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ARTICLE TITLE PAGE

The Therapeutic Potential of a Prison-based Animal Programme in the UK

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Abstract

Purpose: Much evidence suggests that animals can serve as therapeutic tools for those working with vulnerable individuals. This exploratory study analysed the accounts of staff and offenders involved in a UK prison-based animal programme. The aim was to explore the perceived impact of such a programme with male offenders.

Design/ Methodology: Semi structured interviews were conducted with three service users and five staff members. Participants were drawn from a special unit in a category B prison which housed an animal centre.

Findings: A thematic analysis identified four salient themes: A Sense of Responsibility, Building Trust, Enhanced Communication and Impact on Mood and Behaviour. Findings revealed that offenders seemed to gain particular benefit from interacting with the two Labrador dogs which were present on the wing.

Originality/ Value: This paper offers an important contribution to the sparse literature about prison-based animal programmes in the UK. The study highlights the therapeutic potential of the presence of animals in prisons. Their implications of this for forensic practice are discussed.

Key Words: human-animal interaction, prison-based animal programmes, dogs, self-harm.

Paper Type: Research paper.

Introduction

For thousands of years, humans have forged relationships with animals for practical and recreational purposes, in a working capacity, in sporting activities and also for companionship as pets (Serpell, 2006). It is not surprising that the discipline known

as *Human-Animal Studies* (HAS) has developed to enhance our understanding of why such bonds exist and how they function (cf DeMello, 2012). Literature from this field has identified numerous psychological benefits relating to human-animal interactions (cf McConnell and Brown, 2011). Duvall Antonacopoulos and Pychyl (2010) contend that companionship is the primary advantage of living with a pet. Holbrook et al (2001) noted further benefits, such as the opportunity to be childlike and playful, altruistic, nurturing and facilitate appreciation of nature. Additionally, pets can act as a talking point, facilitate social interaction, build attachment and thus be a conduit for building social capital (Wood et al., 2005, 2007; Brookes et al, 2012).

Research has also highlighted health protective features of human-animal interactions. For example, animals have been found to enhance self-worth and confidence (Enders-Slegers, 2000), and positively impact on our wellbeing (McConnell et al., 2011; Duvall Antonacopoulos and Pychyl, 2014). The health advantages of owning a pet have been demonstrated in comparison studies with non-pet owners. One of the most widely cited set of studies is Friedmann et al (1980) who measured life expectancy of coronary heart disease sufferers and found pet owners tended to live longer than people without pets. This was attributed to the overall sense of companionship and a reduction in stress levels. Meanwhile, a study with elderly pet owners identified that they reported fewer health problems to physicians compared with non pet owners (Siegel, 1990).

More recently, Brooks et al (2012) explored the role of pets as a rehabilitative aid for individuals living with chronic illnesses, such as diabetes and chronic heart conditions. Pets played an important role in illness 'work' - the everyday activities involved in managing a long term chronic illness. In particular, contact with a pet provided companionship and comfort when anxious and enhanced their sense of wellbeing. Findings such as these provide compelling evidence for the potential of animals, not just as companions, but as a therapeutic tool. This idea has been explored further and formalised as animal assisted therapy (AAT) or animal assisted activity (AAA). AAT involves the use of a trained animal and is delivered by a psychologist or therapist. It is designed so that the interaction between patients and animals is controlled and purposive, with the aim of helping the patient to reach specified therapeutic goals (Delta Society, 2009). In comparison animal assisted

activities (AAA) are less formal as no specific therapeutic goals are recognised and supervision by a trained therapist is not required (Barker and Dawson, 1998). In a prison setting the term prison animal programmes (PAPs) is often used to describe the varied programmes (AAT and/or AAA) involving some form of human-animal interaction.

