

GESTIONE DELLE POPOLAZIONI RANDAGIE: SPUNTI DI RIFLESSIONE A LIVELLO NAZIONALE ED INTERNAZIONALE

La Sanità Pubblica Veterinaria:

Presente e Futuro

Ozzano dell'Emilia, 28/04/2016

Laura Arena: larena@unite.it

- DMV,
- Master in Etologia Clinica Veterinaria,
- Dottoranda di ricerca in Benessere Animale - Università di Medicina Veterinaria e IZS "G. Caporale" di Teramo - Laboratorio di Relazione Uomo-Animale e Benessere Animale -

Attività di Igiene Urbana Veterinaria nel territorio di competenza dell'ASL di Taranto:

Controllo delle popolazioni canine e feline vaganti

- ✓ quantificare l'entità del fenomeno randagismo
- ✓ studiare le attività di controllo e lotta
- ✓ evidenziare le problematiche avute nell'applicazione
- ✓ confrontare le attività nella Provincia di Taranto e ne

Morsicature

- ✓ quantificare l'entità del fenomeno
- ✓ studiarne la relazione con il randagismo

Istanbul – Turchia 3-5 Marzo 2015



EVALUATION OF DOG POPULATION MANAGEMENT STRATEGIES IN A SOUTHERN ITALIAN PROVINCE



Arena Laura^{1,2*}, Magnani Diego¹, Messori Stefano^{1,4}, Tarquino Cosimo³, Ferri Nicola³, Baldelli Raffaella²

¹Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise 'G. Caporale', Campo Boario 64100, Teramo, Italy, ²Università di Bologna, Dipartimento Scienze Mediche Veterinarie, Via Tolara di Sopra 50, 40064 Ozzano dell'Emilia, Bologna, Italy, ³Servizio Sanità Animale Dipartimento di Prevenzione della ASL di Taranto, Via Diego Peluso 117, 74121 Taranto, Italy, ⁴Corresponding author: lazararena@hsbmail.it

Presenting author

INTRODUCTION

In Italy, dog population management is regulated under the framework law for the protection of companion animals and the prevention of straying (Law 281/91). This norm provides basic principles for dog protection (e.g. no-killing policy) and the prevention of straying (e.g. compulsory dog identification and registration (ISR); support to spay/neuter programmes). Tasks and responsibilities are distributed between Regions, Municipalities and Local Health Services (LHS). The framework law was adopted by the different Italian Regions through local norms in different years. Due to this fragmentation, the implemented actions varied across the country. Despite the norm being in place for more than 20 years, free-roaming dogs (FRD) still represent a problem in Italy, especially in the southern regions.

CASE STUDY

Where? Taranto province (Apulia region)
Why? Huge FRD population, still impacting on the community
When? Retrospective analysis 2005-2012
Aim? To assess the status of implementation of the law to identify possible causes underlying the persistence of FRDs
What? Data about dog ISR and FRD management (e.g. captures, adoptions, entrustment to shelters, shelter adequacy); correlations between captures and other FRD management practices (Spearman rank correlation coefficient; p<0.05)
How? Data mining from regional electronic canine registry, LHS officials registers.

RESULTS AND DISCUSSION

In Apulia, the framework law was adopted in 1995 and amended in 2006 with Regional laws. In Taranto, agreements with private practitioners for the health care of FRD and a TNR-Neuter-Return (TNR) programme were introduced in 2006, although implemented only in 2010.

Management of FRDs
Overall, 11,782 dogs were captured in the period (480 being owned dogs, that were returned to the owner). Captures highly increased in 2010, due to the implementation of agreements with private practitioners and of the TNR strategy. The TNR dogs were 2,154 (one dog/km²), managed in only three years. Overall, 6,414 dogs were adopted in the period, being in continuous growth (Figure 2).

Entrustment to shelters and adequacy of facilities
2,900 dogs were entrusted to shelter in the study period, with a quite constant trend over the years, despite the state of saturation and overcrowding of the shelters. Overall, 5,200 dogs have been present in the 21 shelters of the province (Figure 3), 2,900 of which being supernumeraries (56% of supernumeraries dogs; 86% of shelters being overpopulated). Only 24% of the shelters were abusive (24%) or inadequate (38%) for structural standards, a part of these have been impounded and have received evacuation orders due to unhealthy conditions.

I&R
During the observation period, 21,681 dogs were registered in the province (owned dogs = 10,632; captured FRD = 11,049). Owned dog ISR showed an important increase in the first years of investigation, due to the introduction of the compulsoriness of microchip in 2005 (Figure 1).

Figure 1. Trend of dog ISR in the Taranto province during the study period (2005-2012).

