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Diamond in the Ruff

Pet Therapy as an Adjunct Treatment Option in Psychiatry

Case

- 29 yo F with hx MDD and ADHD
- New job, new city
- Worsening depression
- On Prozac with good response
- Prominent symptoms
 - Loss of interest
 - Numbness
 - Apathy
- Started on Wellbutrin



Case

- Good response to Wellbutrin
- Ongoing dysfunction at home
- Patient asks about a therapy dog



Pet Therapy?



Outline

1. History
2. Studies on therapeutic effect of human-dog relationship on
 - a. Physical health
 - b. Psychiatric health
3. Theories of mechanisms of dog therapy
4. Current roles of the *therapy* dog in law and medicine
5. Implementation of dog therapy



Terminology

- Animal-Assisted Therapy (AAT)
- Dog-Assisted Therapy (DAT)



History

- First domesticated animal
- Originally used for working, hunting and blankets!
- Dog popularity increased after WW2
- 1950's: Dogs as workers
- 1980's: Dogs as pets



History of Dogs in Psychiatry

12,000 years ago	Human skeleton holding a puppy
1830	British charity commissioner recommended animals in mental institutions
1944	“Mental Hygiene of Owning a Dog” – Bossad
1962	“The Dog as the co-therapist: - Levinson
1970	Therapy dog at Children’s Psychiatric Hospital in Michigan
1971	McCulloch prescribes pets to patients
1972	Levinson Survey in NY, 33% psychotherapists use pets in treatment
1977	Dr. Katcher and Friedmann, early research on dogs vs. BP and mortality



Morrison. *Health Benefits of Animal-Assisted Interventions*.
Complementary Health Practice Review 2007

Health Studies

- Jenkins 1986
 - Lower BP while stroking a dog vs. reading aloud
- Friedmann & Thomas 1998
 - Higher survival rates of pet owners vs.. non-pet owners in adults with MI without other intervention
- Demello 1999
 - Reduced BP and HR in presence of dog. Petting further lowers heart rate.



Beetz et al. *Psychosocial and psychophysiological effects of human animal interactions*. Frontiers in Psychology. 2012

Health Studies

- Motooka et al 2006
 - Higher variability in heart rate when walking with a dog vs. without
- Handlin et al 2011
 - Lower HR 1 hour after interaction with dog



"Your blood pressure is too high.
Take two of these!"

Beetz et al. *Psychosocial and psychophysiological effects of human animal interactions*. Frontiers in Psychology. 2012

Recent Studies on Psychiatric Benefits of Dog Therapy



Anxiety & Psychiatric Inpatients

Population/Setting

- Inpatient psych patients

Comparison Groups

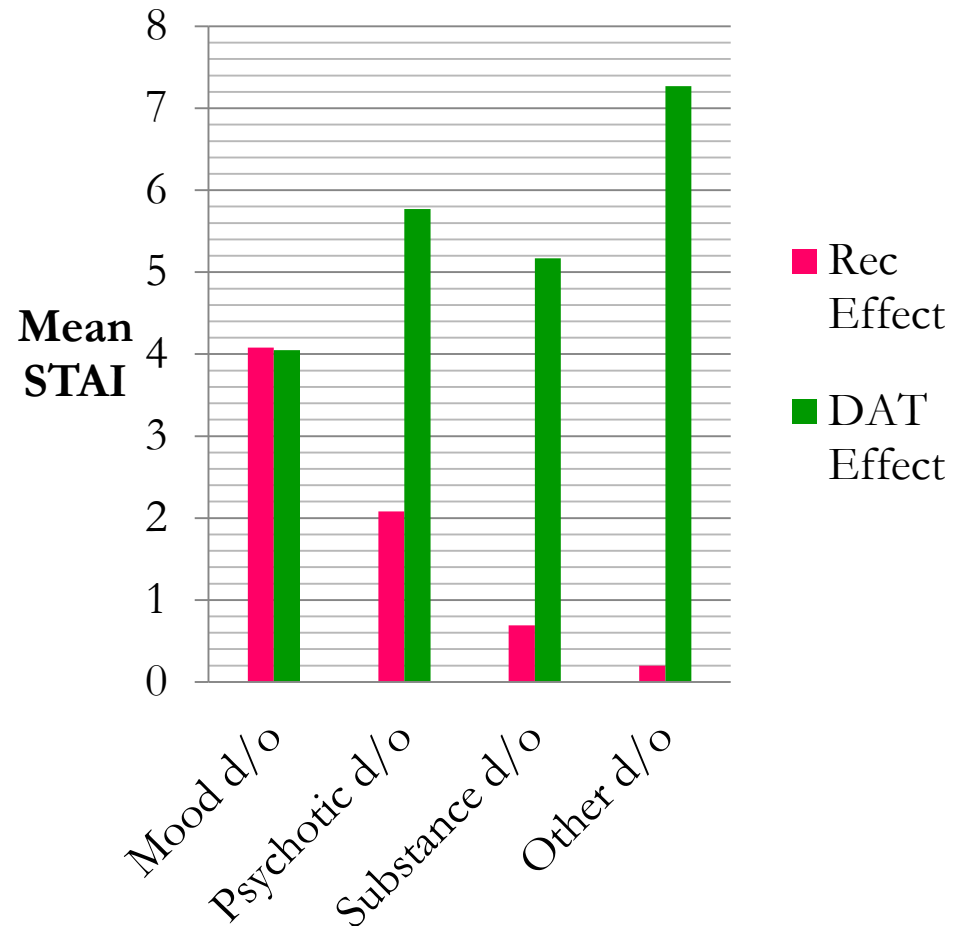
- 30 min DAT
- 30 min Recreational Therapy

