviews combined her passion with horses and her study commitments (occupational therapy) to devise the study. She had an intrinsic belief that horses would be therapeutic, but had no prior association with EAGALA and the therapists engaged

in its use. The other researchers have research interests, though not direct involvement, in AAT. All researchers have experienced the benefits of attachment to animals and all are involved in mental health occupations.

## **Procedure**

*Interviews.* A semi-structured interview schedule that included open-ended questions was developed for the study. This was applied flexibly to ensure that therapists had the opportunity to express their thoughts and experiences. Topics for discussion included examining why the therapist chose to work in the field of EAP, and whether they had a preference for this method over other therapeutic techniques. This progressed to the mechanisms of EAP, followed by clinical experiences, observations and outcomes of EAP.

Some of the interview questions included the following:

What motivated you to start working as an EAP therapist?

What are the features of EAP that distinguishing it from other therapy methods?

What are the key factors that facilitate change, specifically within the adolescents?

The interviews typically lasted between 30 and 45 minutes. All interviews were recorded and transcribed verbatim by the principle researcher, while any identifying information was removed from transcripts.

## **Analysis**

Given that this study aimed to examine therapists' perceptions, views and experiences of EAP for adolescents, data analysis was conducted using thematic analysis. Thematic analysis allows for the recognition and analysis of common ideas and themes within the data collected (Liamputtong, 2013). Open coding was the starting point for this analysis, involving labelling sections of data in relation to the topic being discussed (Elo & Kyngäs, 2008), more specifically identifying codes, ideas or themes within the therapist' transcripts (Liamputtong, 2013; Pope, Ziebland, & Mays, 2000). Coding involved noting patterns in the data and labelling these patterns to allow distinctions to be drawn and the research questions to be addressed (Joffe & Yardley, 2003). Each transcript was analysed individually and the emerging themes were examined for connections to produce a number of subthemes and superordinate themes. Once all the transcripts had been analysed, the researcher looked for connections to cluster and form a master themes table. While one coder (the first author) led the analysis, agreement on interpretation of the data and themes involved the second and third authors.

## **Ethics**

The proposed study was submitted to the Faculty Human Ethics Committee at La Trobe University for approval prior to commencement.

## **Findings**

Data analysis yielded three key themes, each with subsets. The three master themes included the nature of EAP, clinical implications of EAP, and the practice and limitations of EAP. Each theme is detailed below and illustrated with relevant quotes from the interviews.

## *The nature of EAP*

*Experiential therapy.* The experiential aspect of EAP was commonly raised by therapists while exploring their perceptions on why they believed EAP was an effective treatment modality. There was an emphasis placed on the adolescents being able to actively participate in their therapy. Therapists also expressed that engaging the adolescent in hands-on ‘doing’ allowed the adolescents to redirect their focus away from their current health issues.

Some therapists indicated that the effectiveness of EAP lies not only in the adolescents’ ‘doing’, but doing something that is different to the client’s norm. Changing the context of the therapy from talk therapy in a confronting closed-door, one-on-one session, to performing activities outside added to the experience. While discussing how ‘doing’ is beneficial for adolescents in therapy, the concept of visual representation arose:

It’s experiential, and they can see visually. The visual representation of things in and about their life. It’s a visual representation of things that are happening for them. And that they learn through that experience. (Sally)

In this form of therapy the horse is quite often metaphors for things, so the horse might become a partner, or the workplace bully, whatever, and they can work through it. (Belinda)

Four of the eight therapists stated that the experiential nature of the therapy allowed the adolescents to experiment with their behaviour, trying out new ideas and behaviours and examining whether these were more or less effective than those applied beforehand. Belinda further emphasised the importance of allowing an adolescent the space to try behaviours and learn for themselves and identified that for adolescents there is a critical period of development where adolescents enjoy and maximise therapeutic benefits by trying things out:

With adolescents they are an age group that a lot of them don’t want to talk, they’d rather do. That whole rite of passage, wanting to make your own decisions and do things for yourself. They don’t want to be told what to do. [ . . . ] I think it’s a little bit freeing for them in that they can go out and experiment with different ways of solving a problem. [ . . . ] We’re allowing them the space and experience to do, to go ‘I’ve tried it this way, I’ll try it another way’. (Belinda)

Similarly, while discussing the experiential aspect, Anna highlighted that being actively engaged facilitated schema which she attributed to neurological changes to the positive processes that she believed allowed EAP to work more effectively than talk therapy:

Physical changes in the brain come from exceptionally vivid imagining of things, and actually doing in the real world is pretty vivid. I believe it relates to that vividness, that it allows neural pathways to be developed in the brain much more quickly [ . . . ] I suspect that’s where the power comes from. Because I’m not only thinking about it, I’m enacting it, I’m in it. The whole system is helping me build those neural pathways. (Anna)

*Horses in therapy.* Every therapist who participated in the study identified the horse as an important and special feature of the therapy. There were several components raised as key facets that made the involvement of horses in therapy unique and effective. Many therapists identified the horse as having a ‘non-judgemental nature’ and believed this to be a significant influence on the therapy sessions. Therapists highlighted that the therapeutic experience was less confronting for clients as horses provide a non-judgemental context. For example, Belinda commented,

They [horses] don't have any preconception of what that client is. They don't know diagnosis, and whatever's written on a referral letter, they don't know that. So they just read the person as they see them and respond accordingly. (Belinda)

However, even though the horses are viewed as 'non-judgemental' by the therapists', a horse will still react negatively if the client is demonstrating threatening behaviours.

