



Sveriges lantbruksuniversitet  
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# **Animal Assisted Interventions effects on animal welfare**

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# Animal Assisted Intervention (AAI)

A goal oriented and structured intervention that intentionally includes or incorporates animals in health, education and human services (e.g., social work)

Purpose to provide therapeutic gains in humans.

Involves people with knowledge of the people and animals involved.

Should be developed and implemented using an interdisciplinary approach.

*(IAHAIO White Paper 2018)*





# Animal Assisted Intervention

(AAI)

Animal Assisted  
Therapy (AAT)

Animal Assisted  
Education (AAE)

Animal Assisted  
Activity (AAA)

Animal Assisted  
Coaching (AAC)





# One Health One Welfare

AAI is delivered within the 'One Health One Welfare' frame work.

IAHAIO (2018) has a list of guidelines that should protect both human and animal welfare.

Persons who delivers AAI or handle the animal must have adequate knowledge about behaviour, needs, health and indicators and regulation of stress of the animals involved

*(IAHAIO, 2018)*





# Species used within AAI

Few limits on which species that can be used in AAI.

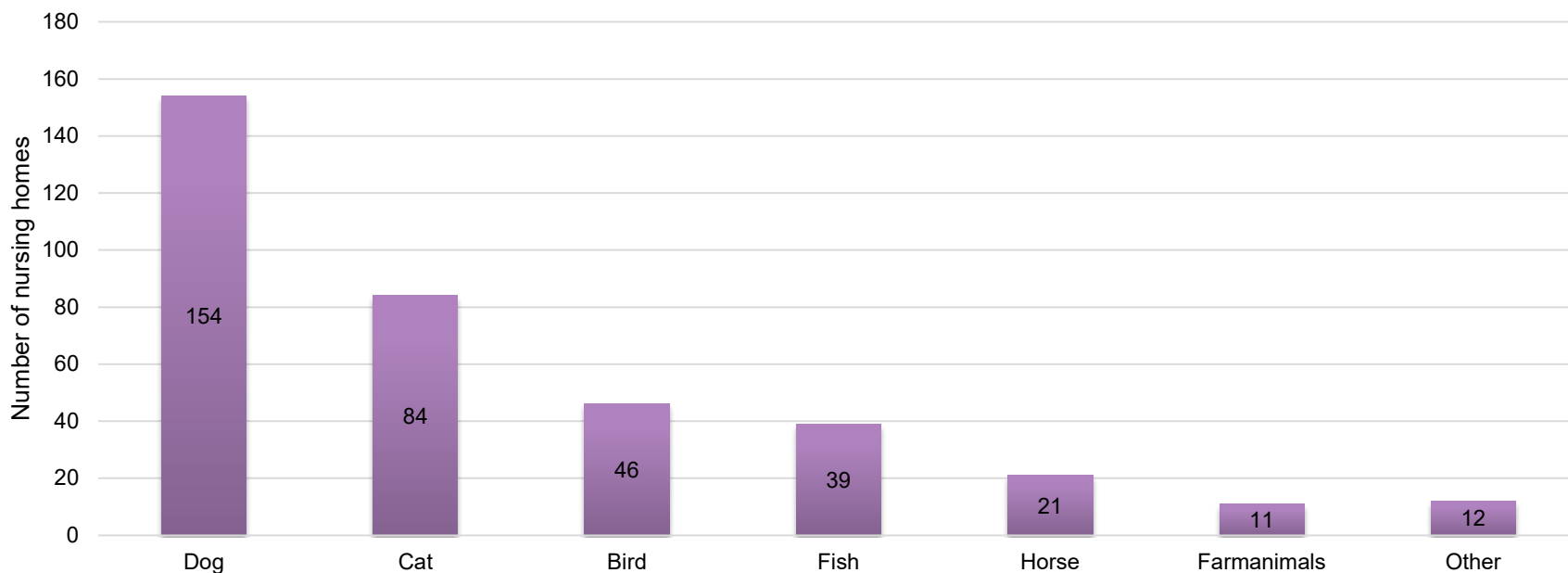
The most common species are dogs and horses (*Thodberg & Christensen, 2010*)

Smaller pets and even reptiles has shown to give effects (*Murray & Allen, 2012; O'Haire et al., 2013*)

