Paws with a Purpose:
Evidence Supporting the Use of Animal-Assisted Therapy to Improve Quality of Life in Adults with Psychiatric Diagnoses

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Presented in Partial Fulfillment of the Master of Science in Occupational Therapy degree at Thomas Jefferson University

Objectives of Presentation:
At the conclusion of this presentation, the audience will be able to:

1. Define Animal-Assisted Therapy and its role within the treatment of psychiatric diagnoses.
2. Identify three reasons why Animal-Assisted Therapy is relevant to Occupational Therapy practice.
3. Describe current evidence related to Animal-Assisted Therapy for clients with psychiatric diagnoses.
4. Discuss the future clinical implications of the findings for Occupational Therapy.
5. Propose future areas of research regarding the use of Animal-Assisted Therapy.

Clinical Question: Is Animal-Assisted Therapy (AAT) an effective intervention for increasing quality of life in adults with psychiatric diagnoses?

Methods:

- Databases used: CINAHL, Ovid MEDLINE, PsycINFO & Google Scholar
- Search terms:
  - Population: adult, geriatric, dementia, psychiatric diagnoses, mental illness, Alzheimer's, depression, schizophrenia
  - Intervention: animal-assisted therapy/intervention/activity, pet therapy
  - Outcome: quality of life, social participation, health and wellness
- Inclusion Criteria: adults (18 years and older), published 1995-present, written in English, psychiatric diagnoses, peer reviewed, use of animal-assisted therapy, quality of life outcomes
- Exclusion criteria: hippotherapy, expert opinion without evidence from supported research, studies with outcome measures that only focus on behavioral changes
- 228 articles found in database search plus 6 additional articles from other sources. 216 articles excluded. Total of 13 articles included in final synthesis.

Results:

- Major themes identified in article synthesis were:
  - Overall quality of life (3 articles)
    - 1 study found an improvement in self-perceived quality of life, but the results were not significant (Moretti)
  - Social well-being (6 articles)
    - 5 studies found AAT resulted in a significantly positive increase in social well-being
    - Increased social interactions (Richeson, Barak), increased conversation skills (Virues-Ortega), and increased social contact with neighbors (Zimolag)
  - Physical/functional well-being (7 articles)
    - 1 study found a statistically significant increase in meaningful activities in the community (Zimolag)
    - 5 studies trended towards significance
  - Emotional well-being (7 articles)
    - 4 studies found AAT resulted in a statistically significant improvement in emotional well-being
    - Reduction of symptoms of depression and anxiety (Virues-Ortega, Moretti), increased feelings of self-efficacy (Berget), and improved psychological well-being as a result of enhanced community integration (Zimolag)
  - Improvement in behavioral and psychological symptoms of dementia (BPSD) (4 studies)
    - Increase in cooperation and a decrease in distortion/restlessness (Nordgren), and a decrease in observable agitated behaviors in individuals with dementia (Sellers, Richeson) including delusional concepts, aggressiveness, and agitation (Kanamori)
- Take Home Message: AAT appears to have the most significant positive effect on the *social* aspect of quality of life
  - OTs can use AAT to increase social participation of clients with psychiatric diagnoses
  - Positive effects on emotional well-being
    - OTs can have patients work with animals in order to increase feelings of self-confidence and self-efficacy
  - Decrease in BPSD
    - OTs can implement AAT in order to decrease incidence of delusional ideation, agitation, aggression etc.
- Implications for future research
  - Test AAT as an Occupational Therapy treatment (eg. randomized controlled trials)
  - Assess the effectiveness of AAT for individuals with dementia and the effect on BPSD
  - Assess potential in robotic AAT, which may be more acceptable in hospital settings due to concern for germs etc.
- Implications for Occupational Therapy
  - Opportunity for the development of a standard Occupational Therapy protocol or treatment approach based upon specific outcomes (social participation, functional/physical performance (ADLs, IADLs), emotional well-being)
  - Determine most appropriate outcome measures to assess results of AAT
    - In order to track progress, demonstrate effectiveness and predict outcomes

References (* Article included in systematic review)

Alzheimer's Association. (2013). *Alzheimer's Facts and Figures*. alz.org. Retrieved August 2013, from http://www.alz.org/alzheimers_disease_facts_and_figures.asp

*Barak, Y., Savorai, O., Mavashev, S., & Beni, A. (2001). Animal-assisted therapy for elderly schizophrenic patients: A one-year controlled trial. *The American Journal of Geriatric Psychiatry*, *9*(4), 439-442.

*Berget, B., Ekeberg, Ø., & Braastad, B. O. (2008). Animal-assisted therapy with farm animals for persons with psychiatric disorders: Effects on self-efficacy, coping ability and quality of life, a randomized controlled trial. *Clinical Practice and Epidemiology in Mental Health*, *4*(1), 9.

Cella, D. F. (1994). Quality of life: Concepts and definition. *Journal of Pain and Symptom Management*, *9*(3), 186-192.

Goldberg, B., Brintnell, E. S., & Goldberg, J. (2002). The relationship between engagement in meaningful activities and quality of life in persons disabled by mental illness. *Occupational Therapy in Mental Health*, *18*(2), 17-44.

