

Animal -Assisted Therapy in Eating-Disorder Treatment

A Systematic Review



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Eating Behaviors

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Animal-assisted therapy in eating disorder treatment: A systematic review

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Learning Objectives

- 🐾 Define Animal-Assisted Therapy (AAT)
- 🐾 Describe current state of evidence of AAT use for eating disorders (EDs)
- 🐾 Describe gaps in literature and future directions for AAT research



What is animal-assisted therapy?

Type the number you think best defines AAT in the chat.

1. Talking / venting to a therapy animal who is trained to listen
2. Just having an animal in a therapy session
3. Visiting patients in a hospital, school, etc
4. Intentionally including the animal in structured and goal-oriented activities



Animal-Assisted Therapy

- Often uses horses or dogs, can use others
- Examples:
 - Grooming animals to explore care, nurturing, and touch
 - Riding horses during psychotherapy - grounding, emotional processing



Why AAT for EDs?

Low remission, high relapse rates for EDs

Adjunctive therapies often used in treatment
not often studied

- Art, music, and animal-assisted therapies
- Horses often used at residential facilities





Evidence for AAT for other mental illnesses

- Meta-analyses of RCTs found that AAT significantly decreased:
 - Depression symptoms
 - Acute anxiety
 - Negative affect
- Systematic review of RCTs found benefits of AAT as an adjunctive therapy
 - Reduced persistent negative symptoms in schizophrenia
- AAT beneficial as a standalone treatment for depression

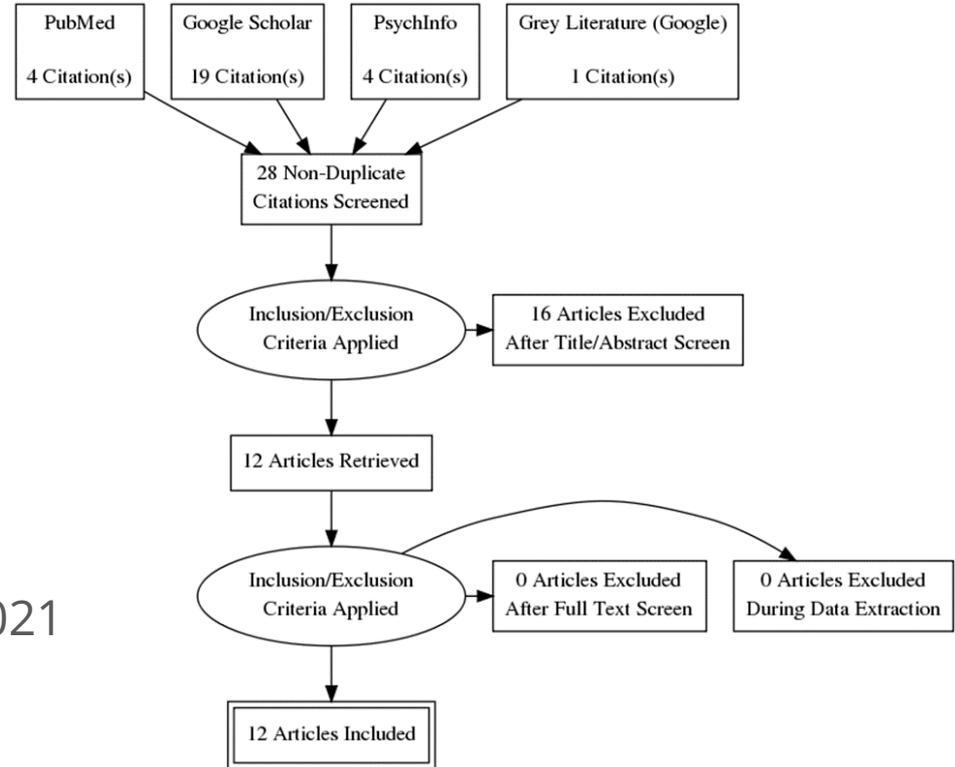
AAT for EDs specifically

- AAT may improve the therapeutic alliance as the animal models secure attachment
 - May increase ED treatment engagement, given high drop-out
- Opportunity for healthy, monitored movement
- EAGALA / Gestalt for problem solving (interpersonally or intrapersonally)