Scientific studies measuring the efficacy of AAT interventions reveal their merit. Nimar and Lundhal's (2007) meta analysis of 49 AAT studies showed the approach was associated with improved outcomes for medical difficulties, behavioural problems, emotional well-being and autism-spectrum symptoms. Tsai, Friedmann and Thomas (2010) found that AAT led to a decrease in physiological arousal amongst hospitalised children which may help them cope better in such a setting. A randomised control trial of AAT with farm animals found positive influences on self efficacy and coping ability amongst individuals with long lasting psychiatric symptoms (Berget, Ekeberg and O Braastad, 2008). Studies of AAT are not typically based in prison populations, however, the type of issues that individuals present with are comparable, suggesting AAT could be useful in a prison.

In order to illuminate the extent to which animal programmes have been administered within the U.S. correctional system, Furst (2006) conducted a national survey. She found that PAPs were employed in most states and typically adopted a community service model (where animals are rehabilitated and rehomed within the community). PAPs most commonly used dogs and were mainly orchestrated with male offenders. Conducting larger scale studies evaluating the efficacy of these programmes represents a challenge due to the complexity and variety of PAPs. For instance, PAPs tend to be relatively small scale, involve a broad client group and have differing processes and goals. So it is not surprising that researchers have highlighted the lack of systematic research measuring the impact of PAPs (Kohl, 2012). A literature search of the Human Animal Bond Research Initiative (HABRI) bibliographic database only identified six peer reviewed journal articles documenting animal programmes in prisons or correctional institutions. Although these included some findings of no significant effects, the overall evidence pointed towards the therapeutic potential of human-animal interactions within prison settings. Some of the findings are discussed below.

Strimple's (2003) historical review reports that the first comparative animal therapy study was conducted in a secure forensic centre in the U.S. in 1975. Pets were introduced onto the ward after a psychiatric social worker observed improvements in males who had been caring for an injured bird (rescued from the prison yard). A year long study found, in comparison with an identical ward, reduced levels of violence in the 'animal ward' and that the inmates' medication was halved. During the same period the ward without pets had eight attempted suicides, whilst none occurred in the ward with the animal programme. Again in the U.S., Fournier et al (2007) assessed the impact of a dog training programme on 48 males in a forensic setting. The researchers found that inmates who participated had statistically significant improvements in social skills and significantly less institutional infractions in comparison to a control group. Both of these studies lend support to the potential of human-animal interaction to positively benefit the social sensitivity and psychological health of offenders within a forensic setting.

Jaspeson (2010) provides a rare example of AAT in a prison setting (in this case a therapy dog) being used as part of a group therapy. The pilot programme took place in Utah State prison, and consisted of eight, one hour sessions with five female offenders whose diagnoses including bipolar disorder, major depression, schizophrenia and schizo-affective disorder. Evidence gathered from both staff and the women indicated the AAT had been well received. Reports based on observations from mental health professionals and the individual therapists discussed a more optimistic attitude to therapy and an increased openness to addressing therapeutic issues. A decrease in social isolation, together with an increase in prosocial behaviour was also noted. Only one of the women who participated in the programme was unable to report any aspect of change, however, she did report enjoying the sessions. These accounts are further supported by the observation that the women were dressed and ready for the AAT sessions 15 minutes before they began and looked forward to seeing the dog.

Jasperson's study adds support to the potential benefits of interacting with an animal in a prison. However, few studies have explored this experience from the perspective of offenders. Research has identified one of the most significant benefits to be the

responsibility gained through the process of caring for animals (Furst, 2006). Further to this, Turner's (2008) interviews with six offenders, who participated in a dog training programme, provides important insights into how PAPs could be therapeutic. Specifically, findings revealed (theme names are highlighted in inverted commas) that the men felt the programme impacted on the prison environment, describing both a 'normalizing effect' by reminding them of home and a 'calming effect' on themselves and others around them. Further themes focussed on the self development they encountered, for example 'patience' and an improvement in 'social skills' such as communicating with others. Participants told of how they felt such attributes would also aid their own 'parenting skills', illustrating how the benefits were perceived as more far reaching than the prison environment. Finally, being selected to take part in the programme was noted to lead to 'increased self esteem' amongst the prisoners. It must be acknowledged that individuals took part in a competitive process to take part in the programme, thus it is seen as a privilege which could have an impact on the findings. However, the themes identified suggest that this PAP contributed in developing skills which are seen as important for the rehabilitation of inmates, and therefore are worthy of further exploration.