The response of a horse was frequently identified by therapists as one of the most important aspects of EAP. Five therapists suggested that the horse's reflections of the adolescent's behaviour facilitated the adolescent's recognition of the consequences of their behaviour more than verbal feedback provided by a human therapist:

So they are like a mirror for whatever is going on with that person, and that's far more effective for a client to hear it from the horse, or see it from the horse, to experience it from the horse. (Nicole)

Mostly through their ability [the horse] to mirror intention in people [ . . . ] If you are aggressive towards them, they are running away from you. But if you are looking to accept them, or ask or invite them, then they are looking to mirror that. (Olivia)

Therapists also identified that a client's behaviour is more easily and accurately recognised by a horse (the therapeutic medium) that can sense the intentions of the clients:

She was still out loud carrying on but you could see that the intention and the activity in her body had changed because the horses had accepted and come up to her [ . . . ] So in that moment there was a lot of discrepancy. Where a therapist would hear the words, in horse therapy we see the behaviour. (Olivia)

The therapists highlighted the opportunity for adolescents to experiment with and practice new behaviours while receiving honest and reflective feedback as another important feature of EAP.

The ability to form a relationship with the horse/horses during therapy was expressed by a few therapists, since many clients can have issues with forming relationships stemming from past interactions. Wendy further highlighted the significance of clients' developmental relational history while discussing the reluctance of some clients:

They've been offered help by numerous people who end up getting frustrated with them, and it doesn't actually have an impact. [ . . . ] It's like when they come to the next therapy they're just waiting for the next person to fail them and reinforce that view that they're not okay. When you stick them in front of a horse I feel like that kind of leaves them. (Wendy)

### *Clinical implications of EAP*

**Benefits of EAP.** Many psychosocial benefits were raised by the therapist in relation to the outcomes of EAP. Confidence and self-esteem were the most cited improvements that therapists noticed:

When she first came she was very withdrawn, hid behind her mum, didn't have a voice, didn't have a say in things [ . . . ] but by the end of it she was dancing, being silly, yelling out to us from the other side of the paddock. (Olivia)

Significant changes in self-esteem [ . . . ] You see their little bodies stand up straighter and they walk about with far more confidence and a lot of the accepted craziness goes out of their behaviour. (Anna)



In some clients, the transformation in confidence was reported to be substantial as was assertiveness. Through applying the EAGALA method of EAP, therapists recognised that adolescents became more resourceful. As an example,

They've got to learn to ask for help and a certain amount of assertiveness comes from that because we don't just jump in and do it for them. So then they've got to really sit down and assess what the problem is, what activity we have set them to do and why can't they do it. (Belinda)

Several therapists further indicated that the adolescent clients also achieved greater self-control over their behaviours and improved emotional regulation through their participation in EAP. In many cases, the clients' teachers reinforced these social improvements in their feedback to the therapists with teacher-observed improvements, including re-engagement with other students, behavioural improvements, a willingness to engage in leadership roles and re-engagement in the school system to complete their education.

Even though reports to the therapists about any physical changes in clients were limited, therapists noted some reduction in somatic complaints. One such example was discussed with Belinda:

One was a girl that came because she was having migraine headaches. [ . . . ] You could tell just by the horses that she wasn't coping so well socially and she was probably being bullied. So from our point of view, perhaps the migraine headaches were being caused by stress or anxiety. [ . . . ] So we did a lot of relaxation stuff with her with the horses. The mother said there were less headaches. (Belinda)

All therapists in the study agreed that EAP is a powerful mode of therapy and has the capacity to provide benefits in a shorter period of time than other modes of therapy. Therapists stated that progress occurred in each session. Therapists often spoke of 'ah-ha moments', peak moments or turning points within the sessions. In particular, one of the therapists described an 'ah-ha' moment when her client made a connection between her own behaviour and the horse's reaction during an EAP session, and then later identified how she could apply such skills practically. The effects for each client, however, are unique and consequently the extent of the beneficial impact varies.

### *Prior experience with horses*

The majority of the therapists felt that previous experience with a horse may alter the immediate effectiveness of the therapy, as the adolescents often demonstrated difficulties embracing the metaphor of the situation. Many therapists commented that those clients who had previous horse experience often tried to process the horse's reaction as horse behaviour, rather than a reflection of the horse's reaction to their behaviour. Despite this, consensus among therapists was that previous horse experience would not affect the outcomes of the therapy.

### *Practice and limitations of EAP*

*Therapists' decision to practice EAP.* Motivations to work in an EAP programme varied among therapists. Some therapists indicated that they wanted to try a different treatment modality or learn a new approach that could enhance their current practice. For four therapists with a background in horses, it was also about wanting to combine their passion for horses with their therapeutic work to facilitate therapy and maximise treatment outcomes.

