

**Annex S1: complete questionnaire translated from Italian into English
Pets during the COVID confinement**

1) If you currently live in Italy and agree to participate in this study, please mark the “Yes” option.*

Yes

No

General information

2) What age group do you belong to?*

Under 18 yoa

18-25 yoa

26-35 yoa

36-45 yoa

46-55 yoa

56-65 yoa

66-75 yoa

76+ yoa

3) What is your gender?*

Male

Female

Other

4) Education level?

Middle

High

Graduate

Post-graduate

Other

5) What is your employment?

I work with animals (Veterinarian, dog trainer, etc...)

Freelancer

Student

Labourer

Retired

Stay-at-home

Other

6) How many people live in the household at this time? (If there is none in one or more categories, don't forget to select "none").*

	None	1	2	3	4	5	6 or more
Number of children aged 5 years old or under?	<input type="checkbox"/>						
Number of children aged 6 to 12 years old?	<input type="checkbox"/>						
Number of children aged 13 to 17 years old?	<input type="checkbox"/>						
Number of adults aged 18 to 64 years old?	<input type="checkbox"/>						
Number of adults aged 65 years or older?	<input type="checkbox"/>						

7) What is your role in the household? (Please choose the option that most applies)*

- Child
- Parent
- Grandparent
- Adult without children
- Other

8) How many dogs and/or cats live in your household?*

	None	1	2	3	4	5	6 or more
Dogs	<input type="checkbox"/>						
Cats	<input type="checkbox"/>						

9) What type of home do you live in?*

- A house
- A flat or apartment

10) Does your home have any outdoor space (please tick all that apply)*

- No

Health impact	<input type="checkbox"/>					
Lifestyle impact	<input type="checkbox"/>					

17) To what extent has confinement affected your quality of life?*

- It is much better
 - It is moderately better
 - It is slightly better
 - It is no different
 - It is slightly worse
 - It is moderately worse
 - It is much worse
-

Questions about one of your pets

If you own more than one cat, please answer for the one whose name is first in alphabetical order.

18) What is the age of your cat in years?

- less than 1 year
- 1 year
- 2 years
- 3 years
- 4 years
- 5 years
- 6 years
- 7 years
- 8 years
- 9 years
- 10 years
- 11 years
- 12 years
- 13 years
- 14 years

19) What is the sex of your cat?

- Male neutered
- Male not-neutered
- Female neutered
- Female not-neutered

20) Caring for my cat is:*

- Much more difficult than before the confinement
- More difficult than before the confinement
- Neither harder nor easier than before the confinement
- Easier than before the confinement
- Much easier than before the confinement

21) My cat gives me a reason to get up in the morning.*

- Much more than before the confinement
- More than before the confinement
- No more or less than before the confinement
- Less than before the confinement
- Much less than before the confinement

22) How oft*en do you kiss your cat?*

Much more than before the confinement More than before the confinement No more or less than before the confinement Less than before the confinement Much less than before the confinement

23) There are major aspects of owning a cat I don't like.*

Much more than before the confinement More than before the confinement No more or less than before the confinement Less than before the confinement Much less than before the confinement

24) I wish my cat and I never had to be apart.*

Much more than before the confinement More than before the confinement No more or less than before the confinement Less than before the confinement Much less than before the confinement

25) I feel that my cat makes too much mess.*

Much more than before the confinement More than before the confinement No more or less than before the confinement Less than before the confinement Much less than before the confinement

26) How oft*en do you play games with your cat?*

Much more than before the confinement More than before the confinement No more or less than before the confinement Less than before the confinement Much less than before the confinement

27) It bothers me that my cat stops me doing things I enjoyed before I owned it.*

Much more than before the confinement More than before the confinement No more or less than before the confinement Less than before the confinement Much less than before the confinement

28) How oft*en do you spend *me enjoying watching your cat?*

Much more than before the confinement More than before the confinement No more or less than before the confinement Less than before the confinement Much less than before the confinement

29) It is annoying that sometimes I have to change my plans because of my cat.*

Much more than before the confinement More than before the confinement No more or less than before the confinement Less than before the confinement Much less than before the confinement

30) My cat costs too much money.*

Much more than before the confinement More than before the confinement No more or less than before the confinement Less than before the confinement Much less than before the confinement

31) My cat is constantly attenti*ve to me.*

Much more than before the confinement More than before the confinement No more or less than before the confinement Less than before the confinement Much less than before the confinement

32) How often do you give your cat food treats?*

Much more than before the confinement More than before the confinement No more or less than before the confinement Less than before the confinement Much less than before the confinement

33) How often do you tell your cat things you don't tell anyone else?*

Much more than before the confinement More than before the confinement No more or less than before the confinement Less than before the confinement Much less than before the confinement

34) How often do you feel that looking after your cat is a chore?*

Much more than before the confinement More than before the confinement No more or less than before the confinement Less than before the confinement Much less than before the confinement

35) How often do you talk to your cat?*

Much more than before the confinement More than before the confinement No more or less than before the confinement Less than before the confinement Much less than before the confinement

36) How often does your cat stop you doing things you want to?*

Much more than before the confinement More than before the confinement No more or less than before the confinement Less than before the confinement Much less than before the confinement

37) I would like to have my cat near me all the time.*

Much more than before the confinement More than before the confinement No more or less than before the confinement Less than before the confinement Much less than before the confinement

38) How often do you groom your cat?*

Much more than before the confinement More than before the confinement No more or less than before the confinement Less than before the confinement Much less than before the confinement

