#### 1

# Tacit Knowledge Within Equine-Assisted Intervention (EAI): How Social Relation Theory and Emotional Work Theory Provide Access to an Elusive Form of Knowledge

Catharina Carlsson\* & Daniel Nilsson Ranta\*\*

\*Department of Social Work, Linköping University
\*\*Department of Sociology, Centre for Social Work, Uppsala University

Abstract: This paper aims to analyze the central features within equine-assisted intervention (EAI) and the primary concepts of Goffman's theories of social identity and Hochschild's theories of emotional work. Analyzing a dialog with participants viewing the video recordings of their own EAI sessions, led to the conclusion that relating to the horse as a subject counteracts impression management interpreted as a shift from surface acting frontstage where emotions have exchange value, to deep acting backstage where emotions have utility value. The boundaries between backstage, where the participants show their actual social identity and frontstage where they display a virtual social identity are fluid. The results indicate that the staff members are regarded more like fellow humans acting backstage, resulting in less distance to the clients. Further research is needed to investigate the processes in EAI when the emotional work seems to be changed, whether backstage or frontstage, which could change the purpose as well as the effects of EAI.

**Keywords**: Backstage, Emotional Work, Equine-assisted intervention, Frontstage, Social identity

here has been an increased interest in equine-assisted interventions (EAIs) in recent years. Internationally, researchers have been exploring the benefits of these interventions in treatments for different target groups as well as in a range of therapeutic human service contexts. Some brief and recent examples are addiction treatment (Adams et al., 2015; Kern Godal, 2017), learning programs (Cagle-Holtcamp et al., 2019; Madders & Orrel-Stokes, 2019; Obarzanek & Pieper, 2020; Wojtkowska et al., 2019) and social work (Buck et al., 2017; Lee et al., 2020; Yorke et al., 2016). In recent research, clients in the following target groups were highlighted: ADHD (White et al., 2020) anxiety and posttraumatic

stress (Alfonso et al., 2015; Earles et al. 2015; Shelef et.al, 2019; Wilson et al., 2015), autism spectrum disorder (Ozyurt et al., 2020; Peters & Woods, 2017; Trzmiel et al., 2019; Xue-Ling Tan & Simmonds, 2019), dementia (Fields et al., 2018), first nations (Bindi & Woodman, 2019; Coffin, 2019), gambling disorders (Kang et al., 2018), neurological disorders (Pálsdóttir et al., 2020), obesity (Schroeder et al., 2019) prisoners (Robinson-Edwards et al., 2019) and veterans (Arnon et al., 2019; Boss et al., 2019; Kinney et al., 2019; Malinowski et al., 2017; Romaniuk et.al., 2018; Sylvia et al., 2019). EAI programs are hybrids that include both riding and non-riding activities (Hemmingway et al., 2019; Lentini & Knox, 2015).

The horse is often considered to be as a transitional object, a concept used in attachment theory, that creates opportunities for participant self-development (Bachi et.al., 2012). The goal is to internalize this awareness within EAI sessions and generalize it to other life situations (Carlsson, 2017; Hauge et al., 2013, 2014). Few versions of EAI indicate a theoretical standpoint, and those that do only mention theory briefly. An exception to this would be Bachi's EAI which elaborated on attachment theory (2012, 2013, 2014). Other theoretical standpoints include: Buddhist therapy, cognitive behavior therapy, empowerment, Gestalt therapy, interactionist approach, mindfulness, object relation theory, psychodynamic theory, solution-focused therapy, system theory (Arrazola & Merkies, 2020; Karol, 2007; Kovács et al., 2020; Lee & Makela, 2018; McCollough, 2011; Pendry & Roeter, 2013; Russell-Martin, 2006).

The horse has a unique characteristic of making humans respond instead of reacting, either out of respect or empathy for the horse (Arrazola et al. 2020; Carlsson et al., 2015). The horse is perceived as non-judgmental, forgiving, straightforward and honest, which are decisive factors in the context of EAI (Foley, 2008) and which facilitate authentic relationships (Andersson et al., 2016; Carlsson, 2014). The horse can help the clients as well as the

professionals to remove their "mask" because they do not need strong defense mechanisms (Buswell & Leriou, 2007). The presence of the horse can give a moment of silence, meaning that the inner critic can be silent for a while (Carlsson, 2017). However, the professional's ability to be authentic can have an impact on whether the horse's role becomes relevant or not (Carlsson, 2016). Furthermore, when the horse instinctively responds to the humans' emotions and intentions there is a need to adjust and regulate certain emotions, intentions and body language, to make sure the humans are fully in the present in the moment (Scopa, et al., 2019; Smith et al., 2016). The clients as well as the professionals are given opportunities for insights and possible explanations for their own emotions and thoughts through mentalization and emotional work (Carlsson et al., 2015; Tuuvas et al., 2017).

There is still no unified, widely accepted, or empirically supported theoretical framework explanation for how and why these interventions may be therapeutic (Anestis et al., 2014; Kendall et al., 2015; Peters et al., 2020). Consequently, the following study seeks to understand and outline EAI as it is practiced in order to promote further clarity in the field. There is a need to clarify the various program theories underpinning current variations in practice before program fidelity can be assessed. Is time spent with the horse beneficial in itself (Davis et al., 2014; Pelyva et al.,2020) or are certain methodologies essential? How can we explain the therapeutic relationships in EAI from a theoretical standpoint?