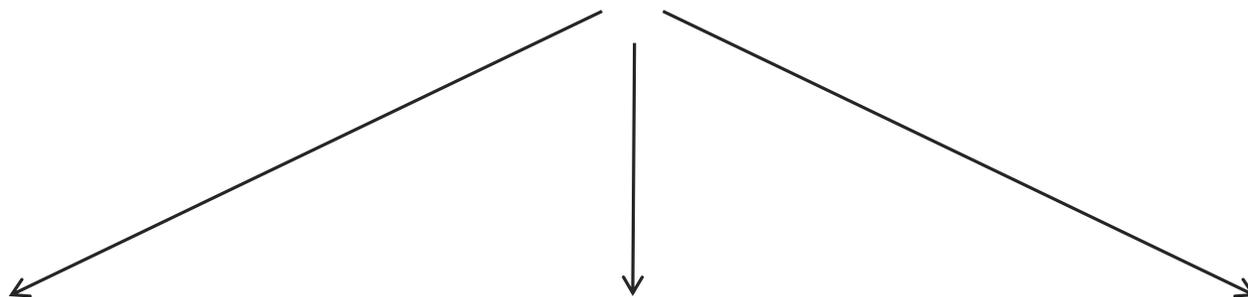
Figure 2. Management of stray dogs present in the Taranto province.

Figure 3. Different morphologies of the province and distribution of the 21 shelters in areas of competence.

CONCLUSIONS

- A huge number of FRD is still present in the province.
- A delay in the implementation of the national norm and gaps in the application of the regional laws occurred.
- The delay in the application of the TNR programmes allowed the persistence of a large number of stray animals able to reproduce and totally out of health care control.
- The situation of the dog shelters in the province is critical, with overpopulation being a major issue, making necessary the implementation of new FRD control strategies.
- The TNR programme generated a very high density of dogs on the territory (one dog/km²), suggesting a low sustainability of the approach, that do not avoid FRD related issues.
- However TNR will be helpful to damp the phenomenon thanks to the zero growth of the stray dogs population.

SPUNTI DI RIFLESSIONE



**Istituto
Zooprofilattico
Sperimentale
di Teramo**

**Dottorato
di ricerca**

**CC OIE per la
Formazione
Veterinaria,
l'Epidemiologia,
la Sicurezza
Alimentare e il
Benessere
Animale**





Istituto Zooprofilattico Sperimentale di Teramo

PROTOCOLLO SHELTER QUALITY

“Identificazione di standard di benessere dei cani tenuti nei canili e ruolo dei cani nella trasmissione di agenti di zoonosi e di geni di resistenza degli antimicrobici”



- Fase 1: *“Sviluppo di approcci multidisciplinari al controllo delle popolazioni canine e dei problemi ad esse legate in ambiente urbano”*





PROTOCOLLO SHELTER QUALITY

Strumento valido, affidabile e pratico per la valutazione del benessere dei cani lungodegenti di canile

Fruibile da Autorità Competenti e come strumento di autovalutazione per i gestori stessi





Perché il benessere dei cani di canile è a rischio?

RISCHI

Deprivazione sociale

Lungodegenza

Inadeguate condizioni di alloggio

Sovraffollamento

Scarsa sorveglianza sanitaria

Assenza di requisiti minimi

EFFETTI NEGATIVI

Conseguenze dirette

su:

- Benessere Animale
- Salute Animale
- Salute Pubblica (zoonosi, morsicature, problemi gestionali)



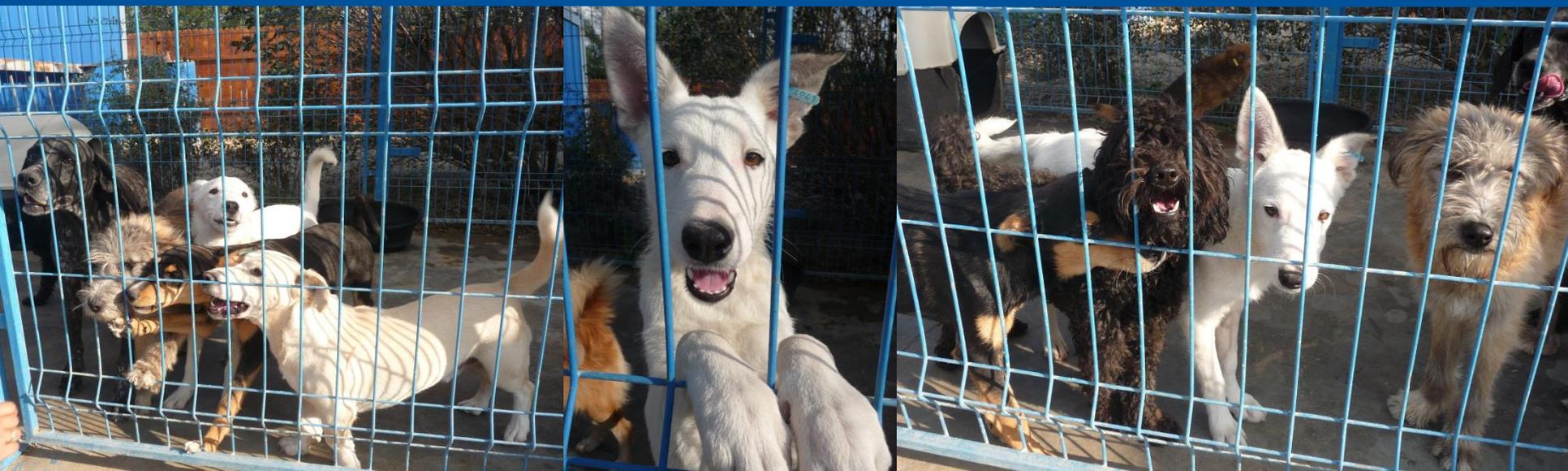
Assenza di strumenti universalmente riconosciuti, standardizzati e affidabili per la valutazione del benessere in canile