Measurement

- Change in anxiety level
- State-Trait Anxiety Index
- Pre and Post

Outcome

- Significant effect size in those with psychotic d/o and other d/o
- Effect of recreation vs. DAT same in mood d/o



Barker and Dawson. *The Effects of Animal-Assisted Therapy on Anxiety Ratings of Hospitalized Psychiatric Patients*. Psychiatric Services 1998

Anxiety in Depressed Inpatients

Population/Setting

- Depressed Inpatients

Comparison Groups

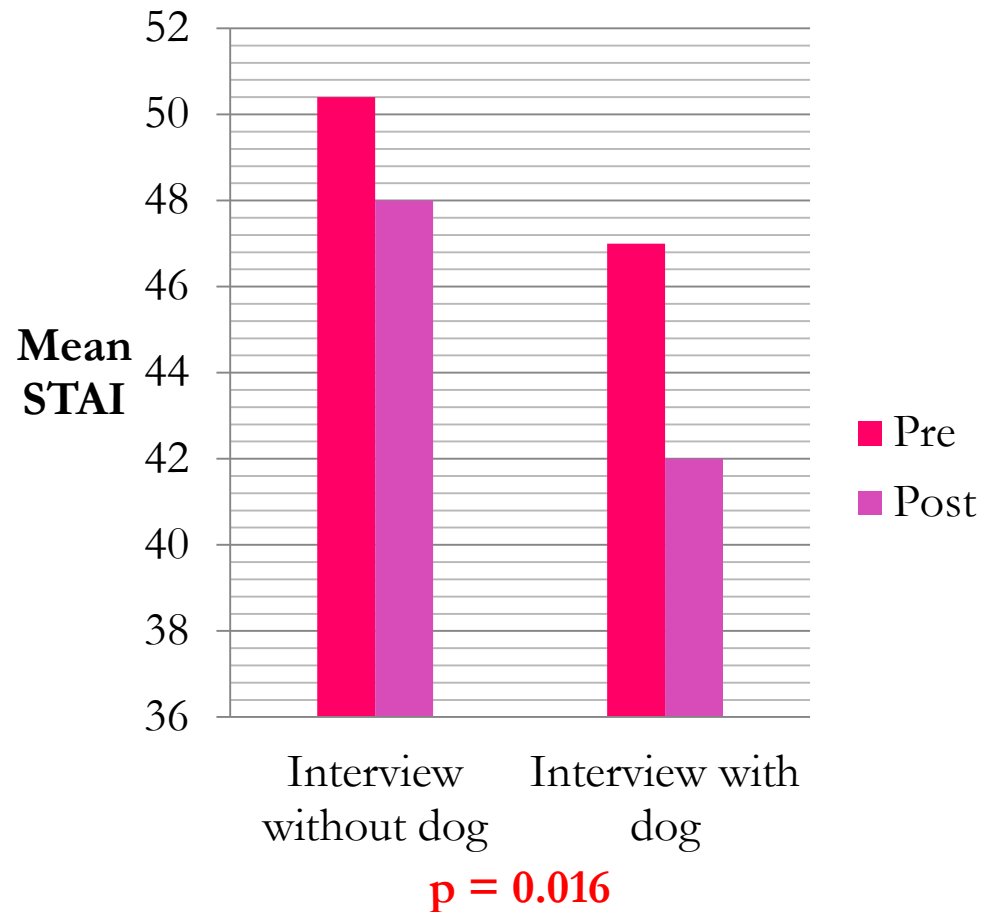
- Interview with dog
- Interview without dog

Measurement

- Change in anxiety level
- State-Trait Anxiety Index
- Pre and Post

Outcome

- Significant decrease in anxiety in presence of dog



Hoffmann et al. *Dog-assisted intervention significantly reduces anxiety in hospitalized patients with major depression*. European Journal of Integrative Medicine 2009.