Methods / Study Selection

- PRISMA statement, pre-registered
- PubMed, PsycInfo, and Google Scholar
- Gray literature searched through Google
- Up to and including September 2021



Methods / Study Selection

- Study eligibility criteria included:
 - Primary studies
 - Animals used in a therapeutic setting for treatment
 - Population includes a clinical sample with a majority ED diagnoses
- 12 articles yielded
 - 10 unique studies
- Data not synthesized due to study heterogeneity
- Risk of bias conducted

Study Characteristics

- Participants 11-64 years old
 - Diagnoses of AN, BN, OSFED/EDNOS
- Qualitative studies (n = 4)
- Quantitative studies (n = 5)
- Case studies (n = 3)
- Majority of studies used horses (n = 8)
 - Dogs (n = 1) and dolphins (n = 1)



Results - Case Studies

- DeZutti, 2013
 - Author's personal observation of interaction between horses and patients
 - Effects reported include group cohesion and established trust, thinking outside the box to create solutions to problems
- Helm, 2009
 - Adult women with AN or BN
 - Observation, semi-structured interviews, documentary analysis
 - Reported feelings of hope, power and control over ED
- Lac, 2017
 - 16 year old participant with AN
 - Feelings of belongingness, emotional and physical safety, increasing presence, place to feel emotions

Results - Qualitative Studies

- Kingston, 2008
 - Therapist interviews
 - Thematic analysis
 - Reported increasing motivation and lowered resistance to change in clients with EDs
- Lutter 2008; Lutter and Smith-Osborne, 2011
 - Inpatient adult women with AN, BN or EDNOS
 - Mixed-method, including retrospective examination of records
 - Phenomenology-based narrative analysis and thematic coding
 - Themes include asking for help, problem solving, thinking positively, verbalizing feelings of frustration, and identifying contributing factors to ED

Results - Qualitative Studies

- Sharpe, 2013
 - Adult women with AN, BN, and OSFED
 - Hermeneutic phenomenology
 - Themes include mindfulness to the present moment, touch and movement, trusting another and trusting oneself, giving up or sharing control
- Træen et al., 2012
 - ED therapists
 - Qualitative content analysis
 - AAT perceived as useful for practicing mastery of psychological skills

Results - Quantitative Studies

- Cumella et al., 2014
 - Inpatient adult women with AN, BN, and EDNOS
 - No control condition
 - Treatment team decided how much equine therapy patients received
 - A significant inverse relationship between total equine minutes and discharge scores compared to admission scores
- Lutter 2008; Lutter and Smith-Osborne, 2011
 - ***
- Schenk et al., 2009
 - Young adult women with AN, BN, and EDNOS
 - Non-randomized pilot
 - Dolphin-assisted therapy program
 - Found significant reductions in psychological symptoms at a three month follow-up, not for ED

Results - Quantitative Studies

- Stefanini et al., 2015 and 2016
 - 20 experimental, 20 control - Children and adolescents with psychiatric diagnoses
 - **Randomized controlled trial** with dogs (TAU with and without AAT)
 - Improvements in social and psychiatric functioning, clinical diagnoses
 - Did not measure ED symptoms specifically (only 67.5% had an ED)

Risk of Bias - Quantitative Studies - Cochrane method

- Quantitative studies relatively low risk for
 - Detection
 - Attrition
 - Reporting biases

Risk of Bias - Qualitative Studies - CASP Programme

- Kingston (2008)
 - Inadequate investigation of relationship between researcher and participant
 - Did not address potential researcher bias
 - Value of work could be expanded upon
- Lutter (2008); Lutter & Smith-Osborne (2011)
 - Unclear risk for rigor of data analysis (i.e., how themes determined)
- Træen et al (2012)
 - Did not describe investigator bias
- Sharpe (2013)
 - Heavily personal nature of hermeneutic approach limits applicability
 - Unclear if approach is appropriate for evaluating benefits of intervention

Risk of Bias - Case Studies - JBI Checklist

- Helm (2009)
 - No areas high in bias
- Lac (2017)
 - Unclear if participant demographics adequately described
- Dezutti (2013)
 - Insufficient participant demographics, history/timeline, current clinical condition