Assenza di strumenti applicabili e affidabili per la valutazione del benessere in canile

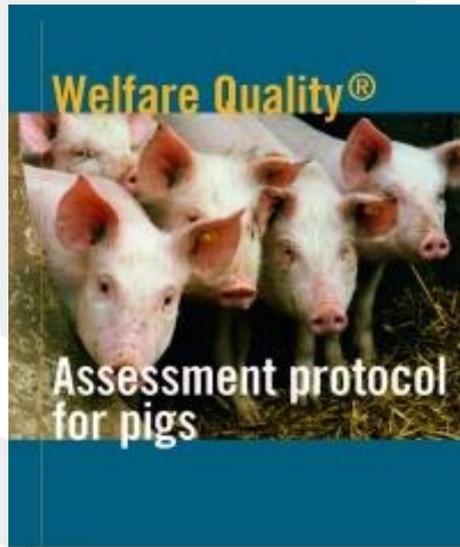
- Difficile paragonare ambienti molto diversi tra loro a livello strutturale e gestionale (mancanza di requisiti minimi o “gold standard”)
- Alta variabilità individuale e capacità di adattamento all’ambiente
- Studi scientifici si focalizzano su poche e complesse misure (es. parametri fisiologici), ma l’animale deve essere valutato nel suo insieme