The evidence regarding PAPs tends to come from the U.S. U.K. studies are sparse, probably because the development of such programmes lags behind the U.S. National surveys (1989, 1992 and 95) reveal the existence of a variety of animal programmes in U.K. prisons, utilising birds, fish, cats and visiting therapy dogs. Although benefits were noted, the programmes are often inconsistent, short lived and relied on the work of a few individuals (Ormerod, 2011). In a rare example of a UK study, Leonardi (2011) reported positive benefits from her evaluation of the initial stages of 'Paws for Progress', a dog training rehabilitation programme in a Scottish prison. Ormerod (2008) reported on two small special units in prisons in Scotland where animals such as cats, birds and fish had been introduced. The animals were found to have a calming effect on offenders, being a talking point and affording the opportunity to care for and establish trust in another sentient being.

In summary, the research to date reveals that PAPs can have a positive effect on offending populations by promoting the protective factors that are so important for successful rehabilitation. It also lends support for their potential to improve mental

health. Further research is still required, particularly in a UK context, to shed light on the myriad of effects animal programmes can have on prison populations. Not only will this serve to expand the knowledge base but it will inform the development and design of programmes involving human-animal interactions within the UK.

Background and context of present study

The present study took place in a special unit which offers intensive care and support for offenders who have been relocated from larger wings in the prison. This small unit has fewer than a dozen cells and offers a safe and supportive environment for males who are often in crisis and may have complex mental health needs. The prison has a purpose built animal centre in its grounds, housing chickens, goats, ducks and miniature ponies. Those residing in the unit are able to visit the animal centre to pet and feed the animals. Additionally, two Labrador dogs reside within the unit where the study was conducted. They are free to wander anywhere on the open wing, including the offices, the cells, the common room area, and are jointly cared for by prisoners and staff. As no specific therapeutic goals or professionals are involved this would come under the auspices of an animal assisted activity within a prison based animal programme.

In order to facilitate an analysis of the therapeutic potential of the animal programme it was deemed important to consider not just the accounts of those who take part in such programmes (which is what much past research focuses on); but also those who work alongside offenders delivering the interventions. Subsequently this paper offers an analysis based on the accounts of both staff and offenders in order to address the following aim:

To explore the perceived impact of a prison-based animal programme with male offenders.

Method

Ethical issues and consent

Ethical approval was obtained from the university's ethics committee. Additionally, permission to undertake the research was granted from the prison's intervention

panel. The researchers met with a senior member of staff from the unit to discuss the aims of the study. He then identified offenders and staff that would fit the inclusion criteria and facilitated the initial introductions. Written informed consent was obtained from each participant before commencing the study .

Given the vulnerable nature of the offending population from which the sample was selected, a senior staff member from the unit was consulted prior to finalising the offender sample. As head of care this member of staff was in the best position to determine service users' capacity to give informed consent, and whether participating in an interview would be too stressful or impact negatively on individuals' emotional wellbeing.

Participants

A purposive sampling technique was employed to identify participants who were appropriate for the research aim. An availability sample of offenders was selected from those who met the inclusion criteria and from whom informed consent was obtainable. The inclusion criteria for participants were that they had been directly involved in either an administrative or participatory role in the programme. Offenders were required to have had direct contact with the animals on the unit every day for at least one month prior to the data collection process. Staff members were required to have had experience of working on the programme for a minimum of one month prior to being interviewed.

Procedure

Semi-structured interviews were employed, allowing the researcher to structure and guide the interviews, whilst also facilitating in-depth responses from participants. Participants were able to expand and elaborate on issues they felt were of particular significance to them or that they felt strongly about. The interviews primarily consisted of open questions, which gave respondents the opportunity to give detailed answers regarding their experiences, whilst also minimising the risk of leading questions and desirability bias (McBurney and White, 2010). The interviews were carried out on a one-to-one basis, in an office space designated to the researcher by the prison. Interviews were recorded using digital recording

equipment. Staff members responsible for service users' care monitored their welfare throughout the data collection process.

