

Theoretical Frameworks for Animal-Assisted Interventions

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Interventions with animals may promote health?
– by which mechanisms?



Animal-assisted interventions (AAI)

- Animal-Assisted Therapy (AAT) means that health professionals use animals as part of their job. AAT is a goal-directed intervention in which an animal that satisfies certain criteria is an integrated part of a treatment. The process is documented and evaluated.
- Animal-Assisted Activities (AAA) is used for a less controlled service that may have a therapeutic effect, but which is not a true therapy in a strict sense, e.g. a person bringing a dog when visiting a patient. Both health personnel and lay persons can be involved.

(Delta Society, USA)

- $AAI = AAT + \frac{1}{2}(AAA)$

One or several mechanisms in operation?

- Positive effects of AAI on humans could be achieved by a number of different mechanisms. We should not expect one single mechanism to be in operation in all types of AAI, and also not for all individuals within a specific intervention.
- Animals may be beneficial to humans because they
 - are part of nature,
 - are nice to touch and stroke,
 - serve as a social companion,
 - serve as a subject to care for, or
 - serve as a subject for work that the person manages to do, resulting in enhanced self-efficacy.
- Which effect that works may be related to the diagnoses of the patient and his/her individual characteristics and preferences.

Improvement by successive processes

We suggest that, on a farm, AAI may:

stimulate beneficial processes of
Social inclusion and **Working skills**,

resulting in increased

Coping ability

with its numerous cognitive and emotional dimensions,

and generally increase

Quality of life

Is Social inclusion in operation here?



Four main theories may be involved in AAI

- Cognitive theory
- Attachment theory
- Biophilia hypothesis
- Learning theory

Cognitive theory

- An important aspect of cognitive theory is **self-efficacy**, a belief in one's ability to perform behaviours that will create an expected and desirable outcome.
- The single most efficient method for achieving increased self-efficacy is **performance accomplishment**, the successful performance of a behaviour that was once feared

(Bandura, 1997)

Cognitive theory: Increased self-efficacy through performance accomplishment?



Attachment theory

- This theory describes social bonds as a further development of the most basic social bond, the attachment between mother and child (Bowlby, 1969).
- Attachment involves:
 - **Emotional bond**
 - **Goodness of fit**, a functioning dyad between two individuals
 - **Secure base**, or an emotional or physical security
 - **Seeking proximity**
 - **Representational models**, conscious or unconscious organizational rules used to access attachment information
- Attachment theory should be particularly relevant in cases where a patient or client develops a strong bond with one or a few individual animals. This also takes time to develop.



Is attachment theory in operation here?

Biophilia hypothesis

- Humans possess a genetically based propensity to attend to, and be attracted by, other living organisms (Wilson, 1984).
- However, people's responses to animals are modified by culture and individual experience (Kruger & Serpell, 2006).
- Historically, contact with dogs, cats and also farm animals may have developed as a **symbiotic relationship**, favouring genes and behaviour related to positive attitudes to such animals.