Depression & Anxiety in Elderly

Population/Setting

- Elderly patients in nursing homes

Comparison Groups

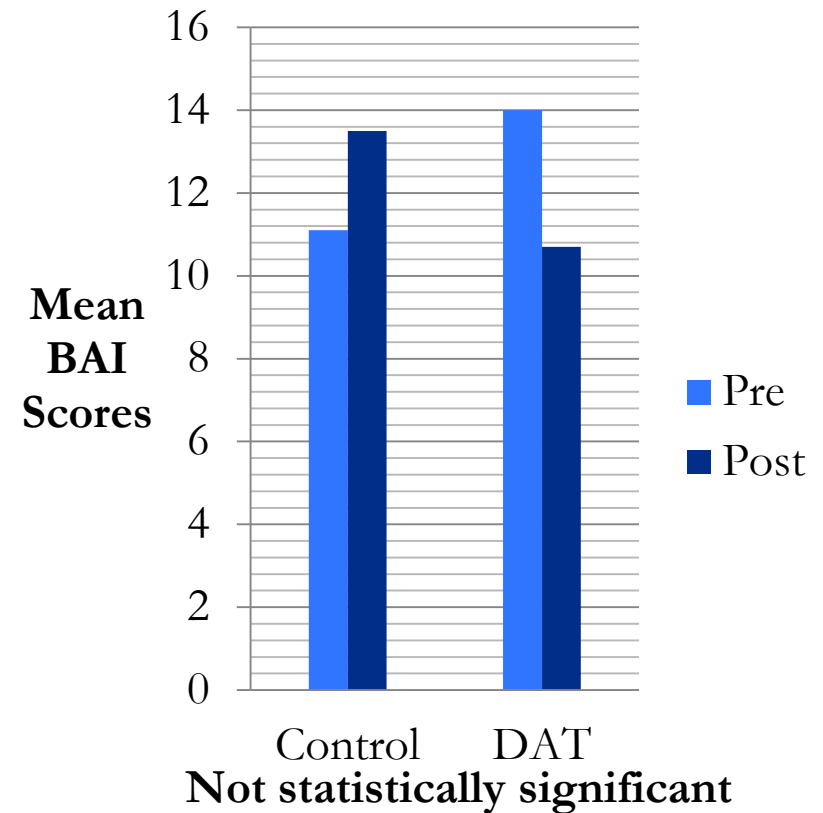
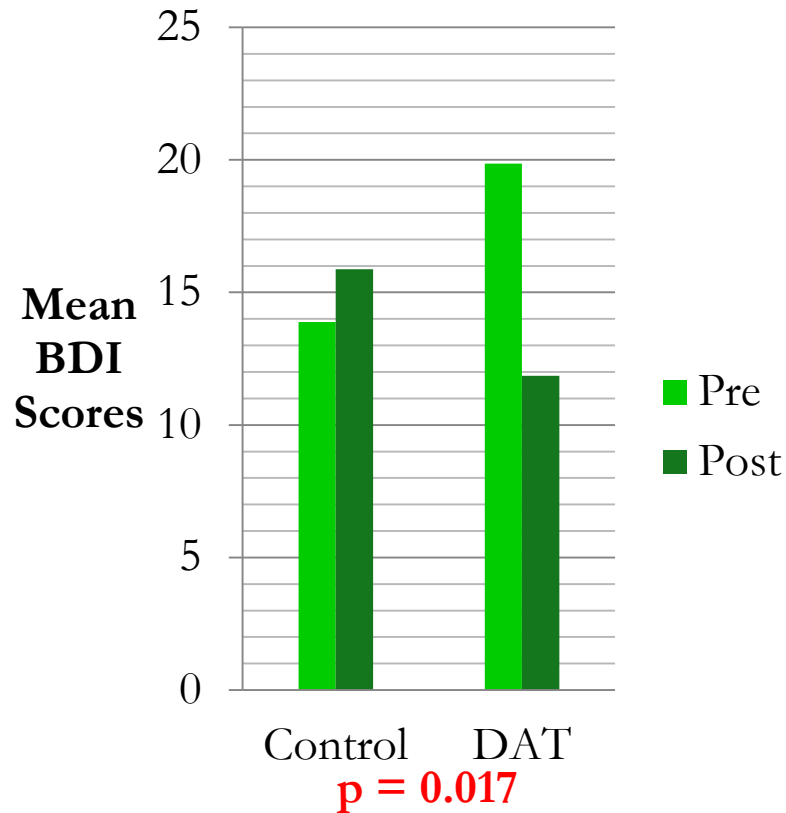
- One hour DAT, weekly for six weeks
- One hour Recreational Therapy, weekly for six weeks

Measurement

- Change in depression and anxiety level
- Beck Depression Index and Beck Anxiety index
- Pre and Post

Le Roux and Kemp. *Effect of a companion dog on depression and anxiety levels of elderly residents in a long-term care facility.*
Psychogeriatrics 2009.

Depression & Anxiety in Elderly

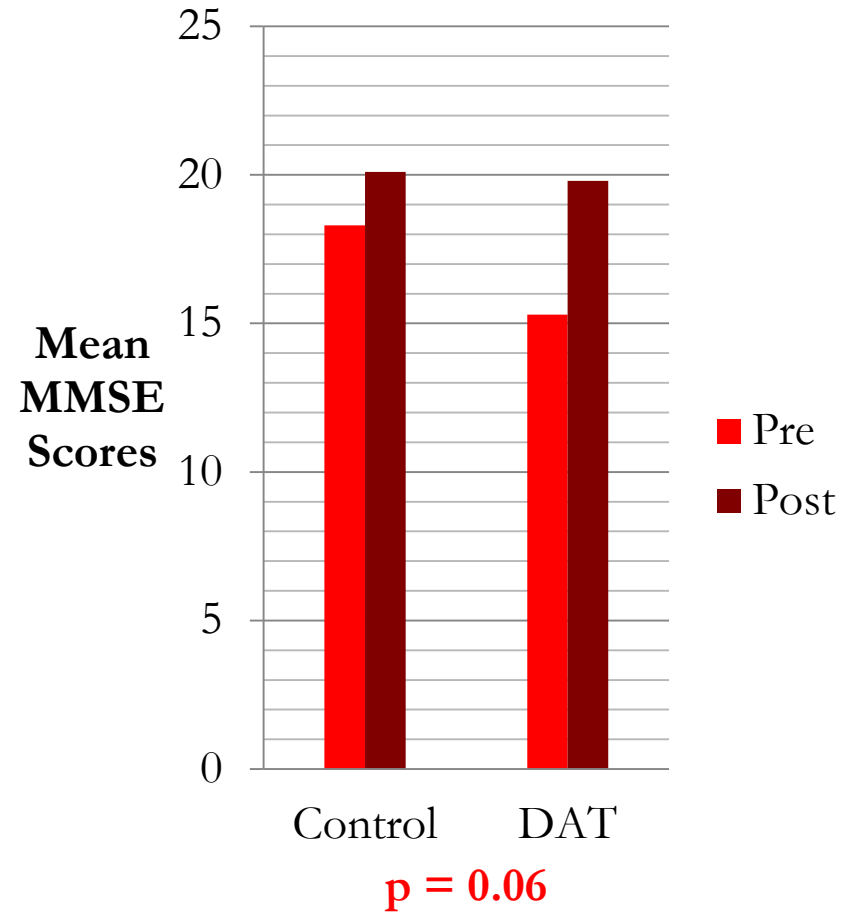
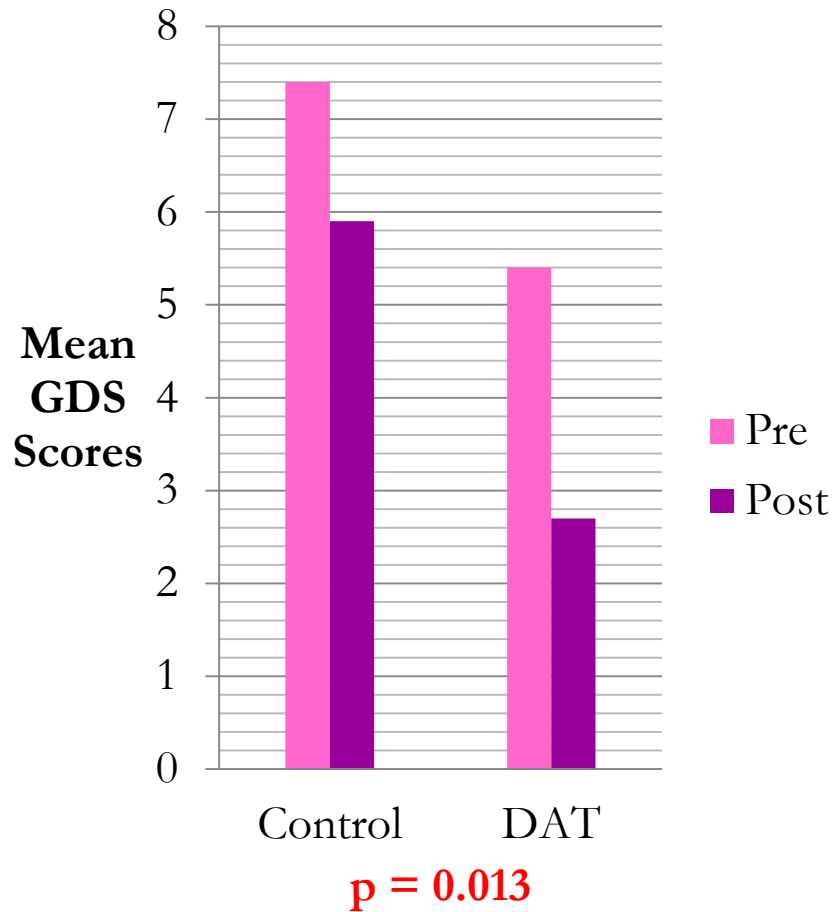