Different schedules were formulated for the sample of offenders and staff, to ensure questions were relevant to their differing roles. The interviews sought to probe individual's accounts of their experiences of the programme and any perceived effects which had been observed. Staff were asked to give background information about their work within the unit and understanding of animal assisted activities, before discussing their observations about the inclusion of animals within the unit, their views about the introduction of such a programme within a prison environment and the impact they felt it had. Offenders were asked background information about any involvement they may have had with animals prior to the programme, before discussing their experiences of the prison based programme and how they have felt whilst working with the animals.

Data analysis

All interviews were transcribed verbatim and scrutinised using a thematic analysis (TA) technique. Braun and Clarke (2013, p178) note that they 'claimed' the term TA within psychology to denote a "systematic approach for identifying, analysing and reporting patterns - themes – across a dataset, which was not tied to a particular theory." This seemed particularly appropriate for an exploratory study such as this.

Initial patterns were identified and coded in each interview before being grouped together and developed into emergent themes. Prevalence of themes across the data set was considered and emergent themes were re-coded, re-organized and explored in terms of the concepts they related to and how they connected to each other and related to the research aims. A number of themes were identified and discussed by the first two authors at regular intervals during the process outlined above. The four which are presented in the results section were considered to be the most salient and were selected based on the insights they provided in relation to the therapeutic potential of such a programme.

Results

The four themes identified were: A Sense of Responsibility, Building Trust, Enhanced Communication and Impact on Mood and Behaviour. All extracts are referenced with a letter ('S' for staff member and 'O' for offender) and a number in order to protect the anonymity of participants.

A Sense of Responsibility

At a very basic level animal husbandry provides a set of specific daily tasks. Staff members viewed looking after the animals as a responsible role which offered a structure to the offender's day:

Just having some responsibility, something to care about. Just having something to ring mum about, you know, 'I've got a job, I look after the dogs'.(S1)

He used to say, when we first gave him the responsibility for the dogs, that he didn't want them. Then he started to look after them, and he said the only reason he got up in the morning was to look after them.(S2)

The sense of purpose this can provide is echoed in the narrative of an offender who described being involved with the dogs on the wing as:

...a good idea because dogs help people out, because, when they're bored or whatever, they've got something to do. (O6)

However, for some, the human-animal relationship was more than something to ease the boredom threshold:

I was like, I was, it was good, because I was actually, you know, you got animals there and I don't know how to explain it, but it's just good, it just feels better. I don't care about anything else. All I do is get up in the mornings, make sure they're fed and that, I bath them an everything, like, so. (O8)

For those who bonded with the animals came a sense of meaning. The offender cited above described how being granted the responsibility for the dogs was the only thing that had helped him feel better:

...And after everything that's happened to me man, its, the jail's tried everything, cus I was in a bad place... I've had every single thing. But as soon as they gave me the dogs, I dunno, everything just changes, do you know what I mean? I, with them, you can open the door in the morning, they come straight in, jump on my bed and just lick your face to death an that like...(O8)

Participants described how readily and willingly offenders took on roles related to the care of the animals, such as feeding, grooming and cleaning their living environments. This was a significant finding given the needs and behaviour of some of the offenders on the unit. Staff noted how prior to being given the responsibility for the care of the animals, many offenders had not demonstrated interest or willingness in taking responsibility for their rehabilitation or even their own personal hygiene and physical health. However, taking care of animals reportedly motivated them to want to take care of themselves and to keep their own living spaces clean so that they could look after the animals appropriately and responsibly.

