

## Title

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### There is some evidence to confirm the benefits of utilizing Animal Assisted Therapy to improve Depressive Symptoms in Adults

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#### **CLINICAL SCENARIO:**

The incidence of adult depression is a growing concern for many health care professionals in society. Often professionals are presented with many challenges in treating depression as lack of efficacy to standard treatment frequently occurs. As a result the need to incorporate alternative therapies into care plans is becoming more apparent. One such therapy being considered is Animal Assisted Therapy (AAT). Health care settings are beginning to understand the positive effects of utilizing animals as an intervention tool within rehabilitation settings. Animals are thought to have a positive impact on one's quality of life, improve one's morale, and positively influence a person's psychological and physiological behaviours. There is numerous documentation suggesting that the human-animal bond is a powerful healer and therefore the idea of incorporating animals into treatment of depression is an avenue worth exploring.

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#### **FOCUSSED CLINICAL QUESTION:**

Can Animal Assisted Therapy improve depression in Adults (age 18-64).

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#### **SUMMARY of Search, 'Best' Evidence' appraised, and Key Findings:**

One Randomized Control Trial (RCT) was Located

- 1 Single blinded RCT study - Level 1 (Antonioli, Reveley, 2005)

Results

- The animal care program participants showed significant differences in decreased depressive symptoms than that of the control group.
  - Mean differences for the Hamilton and Beck scores between the two groups was highly significant P=0.002 vs P =0.007 and P=0.006 vs P=0.012
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#### **CLINICAL BOTTOM LINE:**

Animal Assisted Therapy with dolphins is an effective treatment for mild to moderate depression.

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**Limitation of this CAT:** This critically appraised topic has not been peer-reviewed by one other independent person.

## SEARCH STRATEGY:

### Terms used to guide Search Strategy:

- **P**atient/Client Group: Adults with Depression
- **I**ntervention (or Assessment): Animal Assisted Therapy
- **C**omparison: Treatment group assigned to dolphin care program vs control group assigned to an outdoor nature program including the same water activities as the animal care program but in the absence of dolphins.
- **O**utcome(s): Treatment group showed significant statistical improvement in depressive symptoms compared to control group.

<b>Databases and sites searched</b>	<b>Search Terms</b>	<b>Limits used</b>
Cinahl Medline Proquest SUMSearch EBM First consult Ovid	Animal Facilitated Therapy/Depression Animal Assisted Therapy/Depression Animal Assisted Therapy	Adults only diagnosed with depression

## INCLUSION and EXCLUSION CRITERIA

- Inclusion:
- Adults diagnosed with depression
- Online-Research Articles only

- Research within previous seven years full text only
- Exclusion:
- Other mental illnesses
- Children and seniors

## RESULTS OF SEARCH

There was limited number of full text research studies available on adults with depression and the utilization of AAT. Four quantitative studies were obtained that were related to depression in adults and the intervention of AAT. Availability of qualitative research was not found.

**Table 1:** Summary of Study Designs of Articles retrieved

Study Design/ Methodology of Articles Retrieved	Level	Number Located	Author (Year)
Single case study	3	1	Downey, N. (2006)
Controlled cross over design	3	1	Barker et al. (2003).
Randomized Single Blinded Control Study	1	1	Antonioli, Reveley, (2005).
Cohort Study	3	1	Siegal et al (1999).

## BEST EVIDENCE

The following study was identified as the “best evidence” and selected for critical appraisal. The reason for selecting this study was that it was a randomized controlled trial which provides the highest level of evidence.

## SUMMARY OF BEST EVIDENCE

### Table 2:

Antonioli, C. Reveley, M. (2005). Randomised controlled trial of animal facilitated therapy with dolphins in the treatment of depression. *Journal of BMJ*, 26 (11). 1-13.

#### **Aim/Objective of the Study/Systematic Review:**

To measure the affectivity of utilizing dolphins in the treatment of mild to moderate depression

**Study Design:** Single blind RCT.

Participants had to meet the criteria of mild to moderate depression  
 N=25 Participants were randomly assigned to the treatment group and control groups.  
 Clinical-raters were blinded to the treatment assignments

**Setting:**

The study was carried out in Honduras and recruitment took place in the United States and Honduras

**Participants:** Adults diagnosed with mild to moderate depression

**Intervention Investigated:** Utilization of dolphins in the treatment of depression

**Control:** Was assigned to an outdoor nature program including the same water activities as the experimental group. Over a two week period

**Experimental:** Was assigned to animal care program which involved interaction with dolphins on a daily basis over a two week period.

All participants had to stop medications and other forms of treatment four weeks prior to the initiation of the study

**Outcome Measures**

Depressive symptoms were measured pre and post treatment using the Hamilton rating scale, the Beck depression inventory and the Zung self rating anxiety scale.

Highly significant findings. The depressive symptoms were more reduced in the treatment group than the control group.

Hamilton rating scale for depression P=0.002 for the control group. P=0.007 for the treatment group  
 Beck Depression scale P=0.006 for the control group. P=0.012

Zung self rating anxiety scale. No statistical significance found between the two groups

The mean differences for the Hamilton Scale in change scores for the animal care programme and the outdoor nature programme were 8.38 (SD 1.98) and 4.50 (SD 3.15), For the Beck depression inventory the mean differences in scores between the programmes were 15.46 (SD 5.69) and 7.58 (SD 7.42).

**Critical Appraisal:** Results indicated that AAT with dolphins is an effective treatment for those experiencing mild to moderate depression. The authors made a valid attempt to avoid bias

**Validity**

The inability to blind participants to the treatment and knowledge of the treatment may have contaminated the results. Authors did not perform a follow up study with the participants.

**Summary/Conclusion:**

Results indicated that AAT with dolphins is an effective treatment for those experiencing mild to moderate depression

The study would be difficult to implement into a clinical setting given cost involved and required setting  
 The study could serve as a useful tool in implementing a different less costly form of AAT.

## **IMPLICATIONS FOR PRACTICE, EDUCATION and FUTURE RESEARCH**

One can deduce from this research that there is some truth to the benefits of utilizing dolphins as a therapeutic modality in adults with mild to moderate depression. This study appeared to have shown statistical significance of improvement in depressive symptoms. This type of therapy would prove to be of value for those therapists seeking an alternative to standard treatment of depression. AAT offers an avenue to those individuals not responding to standardize therapy. However, applying this kind of program is not without its challenges. Utilizing dolphins and the required setting would be very costly. One must also consider individuals with phobias to water and the potential of injury to both to the patient and the animal. Therapists will need to consider the risks and weigh them against the benefits for each individual who is considered for the program.

## **REFERENCES**

Antonioli, C. Reveley, M. (2005). Randomised controlled trial of animal facilitated therapy with dolphins in the treatment of depression. *Journal of BMJ*, 26 (11). 1-13.