Cultural differences between countries play a role in choice of animal for AAI



# Which animals are used in nursing homes? *(Nyberg, 2018)*



*Västra Götalands and Uppsala county (n=194)*

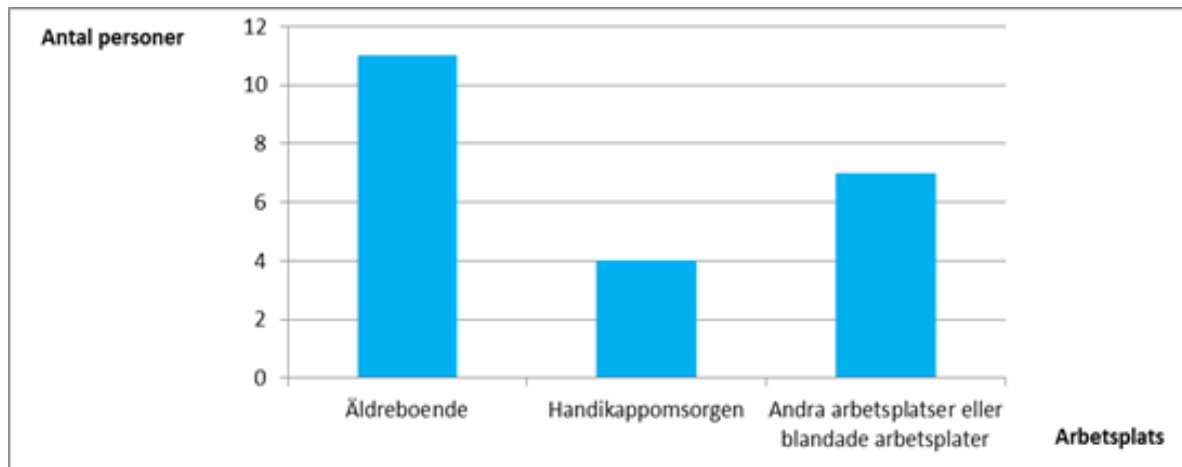


# Many smaller traditional animals are used today



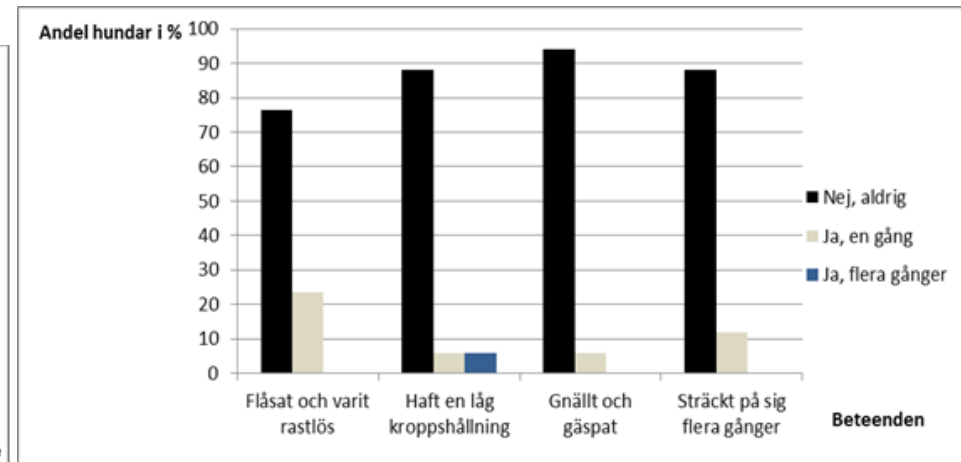