In view of the current evidence supporting the use of animals in therapy, a few therapists also commented that they wanted to address the gap in the range of available services for those with mental health issues, particularly adolescents who can be difficult to treat:

There is a major shortage of private services out there, and particularly for those clients who are resistant to treatment. [ . . . ] There are limited places you can refer people. [ . . . ] So when I came across EAP and after I'd been to the first training, there was just so much potential there that I haven't in my time so far, been able to tap into in the office. (Wendy)

*Enhancing EAP as a treatment modality.* The final theme was directed towards the barriers of the EAP model. Every EAP therapist discussed the lack of understanding in the wider community about what constitutes EAP, and how it works. Therapists admitted that EAP was not often considered to be a 'proper' therapy, and they attributed this to a lack of education about its use and effectiveness and this affected how well EAP was embraced.

To this end, most of the therapists identified the need for a greater evidence base in the EAP field, particularly in Australia, to support the education of the wider community. While discussing the need for a greater evidence base, Anna felt that even if health professionals had heard of EAP, they may not feel ethical about referring a client without a better evidence base to support it. She suspected that referrals to EAP were a last resort when no other traditional therapies had provided benefits:

For the most part we tend to get closer to hopeless because people think that we've tried everything else now we'll try this. But they might hesitate to send someone there as a first resort because they're just not sure about the evidence base and that's a reasonable ethical decision to make. (Anna)

This 'last resort' concept was also voiced by three other therapists.

## Discussion

### *The nature of EAP*

In this study, EAP therapists identified experience as the most salient aspect of EAP. The therapists commented that the experiential characteristic of EAP allows an adolescent to become an active participant within the session, to be able to experiment and 'do' rather than be a passive client sitting in a chair. It eliminates daunting feelings of pressure to talk in a therapeutic setting. Shultz (2005) similarly posited that the experiential learning environment was one of the major benefits that EAP provides for adolescents. Furthermore, literature supports that EAP therapy provides opportunities for individuals to develop empathy, understand personal emotions, learn to problem solve, develop a sense of responsibility and to succeed in new undertakings (Kersten & Thomas, 2000).

As a specialised form of psychotherapy, EAP encourages an adolescent to engage in a more 'hands-on' approach during a session and shift focus from the mental health issue to the task at hand. A change of context for the clients, such as participating in outdoor activities rather than sitting one-on-one inside, was identified as a beneficial addition to the experiential component of the therapy. Selby and Smith-Osborne (2013) reinforced the importance of the experiential component and asserted that the novel environment of EAP enables the adolescent to perceive situations in a different way to traditional therapy settings.

As an experiential therapy, the results from this study illustrate that EAP provides adolescents with a clear visual representation, whether this is a visual representation of the clients' current

issues built by the client themselves, or a large visual object providing immediate responses. Because a horse is such a large and powerful animal, it can be rather intimidating for some clients, demanding the attention and respect of the adolescent (Lentini & Knox, 2009).

Furthermore, therapists believed that the experiential nature of the therapy gives the adolescent the opportunity to experiment within safe boundaries, to try behaviours and to judge if these behaviours are more effective than those used previously. Through experimenting with new behaviours, adolescents will start to notice the effects of their actions, and start to develop beliefs as to what the appropriate response is (Bandura, 1977). This is thought to be important as it gives an adolescent the space to learn for themselves (Brickel, 1982; Psychological Care & Treatment, 2013). Rehearsing new behaviours on a horse may also be less threatening for the client, as the horse will not judge or discount the client's attempts to change themselves, and will provide honest feedback (Gustavson-Dufour, 2011). This aspect was also highlighted by the therapists in the current study.

Several key features of the horse were further raised by therapists. First, therapists discussed what they call the 'non-judgemental nature of the horse' to be a contributing influence to EAP's effectiveness. Being non-judgemental, the therapy was often perceived by the therapists to be less confronting for the adolescent in contrast to a more traditional therapeutic technique. Vidrine, Owen-Smith and Faulkner (2002) further discussed that horses present with open behaviours and interactions, being 'by and large, naked and unashamed' while not judging a client by their appearance and/or their diagnosis (Vidrine et al., 2002, p. 595).

As a prey animal, the horse is acutely tuned into the actions of others in order to protect itself (Lentini & Knox, 2009; Smith-Osborne & Selby, 2010). Current findings suggest that a horse, as a therapeutic medium, is able to sense the intentions of clients while a human therapist will only be able to see the external behaviour of the adolescent and this is supported in the work of earlier research (Bark, 2011; Roberts, Bradberry, & Williams, 2004; Smith-Osborne & Selby, 2010). These authors further emphasise that the horse will respond directly to the internal state of the client, no matter how hard clients may try to disguise their feelings. This ability allows the horse to see that the adolescent is not being authentic, that their words and body language do not match each other and points out discrepancies to the therapist (Gustavson-Dufour, 2011; Smith-Osborne & Selby, 2010).

The response of the horse was discussed by the therapists. This concept currently exists in the literature as it is thought that through the use of the horse, it enables the adolescent to gain an insight as to how their own behaviours can affect others around them while receiving an instant and honest reaction. Furthermore, it is considered easier for adolescents to accept the horse's reaction to a particular behaviour rather than being told by an adult. The use of a horse can also provide the therapist with a 'clean' interpretation of intentions and actions as a horse cannot 'read into the situation' and interpret it how it pleases (Lentini & Knox, 2009; Russell-Martin, 2006). According to symbolic interactionists, this is due to animals being 'non-symbolic', as they do not interpret social interactions the same way that humans do (Charon, 2007). The horse will respond directly to the actions, emotions and intentions of the adolescent, with total passivity and no interpretation (Charon, 2007). This 'clean interpretation' is of particular value to a therapy setting (Blumer, 1994).