With responsibility also came consequences. As this staff member illustrates the animals could also act as a motivator to adhere to the rules of the unit, and keep within the expected boundaries of behaviour:

And now that he's looking after the dogs, he understands he's got boundaries. He understands that he shouldn't be doing things. If he does then unfortunately he loses the responsibility of the animal because of obviously, the animal welfare.(S5)

It should be acknowledged that some of the elements discussed thus far are not exclusive to an animal programme. Introducing any number of daily tasks could provide structure and routine. However, it was something about the nature of human-animal interaction that was observed as having the biggest impact. Further elements of this are outlined in the themes which follow.

Building Trust

Building trust is an integral part of the ethos of the unit where the study took place, as well as being viewed as vital to the success of the animal programme. Trusting relationships represented an important part of the process of rehabilitation:

A lot of them are victims of abuse, never trusted anybody. So for a lot of them it's about building up trust with them, so they can see that if they open up to us, we won't hurt them.(S2)

The animals often worked as a catalyst for this. In reference to playing ball with the dogs, one offender said:

You throw it, and then they bring it back to you. It's good because they trust you then, don't they?(O7)

Establishing a trusting relationship with an animal was also linked with feeling calm:

Because it calms you down, having dogs around. Um, you can trust the animals and the animals can trust you, and it's just a good thing all around I think. (O7)

The staff described some offenders as being more comfortable interacting with animals than people because they knew the animals would not judge them. One spoke about a moment of personal significance, when he had spoken to an offender in his care about his relationship with the dogs. He paraphrased the offender as saying:

The dogs don't judge you, it's the first time I've given somebody some love and they've given it back without asking anything of it.(S2)

Other staff members observed how gaining an animal's trust and acceptance represents a rewarding experience:

What's it feel like when the dog gives you his paw? Well, it feels rewarding you know, because you think, well hang on, the dog is accepting you as you.(S3)

Building of trust was not exclusively between animals and humans, but impacted on other relationships on the wing. Examples were given of how, through learning to trust the dogs, offenders began to extend their trust to the staff:

It also helps to break down barriers I think. The minute you go into a cell and talk to an inmate about an animal or a dog or the horses, nine times out of ten the barrier's gone, the façade has gone. Then they start telling you things. (S5)

Human-animal interactions, it seemed, facilitated the building of therapeutic relationships between staff and offenders. A notable part of this was enhanced communication, the focus of the next theme.

Enhanced Communication

Throughout the interviews many references were made to the way involvement in the animal programme helped offenders to 'open up', talk more freely, engage and interact with other offenders and staff. Something of significance because, 'A lot of the lads that come down here will have, sort of, communication issues.'(S1)

Staff offered examples of working with animals seemingly helping offenders to communicate their issues more effectively. For example:

So then we started letting him care for the dogs, and it kind of opened him out as well, so he did start talking about a lot more of his issues. He's now working in the community, supporting prisoners and drug addicts.(S4)

The animals themselves also became a focus of conversations. Their presence helped staff and offenders to engage and interact with each other, and improved lines of communication within the unit:

But generally, they [offenders on the wing] will sit at different tables, not mixing. But it's the one thing that brings everyone together...they come together to talk about the dogs.(S1)

They see the staff interacting with the dogs, they start interacting. (S3)

The communication was not always with other humans. At times, just being around and working with the animals was seen as a channel for hard to express emotions and experiences:

There'll be some things they can't really talk about with another person, and they find maybe talking to an animal, petting an animal, caring for something outside themselves. They're just a great therapeutic tool.(S1)

A 'therapeutic tool' which appeared also to have observable effects on both the mood and behaviour of those on the wing. The focus of the final theme.

