



UNIVERSITÀ DEGLI STUDI DI MILANO
DIPARTIMENTO DI MEDICINA VETERINARIA
E SCIENZE ANIMALI

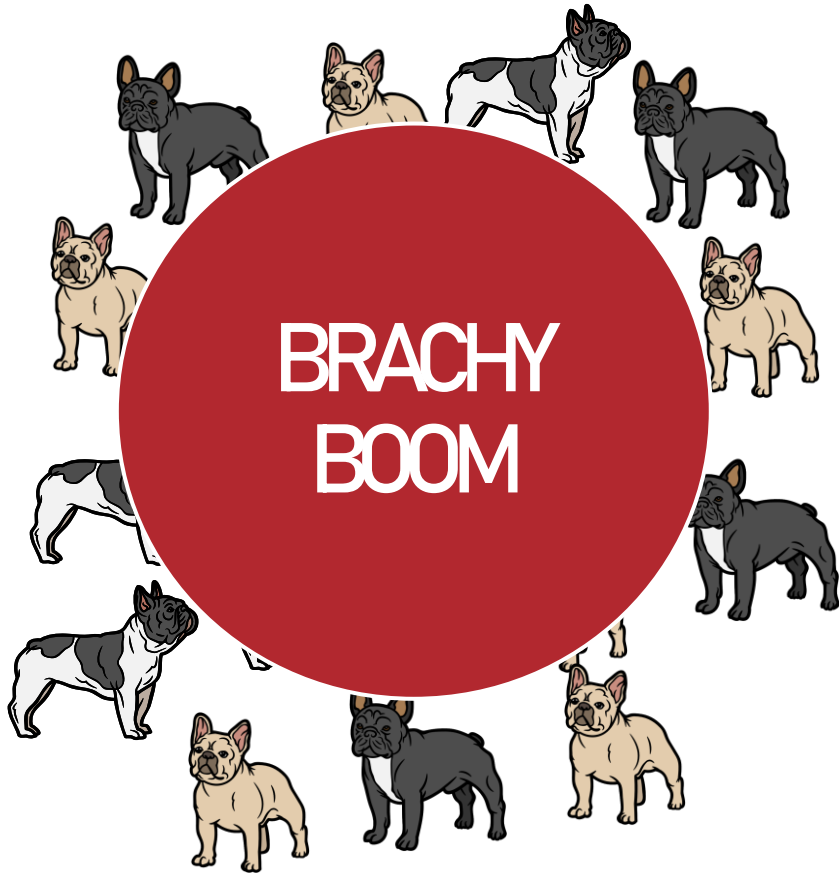
BRACHYCEPHALIC PHENOMENON. THE DARK FASCINATION OF FLAT FACED DOGS

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Background



Popularity of brachycephalic breeds is increasing internationally despite intrinsic health and welfare problems

Increasing of non-professional and commercial breeders

Increasing of illegal international puppy trade in response to a high demand for pet with hyper-typical characteristics

The main affected breeds are French bulldog, English Bulldog, Pugs



Background

BRACHYCEPHALIC PHENOMENON



Dog side

- Respiratory dysfunction (BOAS)
- Thermoregulation impairment
- Gastroenteric disorders
- Sleep apnea
- Ocular disorders (BOS)
- Skin disorders



Owner side

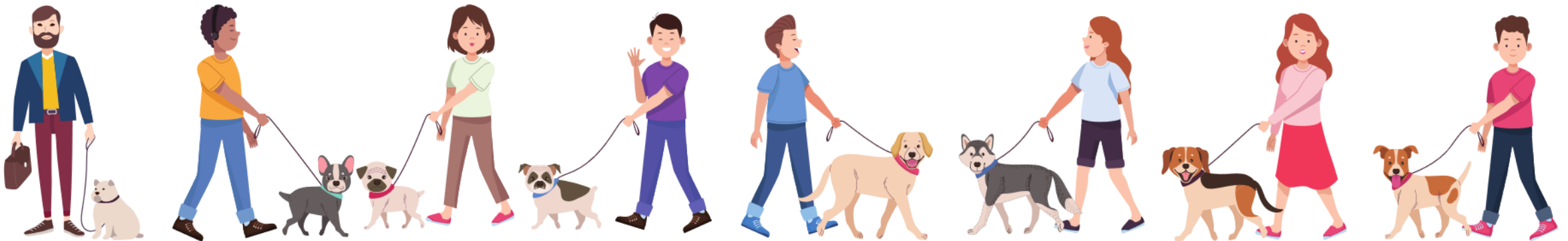
- Acquiring dog with exaggerated conformations
- Altered perception of health and welfare status
- Breed loyalty