In addition, therapists highlighted the ability to create a relationship with the horse during therapy. This is noted in the existing literature to be particularly beneficial for those adolescents who have difficulties forming relationships, especially those who have been previously 'let down' or 'failed' by adults (Ewing, MacDonald, Taylor, & Bowers, 2007). The experiences that the adolescents have during EAP can be taken and used to create a meaningful change in their relationships and interactions with other people outside of therapy (Gustavson-Dufour, 2011).

## *Clinical implications of EAP*

Consistent with the most common improvements identified in the literature (Karol, 2007; Rothe et al., 2005; Schultz et al., 2007) improvements in confidence and self-esteem were identified by therapists in the current study as a major benefit of participating in EAP. Diminished self-confidence and self-esteem are primary features of adolescent depression and anxiety and are targets of traditional interventions for adolescents with depression, particularly for CBT (Friedberg, McClure, & Garcia, 2009). The ability to control a large and intimidating animal, and to have it move without the assistance of others is said to be an integral step in the process of increasing self-esteem and confidence (Bachi et al., 2012; Karol, 2007). This makes EAP an attractive alternative or adjunct to current evidence-based practice therapies as it directly affects the core components of anxiety and depression.

Additionally, the capacity to become more assertive and resourceful was witnessed among adolescents participating in EAP due to the ability to explore and experiment during the sessions. Increased self-control, improved emotional regulation and a decrease in 'undesirable' behaviours were also noted by the therapists and is consistent with the research (Klontz, Bivens, Leinart, & Klontz, 2007; Smith-Osborne & Selby, 2010).

Such improvements and skills have been seen to be transferable beyond the realm of therapy (Lentini & Knox, 2009). A few of the therapists also received reports from the adolescents' school teachers attributing improvements in behaviour to EAP. Teachers acknowledged improvements in adolescents which included re-engaging in school with other students, showing an overall improvement in behaviour and an interest in engaging in leadership roles. The therapists' explanation for this was the fact that EAP sets clients up to transfer new skills to the outside world.

Reports of the reduction in somatic complaints were limited in the current study, and are also not indicated in the literature. However, some anecdotal evidence indicated a reduction of somatic complaints (e.g. migraine headaches). While this is not the primary purpose of EAP, it was still identified by a few of the therapists and is a noteworthy health benefit for the adolescent.

EAP provides a unique environment that facilitates change within adolescents who are experiencing depression or anxiety (Gustavson-Dufour, 2011). As a result of the horses natural responses, adolescents are able to identify 'how their behaviors affect the horses and these results are immediate. Participants can see the cause and effect patterns in action that generate helpful and unhelpful interactions' (Notgrass & Pettinelli, 2014, p. 6). These results mirror our findings in that therapists reported that there is always change within the session, even if the changes were only small. Of importance was that most therapists agreed that as every client is unique, a small change for one person may be indicative of a large and significant change for another. Therapists in the current study stated that the adolescents always progressed during each session, even if the changes were only small. The therapists spoke of 'peak moments' that indicated the climax within the sessions. However, this construct was not mentioned in the existing available literature.

Most therapists believed that clients' previous experiences with horses could be a small disadvantage in the beginning of therapy as 'horse people' are thought to have a harder time relating to metaphor-based activities. Clients with horse experience occasionally tried to interpret the horse's reaction as 'horse behaviour' rather than understanding how that reaction was reflective of their behaviour. Despite this, a client's previous horse experience was not thought to potentially influence the therapeutic process. Again, this issue does not appear to have been identified in the existing literature.

## *Practice and limitations of EAP*

As the field of EAP is still developing, few studies have looked into the reasons why the therapists have chosen to work in EAP (Esbjorn, 2006; Frame, 2006). While EAP is rapidly expanding and

becoming increasingly used in America and Europe (Bachi et al., 2012), all the therapists in this study identified that the lack of knowledge in the wider community about EAP 's effectiveness and potential for treatment meant that it was not perceived as 'proper' therapy. The therapists believed that the marketing and advertising of EAP was overlooked and ignored due to the low prominence assigned to it by the medical community. Consequently, EAP requires more research so that it can be considered a viable evidence-based practice.

### **Strengths**

The strength of this study was the inclusion criteria of only interviewing therapists who were conducting EAP under the EAGALA model. All of the therapists and horse specialists in this study were certified through EAGALA to administer this type of therapy. This ensured a level standardisation in the provision of EAP therapy in the individual sessions and the overall programmes. In addition, majority of the therapists reported a passion for horses and this might foster the effectiveness of the therapy as they may have superior understanding of horses and this may facilitate positive outcomes.

### **Limitations**

Although the interviews yielded rich and detailed information, this study is limited in its reliance on the therapists' self-reported experience with their use of EAP. To enhance the current knowledge base, adolescent clients' perspectives of being treated by EAP could provide valuable insights into the perceived client outcomes of participation in EAP. Financial and time constraints of the study limited the sample size and further therapists were not recruited from outside of Victoria and New South Wales. Furthermore, while also noted as a possible strength, the therapists' pre-existing expressed passion for horses prior to their engagement in EAP may also be a limitation. As previous experience affected clients' initial interpretations in therapy, so too might therapist' previous experiences affect their perceptions about therapeutic success. It may be that the therapists' passion for horses in this study biased their perceptions of positive outcomes, and therefore therapists' previous experiences with horses need clarification in future research.