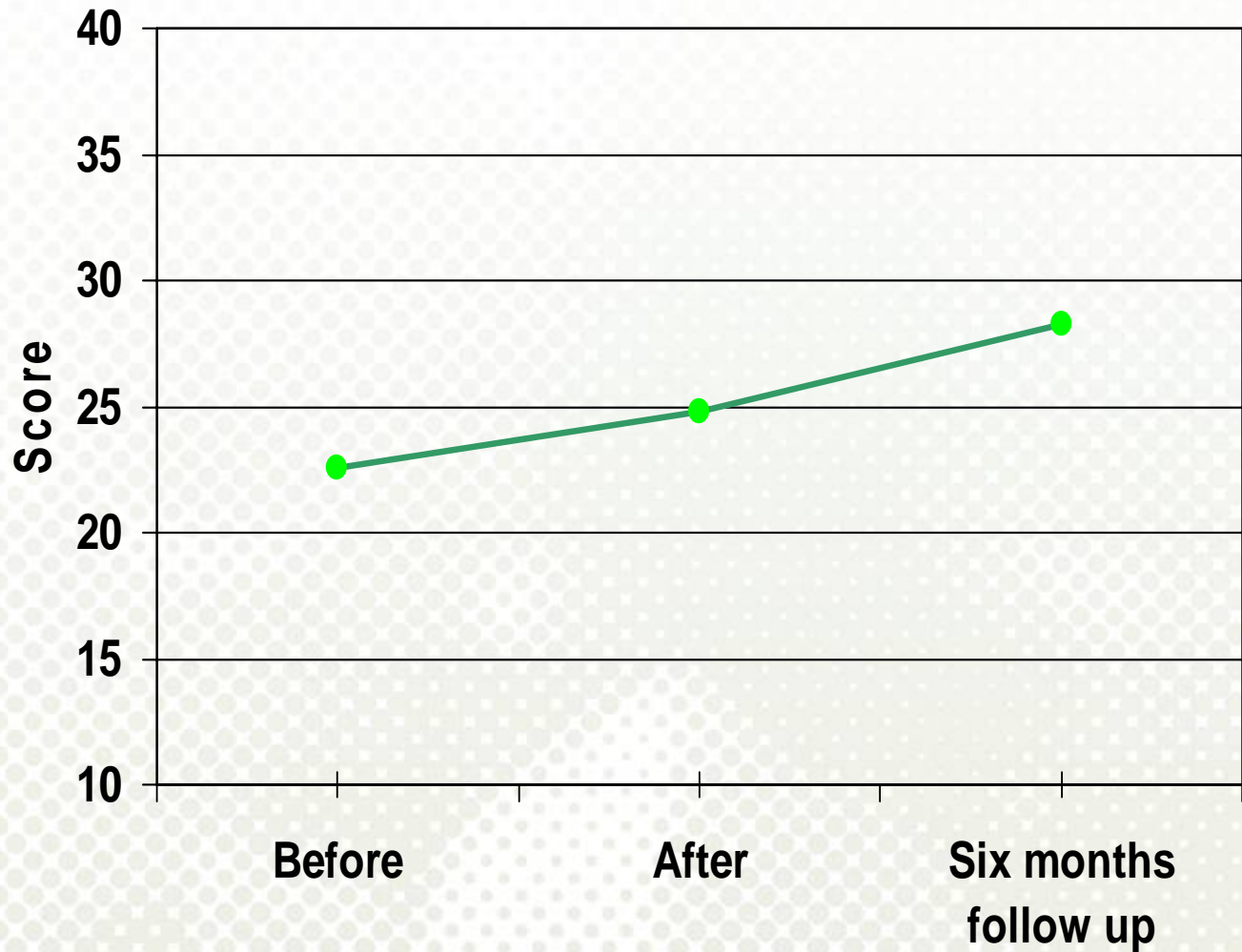
Learning theory

- Learning theory may explain reduction in **anxiety and arousal** during AAI (Brickel, 1985, Friedmann et al. 1991, Friedmann & Thomas, 1995, Wilson, 1991).
- A *pleasurable* activity will be *self-reinforcing* and increase in frequency, while *unpleasant* experience may result in *avoidance* or the associated behaviour to be less likely to occur.
- **Attention being diverted** from pain or mental problems during an AAI session may result in a feeling of **control**.
- This important aspect of **coping ability** may further result in increased **self-esteem, self-efficacy, and self-perception**.
- During work with farm animals the client may experience a **caring role** and enhanced **working skills**, both adding to the coping ability.

Learning theory: Coping learnt through a caring role?



Generalized Self-Efficacy score (GSE) Patients with affective disorders, F30 (ICD10) 12-week intervention: working with farm animals



From theories to predictions:

Good theories must produce testable predictions

Recommended book:

Aubrey H. Fine (Ed.), 2006.
Handbook on Animal-Assisted Therapy: Theoretical foundations and guidelines for practice, 2nd Ed.
Academic Press, San Diego.

See e.g. Ch. 2:
K.A. Kruger & J.A. Serpell: Animal-assisted interventions in mental health: Definitions and theoretical foundations