BRACHYCEPHALIC WELFARE CRISIS



Aims

This study aimed to explore the phenomenon of brachycephalic breeds in a sample of Italian dog owners, investigating dog-human bonding, behavioural features, health status perception, motivations and satisfaction of owning a brachycephalic dog



Mat&Meth

- **Multiple-choice questionnaire**
 - Administration through social channels
- **Brachycephalic dog owners (BDOs)**
 - French bulldog, English bulldog, Pug
- **Non-Brachycephalic dog owners (NBDOs)**
- **Statistic analysis**
 - Mann-Whitney U-Test
 - One-Way Anova test
 - Linear regression
 - Kruskal-Wallis equality of population rank test

1. General information on owner
2. Information about dog
3. Veterinary expenses, and expectations and level of commitment in dog management
4. Brachycephalic dogs' medical history and health status perception
5. Motivation for purchasing brachycephalic breeds
6. Human-dog relationship (DORS scale)
 - Perceived emotional closeness (PEC)
 - Dog-owner interactions (DOI)
 - Perceived cost (PC)
7. Dog behaviour (C-BARQ)
 - Trainability
 - Excitability
 - Separation-related behaviour
 - Attachment or attention-seeking



Results

728 Italian owners participated to the survey



408 NBDOs



320 BDOs



Results – Human–dog relationship (DORS scale)

Dog–Owner interaction (DOI) and Perceived Emotional Closeness (PEC) scores were significantly higher in BDOs ($p \leq 0.05$)

Perceived cost (PC) score was higher in NBDOs ($p \leq 0.05$)

| Subscale | NBDOs | BDOs |
|-------------------------------------|-------------|-------------|
| DOI (Dog–Owner Interaction) | 4.08 ± 0.52 | 4.32 ± 0.4 |
| PEC (Perceived Emotional Closeness) | 4.33 ± 0.56 | 4.55 ± 0.44 |
| PC (Perceived Cost) | 3.84 ± 0.44 | 3.68 ± 0.56 |



Results - Human-dog relationship (DORS scale)

CONSIDERING ONLY THE BDOs

PEC score was higher in owners who chose these breeds for character ($p \leq 0.05$)

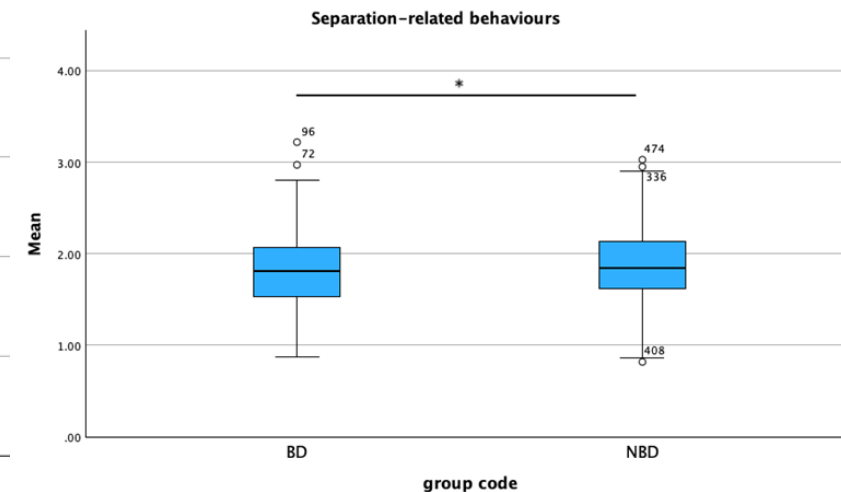
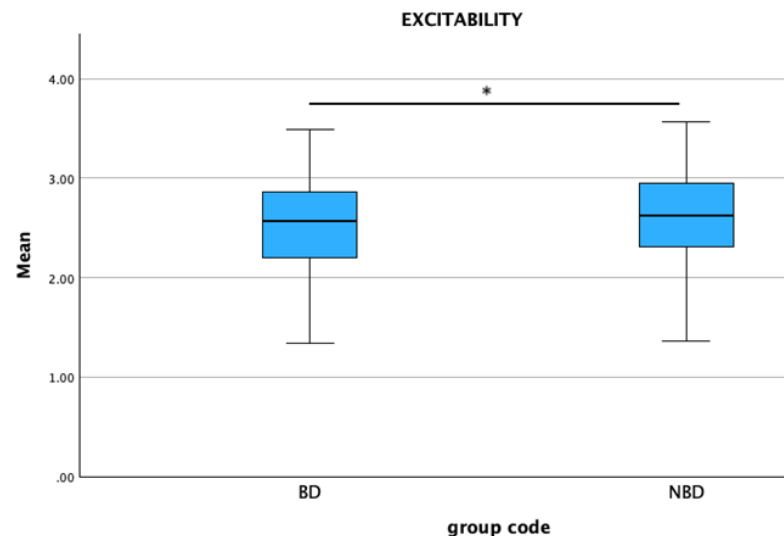
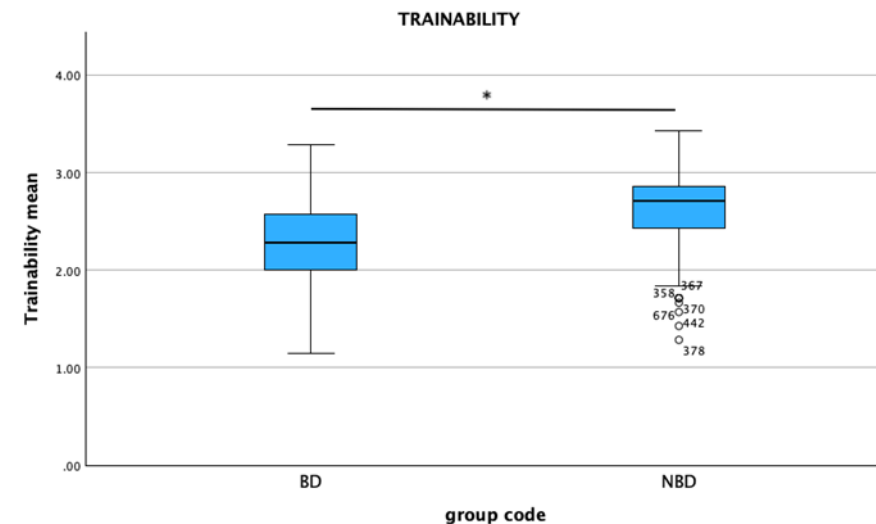
PC and DOI scores were related to health check status ($p \leq 0.05$)