Some studies outside of Australia refer to Equine-Facilitated Psychotherapy (EFP), where the horse is described as an aid to the therapeutic process and is conducted in conjunction with other Evidence-Based Practice Therapies, but the justification for its inclusion in therapy (e.g. the horse as metaphor; allowing physical contact, transference/distraction) and the positive therapeutic outcomes (improvements in mental health and well-being) are similar to those outlined for EAP in Australia and have been identified as particularly suited and successful for the adolescent population (Brandt, 2013). Brandt provides a thorough review of how different programmes, including EAGALA compare. She agrees that more empirical culturally convergent evidence is required to assess the validity of EFP inclusion into treating children and adolescents.

### **Future research**

Given that EAP integrates horses into existing therapy modalities, future research might benefit from all equine therapy programmes being subjected to a regulatory body, such as EAGALA, to uphold the standard of the therapists, and to ensure treatment fidelity. A quantitative study examining adolescent participants with the use of a tool such as the Youth Outcome Questionnaire would also be beneficial in demonstrating the efficacy of EAP. Furthermore, a robust randomised

controlled trial with the use of a control and usual care group, to which the adolescents are randomly assigned, could be conducted to quantify the psychosocial effects of EAP.

## Conclusion

Contemporary research indicates many benefits of EAP as a therapeutic tool in the treatment of adolescents experiencing depression and/or anxiety. The EAP therapists, in this study, identified increased confidence, self-esteem and assertiveness, improvements in emotional regulation and self-control, elevated resourcefulness and a decrease in undesirable behaviours in the adolescents who were clients. Therapists attributed these improvements to the experiential component of the therapy, and including a horse as a therapeutic medium. The experiential nature and the honest response of the horse provided the adolescents with opportunity to try out and 'rehearse' new behaviours as outlined in social learning theory (Bandura, 1977). Involving a horse as a therapeutic medium also provided the therapist with 'clean' observations of the adolescent. Horses do not engage in complex interpretations as traditional human therapists do (Charon, 2007). A horse will respond directly to the stimulus in front of them, while in contrast, a human therapist will analyse a behaviour (Lentini & Knox, 2009).

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## References

- Angold, A., & Costello, E. J. (1993). Depressive comorbidity in children and adolescents: Empirical, theoretical, and methodological issues. *American Journal of Psychiatry*, *150*, 1779–1791.
- Angold, A., Messer, S. C., Stangl, D., Farmer, E. M., Costello, E. J., & Burns, B. J. (1998). Perceived parental burden and service use for child and adolescent psychiatric disorders. *American Journal of Public Health*, *88*, 75–80.
- Australian Bureau of Statistics (ABS). (2008). *2007 National survey of mental health and wellbeing: Summary of results*. Retrieved from <http://www.familyystemstraining.com/papers/bowen-illustration-and-critique.html>
- Australian Bureau of Statistics (ABS). (2012). *Gender indicators Australia Jan 2012*. Retrieved from <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/4125.0~Jan%202012~Main%20Features~Mental%20health~3150>
- Bachi, K. (2013). Application of attachment theory to equine-facilitated psychotherapy. *Journal of Contemporary Psychotherapy*, *43*, 187–196. doi: 10.1007/s10879-013-9232-1
- Bachi, K., Terkel, J., & Teichman, M. (2012). Equine-facilitated psychotherapy for at-risk adolescents: The influence on self-image, self-control and trust. *Clinical Child Psychology and Psychiatry*, *17*, 298–312. doi: 10.1177/1359104511404177
- Bandura, A. (1977). *Social learning theory*. Upper Saddle River, NJ: Prentice-Hall.
- Bark, J. (2011). *Therapists working together with Horses Equine Assisted Psychotherapy: Treating youths with addiction* (Unpublished master's dissertation). Sweden: Gävle University College.
- Barker, S. B., & Dawson, K. S. (1998). The effects of animal-assisted therapy on anxiety ratings of hospitalized psychiatric patients. *Psychiatric Services*, *49*, 797–801.
- Barrett, P. M., Farrell, L. J., Ollendick, T. H., & Dadds, M. (2006). Long-term outcomes of an Australian universal prevention trial of anxiety and depression symptoms in children and youth: An evaluation of the friends program. *Journal of Clinical Child & Adolescent Psychology*, *35*, 403–411.
- Berman, D. S., & Berman, J. (1995). Adventure as psychotherapy: A mental health perspective. *Journal of Leisureability*, *22*, 1–9.

