Evidence for Using Farm Care Practices to Improve Attachment Outcomes in Foster Children: A Systematic Review

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Abstract

Anecdotal evidence suggests that care farming practices have the potential to provide positive outcomes for young people in foster-care and residential care environments. A systematic review (searching; CINAHL, Web of Knowledge, PsychInfo) was conducted to explore how participation in care farming initiatives impacts attachment in children in foster-care and what aspects of care farming initiatives provides positive attachment outcomes. The systematic review did not identify any research publication in care farming and foster-care. Therefore, it is imperative that practitioners realise that the evidence is lacking when using these types of interventions and keep a close account of the benefit and harms that may be encountered during the interaction processes.

Keywords: Attachment, foster-care, care farming, animal-assisted, at-risk children, systematic review, evidence-based practice

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Introduction

Children and adolescents who are in any type of substitute care are likely to have suffered traumatic experiences and are at risk of suffering further mental health problems in later life (Balluerka et al., 2014). Parent–child
interaction and visits are used to help support relationships and develop re-
unification (Haight et al., 2003). The application of attachment theory is im-
portant to these high-risk situations when considering reunification. The
manner in which these interactions are carried out becomes particularly
vital to how the parent–child relationship develops and one the psychological
development of the child (Haight et al., 2003).

However, Estep (2008) highlights that the main weakness of traditional
methods of reunification is their inflexibility. Pre-set rules and regulations
do not always allow for a smooth process of reunification and although tra-
ditional foster-care interventions have proven successful for some children in
the child welfare system, not all children respond well to traditional methods
of reunification (Estep, 2008). Many methods of improving reunification
such as kinship care (Delfabbro et al., 2015) and sibling care (Rast and
Rast, 2014) have demonstrated some success. However, adolescents who
are in foster-care may well have a history of experiences with negative attach-
ment (Balluerka et al., 2014) and so a focus on attachment in relation to reuni-
ification becomes extremely crucial.

It has been suggested that care farming practices, including animal-
 assisted therapies, may provide positive attachment outcomes for those
who have experienced abuse and neglect (Evans and Gray, 2012; Parish-
Plass, 2008) and are ‘at risk’ of entering the child protection system. Anec-
dotal evidence suggests that such practices have the potential to provide
positive outcomes for young people in foster-care and residential care
environments (Risley-Curtiss et al., 2010). Of a recent survey of child pro-
tection practitioners in the USA, 24 per cent suggested that they had used
care farming activities, specifically animal interventions with the young
people they work with (Risley-Curtiss et al., 2010).

Despite the use of such practices within foster-care settings, it is not pos-
sible to make a claim on the potential benefits, as the research in this area
has yet to be synthesised. It is important to conduct a review of the literature
in this area, as it will provide a better evidence base for such work and inform
practice. The aim of this systematic review was to explore how participation
in care farming initiatives impacts attachment in children in foster-care and
secondarily to evaluate what aspects of care farming initiatives provides posi-
tive attachment outcomes.

**Methods**

M.D. and A.L. designed the methods for searching the literature. Relevant
studies were identified using the following online bibliographic databases
available through Griffith University Library (date search completed in
brackets): CINAHL (26 July 2014), Web of Knowledge (26 July 2014) and
Psychinfo (8 August 2014). Each bibliographic database was systematically
searched using the following search terms, or derivatives of these, depending
on the databases: Foster NEAR (care* OR mother* OR father* OR parent* OR child*) AND (animal* OR farm*); see Table 1 for the complete search strategy. A.L. carried out the searches. Endnote was used to automatically remove any duplicates from database searches by matching title and author.

The inclusion criteria:

- Patient group—children <18 years in foster-care home setting;
- Intervention group—care farming setting;
- Primary randomised control trials collecting raw data.

Exclusion criterion:

- Publications that were reviews or use data collected by others.

Articles that did not meet the inclusion criteria or met the exclusion criterion, assessed first by their title and second by their abstract, were removed by A.L. and verified by M.D., as shown in the flow chart in Figure 1. In the event of disagreement regarding inclusion of a study, it was read in full and resolved by consensus (M.D. and A.L.). If there was still uncertainty after this point, a third reviewer (A.M.) assessed the study independently and a decision was made by consensus or majority vote.

**Results**

The search provided 694 articles for review and, after removing fifteen duplicates, left 679 articles for inclusion into the title assessment stage. The titles of all articles were read and articles were removed if they did not specify young people as the target group in a care farming or animal-assisted therapy initiative. Following this stage, five articles remained for abstract review. Abstracts were read and articles included in a final stage of full article review provided that they focused on the use of care farming initiatives with young people in foster-care. After the abstract round, zero articles met the search criteria and, as a result, no articles were given full review.
Discussion

A systematic review which aimed to explore the use of care farming initiatives for attachment outcomes with young people in foster-care provided zero articles for review. As a result, it is impossible to draw a conclusion on how such programmes may impact attachment in such groups.