Impact on mood and behaviour

Staff described how they had witnessed significant positive changes in the behaviour and mood of the offenders who had been given responsibility for the dogs:

The inmates that we have had, that have been chosen to look after the dogs, have had massive massive improvements in their behaviour, their attitude.(S1)

Terms such as '*calmer*' '*happier*' and '*less stressed*' were often used when discussing the perceived impact of animal human interactions. This is captured by the following quotation from an offender who had not previously had any involvement with animals:

Yeah. When you're stressed, you see the animals and it just calms you down straight away 'cus you can stroke them. It's like they understand, they come to sit by you when you're sad. They come and sit by you. (O7)

Another spoke positively about the nature of the human-animal relationship:

A lot better, because it's something there isn't it? Instead of a person, we've got dogs, because like it's, settle us in and that.(O6)

When asked to articulate how it made him feel having the two dogs on the wing he stated:

Yeah, happier....Well, it feels nice because... it's nice to see pets. (O6)

Offenders also expressed how good it felt when the animals trusted them and were comfortable in their company. Participant seven discussed how this bond between himself and the dogs affected his mood and his confidence:

They calm you down and they do build your confidence up because they're happy when they're around you so you feel like you're doing something good, like.(O7)

Such feelings were not just experienced by the offenders. Some staff members also commented that they benefited from their interactions with the animal. This was perceived as useful for helping them to support and manage those they were in charge of more effectively:

I suppose if you're having a difficult day, and you've got something that brings you nice and calm, then it might make sense to say that you're in a better position to do your job, you're in the right frame of mind.(S1)

However, the most salient change to be reported was observations relating to offenders' self-harming behaviour. Both staff and offenders perceived the involvement in the animal programme as a significant factor in the reduction or in some instances total cessation of self-harming. All staff talked about how the establishment of the animal programme had impacted on the levels of self-harm on the unit:

We've managed to minimize it, we'll never stop it. But compared to where they were, it's had a very positive effect. (S2)

At the time of conducting the study, one particular person stood out:

The one lad we've got looking after [names dogs] at the moment. When he came to us his behaviour was appalling. Terrible self-harmer, prolific. But his self-harm issues, I don't think he's had an incident this side of a month.(S1)

The offender himself corroborated this account:

I was cutting my arteries up big time, and losing a lot of blood but as soon as I got with the dogs and that, it helped me...I was in another world, you know what I mean? I was with them and I was enjoying it. It was relaxing. And I haven't cut up. I haven't cut up since I've worked with them.(O6)

The calming impact interacting with animals had on individuals was often connected with the lessening of self-harming behaviour. The offender continued:

Oh, it's amazing, amazing. You can't explain how it feels. But it feels so good, and all day I can just be relaxed. Cus I've got them there. ..Yeah. Because, at the end of the day, them dogs is what stopped me from cutting up, being stressed out. Cus if I get stressed out I just go and sit with the dogs, pat them, play with the balls an that they got 'em. That's where I work now and it eases so much. You know what I mean?(O8)

..Yeah, they make me feel relaxed, calm; they're just like a little, like a therapy thing. Yeah, they make me feel relaxed, calm, they're just like little, like a therapy thing. As soon as they come to you, you're in their little world and its just... So I'm relaxed and that and I dunno, I haven't cut for a long time and they've been really therapy to me. (O8)

Staff described how they felt that giving offenders an opportunity to be involved in the animal programme provided an incentive or motivation not to self-harm.

If people are self-harming and there's blood in the cells, we won't allow the dogs to go in there, it obviously has a negative impact. So in a way, it's an incentive. (S2)

Though it was perceived by participants that preventing self-harming behaviour altogether was an impossibility, it was felt that the animal programme helped to significantly reduce the likelihood of serious and prolonged self-harming behaviour.

Some staff also commented on the rehabilitative power of the animal programme:

A couple of prisoners, we've had two prisoners, who I gave specific responsibility to care for the dogs who were extreme self-harmers. One has now been discharged and it's the first time in his life he hasn't come back into custody within three months of being discharged. (S2)

From what he was, a quivering wreck, sitting in his cell, self-harming, to actually going out, getting a hostel, actually helping [names organisation] out. I mean, it's a 200% turn around. And this is all from the dogs. (S3)

Discussion

The purpose of this exploratory study was to explore the perceived impact of a prison-based animal programme with male offenders. The findings suggest that there are a number of benefits to successful engagement which are encapsulated in the themes outlined. Although the study was designed to focus on interaction with the animals in general, it became apparent that the majority of the interviews were dominated by discussions about the two dogs which lived on the wing. These are now discussed in further detail with a focus on supporting literature and implications for practice.