- Bhatia, S. K., & Bhatia, S. C. (2007). Childhood and adolescent depression. *American Family Physician, 75*, 73–80.
- Blumer, H. (1994). Society as symbolic interaction. In N. J. Herman & L. T. Reynolds (Eds.), *Symbolic interaction: An introduction to social psychology* (pp. 263–266). New York, NY: Altamira Press.
- Brandt, C. (2013). Equine-Facilitated psychotherapy as a complementary treatment intervention. *The Practitioner Scholar: Journal of Counseling and Professional Psychology, 2*, 23–42.
- Brickel, C. M. (1982). Pet-Facilitated psychotherapy: A theoretical explanation via attention shifts. *Psychological Reports, 50*, 71–74.
- Brunstein Klomek, A., Marrocco, F., Kleinman, M., Schonfeld, I. S., & Gould, M. S. (2007). Bullying, depression, and suicidality in adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry, 46*, 40–49.
- Burgon, H. L. (2011). ‘Queen of the world’: Experiences of ‘at-risk’ young people participating in equine-assisted learning/therapy. *Journal of Social Work Practice, 25*, 165–183. doi: 10.1080/02650533.2011.561304
- Butler, L., Miezitis, S., Friedman, R., & Cole, E. (1980). The effect of two school-based intervention programs on depressive symptoms in preadolescents. *American Educational Research Journal, 17*, 111–119.
- Cartwright-Hatton, S., Roberts, C., Chitsabesan, P., Fothergill, C., & Harrington, R. (2004). Systematic review of the efficacy of cognitive behaviour therapies for childhood and adolescent anxiety disorders. *British Journal of Clinical Psychology, 43*, 421–436.
- Chandler, C. K., Portrie-Bethke, T., Minton, C. A. B., Fernando, D. M., & O’Callaghan, D. M. (2010). Matching animal-assisted therapy techniques and intentions with counseling guiding theories. *Journal of Mental Health Counseling, 32*, 354–374.
- Charon, J. M. (2007). *Symbolic interactionism: An introduction, an interpretation, an integration* (9th ed.). Upper Saddle River, NJ: Pearson Prentice-Hall.
- Clarke, G. N., DeBar, L. L., & Lewinsohn, P. M. (2003). Cognitive-behavioral group treatment for adolescent depression. In A. E. Kazdin (Ed.), *Evidenced-based psychotherapies for children and adolescents* (pp. 120–134). New York, NY: Guilford Press.
- Clarke, G. N., Rohde, P., Lewinsohn, P. M., Hops, H., & Seeley, J. R. (1999). Cognitive-behavioral treatment of adolescent depression: Efficacy of acute group treatment and booster sessions. *Journal of the American Academy of Child & Adolescent Psychiatry, 38*, 272–279.
- Coakley, A. B., & Mahoney, E. K. (2009). Creating a therapeutic and healing environment with a pet therapy program. *Complementary Therapies in Clinical Practice, 15*, 141–146.
- Collins, P. Y., Patel, V., Joestl, S. S., March, D., Insel, T. R., & Daar, A. S. (2011). Grand challenges in global mental health. *Nature, 475*, 27–30. doi: 10.1038/475027a
- Dietz, T. J., Davis, D., & Pennings, J. (2012). Evaluating animal-assisted therapy in group treatment for child sexual abuse. *Journal of Child Sexual Abuse, 21*, 665–683.
- Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing, 62*, 107–115.
- Endenburg, N., & Van Lith, H. A. (2011). The influence of animals on the development of children. *The Veterinary Journal, 190*, 208–214.
- Equine Assisted Growth and Learning Association (EAGALA). (2010a). *Certification program*. Retrieved from [http://www.eagala.org/Certification\\_Program](http://www.eagala.org/Certification_Program)
- Equine Assisted Growth and Learning Association (EAGALA). (2010b). *What is EAP and EAL?* Retrieved from [http://www.eagala.org/Information/What\\_Is\\_EAP\\_EAL](http://www.eagala.org/Information/What_Is_EAP_EAL)
- Esbjorn, R. J. (2006). *When horses heal: A qualitative inquiry into Equine Facilitated Psychotherapy* (Doctoral dissertation). Institute of Transpersonal Psychology, Palo Alto, CA.
- Ewing, C. A., MacDonald, P. M., Taylor, M., & Bowers, M. J. (2007). Equine-facilitated learning for youths with severe emotional disorders: A quantitative and qualitative study. *Child and Youth Care Forum, 36*, 59–72.
- Farrell, L. J., & Barrett, P. M. (2007). Prevention of childhood emotional disorders: Reducing the burden of suffering associated with anxiety and depression. *Child and Adolescent Mental Health, 12*, 58–65. doi: 10.1111/j.1475-3588.2006.00430.x