APPROCCIO MULTIFUNZIONALE



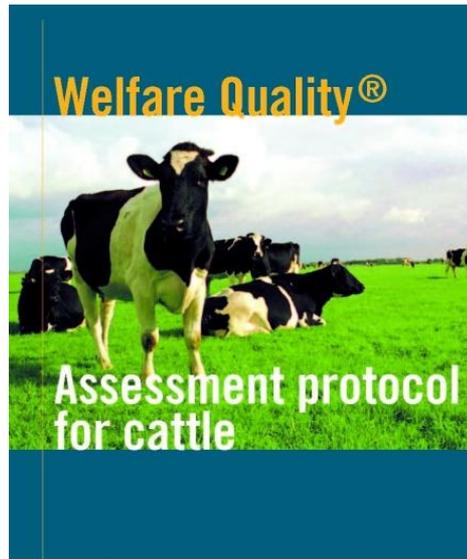


APPROCCIO WELFARE QUALITY®



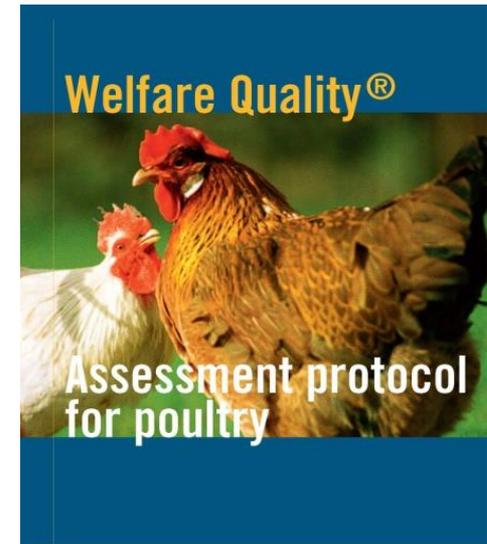
Welfare Quality®

NEN



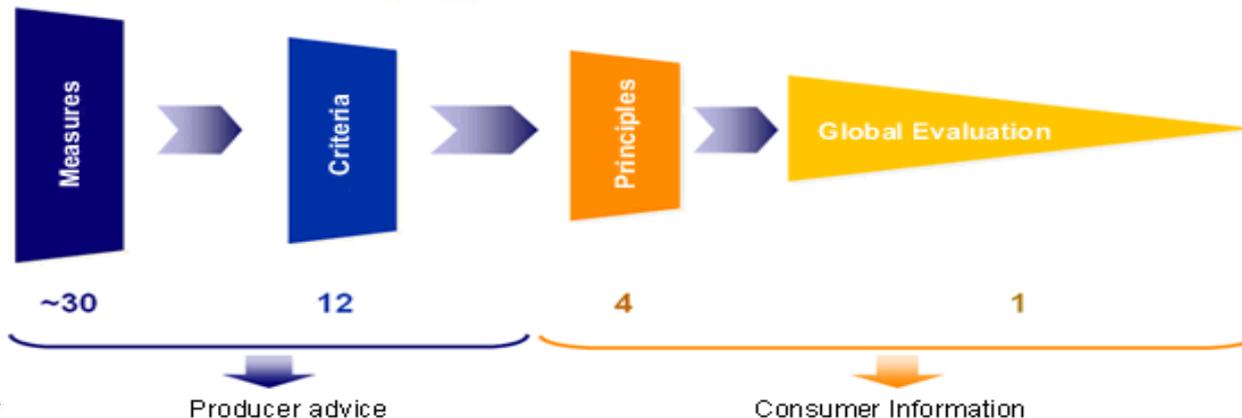
Welfare Quality®

NEN



Welfare Quality®

NEN





**Buona
Alimentazione**



**Buona
Sistemazione**

**Principi di
Welfare Quality®**

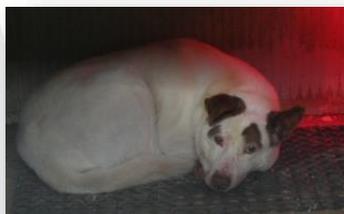


Buona Salute

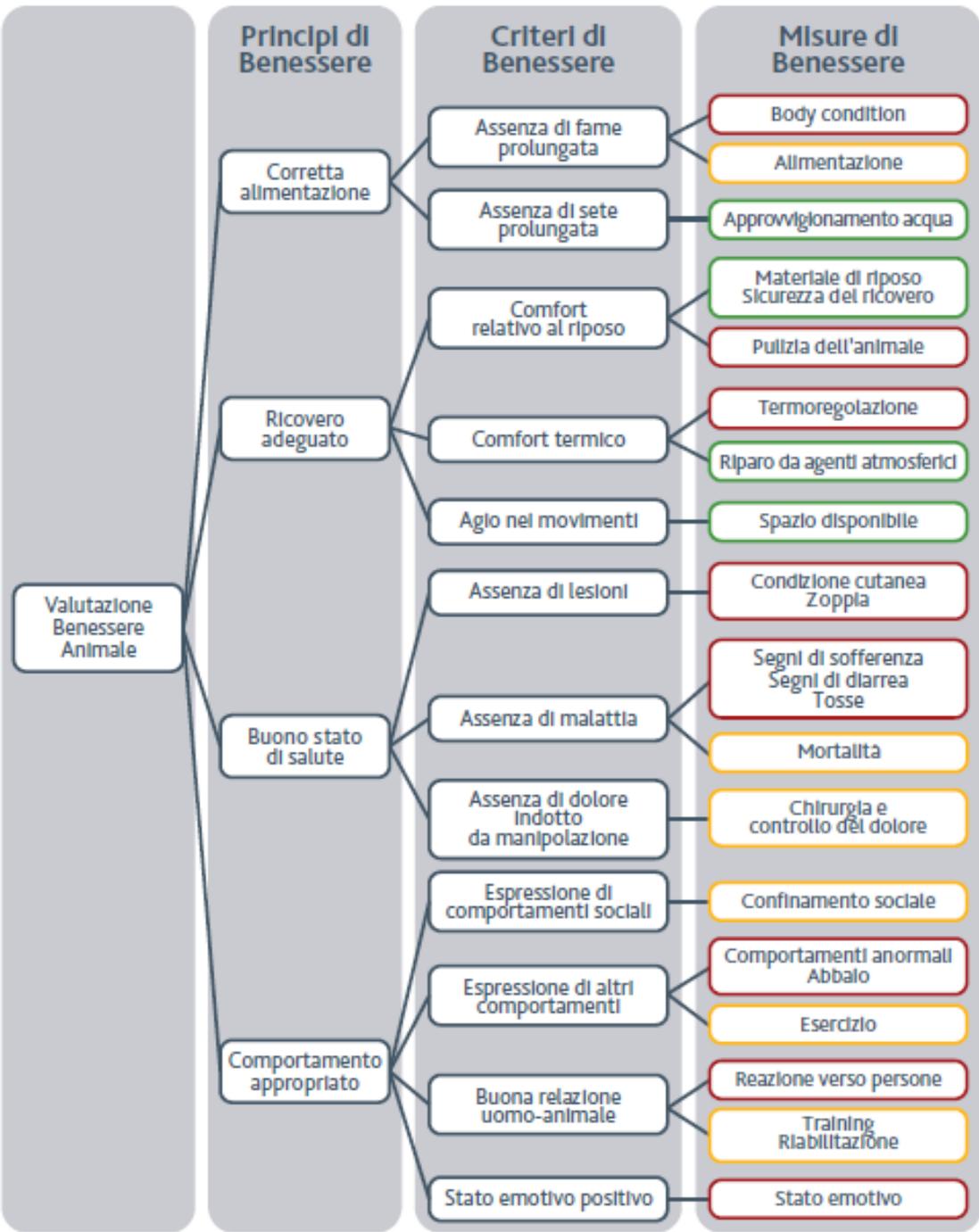


**Comportamento
Appropriato**

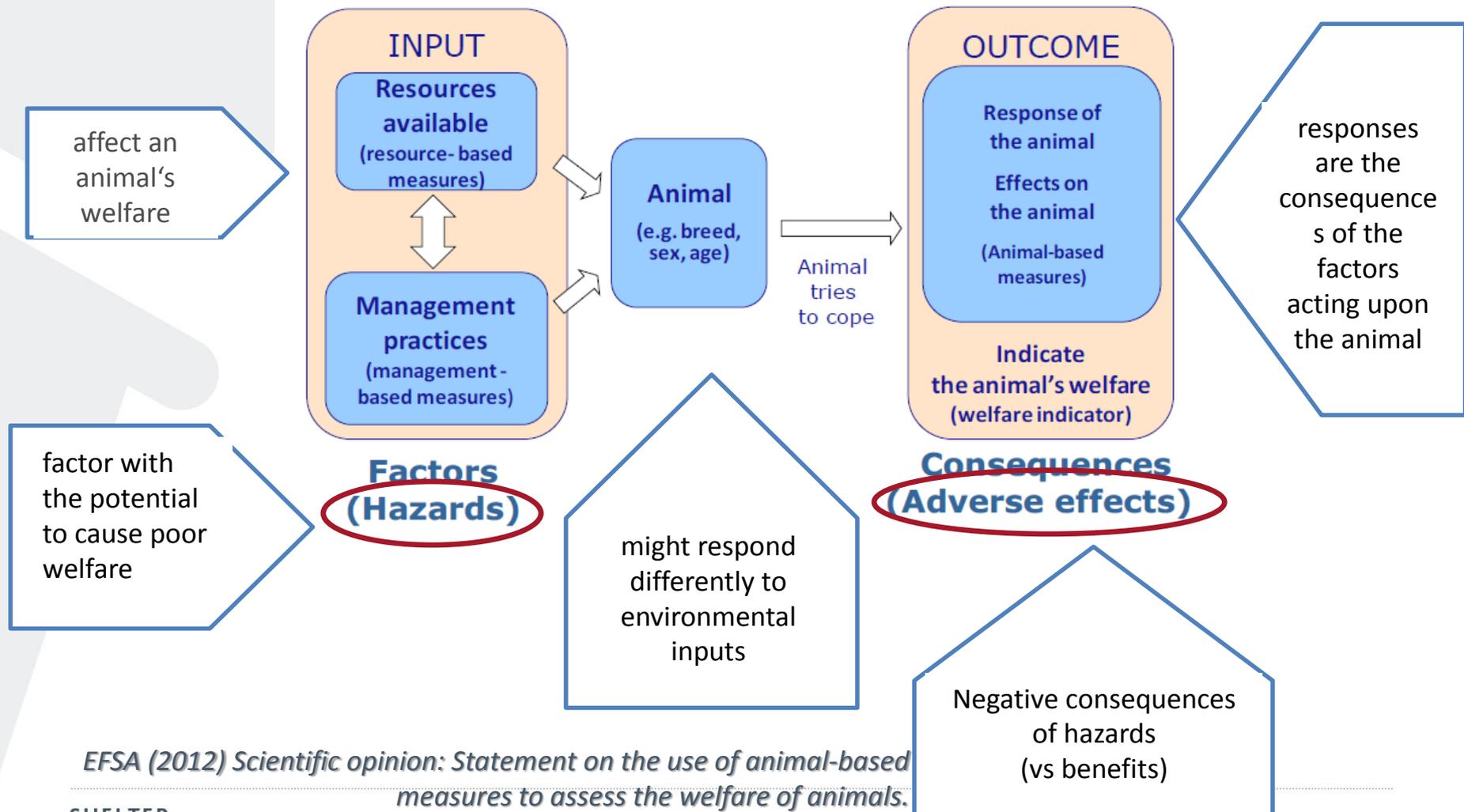




Misure del Protocollo Shelter Quality



Analisi del rischio applicata al benessere animale



EFSA (2012) Scientific opinion: Statement on the use of animal-based measures to assess the welfare of animals.



BENESSERE ANIMALE

- B. Hughes (1981) *“il Benessere Animale è riferito alla capacità di un animale di essere in armonia con l’ambiente che lo circonda”*
- D. Broom (1986) *“il Benessere definisce lo stato di un animale rispetto ai suoi tentativi di adattarsi all’ambiente”*

**Il Benessere Animale è una
condizione individuale**



Misure Gestionali e Strutturali

Facili da definire e alta ripetibilità

MA

variabilità individuale (genetica, temperamento) →
diversa capacità di adattamento

Accento sulle **Misure Animali** (fisiologiche, cliniche e comportamentali) che sono il riflesso più accurato del benessere degli animali