Outcome

- Decrease in depression and anxiety in DAT group

Le Roux and Kemp. *Effect of a companion dog on depression and anxiety levels of elderly residents in a long-term care facility.* Psychogeriatrics 2009.

Cognitive Function & Mood in Elderly



Moretti et al. *Pet therapy in elderly patients with mental illness.* Psychogeriatrics 2010.

Problems in Studying DAT

- Most research relies on self-reported symptoms by participants
- Difficult to control
 - Handlers
- Short time period
 - Volunteer therapy dogs, difficult to find long term dog therapy providers
- Small sample sizes
 - Low power



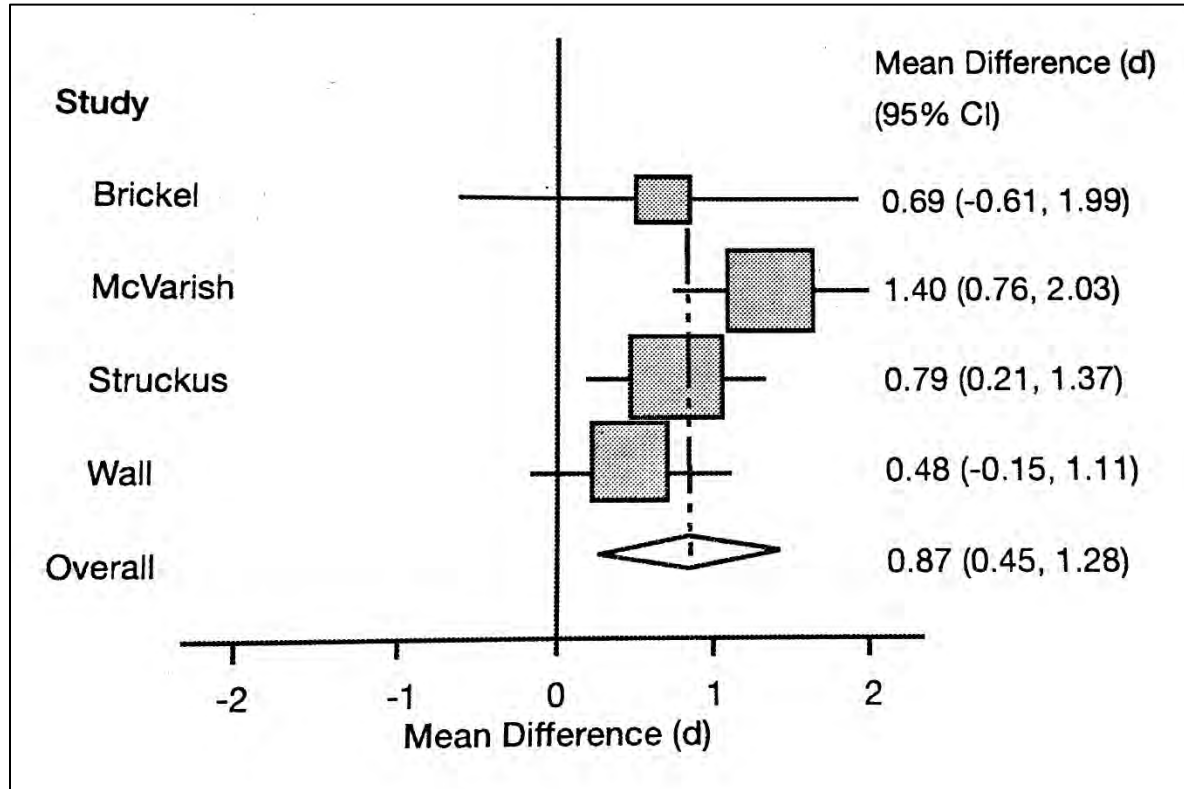
Meta-Analysis #1 – Effectiveness of AAT

- AAT produced moderate effect size
 - Autism spectrum
 - Medical difficulties
 - Behavioral problems
 - Emotional well-being
- Dogs are #1
- Type of animal > Type of problem



“My therapy is quite simple: I wag my tail and lick your face until you feel good about yourself again.”

