FELINE WELFARE ISSUES IN SHELTER AND RESCUE FACILITIES

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TALKING POINTS

- What do people look for when they want to adopt a cat?
- How does housing design affect health, welfare and socialisation of cats in shelters?

TALKING POINTS

- What do cats need (or want) in a shelter setting?
HOW DO PEOPLE SELECT A PET?

- ASPCA survey of 1500 adopters in 5 shelters
- Dogs
  - Physical appearance
- Cats
  - Behaviour with people

"ADOPTERS CHOOSE DASHING DOGS, MANNERLY CATS"

Single most important reason pet was chosen

<table>
<thead>
<tr>
<th>Reason</th>
<th>Cat/Kitten</th>
<th>Dog/Puppy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behaviour with people</td>
<td>26.9%</td>
<td>11.6%</td>
</tr>
<tr>
<td>Appearance</td>
<td>13.8%</td>
<td>27.3%</td>
</tr>
<tr>
<td>Personality</td>
<td>12.2%</td>
<td>15.8%</td>
</tr>
</tbody>
</table>

Data in %
KITTENS AND ADULT CATS

- Behaviour with people: 15.3%
- Appearance: 23.6%
- Personality/temperament: 22.6%

KITTEN

ADULT CAT

* Approaching the person was important

THREE ANIMAL WELFARE CONCEPTS

Physical

Mental

Naturalness

07/06/2012
THE FIVE FREEDOMS
1. Freedom from **hunger and thirst**
2. Freedom from **discomfort**
3. Freedom from **pain, injury and disease**
4. Freedom to **express normal behaviour**
5. Freedom from **fear and distress**

THE WELFARE-SUFFERING CONTINUUM
- Very good welfare
- Welfare
- Suffering
- Severe suffering

Welfare – historically has been an absence of negative states
Increasing emphasis on the presence of positive states

DURATION POOR WELFARE
- Days
- Weeks
- Months
THE FIVE FREEDOMS
1. Freedom from hunger and thirst
2. Freedom from discomfort
3. Freedom from pain, injury and disease
4. Freedom to express normal behaviour
5. Freedom from fear and distress

POTENTIAL STRESSORS FOR CATS IN SHELTERS
- New surroundings and altered routine
- Confinement
- Unfamiliar people and animals
- Barren environment
- Noise, smells
- Lack of exercise
- Boredom
- Isolation
- Lack of control over their environment

“SHELTER CONDITIONS MAKE CATS SICK FROM THE STRESS”
- Stress can make cats:
  - Sick
  - Antisocial
- Dogs love novelty, change of scenery and in most cases car rides…

Dr. Michael Moyer
....Cats – not so much - they like routine and structure...

UPPER RESPIRATORY INFECTIONS (URIs)

- URI
  - Highly contagious, painful and costly to treat
  - A common reason for euthanasia
- May not be inevitable in shelters*

*A Morris Animal Foundation funded study (Hurley et al)

A TALE OF TWO SHELTERS

- Shelter A
  - URIs – 1 in 4 cats
  - Using 30% of shelter’s expenses
- Shelter B
  - URIs – 1 in 40 cats
  - Spent < 1% of resources on URIs

Morris Animal Foundation funded study
A TALE OF TWO SHELTERS
- Shelter B
  - Larger area for cats to hide, stretch, eat and sleep
  - Could clean cage without removing the cat
    - Less stressful for cat
    - Less contamination of animal staff (fomite)
      - Fomite transmission of disease is more common than airborne transmission

A TALE OF TWO SHELTERS
- Shelter A
  - Changed to compartmentalized “kitty condos”
    - Time spent dealing with URIs dropped by 30%
    - Huge financial saving

THE FIVE FREEDOMS
1. Freedom from hunger and thirst
2. Freedom from discomfort
3. Freedom from pain, injury and disease
4. Freedom to express normal behaviour
5. Freedom from fear and distress
THE NUMBER ONE CAUSE OF AGGRESSION IN CATS IS FEAR