Queste rivelano **l'effetto combinato** della gestione e della struttura e della capacità propria di un animale di adattarsi





Livelli di valutazione

- **Canile:** le misure sono registrate valutando il canile come una unità
- **Box:** le misure sono registrate considerando ogni box come una singola unità e osservando tutti gli animali alloggiati all'interno (indipendentemente dal numero di animali)
- **Individuale:** le misure sono registrate valutando ogni animale come una unità





Misure valutate a livello di canile

- Flusso di animali
- Confinamento sociale
- Esercizio
- Chirurgia/controllo del dolore
- Training e riabilitazione
- Mortalità
- Alimentazione





Misure valutate a livello di box

- Spazio disponibile
- Approvvigionamento acqua
- Materiale di riposo
- Sicurezza del ricovero
- Riparo dagli agenti atmosferici
- Termoregolazione
- Abbaio
- Comportamenti anormali
- Stato emotivo
- Segni di sofferenza
- Segni di diarrea
- Tosse





Valutare se l'animale si trova in uno stato mentale positivo sembra fondamentale per una esauriente valutazione del benessere (e.g. QBA)

Messa a punto di uno strumento utile alla valutazione dello stato emotivo dei cani di canile

Erice, Sicilia -16-21 Novembre- Social relationship and cognitive competencies in the domestic dog: bridging science and education

Using Qualitative Behavioural Assessment to assess emotional state in shelter dogs