Nevertheless, a body of research is beginning to explore the health outcomes that care farming initiatives, specifically initiatives that involve human animal interaction, can provide for a variety of young people including those who are differently abled (Holm *et al*., 2014; Lanning *et al*., 2014; O’Haire *et al*., 2014; Ward *et al*., 2013), sexually abused (Dietz *et al*., 2012; Kemp *et al*., 2014) and characterised as ‘at risk’ (Maujean *et al*., 2013; Terpin, 2004; Weston, 2010). Specific to young people characterised as ‘at risk’, participants have identified that their participation in animal-assisted programmes encourages feelings of calmness and improves self-esteem (Weston, 2010). Additionally, specifically to young people who have experienced sexual abuse, their participation has contributed to a reduction in
short-term symptoms of depression and trauma (Dietz et al., 2012; Kemp et al., 2014).

It has been suggested that participation in animal-assisted therapies has the potential to encourage positive attachment outcomes for young people who have experienced abuse (Evans and Gray, 2012; Parish-Plass, 2008) and encourage interconnectivity amongst those undergoing therapy (Hawkins, 2012). Animal-assisted interventions have been highlighted as particularly well suited to providing attachment outcomes, as the underlying concepts of both attachment and animal-assisted interventions align (Bachi, 2013). Specifically, both practices involve the ideas of fostering and participating in a safe space, affect mirroring and using non-verbal communication (Bachi, 2013). To date, limited research has explored the potential for care farming initiatives to provide attachment outcomes. Preliminary research suggests forms of secure attachment may be encouraged by the use of animal activities (Bachi et al., 2012; Balluerka et al., 2014).

Although the mechanisms of care farming remain unknown, care farming utilises multiple resources and modalities to support personal development and build on the existing strengths of participants in a safe non-threatening space (Schreuder et al., 2014). Some research has suggested that participation in outdoor environments may contribute to general well-being (Balluerka et al., 2014). However, intentional engagement with nature or animals may be a catalyst that encourages positive views of oneself (Sempik, 2008), build trusting relationships, effectively communicate feelings and recognise one’s agency in society (Schreuder et al., 2014). These programmes may also improve capacity for attachment (Balluerka et al., 2014).

At least four competing, or potentially complementary, hypotheses could explain the impact of care farming interventions on young people, but the relative utility of each mechanism has yet to be examined. The Restorative Hypothesis (H1) is the most commonly offered mechanism, based on the notion that simple exposure to natural environments reduces the fatigue associated with stress and trauma (Kuo, 2013). Triebenbacher (1998) suggests that humans are naturally attracted to other living organisms and passively benefit from contact of this kind. These benefits are often physiological, including a reduction in stress and mental fatigue, and a greater sense of happiness (van den Berg et al., 2010). Although pilot data confirmed improvements in mood (Kendall and Maujean, 2015; Maujean et al., 2013), it also pointed to three other potential hypotheses, each with some support in the literature. The Social Support or Leisure Hypothesis (H2) suggests that people enjoy engaging with nature, leading to positive social interactions with others who are enjoying the same space (Burgon, 2011). The Social Cognition Hypothesis (H3) suggests that interactions with nature impart particular social cognitive skills (e.g. improved understanding, empathy and communication skills as well as greater confidence and self-efficacy) that enable young people to interact more positively with their human world (Fisher, 2013). Finally, the Attachment Hypothesis
(H4) suggests that the safe and positive bond that develops between nature and humans restores the capacity to attach to key people in the young person’s life (Berget et al., 2008). Bachi et al. (2012) concluded that animal-based interventions offer the additional opportunity to restore disrupted attachment through the human–animal bond. Attachment theory suggests that the process of healing negative childhood experiences requires trust of the ‘other’ (Bachi et al., 2012). Trust promotes capacity for secure attachment which is, in turn, integral to resilience (Sroufe, 2005). Little research has explored this hypothesis, although some data suggest that secure attachment is more likely among those exposed to animals (Balluerka et al., 2014).

Conclusion

Given the minimal research in care farming and foster-care, it is not possible to make conclusions on the effectiveness of such programmes in providing positive attachment outcomes. It is imperative that practitioners realise this when using these types of interventions and keep a close account of the benefit and harms that may be encountered during the interaction processes. It is important that future research explores the potential for care farming initiatives, including those which involve animal-assisted programmes, and their impact the attachment of young people ‘at risk’ and those in foster-care.

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