# Aim of the Study

Despite an increasing number of research studies about this kind of intervention, EAI lacks a firm theoretical base. Furthermore, the knowledge base consists of tacit knowledge that is developed and communicated in direct relationships, individual to individual. This paper aims to explore, using a qualitative method, the fit between the central features of EAI and the theoretical standpoints of Goffman's theories of stigma and social identity (Goffman, 1990) and Hochschild's theories of emotional work (Hochschild, 2003, 1979) which may inform and enrich the theory and practice of EAI.

#### **METHOD**

#### **Participants**

Approved by the ethical review board at Linköping Sweden, a sample of nine female self-harming adolescents aged 15-21 years took part in the study. The clients, who all had Swedish ethnicity, had given informed consent, and were recruited by the treatment center. Participants were chosen based on whether they had individually experienced treatment with horses for at least a couple of months (eight sessions). Additionally, eight staff members with experience in EAI, educated in cognitive behavioral therapy (CBT) and dialectic

behavioral therapy (DBT) with different educational backgrounds took part. The staff members included a social pedagogue, psychotherapist, riding instructor, and treatment assistant. Furthermore, the horses attending varied in breed, age, gender, experience, temperament, and size. The study included Shetland ponies, Icelandic horses, Lusitanos, Dutch warmbloods and Norwegian fjord horses.

### Equine-Assisted Intervention

The clients attended individually, for one hour weekly, and the goal was to increase self-esteem, modify behavioral strategies and reduce anxiety. The tasks involved varied between riding and non-riding activities, where the focus could be on relaxation, body awareness and or balance exercises. Several of the clients had no experience with horses prior to starting EAI. The intervention was tailored to each client based on his or her treatment goals and desires. Clients were helped to become aware of their thoughts and emotions, and to increase their ability to regulate the effects of them, as well as having something to reflect upon that had been experienced with the staff members.

# Procedure and Analysis

First, in-depth interviews were conducted with clients and staff members separately, lasting 40-60 minutes and based on themes from early research. Conducting the same interview with both staff members and clients made comparisons possible. Next, videorecorded observations were made three times with each pair consisting of one client and a staff member pair. The benefits of video-recorded sessions from an ethical standpoint were that clients were spared from numerous observations if additional questions were raised along the way. Directly after one observation, both clients and staff members were interviewed separately for 40-60 minutes to ensure the richest descriptions of their experience as possible. Finally, the clients and staff members were again interviewed separately for 60-120 minutes in conjunction with viewing one of their video-recorded interventions. The MAXQDA program was used to group the narratives, which were compared and analyzed for patterns across cases by multiple viewings.

Inspired by heuristic inquiry, the study focused on exploring human experience from an integrative perspective, a relational approach to qualitative research (Sultan, 2018). With a focus on the tacit knowledge, the participants were allowed to be co-researchers rather than subjects of research in an explorative process to find out the horse's role in these interventions. There has been an intersubjectivity in the analysis of these real-life examples in the study. The method directs the researcher to explore internal experiences while taking account of her pre-understanding and attitude towards the topic of the study (Moustaka, 1990). The

researcher has experience as a humanistic therapist in EAI and other interventions in social work as well as long experience in traditional horse handling, and, therefore, able to be personally involved in the search for qualities, conditions and relationships that underlie the questions of concern (Moustaka, 1990). The issues at hand were utilized along with personal reflexivity, an open dialog with other researchers and practitioners in the field of EAI while drawing on the accounts of the participants in EAI.

#### **RESULTS**

# Stage Change Renegotiates the Relationship Between Professionals and Clients

Attention was given to the specific qualities of EAI that differentiate it from other therapies. The analysis concluded that the presence of the horse increased the opportunities for the clients and the staff members to be authentic and show their true intentions and emotions (Carlsson, 2017). In other words, act based on their actual social identity when the horse revealed the feelings of the clients and staff members. This contrasted with maintaining a façade, which we otherwise use to preserve a character, a false self, or the virtual social identity, to use Goffman's words (Goffman, 1990). According to Hochschild (2003, 1979) the false self can be divided into an altruistic false self, affected by the needs of others, and a narcissistic false self, which is based on the need for confirmation or admiration of others.

Depending on the social interaction as well as the different clients and staff members in the triads, the participants could present different versions of the false self. They played different roles based on what was expected of them according to social position and specific social situation, here interpreted as a "stage." This stage can be divided into a frontstage and backstage according to Goffman (1990). The stage is not perceived as an actual material scene; instead, the interpretation is about the intentions of the clients and staff members. If they try to take control and not let the so-called audience, here the client or staff respectively, see their true feelings, they are acting frontstage. To clarify further, if the horse is related to as a subject, this occurs backstage where more feelings are allowed out of empathy or respect for the horse. Goffman indicates that a person could act in a backstage style even if the person is actually frontstage (Goffman, 1990), which has been interpreted to mean a frontstage style can be acted out backstage.

The results show that the boundaries between backstage and frontstage are fluid and unpredictable. The clients and the staff members could switch between acting frontstage or backstage in one session. If "the act" (the interaction in the stable setting between clients and staff members) seemed to be determined by emotional rules, it was done frontstage. On the contrary, being affected by the

presence of the horse lead to "the performance" seeming to be backstage.