- Higher PC score related to **excellent** health status
- Higher DOI score related to **poor** health status



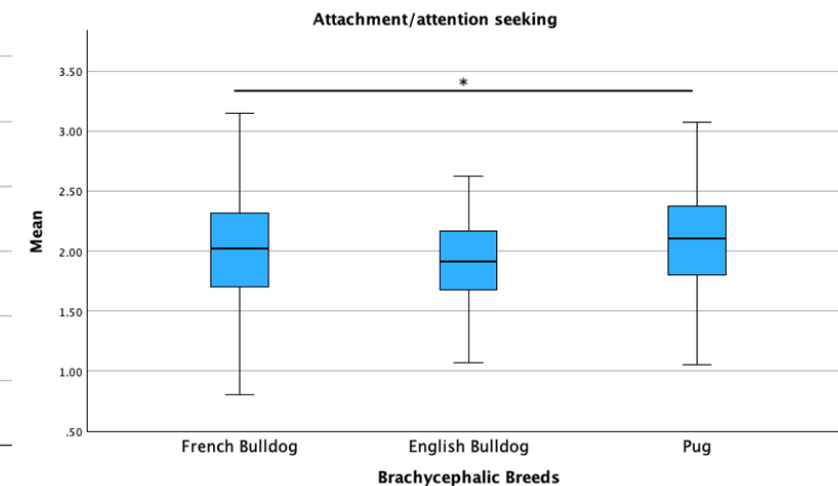
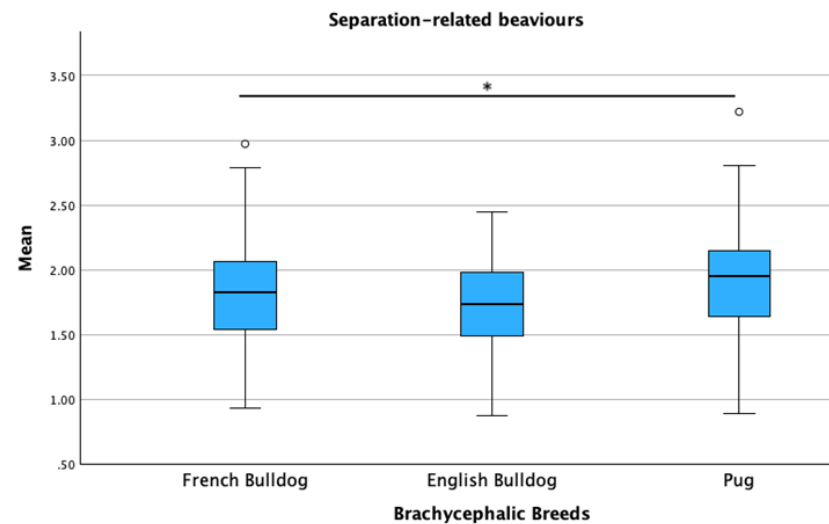
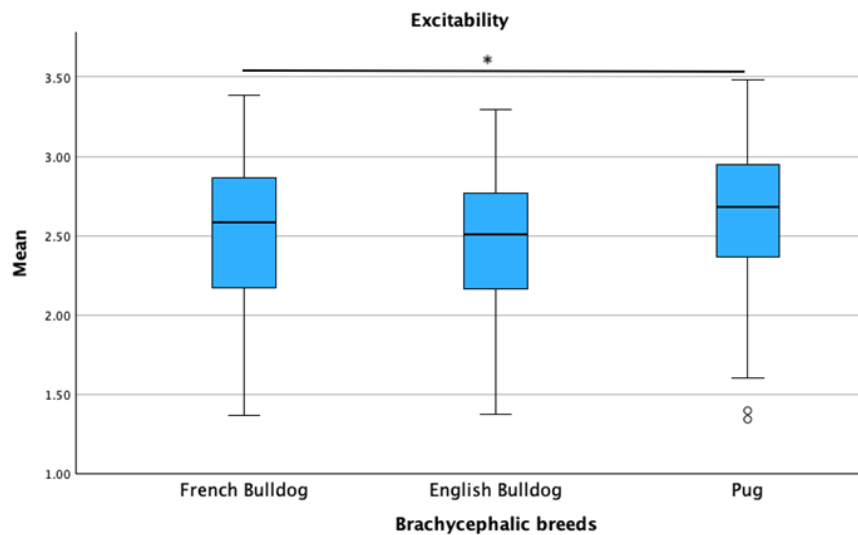
Results – Behavioural features (C-BARQ scale)