Consider alprazolam

ANXIETY
FEAR
STRESS

PAIN

CHANGES IN BEHAVIOUR AND PHYSIOLOGIC PARAMETERS
UNPLEASANT EMOTIONS

FEAR / ANXIETY

PAIN
1. Adoption area next to dogs and a holding area – both with traditional metal cages
2. Housed in traditional metal cages, in small rooms but with dogs
3. Adoption area with natural light, holding area with perches and windows, away from dogs
4. Soundproof walls, natural light, visual access to other cats limited

All cats were individually housed

- Scored noise level
- Noted presence of dogs
- Behavioural assessments
  - 3 times on day 1
- Urine cortisol-to-creatinine concentration ratio (CCR) – non-invasive
  - Day 2

Behavioural assessment
Based on the '7 level cat stress score' by McClinne 1994

<table>
<thead>
<tr>
<th>SCORE</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>1</td>
<td>Fully relaxed</td>
</tr>
<tr>
<td>2</td>
<td>Weakly relaxed</td>
</tr>
<tr>
<td>3</td>
<td>Weakly tense</td>
</tr>
<tr>
<td>4</td>
<td>Very tense</td>
</tr>
<tr>
<td>5</td>
<td>Fearful, stiff</td>
</tr>
<tr>
<td>6</td>
<td>Very fearful</td>
</tr>
<tr>
<td>7</td>
<td>Terrorized</td>
</tr>
</tbody>
</table>

Scores in this study ranged from 2 to 6
Assessment of stress levels among cats in four animal shelters

- Stress scores were highest in the morning
- Stress scores were lower in adoption areas
- Stress scores not related to how long cat had been in the shelter
  - But tended to be lower and less variable in cats that had been there longer
- Cats with high stress scores were more likely to be euthanised

Assessment of stress levels among cats in four animal shelters

- No correlation between behavioural score and CCR
- CCR not correlated with duration of stay
  - ? Not adapting
- CCR was correlated with systemic disease
- CCR lower in cats in environmentally enriched shelters (# 2 and 3)
- CCR highest in cats with high exposure to dogs

Assessment of stress levels among cats in four animal shelters

- 25% of cats had signs of systemic illness
- > 25% had traces of blood in their urine
  - ? Stress
**STRESS IN CATS**

- Decreased eating
- Decreased or excessive grooming
- Aggression
- Feigned sleeping
  - Missed on behavioural scoring, gets a low score
- Hiding/decreased activity

The behaviour scoring system in McCobb's study failed to identify cats with high stress levels.

- Single housing, inconsistent handling, barren cages
- Individual cage, perch and hide
- Basic communal housing
  - Each cat had a personal space
- Enriched communal housing
  - Addition of play and cat-cat interaction

- Lowest percentage of adoption
  - 45% versus 69-76%
- Higher stress scores
- Stress scores were correlated with health
WHAT DO CATS LIKE?
“SCENTS AND SENSIBILITY”
- Smell plays an important role in communication
- Olfactory signals, “marking”

WHAT DO CATS LIKE?
- Familiar things that have been marked
  - Facial pheromones
- “Possessions”, “their stuff”
  - Even an old newspaper counts!

FAMILIAR THINGS
- Reconsider cleaning and disinfection protocols
  - Only remove soiled objects
- Can you keep them in the same place throughout their stay?
  - Intake adoption
FELIWAY® SPRAY AND DIFFUSER

- Calming effect
- Increased grooming
- Increased facial rubbing
- Increased food intake

Griffith et al JAVMA 2000; 217(8); 1154-56
Kronen et al (2006) VAA 33(4); 258-65

WHAT DO CATS LIKE?