The presence of a façade in EAI could also be influenced by the role of the professionals or the role of the clients. If the participants felt they could not step out of their respective role, they would continue to act frontstage and hide their true emotions. When they were able to act backstage, the individuals were given more possibilities to show their true selves and therefore were more relaxed, here perceived as being more authentic and thereby more accessible to each other. As an example, one client at the beginning of the study did not like her assigned staff member and did not let her see her true feelings. However, this changed when the staff member lost her own horse and started to cry in one of the sessions. When the client saw the attachment the staff member had to her horse by seeing her tremendous grief, she realized that the staff member was capable of showing true feelings, and that opened up emotional empathy. Both parties let their mask down and started to talk about loss and how that could affect life (Client A, Staff G).

By confirmation and validation of the emotional experience of the other, the setting is perceived differently. Self-stigmatization is less of a problem according to the clients when their inner critic is silent, and the clients understand the staff as being human and dealing with their own emotions.

## Impression Management Revealed by the Horse

Clients could be more and less accessible to the staff members depending on the degree of expectation. An excessively high expectation could result in frontstage acting. The unknown director or inner voice of the clients needed to be considered when responding to the clients. Based on Goffman's (1990) interpretation of social interactions, the self is preoccupied with how it is perceived by others, something that seemed to intensify when there were demands to perform with the horse. Here, the staff members needed to take into account the emotional vulnerability shown by the selfharming and thereby take responsibility for the client's impression management. As an example, the staff in the study could blame the horse when something did not go as the clients had wished. If the client tried to make the horse canter and the horse did not understand the client's wishes and thereby did not go from a trot to a canter the staff could say that "maybe the horse is tired today" even though the staff could see that the client was not asking the horse in the right manner (Staff D, Client H). When the staff members saw that the clients tended to hide their disappointment, the staff members could mention something about the horse's intentions and let the clients off the hook.

By impression control, each participant put their mark on the interaction and thereby created or reinforced the impressions

others received of them. They may try to present themselves in a favorable light but here the horse could be the one that reveals the whole act, something the self-harming clients learned by experience was a possibility. The staff member could interpret the horse's behavior as the horse responding to the client and then acting backstage, whereas the client was still acting frontstage. The client may not have fully understood that the horse had revealed their act or impression management.

On the other hand, it could be that the horse revealed the staff member's act. For instance, a client was bathing the horse while the horse was calm and quiet. The staff member arrived in a hurry with a smile as if everything is alright, but her arrival made the horse restless, anxious or uneasy. In truth, the staff member had come from a staff meeting were there had been discussions about problems concerning her, so she was stressed and disappointed. Upon finding out that the horse had been calm before the staff member arrived, both the client and staff member knew it was something about the staff member that affected the horse. The staff member then recognized her true feelings and regulated them so that the horse could relax again, which was interpreted as acting backstage and letting go of impression management (Client G, Staff C).

If the participants did not feel they were acting on the same stage, it could create a certain distance between the staff member and the client. This transition between stages is not a spatial movement between scenes; instead, it is about participants relating differently to each other depending on whether they act with a frontstage style or backstage style. When moving closer to the essence of EAI, the participants performed a backstage act where they were allowed to be more personal and could remove their mask. As a result, the relationship could be more authentic and the distance between client and staff member was reduced. Backstage, where the horse was perceived as a subject of their own, the staff members and the clients expressed their true emotions instead of giving in to emotional rules, as shown by Hochschild (2003).

Emotional rules could be negotiated and their formal character as either client or staff member was no longer of importance. Instead, they could put the mask aside and skip "rehearsed lines" or impression management, being more authentic. In these situations, clients commonly referred to staff members as friends, and the border between being a private or a professional person became blurred. Thoughts about what was considered professional behavior were no longer of importance when staff members and clients needed to regulate their emotions concerning the horse in order to not repel the horse or create dangerous situations. This is important because one of the main considerations when bringing the horse into the treatment context is that it is potentially dangerous and deserves respect. The horse could be said

to counteract customs and perceptions about how to act as a professional.

# Commuting Between Actual Social Identity Deep Acting and Virtual Social Character Surface Acting

The horse could be considered as an audience along with the clients and the staff members if the horse were regarded as a subject of their own with agency. As the horse was perceived as non-judgmental, feelings of shame were rarely triggered. As a result, the participants were not so worried about how they should be perceived by the horse, giving them greater freedom to adopt other characters. This seemed to make possible reduced defense mechanisms and regression in the clients as well as the chance that the client would not become dissociated from the situation at hand. Instead of feeling reduced by their diagnosis, the self-harming clients could experience themselves as equal to the staff members. The shame they sometimes felt about their self-harming behavior and the results of this, leading to less self-worth were not associated with the horse.

According to Goffman's definition, the horse could be perceived as a sage when the horse considers the client without taking into account the stigma that might otherwise be relevant for this group of self-harming clients. Even though the staff members may have expectations about the client's character, understood by Goffman as the virtual social character, the horse enables the clients to act based on their actual social identity. This in turn can change how the staff respond to clients when they notice they have abilities they are not expected to have based on their diagnosis. An ability relevant in this context is emotional regulation, which other research has highlighted as something this client group has difficulties with. The act is not based on any defense mechanisms or, to use Goffman's expression, impression control (Goffman, 1990). In EAI, the clients can be liberated from the struggle between the virtual and actual social identity, something they have become accustomed to. In the interaction, here defined as the act in the stable or fields of the horses, a picture emerges of how the participants change between being authentic thanks to the horse participating as a subject of their own, to wearing a mask based on the professional's role or client's diagnosis when the horse is regarded as an object.