Lucia Arora^{1,2}, Francesca Marchalón¹, Stefano Bionati¹, Paolo Diella^{1,3,4}, Nicole Fort¹, Dorothea Harward¹
¹Instituto Andaluz de Investigaciones sobre el Bienestar Animal, ²Centro Andaluz de Estudios sobre el Bienestar Animal, ³Universidad de Sevilla, ⁴Universidad de Córdoba, ⁵Universidad de Granada, ⁶Universidad de Murcia, ⁷Universidad de Valencia, ⁸Universidad de Zaragoza, ⁹Universidad de Zaragoza, ¹⁰Universidad de Zaragoza, ¹¹Universidad de Zaragoza, ¹²Universidad de Zaragoza, ¹³Universidad de Zaragoza, ¹⁴Universidad de Zaragoza, ¹⁵Universidad de Zaragoza, ¹⁶Universidad de Zaragoza, ¹⁷Universidad de Zaragoza, ¹⁸Universidad de Zaragoza, ¹⁹Universidad de Zaragoza, ²⁰Universidad de Zaragoza

Introduction
Previous research shows how long-term confinement in shelters for shelter dogs welfare. Animal welfare is a multifactorial phenomenon requiring the integration of physical, physiological and behavioural parameters. Qualitative Behavioural Assessment (QBA) is a non-invasive, qualitative and structured methodology that focuses on the whole animal and observations the animal's dynamic behaviour as an expressive body language and directly used as 'words' or 'sentences' in the aim of this study is to investigate the suitability of QBA as a welfare indicator for sheltered dogs.

Materials and methods
The 'Seven Cluster Tooling' (SCT) methodology was used to generate a set of descriptive terms based on the observation of a sample of dogs fixed in different shelter contexts.
Step 1: 10 video clips, each including a different dog were recorded in 4 different shelter contexts. Dogs were recorded alone or in groups with/without interaction with human/other dogs present.
Step 2: 10 observers (5 dog owners, 5 shelter workers) were trained in the SCT methodology and observed the 10 video clips. The SCT methodology was used to generate a set of descriptive terms based on the observation of a sample of dogs fixed in different shelter contexts.
Phase 1: - students watched a clip
- generated their own terms per each clip (e.g. playful, fearful, etc.)
- created a unique personal list of terms
Phase 2: - students watched a clip again to - generate the animals' impressions as a quantitative rating scale, the Visual Analogue Scale (VAS, Figure 1).
Step 3: The Descriptive Process Analysis (DPA), a multidimensional technique associated with SCT, was used for data analysis. The DPA identifies the consensus among observers and generates different consensus dimensions of single expressive behaviours.

Results and discussion
The terms created by the observers were semantically consistent, and the DPA generated three main consensus dimensions, which explained respectively 33.6%, 34.7% and 8.7% of the variation between clips.
Dimension 1: QBA showed a high consensus between observers (0.75, 75.7% highly significant agreement) in 13.2071. The Cluster Tool (Figure 2) shows the consensus between observers.
Dimension 2: The 13 consensus terms (3-dimensional 'word clouds') are for each observer almost all the terms given by the observers correlated with the identified dimensions (Figure 2). The word clouds were visually inspected by the researcher for each observer. Some terms related to the highest positive and negative correlations with dimensions 1, 2 and 3 were selected.
The three dimensions: The selected terms for all 13 observers are listed in Table 1. Terms with similar and complementary semantic meaning represent the same dimension and reflect similar aspects of observed behaviour. On the basis of this analysis the three dimensions were labelled as follows: 1) from 'playful' to 'relaxed and happy', 2) from 'relaxed and happy' to 'relaxed and happy', and 3) from 'relaxed and happy' to 'relaxed and happy'.
Consensus plots: Finally the QBA creates the 'consensus plots' (Figure 3 and 4) showing the distribution of the 10 dogs on the different semantic dimensions.
Clips are distributed on the three dimensions, which suggests that these dimensions effectively characterise observed reactions in behavioural impressions.

Conclusions
Research in scientific literature, there has been growing interest in assessing positive and negative aspects of animal welfare and emotional states. Our results suggest that QBA may be a suitable method for assessing emotional state of shelter dogs in different types of confinement and may make a useful contribution to assess the animal welfare in a quick, reliable and non-invasive way. The use of QBA, incorporating both positive and negative aspects of an animal's expressive repertoire and may be useful in supporting other welfare indicators. Further research is required to corroborate and integrate QBA consensus with other indicators in sheltered dogs' welfare assessment protocols.