- Fisak, B. J., Richard, D., & Mann, A. (2011). The prevention of child and adolescent anxiety: A meta-analytic review. *Prevention Science, 12*, 255–268. doi: 10.1007/s11121-011-0210-0
- Frame, D. L. (2006). *Practices of therapists using equine facilitated/assisted psychotherapy in the treatment of adolescents diagnosed with depression: A qualitative study* (Doctoral dissertation). New York University, New York.
- Friedberg, R. D., McClure, J. M., & Garcia, J. H. (2009). *Cognitive therapy techniques for children and adolescents: Tools for enhancing practice*. New York, NY: Guilford Press.
- Friesen, L. (2010). Exploring animal-assisted programs with children in school and therapeutic contexts. *Early Childhood Education Journal, 37*, 261–267.
- Gould, M. S., King, R., Greenwald, S., Fisher, P., Schwab-Stone, M., Kramer, R., & Shaffer, D. (1998). Psychopathology associated with suicidal ideation and attempts among children and adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry, 37*, 915–923.
- Gustavson-Dufour, J. (2011). *Equine-assisted psychotherapy and adolescents* (Unpublished master's dissertation). The Faculty of the Adler Graduate School, Minneapolis, MN.
- Hankin, B. L. (2006). Adolescent depression: Description, causes, and interventions. *Epilepsy & Behavior, 8*, 102–114. doi: 10.1016/j.yebeh.2005.10.012
- Havener, L., Gentes, L., Thaler, B., Megel, M. E., Baun, M. M., Driscoll, F. A., & Agrawal, N. (2001). The effects of a companion animal on distress in children undergoing dental procedures. *Issues in Comprehensive Pediatric Nursing, 24*, 137–152.
- Ishikawa, S. I., Okajima, I., Matsuoaka, H., & Sakano, Y. (2007). Cognitive behavioural therapy for anxiety disorders in children and adolescents: A meta-analysis. *Child and Adolescent Mental Health, 12*, 164–172.
- Joffe, H., & Yardley, L. (2003). Content and thematic analysis. In D. F. Marks & L. Yardley (Eds.), *Research methods for clinical and health psychology* (1st ed., pp. 56–68). London: Sage.
- Kanamori, M., Suzuki, M., Yamamoto, K., Kanda, M., Matsui, Y., Kojima, E., & Oshiro, H. (2001). A day care program and evaluation of animal-assisted therapy (AAT) for the elderly with senile dementia. *American Journal of Alzheimer's Disease and Other Dementias, 16*, 234–239.
- Karol, J. (2007). Applying a traditional individual psychotherapy model to equine-facilitated psychotherapy (EFP): Theory and method. *Clinical Child Psychology and Psychiatry, 12*, 77–90. doi: 10.1177/1359104507071057
- Kersten, G., & Thomas, L. (2000). *Equine assisted psychotherapy: Training manual*. Santaquin, UT: Equine Assisted Growth and Learning Association.
- Klontz, B. T., Bivens, A., Leinart, D., & Klontz, T. (2007). The effectiveness of equine-assisted experiential therapy: Results of an open clinical trial. *Society and Animals, 15*, 257–267.
- Kruger, K. A., & Serpell, J. A. (2006). Animal-Assisted interventions in health. In A.H. Fine (Ed.), *Animal-Assisted therapy: Theoretical foundations and guidelines for practice* (2nd ed., pp. 21–38). San Diego, CA: Academic Press.
- Lentini, J. A. A., & Knox, M. (2009). A qualitative and quantitative review of Equine Facilitated Psychotherapy (EFP) with children and adolescents. *The Open Complementary Medicine Journal, 1*, 51–57. doi: 10.2174/1876391X00901010051
- Levinson, B. M. (1969). *Pet-oriented child psychotherapy*. Springfield, IL: Charles C Thomas Pub Ltd.
- Liamputong, P. (2013). *Qualitative research methods* (4th ed.). South Melbourne, Victoria, Australia: Oxford University Press.
- Merikangas, K. R., He, J. P., Burstein, M., Swanson, S. A., Avenevoli, S., Cui, L., & Swendsen, J. (2010). Lifetime prevalence of mental disorders in US adolescents: Results from the National Comorbidity Survey Replication – Adolescent Supplement (NCS-A). *Journal of the American Academy of Child & Adolescent Psychiatry, 49*, 980–989. doi: 10.1016/j.jaac.2010.05.017
- Merriam, S. B. (2002). *Qualitative research in practice: Examples for discussion and analysis*. San Francisco, CA: Jossey-Bass.
- Nagengast, S. L., Baun, M. M., Megel, M., & Leibowitz, J. M. (1997). The effects of the presence of a companion animal on physiological arousal and behavioral distress in children during a physical examination. *Journal of Pediatric Nursing, 12*, 323–330.