The horse can help to show if there is a lack of correspondence between our human selves/our actual social identity and our socialized selves/virtual social character. In other words, the participants could not avoid removing the mask when the role of the horse was actualized, here regarded as acting backstage. The interaction roles also change the functional role as the participants do not have to relate to emotional rules to the same extent. According to Hochschild (2003), that could be described as the participants not withholding their true feelings. The clients are not

acting to show the "right" feeling; instead, they are focused on making themselves aware of what they feel. When they become aware of their feelings and that they can adjust them in relation to the horse, it could be considered as impression control toward the horse.

The difference for the participants, when regarding the horse as an audience, is that they cannot engage in surface acting, as defined by Hochschild (2003, 1979), which could be linked to the false self or virtual social identity. Together with the horse, both staff members and clients needed to engage in deep acting where emotions get a utility value, according to the theories of Hochschild (2003). When emotions have a utility value, they are based on the individual's actual needs connected with the actual social identity. Here the horse could be perceived as a bridge by helping participants recognize their own needs. The staff members and clients needed to relate to the horse's needs in the present moment by realizing that their true emotions have utility value when affecting the horse. As an example, a client realized that if she is scared then the horse could also become scared. The client was concerned that the pigeons on the roof above them would scare the horse. The staff member then asked the client to take a couple of deep breaths to calm her down, which made the horse calmer as well. Then the client responded by saying "but if I can make the horse calm by breathing and be more mindful then the horse can feel when I am sad" (Client D). The staff member confirmed the client's conclusion and the expression on the client's face changed (Staff C).

If the horse is allowed to be a subject themselves then the focus is not on formal rules and what is socially accepted but rather on informal rules in the interaction between staff members and clients. The main concern is rather on what the participants—clients, horses and staff members—gain from the relationship. Through empathy the actual needs and emotions become the center of attention. The contrary could be when the staff adjust their emotions to create the right mood for the clients. Emotions then have an exchange value and the staff engaging in surface acting creates a distance to the client. That could, of course, be acceptable if there is a need to support the client's impression management.

It could be said that there is a time for everything and sometimes it is not time for the real emotions at hand. Thus, it is not always optimal for the staff to let the horse be a subject themself, which could open up possibilities for deep acting where the client as well as the staff could be more spontaneous and express their feelings. It could instead be necessary, out of empathy for the client, that the staff continue surface acting so that the client does not need to reveal their inner feelings. As aforementioned, however, if the staff do not manipulate their feelings, the emotions have a utility value. In addition to the fluidity between acting backstage and frontstage it

could be said that there is a commuting between actual social identity and deep acting versus virtual social character and surface acting in these sessions.

#### DISCUSSION

The present study demonstrates that understanding therapeutic relationships in EAI is not a simple question of considering the contributions of various triads of professionals, clients and horses. The starting point is that both staff and clients try to maintain their image of themselves. If their desired self-image is not met by the other, it could be perceived as a threat of not being socially accepted. To avoid that risk, they adopt a mask or a façade, but on the inside, they are still the same. However, the horse counteracts this impression management and provides occasions when the participants do not have to adjust to their inner stage-manager. This can be interpreted as a shift from surface acting to deep acting. Concluding, the triads consist of different liaisons, and depending on whether they act backstage or frontstage the emotional work is affected.

As shown in earlier research, the building of therapeutic relationships could result in unique combinations between staff members and clients even without a horse (Adams et al., 2009). Nevertheless, the goal of this study has been to try to understand the situation at hand, in other words to study the connected knowing often associated with tacit knowledge by using social relational theory and emotional work theory in the analysis. It could be said that the staff members as well as the clients relate to what has not yet been said between them. Through the interaction including the horse the participants get support from the horse for different hypotheses about the other, which in turn creates possibilities for a generative dialog between them, as highlighted earlier.

For example, when the staff could devote themselves to taking over the impression management by blaming the horse. Or, as another example, when the horse exposed the staff member's true feelings and became anxious even though before the staff entered the scene the horse had been calm. Then the staff member had to show her true feelings and adjust them to make the situation secure. The interaction, here perceived as backstage, where both parties are in contact with their true feelings and thoughts, has proven to be of importance for change in earlier research (Sundgren & Topor, 2011). The staff and clients do not have to deal with emotional dissonance if we use Hochschild's concept of deep acting (2003). Furthermore, when the boundaries between backstage and frontstage are not static but fluid, we can question the search for causal explanations and the focus on effect studies in the EAI field. Here there is a need to consider this commuting between acting backstage showing an actual social identity by deep acting where emotions have a utility

value and actual needs are highlighted, versus acting frontstage displaying a virtual social identity, either an altruistic false self or a narcissistic false self, by surface acting where emotions have an exchange value.