Overall Findings

- Evidence suggesting benefits of AAT for ED treatment
 - Psychological skills, healthy attachment modeling
 - Improving overall wellbeing



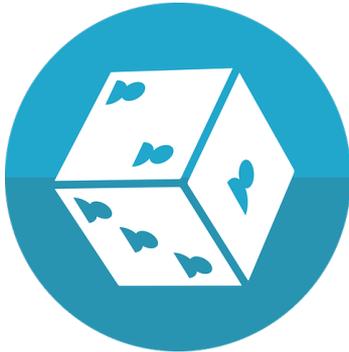
Discussion - Overall Findings

- Impossible to conclude if AAT is efficacious for ED treatment
- Some promise for its use, meriting further research
 - Quantitatively - dogs for overall well-being during inpatient treatment
 - Qualitatively - wide variety of psychological benefits reported by therapists and patients



Limitations

- Limited range of animals used
- Lack of RCTs, wide range of study types
 - Only RCT conducted was with dogs
- Many studies did not mention therapists' orientation
- Lack of participant diversity
- Cannot generalize to ARFID or BED

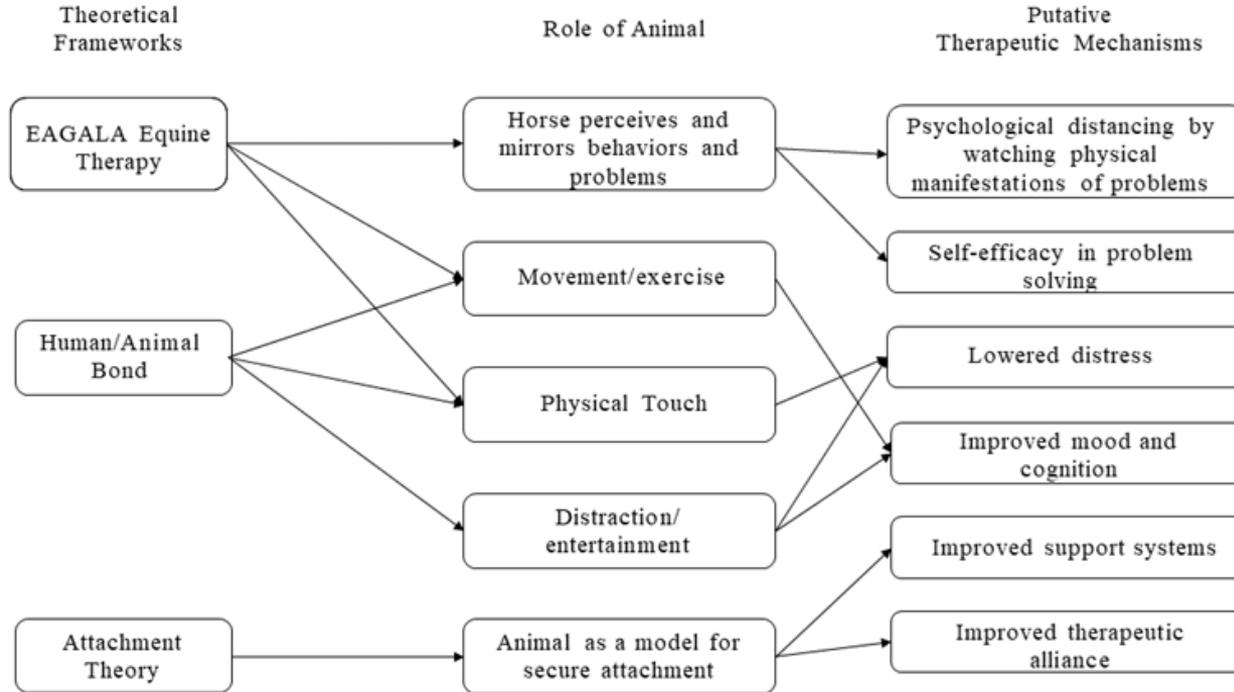


Future Directions

- RCTs examining ED symptom change
- Development and refinement of theoretical frameworks
 - Mechanisms of change
 - Disentangle role of exercise, presence of animals



Potential theories of therapeutic change via AAT



Questions?



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