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?
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

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

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.

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!”

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

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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

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

Depression & Anxiety in Elderly

Outcome

• Decrease in depression and anxiety in DAT group

Cognitive Function & Mood in Elderly

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

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

Social Value of DAT
Dog Owners vs. Non-dog owners

117 Participants

Dog Owners 59%

Non-Dog Owners 41%

MORE likely to

- Have dx of bipolar disorder or affective psychosis than Schizophrenia-spectrum  \( p = 0.005 \)
- Have co-occurring addiction  \( p = 0.041 \)
- Live with others than alone  \( p = 0.001 \)

LESS likely to...

- Be hospitalized  \( p = 0.04 \)

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

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

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

Sense of Family

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

Self-Efficacy & Self-Worth

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

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*. The 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

www.ada.gov
Emotional Support Dogs

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

www.ada.gov
Therapy Dogs

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

www.ada.gov
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

http://www.justice.gov/crt/about/hce/title8.php
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
<table>
<thead>
<tr>
<th>Description</th>
<th>Service Dog</th>
<th>Emotional Support Dog</th>
<th>Therapy Dog</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dog works for owner</strong></td>
<td>ADA, FHA, Air Carrier Act</td>
<td>FHA, Air Carrier Act</td>
<td>Dog treats others, NOT owner</td>
</tr>
<tr>
<td><strong>Laws protecting this type of dog</strong></td>
<td>ADA, FHA, Air Carrier Act</td>
<td>FHA, Air Carrier Act</td>
<td></td>
</tr>
<tr>
<td><strong>Allowed in all public arenas</strong></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Allowed in all housing regardless of pet policy</strong></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Allowed to fly without in cabin without fees</strong></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
Implementation
How to “Prescribe”

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

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

http://www.va.gov/health/serviceandguidedogs.asp
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
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- My dog Rooby!
References