#### Conclusion

The present results indicate that the staff members are sometimes regarded more like fellow humans than professionals, acting backstage, which results in less distance to the clients. Of importance seems to be whether the horse is related to as a subject with an opportunity to make choices of its own, highlighting the importance of awareness of true feelings, as well as managing emotional regulations in accordance with the horse's needs. The emotional work seems to change depending on whether they are backstage or frontstage, which could change the purpose as well as the effects of EAI. The boundaries between frontstage, where we present our public self and backstage, an area where we display our private self are not a spatial movement rather fluid and sometimes unpredictable. Whether out of empathy or respect for the horse, the participants were able to show their actual social identity instead of a virtual social identity, sometimes regarded as a false self. The horse facilitated authentic backstage interaction, allowing for situations where the participants do not have to adjust to their inner stage manager.

The aim of the study was to study if Goffman and Hochschild's theories fit as theoretical standpoints to inform and enrich the theory and practice of EAI and applying the theories reveals that the interactions between client and staff utilize both authentic and fake self. The EAI triads consisted of different liaisons, and depending on whether the participants acted backstage or frontstage the emotional work was affected. Through the interaction with the horse the participants got support from the horse for different hypotheses about the other participants; that in turn created possibilities for a generative dialog between them. In summary, there is a need for further research to investigate the processes within the relationships in EAI when the emotional work seems to be changed, whether backstage or frontstage, which could change the purpose as well as the effects of EAI.

Further, as Kendra Coulter (2019) writes, the understanding of horses' work is a complex and uneven matter, and we need to expand our lens and sharpen our focus. There is a need for an attentive examination about the horses' experiences and perceptions of this kind of labor. We need to move beyond the idea that even if it could be beneficial for the clients attending EAI it is not automatically beneficial for the horse. Professionals doing emotional work can suffer from empathy and compassion fatigue so caring for others requires caring for oneself. Substitute trauma or emotional contagion can affect the immune system in humans, and knowing

horses have abilities to read people's emotions (Keeling et al., 2009; Smith et al., 2016), they may also need coping strategies. Better understanding of horses' emotional labor, admitting constraints on horse's agency can foster improved practice including horse welfare standards. Recognizing that horse's engagement is as diverse as the horses themselves and may follow pre-prescribed patterns, build on "learned helplessness" or deviate in meaningful ways as horses demonstrate their unique subjectivities and abilities. As Kendra Coulter (2019) highlights every therapy horse does not get anxious when a client is anxious. If the opposite occurs, those horses that are calm even if the people are stressed are normally those who have learned that it is manageable and referred to as reliable, acting "professionally" performing emotional labor; internal regulation, managing and controlling of emotions and reactions accordingly to Hochschild (2003). This calls for interdisciplinary research attuned to horses as both biological beings and social actors.

#### Limitations

There are key limitations to the results of this study. First and foremost, the study only considers participants from a specific client group and it is not necessarily possible to transfer these data to other client groups. Nevertheless, the study design has important merits, in an under-researched field, especially regarding tacit knowledge. By using theory, we have attempted to articulate in words the knowledge that is otherwise developed and communicated in direct relationships, individual to individual. Here the goal is to make it possible for this tacit knowledge to be conveyed outside the context in which it is created.

## Acknowledgments

Funding for this project was provided in part by grants from the Children's Welfare Foundation Sweden.

#### Disclosures

All procedures were conducted in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki declaration and its later amendments.

#### **REFERENCES**

Adams, C., Arratoon, C., Boucher, J., Cartier, G., Chalmers, D., Dell, C. A., Dell, D., Dryka, D., Duncan, R., Dunn, K., Hopkins, C., Longclaws, L., MacKinnon, T., Sauve, E., Spence, S., & Wuttunee, M. (2015). The helping horse: How equine assisted learning contributes to the wellbeing of First Nations you in treatment of volatile substance misuse. *Human-Animal Interaction Bulletin* 1(1), 52-75.

- Adams, K., LeCroy, C., & Matto, H. C. (2009). Limitations of evidence-based practice for social work education: Unpacking the complexity. *Journal of Social Work Education*, 45(2), 165-186
- Alfonso, S. V., Alfonso, L. A., Llabre, M. M., & Fernandez, M. I. (2015). Project Stride: An equine-assisted intervention to reduce symptoms of social anxiety in young women. *Explore*, 11(6). doi: 10.1016/j.explore.2015.08.003
- Arnon, S., Fisher, P. W., Pickover, A., Lowell, A. Turner, B. J., Hilburn, A. Jacob-McVey, J., Malajian, B. E., Farber, D. G., Hamilton, J. F., Hamilton, A., Markowitz, J. C., & Neria, Y. (2019). Equine-assisted therapy for veterans with PTSD: Manual development and preliminary findings. *Military Medicine*, 00, 0/0:1.
- Arrazola, A. & Merkies, K. (2020). Effect of human attachment style on horse behaviour and physiology during equine-assisted activities A pilot study. *Animals*, 10, 1156. doi:10.3390/ani10071156
- Anestis, M.D., Anestis, J.C., & Zawilinski, L.L., Hopkins, T.A., & Lilienfeld, S.O. (2014). Equine related treatments for mental disorders lack empirical support: A systematic review of empirical investigations. *Journal of Clinical Psychology*, 70(12), 11151132.
- Bachi, K. (2014). An equine-facilitated prison-based program: Human-horse relations and effects on inmates' emotions and behaviors. Dissertation and Thesis Paper 162.
- Bachi, K. (2013). Application of attachment theory to equinefacilitated psychotherapy. *Journal of Contemporary Psychotherapy*, 43(3), 187-196.
- Bachi, K. (2012). Equine-facilitated psychotherapy: The gap between practice and knowledge. *Society & Animals*, 20, 364-380. doi: 10,1163/15685306-12341242
- 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
- Bindi, B., & Woodman, E. (2019). The potential of equine-assisted psychotherapy for treating trauma in Australian Aboriginal Peoples. *British Journal of Social Work, 49*, 1041-1058. doi: 10.1093/bjsw/bez053
- Boss, L., Branson, S., Hagan, H., & Krause-Parello, C. (2019). A systematic review of equine-assisted interventions in military veterans diagnosed with PTSD. *Journal of Veterans Studies* 5(1), 23-33. doi:10.21061/jvs.v5i1.134
- Buck, P. W., Bean, N., & De Marco, K. (2017). Equine-assisted psychotherapy. An emerging trauma-informed intervention. *Advances in Social Work, 18*(1), 387-402. doi:10.18060/21310