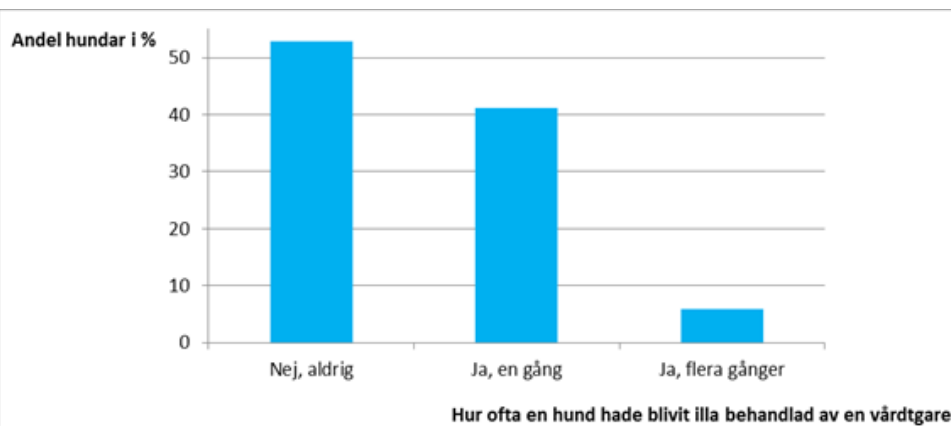
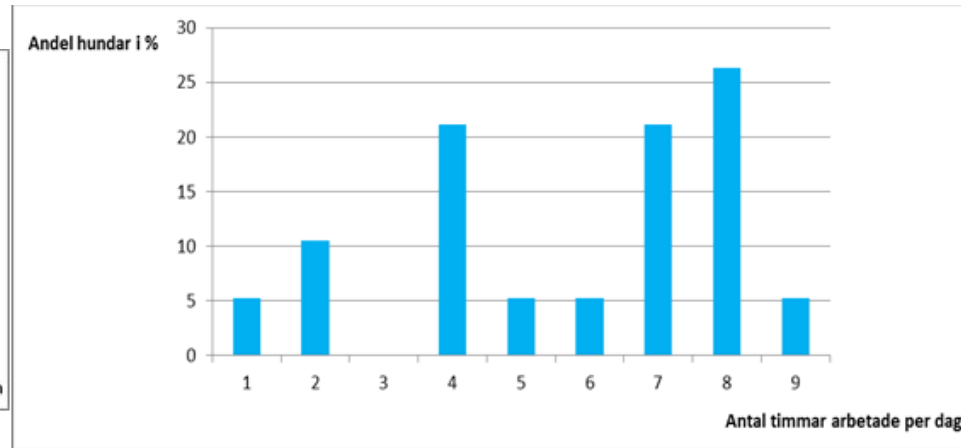
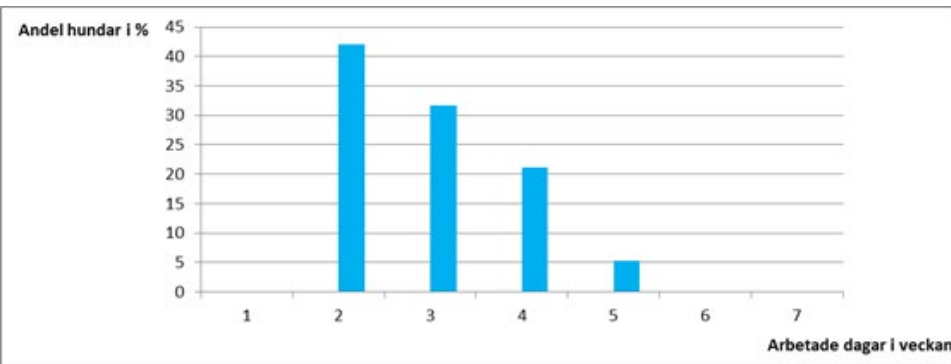
# Risk for reduced animal welfare during AAI

- BSc thesis SLU
- Therapy dog handlers (n=17) responded to questionnaire
- Dogs (n=18) working with elderly & disabled persons  
(*Ehrén, 2014*)