The theme '*enhanced communication*' corroborates the research findings discussed in the introduction drawn from both the more general companion animal research (e.g. Wood et al., 2007; Brookes et al, 2012) and specific studies involving forensic populations (e.g. Jaspersen, 2010; Turner, 2007). This literature illustrated the different ways in which animals have the potential to act as a conduit for social interaction. McNicolas and Collis (2000) established that this is a robust phenomena in their experiments manipulating social situations with and without the presence of a dog. In

the present study this was evidenced both between the offenders with each other and between offenders and prison staff. Common ground found in the mutual enjoyment of caring for and playing with the dogs on the unit facilitated the breaking down of barriers that had previously existed between staff and offenders. This was perceived as beneficial in terms of enhancing the ability of staff to care for and manage the offenders more effectively, due to the development of positive therapeutic relationships between staff and offenders. The offenders themselves were also observed as communicating more openly with peers and even, on occasions with the animals themselves. The term 'social lubricant' was used by DeMello (2012) to describe the way in which animals enable social interaction with others, and although the present study was not designed to discuss interaction with any one type of animal (they could potentially interact with a number) , it seemed to be the two labrador dogs who lived on the wing that acted as the main social catalysts.

Findings also revealed that looking after the dogs provided '*a sense of responsibility*' and at times acted to reduce the boredom of daily prison life. Although this is not a role which is exclusively provided by the presence of animals (other activities could also do this) '*building trust*' between the offenders and the dogs did appear to be a specific outcome of this human-animal interaction. This may be of particular relevance for such vulnerable offenders who, it was noted, typically struggled with trusting others. Walsh (2009) cautions that animal-human bonds have frequently been positioned as misplaced within the field of mental health, where the relationship can be viewed as deficient and evidence of an individual's inability to attach. However, based on studies with clinical populations and pet owners Walsh provides a compelling argument for the role animals can play as a source of attachment security and enhanced relational dynamics. This finding is consistent with the work of McConnell et al (2011) who reported that pet owners often experienced greater wellbeing and display attachment styles that are less fearful, less preoccupied and generally less negative towards the self. Drawing on relational and systemic perspectives Walsh (2009) highlights the potential of human-animal interaction for populations with mental health problems in prisons; something which was corroborated in the present study.

Arguably the most salient theme in terms of the therapeutic potential of the animal programme was *impact on mood and behaviour*. The acknowledged calming effect of the presence of the dogs mirrors findings from other PAP studies (cf Turner, 2008) some of which also identified reductions in aggressive behaviour and violent infractions (Strimple, 2003; Fournier et al 2007). Whilst the participants in the present study did not discuss directly any differences in aggressive behaviour, the most significant change to be noted related to incidents of self-harm. This is not something which has been reported in the studies reviewed for this paper and appears to be a finding of great relevance when one considers the prevalence rate of such behaviour amongst incarcerated offenders in the UK. Statistics published by the Ministry of Justice in 2013 revealed a rise in incidence of male self-harm over the past decade which has stabilised to around 70 males per 1,000 of the prison population. Slade et al (2014) also note that levels of deliberate self-harm in prison settings are higher than within community samples and are developing at a faster rate than would be expected within the rising prison populations. They highlight the need for comprehensive research in this area, not just identifying risk factors but considering interventions. The findings of the present study, although exploratory, suggest that with some offenders animal assisted activities can impact positively on levels of self-harm. This merits further attention. At the time of the study there was a case of a prolific self-harmer seemingly stopping the behaviour once given responsibility for caring for the dog. Whilst one cannot conclusively establish a causal relationship from research of this nature, the accounts of both the prison staff and the offenders suggest a link between the interactions with the dogs and reduced self-harming behaviour e.g. *"I haven't cut up. I haven't cut up since I've worked with them"*; evidence that is hard to ignore.