- Buswell, D. & Leriou, F. (2007). Perceived benefits of students' service-learning experiences with hippo therapy. *Palaestra*, 23(1), 20-26.
- Cagle-Holtcamp, K., Nicodemus, M. C., Parker, J., & Dunlap, M. H. (2019). Does equine assisted learning create emotionally safe learning environments for at-risk youth? *Journal of Youth Development*, 14(4). doi:10.5195/jyd.2019.727
- Carlsson, C. (2017). Hästunderstött socialt arbete ett samtalsrum med potentiella möjligheter för ungdomar med självskadebeteenden och deras personal. Doctoral Thesis. Växjö, Linnaeus University Press. 127.
- Carlsson, C. (2017). Equine-assisted social work counteracts selfstigmatization in self-harming adolescents and facilitates a moment of silence. *Journal of Social Work.* doi: 10.1080/02650533.2016.1274883
- Carlsson, C. (2016). Triads in equine-assisted social work enhance therapeutic relationships with self-harming adolescents. *Clinical Social Work Journal*. doi: 10.1007/s10615-016-0613-2
- Carlsson, C. (2016). A narrative review of qualitative and quantitative research in equine-assisted social work or therapy: Addressing gaps and contradictory results. *Animalia: An Anthrozoology Journal*, 2(1).
- Carlsson. C., Nilsson-Ranta, D. & Traeen, B. (2015). Mentalizing and emotional labor facilitate Equine-assisted social work with self-harming adolescents. *Child & Adolescent Social Work Journal* 32, 329-339. doi: 10.1007/s10560-015-0376-6
- Carlsson. C., Nilsson-Ranta, D. & Traeen, B. (2014). Equine assisted social work as a mean for authentic relations between clients and staff. *Human-Animal Interaction Bulletin*, 2(1).
- Coffin, J. (2019). The Nguudu Barndimanmanha Project: Improving social and emotional wellbeing in Aboriginal youth through equine assisted learning. Frontiers in Public Health, 7(278). doi:10.3389/fpubh.2019.00278
- Coulter, K. (2019). Horse's labour and work-lives: New intellectual and ethical directions. In J. Bornemark, P. Andersson, & U. Ekström von Essen (Eds.), *Equine cultures in transition: Ethical questions* (pp. 17-31). Routledge.
- Davis, D., Maurstad, A., & Dean, S. (2014). My horse Is my therapist: The medicalization of pleasure among women equestrians. *Medical Anthropology Quarterly*, 29(3), 298-315.
- Earles, J. L., Vernon, L. L., & Yetz, J. P. (2015). Equine-assisted therapy for anxiety and posttraumatic stress symptoms. *Journal of Traumatic Stress*, 28(2), 149-152. doi:10.1002/jts.21990
- Fields, B., Bruemmer, J., Gloeckner, G., & Wood, W. (2018). Influence of an equine-assisted activities program on dementia-specific quality of life. *American Journal of Alzheimer's Disease* &

- Other Dementias, 33(5), 309-317. https://doi.org/10.1177/1533317518772052
- Foley, A. J. (2008). Conflict and connection: A theoretical and evaluative study of an equine-assisted psychotherapy program for at risk and delinquent girls. A thesis submitted to the Faculty of Graduate School of the University of Colorado in partial fulfillment of the requirement for the degree of Doctor of Philosophy B-A., Oklahoma State University, Department of Sociology.
- Goffman, E. (1990) The presentation of self in everyday life. Penguin. Hauge, H., Kvalem, I. L., Pedersen, I., & Braastad, B. O. (2013). Equine-assisted activities for adolescents: Ethogram-based behavioral analysis of persistence during horse-related tasks and communication patterns with the horse. Human-Animal Interaction Bulletin, 1(2), 57-81.
- Hauge, H, Kvalem, I. L., Berget, B. Enders-Slegers, M.-J., & Braastad, B. O. (2014). Equine-assisted activities and the impact on perceived social support, self-esteem and self-efficacy among adolescents—an intervention study. *International Journal of Adolescence and Youth*, 19(1), 1-21. doi:10.1080/02673843.2013.779587.
- Hemmingway, A., Carter, S., Callaway, A., Kavanagh, E., & Ellis, S. (2019). An exploration of the mechanism of action of an equine-assisted intervention. *Animals*, 9, 303. doi:10.3390/ani9060303
- Hochschild, A. R. (2003). The managed heart: Commercialization of human feelings. University of California Press.
- Hochschild, A. R. (1979). Emotion work, feeling rules, and social structure. *American Journal of Sociology*, 85(3), 551-575.
- Kang, K. D., Jung, T.W, Park, I. H., & Han, D. H (2018). Effects of equine-assisted activities and therapies on the affective network of adolescents with Internet Gaming Disorder. *The Journal of Alternative and Complementary Medicine*, 24(8), 841-849.
- Karol, J. (2007). Applying a traditional individual psychotherapy model to equine- facilitated psychotherapy (EFP): Theory and method. *Clinical Child Psychology and Psychiatry*, 12(1), 77-90. doi: 10.1177/1359104507071057
- Keeling, L. J., Jonare, L., & Lanneborn, L. (2009). Investigating horse-human interactions: The effect of a nervous human. *The Veterinary Journal*, 181(1), 70–71.
- Kendall, E., Maujean, A., Pepping, C. A., Downes, M., Lakhani, A., Byrne, J., & Macfarlane, K. (2015). A systematic review of the efficacy of equine-assisted interventions on psychological outcomes. European Journal of Psychotherapy & Counselling, 17, 57–79. doi:10.1080/13642537.2014.996169
- Kern-Godal, A. (2017). The relevance of horse assisted therapy to young adults' substance use disorder treatment (Doctoral