Graff, M. J., Vernooij-Dassen, M. J., Thijssen, M., Dekker, J., Hoefnagels, W. H., & Olde Rikkert, M. G. (2007). Effects of community occupational therapy on quality of life, mood, and health status in dementia patients and their caregivers: A randomized controlled trial. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, *62*(9), 1002-1009.

Griffiths, S., & Corr, S. (2007). The use of creative activities with people with mental health problems: A survey of occupational therapists. *The British Journal of Occupational Therapy*, *70*(3), 107-114.

*Kanamori, M., Suzuki, M., Yamamoto, K., Kanda, M., Matsui, Y., Kojima, E., ... & Oshiro, H. (2001). A day care program and evaluation of animal-assisted therapy (AAT) for the elderly with senile dementia. *American Journal of Alzheimer's Disease and Other Dementias*, *16*(4), 234-239.

*Kramer, S. C., Friedmann, E., & Bernstein, P. L. (2009). Comparison of the effect of human interaction, animal-assisted therapy, and AIBO-assisted therapy on long-term care residents with dementia. *Anthrozoos: A Multidisciplinary Journal of The Interactions of People & Animals*, *22*(1), 43-57.

Lehman, A. F. (1983). The well-being of chronic mental patients: Assessing their quality of life. *Archives of General Psychiatry*, *40*(4), 369.

Majić, T., Gutzmann, H., Heinz, A., Lang, U. E., & Rapp, M. A. (2013). Animal-assisted therapy and agitation and depression in nursing home residents with dementia: A matched case–control trial. *The American Journal of Geriatric Psychiatry*.

*Menna, L. F., Fontanella, M., Santaniello, A., Ammendola, E., Travaglino, M., Mugnai, F.,& Fioretti, A. (2012). Evaluation of social relationships in elderly by animal-assisted activity. *International Psychogeriatrics*, *24*(06), 1019-1020.

Mendlowicz, M. V., & Stein, M. B. (2000). Quality of life in individuals with anxiety disorders. *American Journal of Psychiatry*, *157*(5), 669-682.

*Moretti, F., De Ronchi, D., Bernabei, V., Marchetti, L., Ferrari, B., Forlani, C., ... & Atti, A. R. (2011). Pet therapy in elderly patients with mental illness. *Psychogeriatrics*, *11*(2), 125-129.

National Institute of Health. (n.d.). The Numbers Count: Mental Disorders in America. *National Institute of Mental Health.* Retrieved July 2013, from http://www.nimh.nih.gov/health/publications/the-numbers-count-mental-disorders-in-america/index.shtml#Intro

*Nordgren, L., & Engström, G. (2012). Effects of animal-assisted therapy on behavioral and/or psychological symptoms in dementia a case report. *American Journal of Alzheimer's Disease and Other Dementias*, *27*(8), 625-632.

*Pedersen, I., Ihlebæk, C., & Kirkevold, M. (2012). Important elements in farm animal-assisted interventions for persons with clinical depression: A qualitative interview study. *Disability and Rehabilitation*, *34*(18), 1526-1534.

*Richeson, N. E. (2003). Effects of animal-assisted therapy on agitated behaviors and social interactions of older adults with dementia. *American Journal of Alzheimer's Disease and Other Dementias*, *18*(6), 353-358.

Stein, D. J., Phillips, K. A., Bolton, D., Fulford, K. W. M., Sadler, J. Z., & Kendler, K. S. (2010). What is a mental/psychiatric disorder? From DSM-IV to DSM-V. *Psychological Medicine*, *40*(11), 1759-1765.

*Sellers, D. M. (2006). The evaluation of an animal assisted therapy intervention for elders with dementia in long-term care. *Activities, Adaptation & Aging*, *30*(1), 61-77.

Selwood, A., Thorgrimsen, L., & Orrell, M. (2005). Quality of life in dementia—a one- year follow up study. *International Journal of Geriatric Psychiatry*, *20*(3), 232-237.

Velde, B. P., Cipriani, J., & Fisher, G. (2005). Resident and therapist views of animal- assisted therapy: Implications for occupational therapy practice. *Australian Occupational Therapy Journal*, *52*(1), 43-50.

*Virués-Ortega, J., Pastor-Barriuso, R., Castellote, J. M., Población, A., & de Pedro-Cuesta, J. (2012). Effect of animal-assisted therapy on the psychological and functional status of elderly populations and patients with psychiatric disorders: A meta-analysis. *Health Psychology Review*, *6*(2), 197-221.

Willis, D. A. (1997). Animal therapy. *Rehabilitation Nursing*, *22*(2), 78-81.

*Zimolag, U. U., & Krupa, T. (2009). Pet ownership as a meaningful community occupation for people with serious mental illness. *The American Journal of Occupational Therapy*, *63*(2), 126-137.

*Zisselman, M. H., Rovner, B. W., Shmuely, Y., & Ferrie, P. (1996). A pet therapy intervention with geriatric psychiatry inpatients. *The American Journal of Occupational Therapy*, *50*(1), 47-51.

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