Misure valutate a livello di individuo

- Reazione verso persone
- Body condition
- Pulizia
- Condizione cutanea
- Zoppia





Analisi del rischio: Pulizia dell'animale

Variabile dipendente	Variabile indipendente	Coefficiente di regressione	P-value
Pulizia  	Spazio a disposizione: <i>adeguato</i> <i>inadeguato</i>	Baseline 0,85	0,0003
	Materiale di riposo: <i>adeguato</i> <i>inadeguato</i>	Baseline 0,61	0,01



Analisi del rischio: Condizione cutanea

Variabile dipendente	Variabile indipendente	Coefficiente di regressione	Valore-P
Ferite  	Disponibilità di spazio: <i>adeguato</i> <i>inadeguato</i>	Riferimento 0,64	0,003
	Materiale di riposo: <i>adeguato</i> <i>inadeguato</i>	Riferimento 0,67	0,002
	Spigoli/protuberanze: <i>assente</i> <i>presente</i>	Riferimento 1,11	0,002



Analisi del rischio: Segni di diarrea

Variable dipendente	Vriabile indipendente	Coefficiente di regressione	Valore-P
Diarrea 	Abbeveratoi: <i>adeguato</i> <i>inadeguato</i>	Baseline 2,98	< 0,0001
	Classe d'età: <i>adulto (2-7 aa)</i> <i>giovane (< 2 aa)</i> <i>geriatrico (> 7 aa)</i>	Baseline 1,33 -0,85	0,02 ns



...quindi

- Il protocollo consente l'identificazione di caratteristiche del canile tali da compromettere il benessere dei cani di
- Una raccolta sistematica su campo di misure 'animal-based' consentirebbe la creazione di un ampio database in grado di poter effettuare una adeguata valutazione del rischio per il benessere dei cani in canile



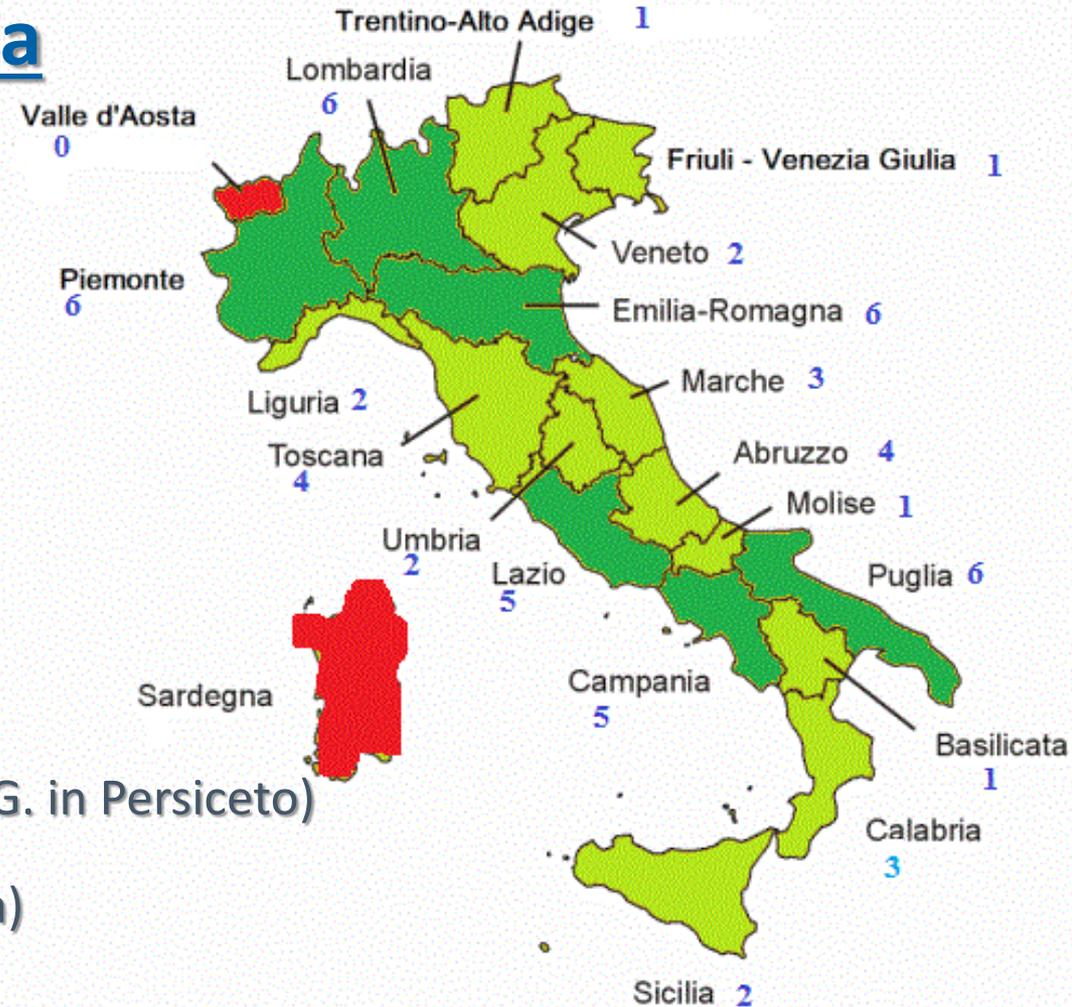


Attività odierna

60 canili in tutta Italia

Emilia Romagna:

- ✓ Cesena
- ✓ Imola
- ✓ Parma
- ✓ 2 Bologna (Sasso Marconi e S.G. in Persiceto)
- ✓ 2 Modena (Mirandola e Amola)





Attività odierna

Delphi

Consultazione di esperti internazionali che tramite una serie di passaggi permetteranno di attribuire un punteggio alle singole misure tramite un consenso di opinioni



**punteggio finale
e univoco
al canile**



Attività odierna

Relazione Uomo-Animale in canile

Approccio multidisciplinare per indagare lo stato di benessere, la sfera emotiva e le ripercussioni sulla qualità della vita di operatori e volontari che operano in canile



Dottorato di Ricerca



BENESSERE IN GATTILE

...in principio,

validazione di un **protocollo** per la valutazione del benessere dei gatti di gattile ma...