- dissertation). Institute of Clinical Medicine, Faculty of Medicine.
- Kinney, A. R., Eakman, A. M., Lassell, R., Wood, W. (2019). Equineassisted interventions for veterans with service-related health conditions: A systematic mapping review. *Military Medical Research*, 6(28). doi:10.1186/s40779-019-0217-6
- Kovács, G., van Dijke, A., & Enders-Slegers, M-J. (2020).

  Psychodynamic based equine-assisted psychotherapy in adults with intertwined personality problems and traumatization: A systematic review international. *Journal of Environmental Research and Public Health*, 17, 5661. doi:10.3390/ijerph17165661
- Lee, K., Dablenko-Schoeny, H., Jedlicka, H., & Burns T. (2020).

  Older adult's perceived benefits of equine-assisted psychotherapy: Implications for social work. Research on Social Work

  Practice, 30(4), 399-407. doi:10.1177/1049731519890399
- Lee, P-T., & Makela, C. (2018). Mental health practitioner's strategies in equine-assisted psychotherapy: Implications for social work. *Social Work Education*, *37*(1), 119-135. doi:10.1080/02615479.2017.1378318
- Lentini, J. A. & Knox, M. S. (2015). Equine-facilitated psychotherapy with children and adolescents: An update and literature review. *Journal of Creativity in Mental Health*, 10(3), 278-305. Doi: 10.10.1080/15401383.2015,1023916
- Madders, G. & Orrel-Stokes, R. (2019). An observational review and analysis of qualitative data to explore the benefits of equine assisted learning in improving the engagement of adolescents with complex learning needs, within the educational setting. Advanced Journal of Graduate Research, 6(1), 53-59. doi: 10.21467/ajgr.6.1.53-59
- Malinowski, K., Yee, C., Tevlin, J. M., Birks, E., Durando, M. M., Pornajafi-Nazarloo, H., Cavaiola, A., & McKeever, K. H. (2017). The effects of equine assisted therapy on plasma cortisol and oxytocin concentrations and heart rate variability in horses and measures of symptoms of Post-Traumatic Stress Disorder in veterans. *Journal of Equine Veterinary Science*, 64, 17-26. doi:10.1016/j.jevs.2018.01.011
- Moustakas, C. (1990). Heuristic Research: Design, Methodology, and Application. Sage.
- Obarzanek, L. & Pieper, B. (2020). The use of equine-assisted programs for nontraditional undergraduate clinical pediatric experiences. *Teaching and Learning in Nursing*, 15, 145-151.
- Odendaal, J.S. (2000). Animal assisted therapy Magic or medicine? *Journal of Psychosomatic Research*, 49(4), 275280.
- Ozyurt, G., Ozcan, K., Dinsever, Elikucuk, C., Odek, U., & Akpinar, S (2020). Equine assisted activities have positive effects on