It should be noted that in some instances changes in self-harming behaviour could be due to the consequences it generated. Offenders were aware that the dogs could not come into their cells if there was blood in them, nor would they be allowed to feed or groom the animals if they had open wounds. Whatever the reasons the observed impact on self-harming is an aspect of the study which requires exploring in further detail, particularly to quantify the levels of reduction. Analysis of the records regarding self-harming levels before and during the programme could provide

empirical evidence for the potential of animal assisted activities as an effective intervention for offenders.

As a general intervention it appeared that the animal assisted activities had a number of potential benefits, findings which are significant given the interest of psychological research regarding treatment engagement. Ward et al (2004) discuss the importance of considering offenders' readiness to engage in interventions at an individual, programme-related and context-related level. Findings from the present study suggest an engagement in the animal programme that transcends any notion of simple 'compliance'. The accounts collected here demonstrate a pro-active and unresisting willingness to participate in the animal activities on the unit. Jaspersen (2010) also made similar observations in her study of a group AAT programme. This is very encouraging in terms of the therapeutic potential of prison-based animal programmes with vulnerable offenders.

Limitations

It must be acknowledged that the authors are not suggesting that the animal programme represents a 'magic bullet' which will work for all. Intuitively one might expect the benefits to be heightened amongst self professed animal lovers or those who have kept pets before their custodial sentence. Having said this, one of the offender participants had not had previous contact with animals yet still found the programme to be beneficial.

A paper on this topic would not be complete without some acknowledgement of issues relating to animal welfare. The dogs in this study lived in the prison, which is somewhat unusual. The reason that this could happen was due to the small size of the wing on which they are housed. It would not be appropriate for dogs to live on larger, more noisy wings, and this was acknowledged in the interviews. Researchers who have measured the physiological reactions of dogs used in AAA or AAT (e.g. Haubenhofer and Kirchengast, 2006; Glenk et al, 2013) note varying changes in cortisol levels which indicate arousal. Whether this is indicative of positive excitement or a potentially negative stress reaction is hard to establish. However, the welfare of dogs used in such activities requires monitoring. One of the measures

employed by the animal centre in this study is that the dogs are taken home on a regular basis by prison staff to relax and experience a different environment.

Some of the staff who were interviewed were influential in establishing the unit. As individuals who were supportive of what is still a relatively unusual approach in UK prisons they may have wanted to over emphasise its successes. However, other participants reported having felt dubious about the idea of introducing animals into a prison, and had been pleasantly surprised by the outcomes. There was not an observed difference between the accounts of these staff members.

This research may be viewed as limited as the sample size is relatively small, and the offender participants were selected by a senior staff member. However, the context of the study was a small secluded wing with fewer than a dozen cells, making the potential number of participants on the wing at any time a low number. There were also ethical considerations to be adhered to in selecting the offender participants (refer to method section). Sample size was not considered a constraint in relation to the quality of the findings. A detailed idiographic explication such as this requires smaller numbers in order to provide the depth of information.

A useful addition would be a more longitudinal approach, allowing a follow up of the participants to evaluate the effects of participation in the animal assisted activities in terms of their longevity. Many of the US studies have pointed to impressive recidivism rates amongst those who have been involved in PAPs (Ormerod, 2008). Longer term follow up studies about UK based animal programmes are yet to be conducted, but appear a fruitful line of further inquiry.

Conclusions

The findings revealed multiple benefits from animal assisted activities in prisons to help support vulnerable offenders. As such it is concluded that they do have therapeutic potential. The present study contributes to the limited research on this topic in the UK, and suggests that there could be scope for developing further programmes based on this model elsewhere.

Implications for Practice

- The findings highlight the potential of animal based prison programmes to positively effect the wellbeing of vulnerable offenders.
- The study illustrated that the presence of animals can also facilitate improvements in relationships and communication between staff and offenders.
- Given the emphasis on safety in custody, the research has significant implications for addressing self-harming behaviours with male offenders.
- As one of the few evaluations of an animal programme implemented in a prison in Britain, it provides a foundation from which further research can explore and evaluate the therapeutic potential of prison-based animal activities.

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