- Space - but not just dimensions
- Consider
  - Quality
  - Lay out
  - Vertical height
- Access to
  - Food
  - Litter trays

Would you eat in your bathroom?
SPACE MATTERS

DOUBLE SIDED CAGES
- Can be cleaned without touching the cat
  - Stress
  - Spread of disease

VERTICAL HEIGHT
### VERTICAL HEIGHT

43 single kennelled cats in an adoption centre
- BC SPCA Hide & Perch™ (enriched)
- Open bed (control)
- Stress score*, approach test**
  - First 5 days then at 14 days (if still there)
- Scan sample
  - Location and activity

* Based on Kessler and Turner 1997
** Approach, retreat, no reaction

### RESTING PLACES

- BC SPCA Hide & Perch™
- Open bed (control)
- Stress score*, approach test**
  - First 5 days then at 14 days (if still there)
- Scan sample
  - Location and activity
PLACES TO HIDE

HIDE PERCH AND GO

- Cats used the Hide and Perch more often than the open bed
- Enriched group
  - Decreased stress
  - More likely to approach
  - More frequent "relaxed" behaviours
- No change in time to, or percentage adopted

The effect of hiding enrichment on stress levels and behaviour of domestic cats (Felis sylvestris catus) in a shelter setting and the implications for adoption potential
K. Krey* and R. Casey

- Lower stress scores
- Increased approach
- More "relaxed" behaviours
- No change in time to adoption

Kessler & Turner's cut off score
PLACES TO HIDE

Inexpensive and disposable

EXPRESSION OF NORMAL BEHAVIOURS

- Hunting behaviours
  - Hide food
  - Toys
SOCIALIZATION
Great job for volunteers

GROUP HOUSING CHALLENGES
- Cats lack
  - A distinct dominance hierarchy
  - Signals for diffusing conflict
  - Reconciliation behaviours

- In the wild, cats can disperse to avoid aggression

GROUP HOUSING
Many cats spend most of their time out one another’s site and 1-3 metres apart
ACCESS TO THE OUTSIDE
…OR LET THE OUTSIDE IN

UV light is sanitising and very different from artificial light

EXPOSURE TO DOGS

In McCobb’s study exposure to dogs resulted in high stress scores

CAGE MATERIALS

METAL CAGES  PLASTIC CAGES

Just changing the latches could help decrease noise
RENOVATING, EXPANDING OR NEW BUILDING?
- Have clear goals
- Consult
- Look at other facilities
- Use available consulting resources

SUMMARY
- The most important factor adopters look for is the cat's behaviour with people

SUMMARY
- Stress is bad!!
- Stress can make cats sick
- Stress and fear can make cats aggressive
  - and unadoptable
**SUMMARY**

- Quantity and quality of space is critical
  - Vertical height
  - Places to hide
  - Things to do
  - Lay out
- Individual versus group housing

**RESOURCES**

[http://www.sheltervet.org](http://www.sheltervet.org)
The next set of images were supplied by Dr Emily McCobb as examples of different shelter designs.
CLEVELAND ANIMAL PROTECTION LEAGUE

- Good: bright, clean, also separate from dog area so was very quiet.
- Bad: overall amount of space (see ASV guidelines) not really big enough per cat, shelf is good, hiding boxes would be better, double access cages would be better still.
- There is a portal that could be opened between cages- ideally each cat would have access to both sides, one side has litter box, one side for sleeping/eating.

BAYPATH HUMANE SOCIETY IN HOPKINTON MA

- Outdoor enclosure
- Pros - space, enrichment for cats.
- Cons - cleaning it.
- Cons - hard for adopters to see the cats.
- At this shelter cats are kept in at night and after an initial acclimation period can choose to go out at night time.
These are the home cages at Baypath, the cats can choose to go out during the day, the cat room opens into the enclosure from the previous slides.

- Group housing for small number.
- Pros - community engagement (businesses design the room)
- Pros - visibility of cats for adopters
- Cons - might not be big enough for four cats.
OREGON HUMANE SOCIETY

- Pros - lots of vertical space, overall might be too small

TRADITIONAL METAL CAGES

- Appropriate for short term housing for spay neuter (this case) but not for longer term

ANIMAL RESCUE LEAGUE OF BOSTON

- Note portal cut into cage to allow double sized for each cage.
- Con - dogs are behind the door to the left and there is another bank of cat cages directly facing this one.
ASPCA MANHATTAN

- Show case for small number of cats, lots of vertical space, hiding spots, easily cleaned

ASPCA MANHATTAN

- Smaller cages but using portholes where possibly, all have hiding space, all have scratching post