Meta-Analysis #2 – Effectiveness of AAT for Depression



- 220 outpatients w/ depression
- One hour DAT weekly with talk therapy vs. therapy alone

DAT Studies

Authors	Population	Significant Effects of DAT
Fick 1993	Elderly males in nursing homes	More verbal interaction among group members
Na and Richang 2003	Normal adults with grown children	Self-reported better mental and physical health More still married
Fournier et al. 2007	Prison inmates	More social skills Fewer institutional infractions
Headey et al. 2008	Normal adults	Fewer self-reported doctor visits, better health
Gee et al 2007-2010	Children in pre-school	Better performance in school Fewer mistakes made Better concentration
	Children in pre-school w/ developmental retardation	Faster completion of tasks Better adherence to instructions

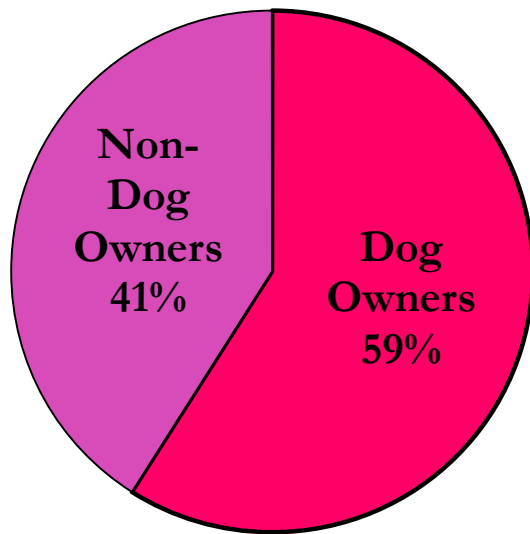
Beetz et al. *Psychosocial and psychophysiological effects of human animal interactions*. Frontiers in Psychology. 2012

Social Value of DAT



Dog Owners vs. Non-dog owners

117 Participants



No difference between owners vs. non for the following: gender, age, social support, annual income or self-reported social class

MORE likely to

Have dx of bipolar disorder or affective psychosis than Schizophrenia-spectrum	$p = 0.005$
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Have co-occurring addiction	$p = 0.041$
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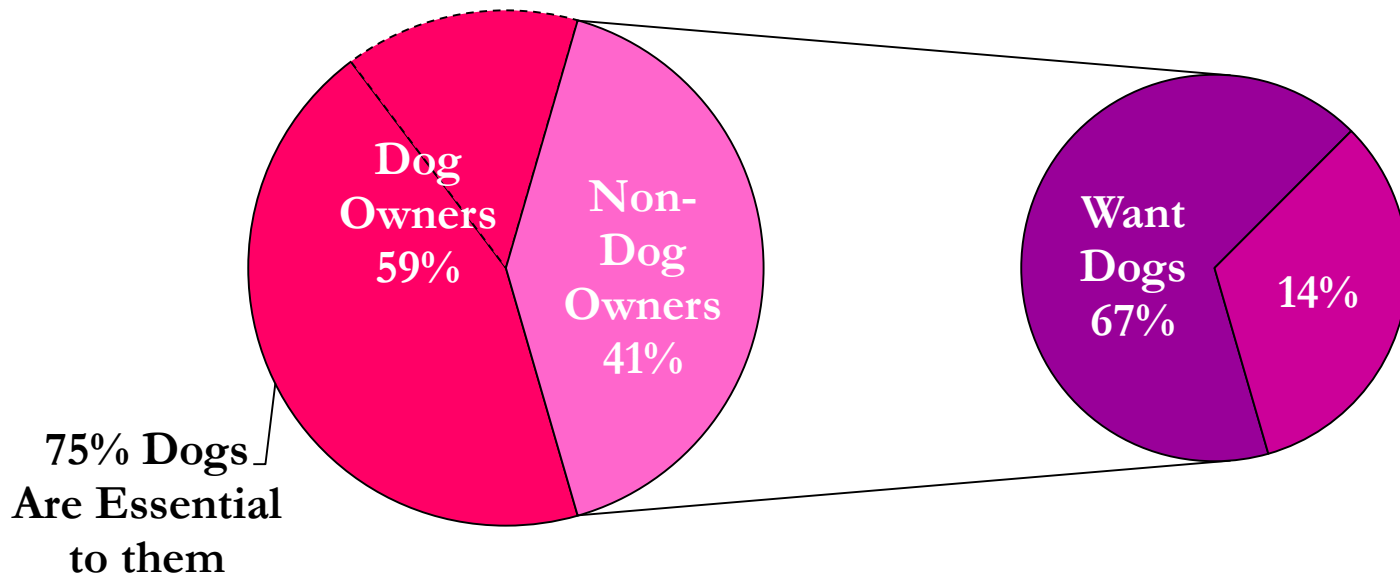
Live with others than alone	$p = 0.001$
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LESS likely to...

Be hospitalized	$p = 0.04$
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Wisdom et al. *Another Breed of "Service" Animals: STARS Study Findings About Pet Ownership and Recovery From Serious Mental Illness.* Journal of American Orthopsychiatry. 2009

Perception of Pets



- 75% of pet owners say dog is *very* important to them
- 67% of non-pet owners want dogs but can't have them due to cost or living situations

Empathy & Therapy

- Perception that pets can empathize
- Participants felt animals could sense human emotions and act accordingly



Wisdom et al. *Another Breed of "Service" Animals: STARS Study Findings About Pet Ownership and Recovery From Serious Mental Illness.* Journal of American Orthopsychiatry. 2009

Connections

- Serve as companions
- Help combat loneliness
- Bridge to interacting with other humans
- Increased connection with others
- Stronger sense of belonging and integration into mainstream community



"I have only one real, true friend."