- NBDOs showed higher scores for
 - Trainability ($p < 0.001$)
 - Excitability ($p = 0.003$)
 - Separation-related behaviours ($p = 0.024$)
- No statistical differences were found between groups for attachment/attention seeking scores



Results – Behavioural features (C-BARQ scale)

- Comparing the brachycephalic breeds, **Pugs** obtained the higher score for
 - **Excitability** ($p=0.007$)
 - **Separation-related behaviours** ($p=0.005$)
 - **Attachment/attention seeking** ($p=0.011$)



Results

- **Character** was the main motivation for acquiring brachycephalic breeds (94%) followed by **aesthetic appearance** (74%)
- Physical characteristics loved by BDOs
 - 95% flat face
 - 84% big and round eyes
 - 81% rounded head



Results

- **Health status** was considered from **good to excellent** by 81% of BDOs, despite breed related disorders' occurrence
 - BOAS
 - Gastroenteric disorders
 - Ocular disorders
- The **veterinary checks** were conducted mostly between 2 to 5 times a year (40%)
- The **satisfaction of BDOs** with veterinary costs, physical activity level, interaction, and dog behaviour met the expectations



Discussion

- The complexity of brachycephalic dogs' ownership was confirmed by this study
- Character and appearance were found to be main reasons for acquiring a brachycephalic dog, confirming literature data
- Brachycephalic dogs are believed to be better companions as they are more suited to the owner's life, more trainable, and affectionate
- This is also confirmed by the fact that the expectations regarding the possession of these breeds have all been met



Discussion

- The phenomenon of normalization of clinical problems can explain the distorted perception of dog's health status and the fatigue of owning a brachycephalic dog
- This phenomenon is characterized by the acceptance of clinical issues as typical traits of the breed
- The psychological mechanisms play a important role in under-recognizing poor welfare and normalizing breed-related problems
 - Cognitive dissonance
 - Psychological needs fulfil by caregiving



Discussion

- Physical conformation, such as the frontal eyes, make these breeds more likely to be trainable and to pay attention to the owner
- This is not supported by the results of this study where the trainability was lower compared to NBD
- Behavioral traits related to attachment and separation seem associated with hyper-typical neotenic features such as pugs
- Owner interpretations of canine behaviour and the perception of relationship quality, can be influenced by the dog's neotenic appearance (baby-schema)



Conclusion

- A deeper understanding of brachycephalic phenomenon can support the development of effective strategies to protect the welfare and health of brachycephalic breeds
- Scientific knowledge is needed to revise breed standards, prioritizing animal welfare, while still maintaining their “cuteness”
- Ethical breeding practices are urgently needed
- This approach could be more effective than banning these breeds to find a resolution to brachycephalic crisis



NEXT PUBLICATION!

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Berteselli



animals



divas

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THANK YOU FOR YOUR ATTENTION!

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