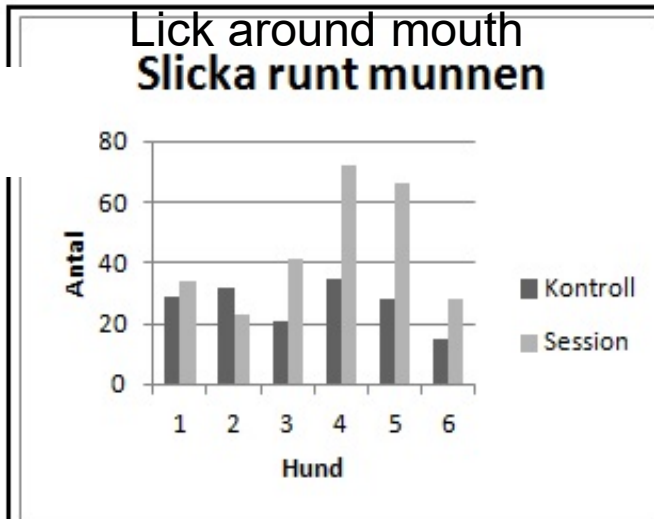


# Risk for reduced animal welfare during AAI (*Ehrén, 2014*)

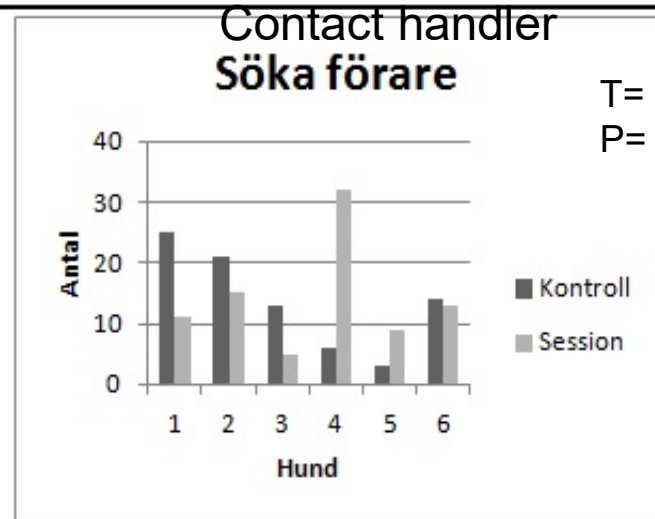


# Number of recordings of behaviors in therapy dogs during 30 min. before starting (Kontroll) and during 30 min. work with humans (Session) (Kindsjö, 2014)

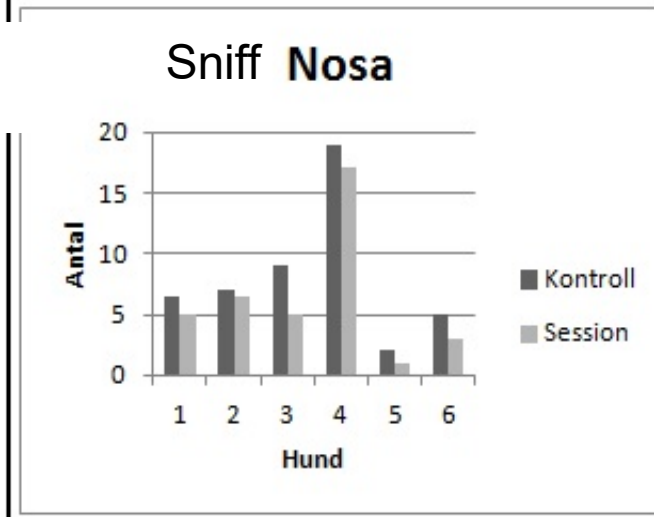
T= -2.33  
P= 0.067



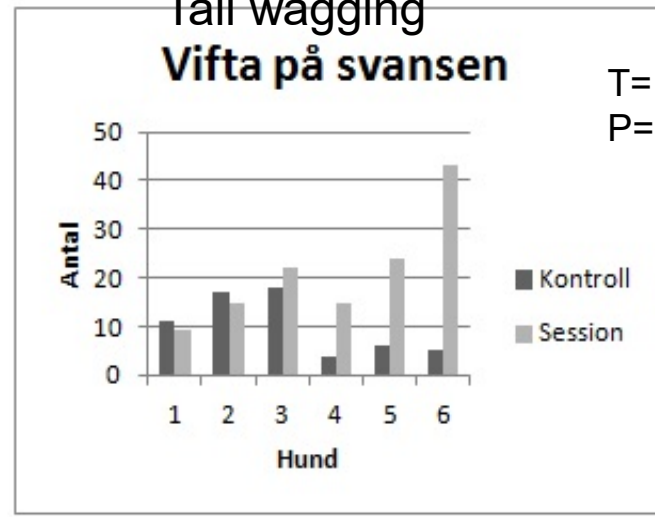
T= -0.09  
P= 0.935



T= 3.71  
P= 0.014



T= -1.82  
P= 0.129



# Stress & salivary cortisol in AAI dogs

- Dogs with high salivary cortisol conc. had more behavioral signs of stress
- Dogs over 6 years & experienced dogs showed fewer behavioral signs of stress during AAI  
(King et al., 2011)
- Dog handlers ( $Z=-2.79$ ,  $p<0.01$ ) & dogs ( $Z=-4.24$ ,  $p<0.001$ ) had higher cortisol on therapy days  
(Haubenhofer & Kirchengast, 2007)