Wisdom et al. *Another Breed of "Service" Animals: STARS Study Findings About Pet Ownership and Recovery From Serious Mental Illness.* Journal of American Orthopsychiatry. 2009

Sense of Family

- Pets seen as family
- Can fill roles of family relationships that are strained or absent



Wisdom et al. *Another Breed of "Service" Animals: STARS Study Findings About Pet Ownership and Recovery From Serious Mental Illness.* Journal of American Orthopsychiatry. 2009

Self-Efficacy & Self-Worth

- Essential to well-being of pet
- Feeling of responsibility and control
- Form stronger sense of self
- Increased self-confidence



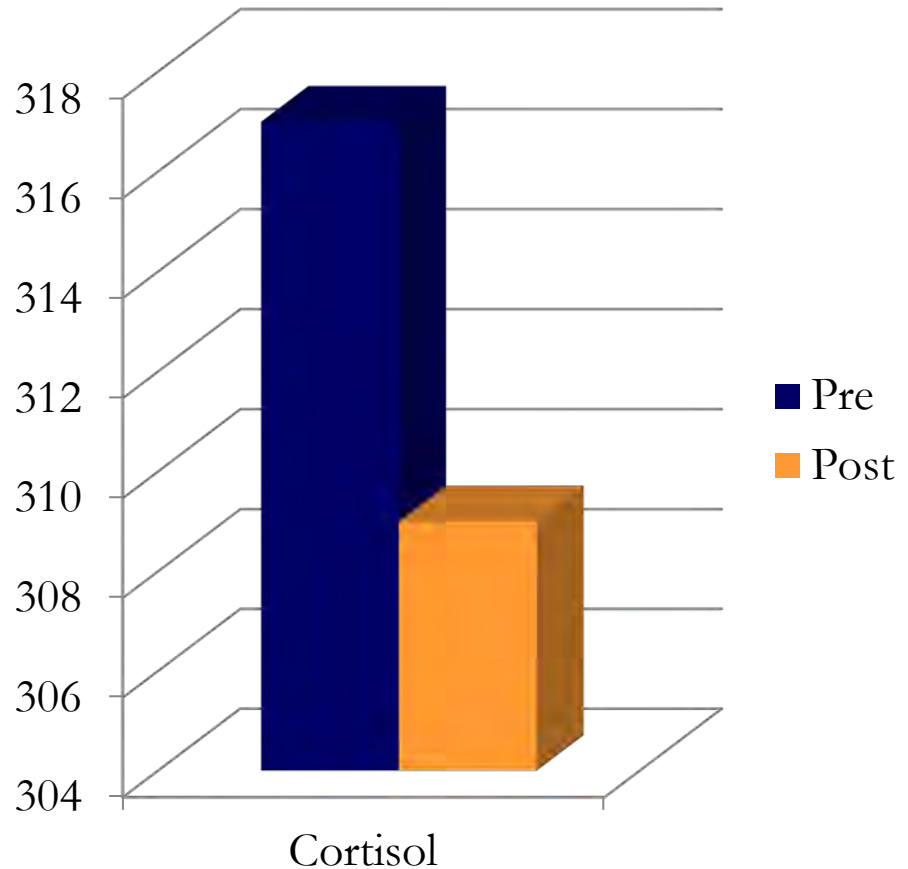
Wisdom et al. *Another Breed of "Service" Animals: STARS Study Findings About Pet Ownership and Recovery From Serious Mental Illness.* Journal of American Orthopsychiatry. 2009

DAT and Physiology



Physiological Correlates

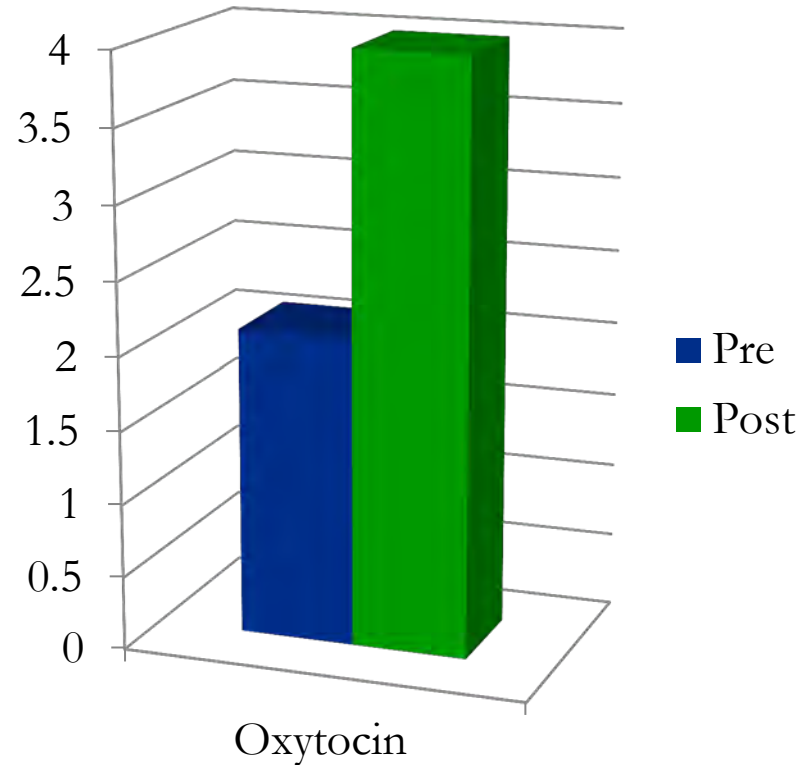
- Non-clinical adults
- Thirty minutes petting a dog
- Immediate pre and post cortisol levels