- Nathanson, D. E., de Castro, D., Friend, H., & McMahon, M. (1997). Effectiveness of short-term dolphin-assisted therapy for children with severe disabilities. *Anthrozoos, 10*, 90–100.
- Nock, M. K., Green, J. G., Hwang, I., McLaughlin, K. A., Sampson, N. A., Zaslavsky, A. M., & Kessler, R. C. (2013). Prevalence, correlates, and treatment of lifetime suicidal behavior among adolescents: Results from the National Comorbidity Survey Replication Adolescent Supplement: Lifetime suicidal behavior among adolescents. *Journal of American Medical Association Psychiatry, 70*, 300–310.
- Notgrass, C. G., & Pettinelli, J. D. (2014). Equine Assisted psychotherapy: The Equine Assisted Growth and Learning Association's model overview of equine-based modalities. *Journal of Experiential Education*. Advance online publication. doi: 10.1177/1053825914528472
- O'Haire, M. E. (2013). Animal-assisted intervention for autism spectrum disorder: A systematic literature review. *Journal of Autism and Developmental Disorders, 43*, 1606–1622.
- O'Kearney, R., Kang, K., Christensen, H., & Griffiths, K. (2009). A controlled trial of a school-based Internet Program for reducing depressive symptoms in adolescent girls. *Depression and Anxiety, 26*, 65–72.
- Patel, V., Flisher, A. J., Hetrick, S., & McGorry, P. (2007). Mental health of young people: A global public-health challenge. *The Lancet, 369*, 1302–1313.
- Pope, C., Ziebland, S., & Mays, N. (2000). Qualitative research in health care: Analysing qualitative data. *BMJ: British Medical Journal, 320*, 114–116.
- Professional Association of Therapeutic Horsemanship International (PATH Int.). (2014). *What is PATH Intl?* Retrieved from <http://www.pathintl.org/about-path-intl/about-path-intl/what-is-path-intl>
- Psychological Care & Treatment. (2013). *Experiential therapy*. Retrieved from <http://www.pchtreatment.com/experiential-therapy-los-angeles/>
- Redefer, L. A., & Goodman, J. F. (1989). Brief report: Pet-facilitated therapy with autistic children. *Journal of Autism and Developmental Disorders, 19*, 461–467.
- Ritchie, J., & Lewis, J. (2003). *Qualitative research practice: A guide for social science students and researchers*. London: Sage.
- Roberts, F., Bradberry, J., & Williams, C. (2004). Equine-facilitated psychotherapy benefits students and children. *Holistic Nursing Practice, 18*, 32–35.
- Rohde, P., Lewinsohn, P. M., & Seeley, J. R. (1991). Comorbidity of unipolar depression: II. Comorbidity with other mental disorders in adolescent and adults. *Journal of Abnormal Psychology, 100*, 314–322.
- Rothe, E. Q., Vega, B. J., Torres, R. M., Soler, S. M. C., & Pazos, R. M. (2005). From kids and horses: Equine facilitated psychotherapy for children. *International Journal of Clinical and Health Psychology, 5*, 373–383.
- Rushton, J. L., Forcier, M., & Schectman, R. M. (2002). Epidemiology of depressive symptoms in the National Longitudinal Study of Adolescent Health. *Journal of the American Academy of Child & Adolescent Psychiatry, 41*, 199–205.
- Russell-Martin, L. A. (2006). *Equine facilitated couples therapy and solution focused couples therapy: A comparison study* (Unpublished dissertation). Northcentral University, Prescott, AZ.
- Schultz, P. N., Remick-Barlow, G. A., & Robbins, L. (2007). Equine-assisted psychotherapy: A mental health promotion/intervention modality for children who have experienced intra-family violence. *Health & Social Care in the Community, 15*, 265–71. doi: 10.1111/j.1365-2524.2006.00684.x
- Selby, A., & Smith-Osborne, A. (2013). A systematic review of effectiveness of complementary and adjunct therapies and interventions involving equines. *Health Psychology, 32*, 418–432. doi: 10.1037/a0029188
- Shultz, B. (2005). *Equine assisted psychotherapy with at-risk adolescents* (Unpublished master's dissertation). Denver Seminary, Denver, CO.
- Smith-Osborne, A., & Selby, A. (2010). Implications of the literature on equine-assisted activities for use as a complementary intervention in social work practice with children and adolescents. *Child and Adolescent Social Work Journal, 27*, 291–307. doi: 10.1007/s10560-010-0201-1
- Spirito, A., Esposito-Smythers, C., Wolff, J., & Uhl, K. (2011). Cognitive-behavioral therapy for adolescent depression and suicidality. *Child & Adolescent Psychiatric Clinics of North America, 20*, 191–204. doi: 10.1016/j.chc.2011.01.012
- Starcevic, V. (2006). Review: Worldwide lifetime prevalence of anxiety disorders is 16.6%, with considerable heterogeneity between studies. *Evidence-Based Mental Health, 9*(4), 115.

- Terre Blanche, M., Durrheim, K., & Painter, D. (2006). *Research in practice and applied methods for the social sciences*. Cape Town, South Africa: UCT Press.
- Trotter, K. S., Chandler, C. K., Goodwin-Bond, D., & Casey, J. (2008). A comparative study of the efficacy of group equine assisted counseling with at-risk children and adolescents. *Journal of Creativity in Mental Health, 3*, 254–284.
- Velde, B. P., Cipriani, J., & Fisher, G. (2005). Resident and therapist views of animal-assisted therapy: Implications for occupational therapy practice. *Australian Occupational Therapy Journal, 52*, 43–50. doi: 10.1111/j.1440-1630.2004.00442.x
- Vidrine, M., Owen-Smith, P., & Faulkner, P. (2002). Equine-facilitated group psychotherapy: Applications for therapeutic vaulting. *Issues in Mental Health Nursing, 23*, 587–603.
- Weisz, J. R., McCarty, C. A., & Valeri, S. M. (2006). Effects of psychotherapy for depression in children and adolescents: A meta-analysis. *Psychological Bulletin, 132*, 132–149. doi: 10.1037/0033-2909.132.1.132
- Wicks-Nelson, R., & Israel, A. C. (2012). *Abnormal child and adolescent psychology*. Boston, MA: Pearson Prentice Hall.
- Williamson, D. E., Forbes, E. E., Dahl, R. E., & Ryan, N. D. (2005). A genetic epidemiologic perspective on comorbidity of depression and anxiety. *Child & Adolescent Psychiatric Clinics of North America, 14*, 707–726.
- Willig, C. (2013). *Introducing qualitative research in psychology*. London, England: McGraw-Hill International.
- Wittchen, H. U., Nelson, C. B., & Lachner, G. (1998). Prevalence of mental disorders and psychosocial impairments in adolescents and young adults. *Psychological Medicine, 28*, 109–126.
- World Health Organization (WHO). (2012). *Depression fact sheet*. Retrieved from <http://www.who.int/mediacentre/factsheets/fs369/en/index.html>

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