Dog handlers	Median
Control days	12.43
Therapy days	14.12
- Before therapy	16.11
- After therapy	12.68
Dogs	
Control days	1.72
Therapy days	2.15
- Before therapy	2.06
- After therapy	2.18

# Current perspectives on dog welfare in AAI (Glenk, 2017)

References	Duration	Single/Group	Intervals	Significant Findings
Haubenhofer and Kirchengast [52,53]	1–8 h	- <sup>2</sup>	Differed from 9–50 sessions/3 months	↑ Salivary cortisol: on working days, during short sessions with high intensity, high frequency of sessions
Piva et al. [28]	20 min	Group	3–4 sessions/week	↓ Stereotypic autogrooming; ↑ play behavior, socialization; ↓ hair cortisol
Marinelli et al. [54]	10–105 min	Single, group	Daily	↑ Stress-related behavior if recipients were children < 12 years; increase in the frequency of sessions and number of recipients across 3 years
King et al. [55]	2 h	Single	Biweekly	No effect of a short time-out session; ↑ salivary cortisol after 60 min; ↑ behavioral signs of stress in dogs < 6 years and/or < 2 years of AAI experience
Glenk et al. [56]	50–60 min	Group	Weekly	No difference between working and resting days; ↓ salivary cortisol in therapy dogs off-lead
Barstad [57] <sup>1</sup>	30 min	Group	Biweekly	No differences in cognitive task performance before 12 weeks of AAIs and pre-post session; no changes in behavioral variables; ↑ responsiveness to commands; ↓ focus on handler
Glenk et al. [58]	55–60 min	Group	Weekly	↓ Salivary cortisol in session 4 and 5; no changes in behavior
Ng et al. [59]	60 min	Group	- <sup>2</sup>	No difference between working and resting days; ↑ salivary cortisol in novel environment
Palestrini et al. [60]	20 min	Single	- <sup>2</sup>	No changes in heart rate or behavior across 20 sessions

<sup>1</sup> Master's thesis; <sup>2</sup> Information not available.

# Cat welfare

- Welfare of the animal indicated as one concern for parents of children involved in AAI (Friesen, 2010)
- Little hands may pull, poke, and grab, and sick children may cry, distressed children may scream (Jalongo et al., 2004)
- Wheelchairs, walkers, and orthopaedic equipment can pose a danger to animals (*Jalongo et al., 2004*)



# Which cats work better in therapy?

- **Individual personalities** of cats are one of the most significant factors influencing cats' behavior towards people (*Mertens and Turner 1988*)
- The friendliness of cats to humans depends both on **genetic factors** (father) and **socialization at an appropriate age** (*Karsh and Turner 1988; Reisner et al. 1994; McCune 1995; Turner 2000b*)
- People rated Siamese and Persian breeds as more socially interesting, better behaved, and more interactive than non-pedigreed cats (Bernstein)





# Open field test on cats



## Evaluating cats for placement in nursing homes

- Different unfamiliar men & women test cats
- Three open field tests evaluates cats' responses to a variety of increasingly interactive and challenging situations in a novel environment:
  - A novel person calling the cat
  - The same person involving the cat in play
  - The cat's reaction to a startling noise

(Developed by *Lee et al.*, 1983)

## Certification of Therapy cats:

- Pet Partners, USA
- Delta Society, Australia



# Equine Assisted Interventions – horse welfare and risks to humans

- Severe or prolonged stress creates ill health in horses.
- Lack of knowledge about horses' needs and behaviour constitutes a health risk for horses, clients, HUI responsible and other active in the HUI activities.
- We lack knowledge about if HUI includes other health threats for participating horses than horse activities in general.
- Knowledge of aids that take into account the horse's welfare and human safety is inadequate.
- Risk analysis for horses in HUI needs to be developed.



*(Håkanson et al., 2021)*



# How to secure animal welfare

- Develop standardized protocols for handlers
  - Body postures & behaviours indicated
  - animal uneasiness
  - Dog protocols exist
- Need protocols for more therapy animal species
- Make documents readily available to handlers
  - They must know when to interrupt an intervention
  - Web pages easily found

## **International Guidelines:**

- Animal Assisted Interventions International - Standards of practice
- Sis Svensk standard för utbildning av vårdhund
- International Association for Human Animal Interactions Organization (IAHAIO)

# Thank you for listening Questions?



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