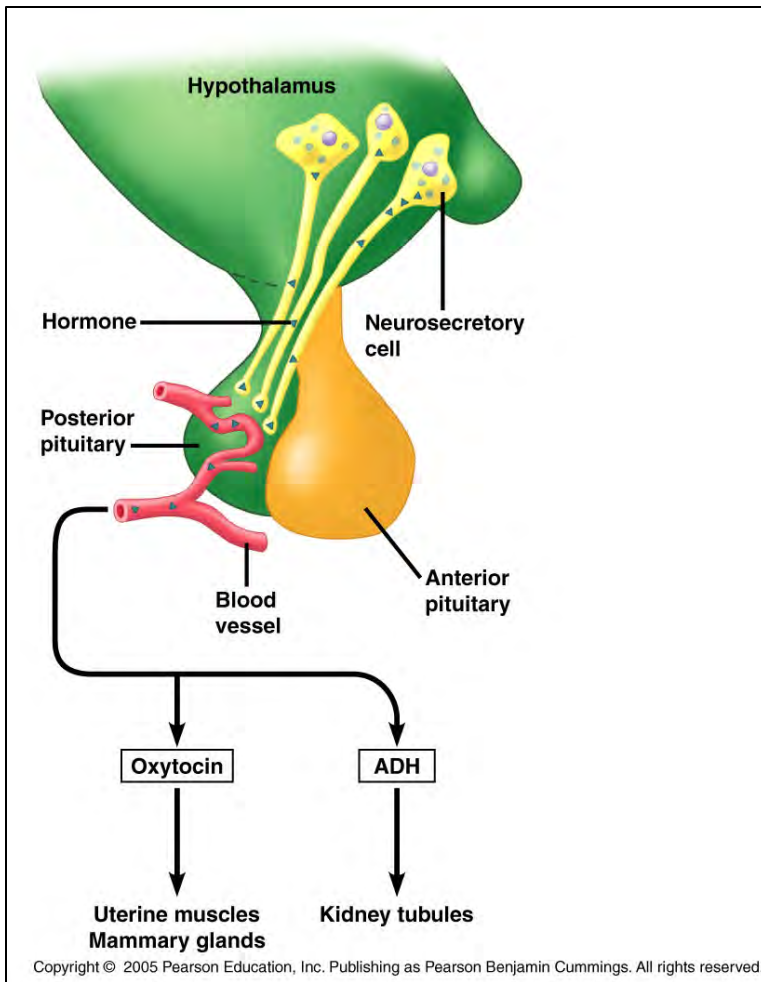
Odendall and Meintjes. *Neurophysiological Correlates of Affiliative Behavior between Humans and Dogs*. *He Veterinary Journal* 2003

Physiological Correlates

- Significant increase in blood levels
 - Beta-Endorphin
 - Prolactin
 - Phenyl Acetic Acid
 - Dopamine
 - Oxytocin



DAT and Oxytocin (OT)



- Miller 2009
 - DAT leads to increase OT in women vs. reading aloud
- Nagasawa 2009
 - Longer gazing at a dog increases urine OT levels vs. no eye contact with a dog
- Handlin 2011
 - Increased OT in women after petting and talking to dogs for 3 minutes compared to control

Role of Oxytocin (OT)

- Positive effects on social interaction
 - Eye contact
 - Empathy
 - Facial recognition
 - Trust
 - Positive self-perception
- Anti-stress effects
- Positive effects on pain and immune system
 - Increases pain threshold
- Enhances health and restoration
 - Digestion
 - Growth



Summary of Benefits

➤ Physical Health

- Decreased stress
- Lower blood pressure
- More exercise
- Decreased mortality

➤ Social/Emotional Wellbeing

- Empathy
- Connections
- Sense of Family
- Self-Esteem/Self-Efficacy
- Role-establishing



Pet Therapy in Law and Medicine



Service Dogs

- Trained to do specific work to mitigate disability
- Allowed in all public arenas
- Petting and interaction discouraged
- Services
 - Seeing eye dogs
 - Seizure detection
 - Help in hypoglycemic emergencies
 - Daily tasks for immobility



Emotional Support Dogs

- For treatment of mental illness that limits normal daily functioning, i.e disability
- No training needed
- Protected by FHA & ACSA



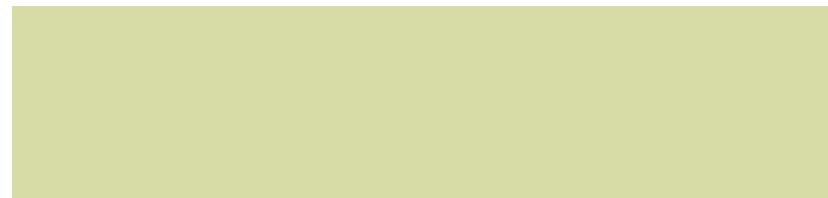
Therapy Dogs

- Specially trained to be calm and tolerate different environments
- Visits hospitals to aid in psychological or physical therapy
- Petting encouraged!



American Disabilities Act 1990

- A service animal is any **dog** that is individually trained to do work or perform tasks for the benefit of an individual with a disability, including a physical, sensory, psychiatric, intellectual, or other mental disability.
- All public domains must make reasonable accommodations for all service dogs
- Dog must be calm and under handler's control
- Can only ask two questions
 - Is the animal required because of a disability?
 - What work has the animal been trained to perform?