- children with autism spectrum disorders and family functioning. Journal Sports Science Medicine, 9(2), 51-58. doi:10.26773/mjssm.200909
- Pálsdóttir, A-M., Gudmundsson, M., & Grahn, P. (2020). Equineassisted interventions to improve perceived value of everyday occupations and quality of life in people with lifelong neurological disorders: A prospective controlled study. International Journal of Environmental Research and Public Health, 17, 2431. doi:10.3390/ijerph17072431
- Pelyva, I. Z., Kresák, R., Szovák, E., & Levente Tóth, A. (2020). How equine-assisted activities affect the prosocial behavior of adolescents. *International Journal of Environmental Research and Public Health*, 17, 2967. doi:10.3390/ijerph17082967
- Pendry, P. & Roeter, S. (2013). Experimental trial demonstrates positive effects of equine facilitated learning on child social competence. *Human-Animal Interaction Bulletin* 1(1), 1-19.
- Peters, C. B., Wood, W., Hepburn, S., & Bundy, A. (2020). Pilot study: Occupational therapy in an equine environment for youth with autism. *Occupational Participation and Health*, 1-13. doi:10.1177/1539449220912723
- Peters, B. C. & Wood W. (2017). Autism and equine-assisted interventions: A systematic mapping review. *Journal Autism Dev Disorder*. DOI 10.1007/s10803-017-3219-9
- Romaniuk, M., Evans, J., & Kidd, C. (2018). Evaluation of an equine-assisted therapy program for veterans who identify as wounded, injured or ill and their partners. *PLoS ONE*, *13*(9), e0203943. doi: 10.1371/journal.pone.0203943
- Russell-Martin, L. A. (2006). Equine facilitated couples' therapy and solution focused couples therapy: A comparison study Dissertation International: Section B: The Sciences and Engineering 67 (9-B).
- Robinson-Edwards, S., Kewley, S., Riley. L., & Fisher, D. (2019). Examining prisoner experience of an equine assisted psychotherapy. *The International Journal of Therapeutic Communities*, 40(3/4), 111-124. doi:10.1108/TC-01-2019-0001
- Schroeder, K., Van Allen, J., Dhurandhar, E., Lancaster, B., Heidari, Z., Cazenave, K., Boone, D., & Erdman, P. (2019). Riding into health: A case study on an equine-assisted childhood obesity intervention. *International Journal of Environmental Research and Public Health*, 16, 4835. doi:10.3390/ijerph16234835
- Scopa, C., Contalbrigo, L., Greco, A., Lantanà, A., Scilingo, E. P., & Baragli, P. (2019). Emotional transfer in human-horse interaction: New perspectives on equine assisted interventions. *Animals*, *9*, 1030. doi:10.3390/ani9121030
- Shelef, A., Brafman, D., Rosing, T., Weizman, A., Stryjer, R., & Barak, Y (2019). Equine assisted therapy for patients with post

- traumatic stress disorder: A case series study. *Military Medicine*, 184(9), 10:5.
- Smith, A. V., Proops, L., Grounds, K., Wathan, J., & McComb, K. (2016). Functionally relevant responses to human facial expressions of emotion in the domestic horse (*Equus caballus*). *Biology Letters*, 12. doi:10.1098/rsbl. 2015.0907
- Sultan, N. (2019). Heuristic inquiry: Researching human experience holistically. Sage.
- Sundgren, M., & Topor, A. (Red.) (2011). *Psykiatri som social arbete*. Stockholm; Bonniers utbildning AB.
- Sylvia, L., West, E., Blackburn, A. M., Gupta, C., Bui, E., Mahoney, T., Duncan, G., Wright, E., Lejeune, S., & Spencer, T. J. (2019). Acceptability of an adjunct equine-assisted activities and therapies program for veterans with posttraumatic stress disorder and/or traumatic brain injury. *Journal of Integrative Medicine*, 18, 169-173. doi: 10.101016/j.joim.2020.01.005
- Tuuvas, M., Carlsson, J. & Norberg, J. (2017). A healing relationship: Clients' experiences of the long-term relational significance of the horse in horse assisted psychotherapy. *European Journal of Psychotherapy*, 19(3), 307-328.
- Trzmiel, T., Purandare, B., Michalak, M., Zazadzka, E., & Pawlaczyk, M. (2019). Equine assisted activities and therapies in children with autism spectrum disorders: A systematic review and a meta-analysis. Complementary Therapies in Medicine, 42, 104-113. doi: 10.1016/j.ctim.2018.11.004
- Wilson, K., Buultjens, M., Monfries, M., & Karimi, L. (2015). Equineassisted psychotherapy for adolescents experiencing depression and/or anxiety: A therapist´s perspective. *Clinical Child Psychology and Psychiatry*, 1-18. doi:10.1177/1359104515572379
- White, E., Zippel, J., & Kumar, S. (2020). The effect of equine-assisted therapies on behavioral, psychological and physical symptoms for children with attention deficit/hyperactivity disorder: A systematic review. *Complementary Therapies in Clinical Practice*, 39. doi: 10.1016/j.ctcp.2020.101101
- Wojtkowska, M., Kaczmarek, M., & Gazdowska, Z. (2019). The influence of horse assisted education on the perception in self-efficacy in people holding leadership positions. *Journal of Education, Health and Sport*, 9(6), 456-469. doi:10.5281/zenodo.3256725
- Yorke, J., Grant, S. & Csiernik, R. (2016). Horses and baseball: Social work's cultivation of one's third eye. *Social Work Education*. doi: 10.1080/02615479.2016.1189526
- Xue-Ling Tan, V. & Simmonds, J G. (2019). Equine-assisted interventions for psychosocial functioning in children and adolescents with autism spectrum disorder: A literature review.

Journal of Autism and Developmental Disorders, 6, 325–337. https://doi.org/10.1007/s40489-018-0143-7

Zanus, C., Battistutta, S., Aliverti, R., Monasta, L., Montico, M., Ronfani, L., and Carrozzi, M. (2021). High-school students and self-injurious thoughts and behaviours: Clues of emotion dysregulation. *Italian Journal of Pediatrics*, 47(14). https://doi.org/10.1186/s13052-021-00958-0

# **AUTHORS**

Catharina Carlsson, Department of Social Work, Linköping University, SE-581 83 LINKÖPING, Sweden, catharinacarlssonfriesvik@gmail.com

Daniel Nilsson Ranta, Department of Sociology, Centre for Social Work, Uppsala University, SE-75126 UPPSALA, Sweden