...CRITICITÀ

Scarsa disponibilità di letteratura scientifica

Complicata e variegata gestione della popolazione felina

Carenze normative per la tutela e il benessere dei gatti

Frammentazione normativa

Complessa gestione sanitaria

Carenza di requisiti minimi strutturali

Strutture estremamente diversificate



BENESSERE IN GATTILE

Studio della normativa e
raccolta dati descrittiva su fattori:

- gestionali (vaccinazioni, isolamento sanitario, alimentazione, ecc)
- strutturali (disponibilità di spazio e di risorse, igiene degli ambienti, presenza di degenza, nurseys, ecc)
- animali (scolo oculo-nasale, lesioni, BCS, socialità, ecc)



BENESSERE IN GATTILE

...per avere un ampio database per effettuare un'adeguata valutazione del rischio per il benessere dei gatti di gattile e poter creare gli indicatori di benessere...

VALIDAZIONE DI UN PROTOCOLLO

40 strutture

Emilia Romagna:

- Cesena
- Reggio Emilia
- Sasso Marconi
- Parma





CC OIE per la Formazione
Veterinaria, l'Epidemiologia,
la Sicurezza Alimentare e il
Benessere Animale



Premessa:

- 2013 → Piattaforma Europea per il Benessere Animale nei 53 Paesi della “Regione Europa” (<http://rpawe.oie.int>)
- 2014-2016 Action Plan per promuovere l’applicazione degli standard OIE per il controllo delle popolazioni canine vaganti a livello regionale



Section

- Chapter 7.1.
- Chapter 7.2.
- Chapter 7.3.
- Chapter 7.4.
- Chapter 7.5.
- Chapter 7.6.
- Chapter 7.7.**
- Chapter 7.8.
- Chapter 7.9.
- Chapter 7.10.

ANIMAL WELFARE

- Introduction to the recommendations for animal welfare
- Transport of animals by sea
- Transport of animals by land
- Transport of animals by air
- Slaughter of animals
- Killing of animals for disease control purposes
- Stray dog population control**
- Use of animals in research and education

- Anim: International Standard Setting
- Anim: > Overview
- > Terrestrial code
- > Access online
- > Terrestrial manual
- > Aquatic code
- > Aquatic manual
- > Specialists commissions & groups
- > Implications of private standards

TERRESTRIAL ANIMAL HEALTH CODE

<http://www.oie.int/international-standard-setting/terrestrial-code/>

Terrestrial Animal Health Code

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PDF

CHAPTER 7.1.

INTRODUCTION TO THE RECOMMENDATIONS FOR ANIMAL WELFARE

Article 7.1.1.

Definition

Animal welfare means how an *animal* is coping with the conditions in which it lives. An *animal* is in a good state of *welfare* if (as indicated by scientific evidence) it is healthy, comfortable, well nourished, safe, able to express innate behaviour, and if it is not suffering from unpleasant states such as pain, fear, and distress.

Good *animal welfare* requires *disease* prevention and appropriate veterinary treatment, shelter, management and nutrition, humane handling and humane *slaughter* or *killing*. *Animal welfare* refers to the state of the *animal*; the treatment that an *animal* receives is covered by other terms such as animal care, animal husbandry, and humane treatment.

Article 7.1.2.

Guiding principles for animal welfare

1. That there is a critical relationship between animal health and *animal welfare*.
2. That the internationally recognised 'five freedoms' (freedom from hunger, thirst and malnutrition; freedom from fear and distress; freedom from physical and thermal discomfort; freedom from pain, injury and *disease*; and freedom to express normal patterns of behaviour) provide valuable guidance in *animal welfare*.
3. That the internationally recognised 'three Rs' (reduction in numbers of *animals*, refinement of experimental methods and replacement of *animals* with non-animal techniques) provide valuable guidance for the use of *animals* in science.
4. That the scientific assessment of *animal welfare* involves diverse elements which need to be considered together, and that selecting and weighing these elements often involves value-based assumptions which should be made as explicit as possible.

**SEZIONE 7:
Animal Welfare**

**Capitolo 7.7:
Stray Dog Population Control**

- 
- A map of the Balkan region is shown in the background, with small icons of national flags placed over the countries of Albania, Bulgaria, Bosnia and Herzegovina, Croatia, Greece, Kosovo, Macedonia, Romania, Serbia, and Turkey. The flags are color-coded to match the text of the list items.
- **10 Paesi Balcani (Albania, Bulgaria, Bosnia ed Erzegovina, Croazia, Grecia, Kosovo, Macedonia, Romania, Serbia, Turchia)**
 - **Finalità: raggiungere entro il 2025, tramite step intermedi, l'applicazione uniforme degli **standard OIE** in tutti i Paesi**
 - **Supporto tecnico-scientifico**



GRAZIE PER
L'ATTENZIONE