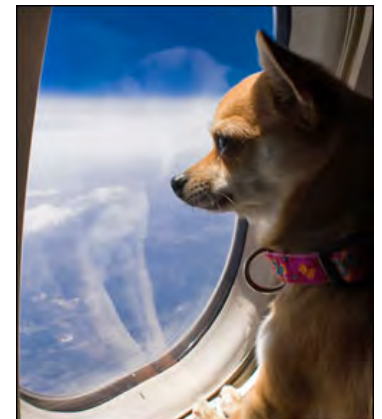
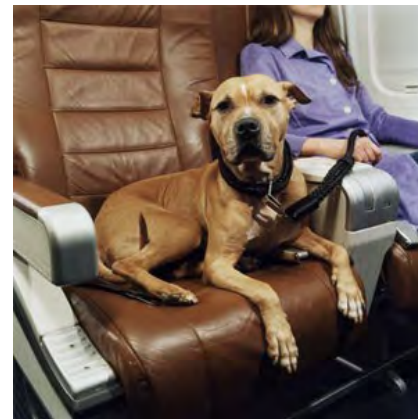


Fair Housing Act 1989

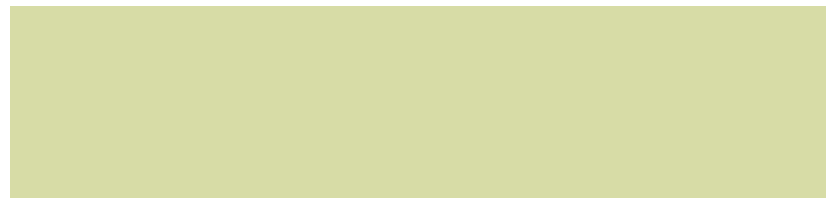
- Originally, the Civil Rights Act of 1964
- Amended in 1989 to include disabled person
- Amendments
 - Housing providers must make exceptions to a “no-pets” policy for service animals and emotional support animals
 - May not charge fees for the assistance animal
 - Can charge for damage to housing unit only if it’s excessive beyond ordinary wear-and-tear

Air Carrier Service Act 1990

- Amendment in 2008 allowed emotional support animals to accompany owners
- May ask for documentation of service or support animal if it is not obvious



	Service Dog	Emotional Support Dog	Therapy Dog
Description	Dog works for owner	Dog treats Owner	Dog treats others, NOT owner
Laws protecting this type of dog	ADA FHA Air Carrier Act	FHA Air Carrier Act	
Allowed in all public arenas	✓		
Allowed in all housing regardless of pet policy	✓	✓	
Allowed to fly without in cabin without fees	✓	✓	



Implementation



How to “Prescribe”



“You need strong medicine to relieve your stress. I’m prescribing a puppy.”

- No actual prescription
- Encourage to seek pet if helpful
- Can write a letter for housing and travel protection

Emotional Support Dog Letter

➤ Requirements

- Must not more than one year old
- Must be on professional letterhead

➤ Contents

- Tenant/Passenger has mental health-related **disability** that substantially limits one or more major life activities
- Presence of the animal is **necessary** part of tenant's/passenger's health or treatment.
- Writer of the letter is a **licensed mental health professional** and that the tenant/passenger is under his/her care.



Considerations Before “Prescribing”



- Cost
- Ability to care for animal
- Permanent “prescription”
- Other household members

Summary of Benefits

➤ Physical Health

- Decreased stress
- Lower blood pressure
- More exercise
- Decreased mortality

➤ Social/Emotional Wellbeing

- Empathy
- Connections
- Sense of Family
- Self-Esteem/Self-Efficacy
- Role-establishing



Who Can Benefit from DAT?

- MDD
- Anxiety d/o
- Veterans with PTSD
- Chronic psychosis
- Autism-spectrum disorders
- Substance use disorders
- Hospitalized children
- Dementia
- Children or Adults with developmental delay
- Chronic illness
- Patients on Psych Consult Service
- Chronic Pain Patients
- Acute Psychiatric Inpatients
- Group Residential Programs
- Doctors



Successful DAT Programs

- Service Dogs for Veterans Program
- Partnered with American Humane Association
- Assists veterans in adopting and training a shelter dog



Successful DAT Programs

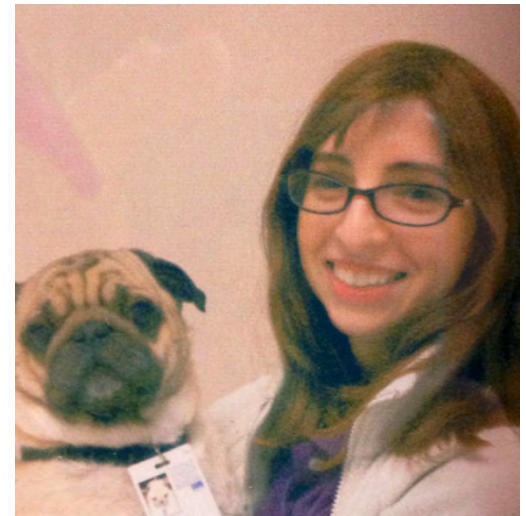
- POOCH Program – Cedars-Sinai Medical Center
- Jack and the Helping Dog – Mayo Clinic
- GWUH – Provides certified pet therapists who conduct visits on Tuesday evenings and Wednesday mornings.



Debbie & Bo



Richard & Winston



Meisha & Joey

Case

- Therapy dog prescribed
- Dog was comforting
- Home no longer empty
- Pt walked more, went outside.
- Taking care of dog allowed her to take care of self
- Successful adjunct to ongoing treatment



Acknowledgements

- Dr. Mikhail Kogan
- Dr. Norris
- Dr. Browne
- Dr. Eindra Khin Khin
- Dr. Lisa Catapano
- Dr. Lori Kels
- Dr. Karen Wooten
- Christopher Perras
- My dog Rooby!



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