39) If everyone else left me, my cat would still be there for me.*

Much more than before the confinement More than before the confinement No more or less than before the confinement Less than before the confinement Much less than before the confinement

40) How often do you feel that having a cat is more trouble than it's worth?*

Much more than before the confinement More than before the confinement No more or less than before the confinement Less than before the confinement Much less than before the confinement

41) My cat helps me get through tough times.*

Much more than before the confinement More than before the confinement No more or less than before the confinement Less than before the confinement Much less than before the confinement

42) How often do you cuddle your cat?*

Much more than before the confinement More than before the confinement No more or less than before the confinement Less than before the confinement Much less than before the confinement

43) My cat provides me with constant companionship.*

Much more than before the confinement More than before the confinement No more or less than before the confinement Less than before the confinement Much less than before the confinement

44) How often do you have your cat with you while relaxing, i.e. watching TV?*

Much more than before the confinement More than before the confinement No more or less than before the confinement Less than before the confinement Much less than before the confinement

45) My cat is there whenever I need to be comforted.*

Much more than before the confinement More than before the confinement No more or less than before the confinement Less than before the confinement Much less than before the confinement

46) How often do you pet your cat?*

Much more than before the confinement More than before the confinement No more or less than before the confinement Less than before the confinement Much less than before the confinement

47) How often do you buy your cat presents?*

Much more than before the confinement More than before the confinement No more or less than before the confinement Less than before the confinement Much less than before the confinement

48) To what extent do you think the confinement period has affected your cat's quality of life?*

- It's much better
- It's moderately better
- It's slightly better
- It's no different
- It's slightly worse
- It's moderately worse
- It's much worse

49) How has the confinement period affected your relationship with your cat?*

- It's much better
- It's moderately better
- It's slightly better
- It's no different
- It's slightly worse
- It's moderately worse
- It's much worse

50) Do you feel that your cat helps you to better go through the period of isolation?

- Very much
- A lot
- Enough
- Neither yes nor no

- A little bit
- Little
- Very Little

51) Recently, how often have you been mad at your cat?*

- Much more than before isolation
- Moderately more than before isolation
- Slightly more than before the confinement
- No more and no less than before the isolation
- Slightly less than before the isolation
- Moderately less than before the confinement
- Much less than before the confinement

52) The following problematic behaviours are relatively common in cats. Please indicate how you have observed them in your cat.*

	My cat never did this	The same as before the confinement	It improved during the confinement	It got worse during the confinement
Aggression towards family members (hissing, scratching etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aggressiveness towards other cats living in the house	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aggression towards people who do not live in the house	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aggression towards other cats outside the house	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Urination/defecation inside the house outside the litterbox	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fear of loud or unexpected noises	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Destructiveness (e.g. scratching furniture)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hiding and avoiding in contact with people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Urine marking	()	()	()	()
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53) Have you observed other changes in the behaviour of your cat besides those included in the previous list?

54) What general changes have you seen in your cat's behaviour since the beginning of confinement? (please select all the options that apply)*

- I have not detected significant changes
- More nervous
- More stressed
- More relaxed
- More excitable
- More calm
- More attention-seeking
- More demanding
- More frustrated
- More irritable

Table S1 Participants' demographics and information about the household

Age groups	%	Number	Median	Min-Max
18-25	4.6	25		
26-35	23.2	127		
36-45	30.7	168		
46-55	25.2	138		
56-65	13.5	74		
66-75	2.7	15		
>76	0.2	1		
Sex				
Female	86.1	472		
Male	13.9	76		
Education level				
Middleschool diploma	3.6	20		
High school diploma	35.6	195		
Degree	39.4	216		
Post-graduate degree	20.6	113		
Other	0.7	4		
Employment				
Employee	27.7	152		
Freelance	17.9	98		

Student	4.9	7
Labourer	4.2	23
Retired	4.4	24
Stay-at-home	4.6	25
I work with animals (veterinarian, dog trainer etc)	18.4	101
Other	17.9	98
Role in the family		
Son/daughter	13	71
Mother/father	33.6	184
Adult (without children)	48.7	267
Other	4.7	26
Number of people that live in the house		
Children (0-5)	0	0-6
Children (6-12)	0	0-4
Children (13-17)	0	0-4
Adults (18-64)	2	0-5
Elderly (>65)	0	0-4
Number of animals that live in the house		
Dog	0	0-6
Cat	2	1-6
Type of house		
Flat	61.5	337
Independent house	38.5	211
Size of the house		
Small	29.7	163
Medium to large	70.3	385
Perceived income		
Low	4	22
Mean	73	400
High	23	126
Is the house big enough?		
Yes	86.1	472
No	13.9	76

Is there enough air in the house?		
Yes	95.1	521
No	4.9	27
Family situation during lockdown		
We are all confined and none of us work from home	18.1	99
We are all confined and some of us work from home	19	104
We are all confined and we all work from home	13.5	74
Some of us are confined and some are allowed to go out for business reasons	35.8	196
We all have permission to go out for business reasons	13.7	75

Table S2: Participants' demographics and information about the household

Age groups	%	Number	Median	Min-Max
18-25	4.6	25		
26-35	23.2	127		
36-45	30.7	168		
46-55	25.2	138		
56-65	13.5	74		
66-75	2.7	15		
>76	0.2	1		
Sex				
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Role in the family			
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Other	4.7	26	
Number of people that live in the house			
Children (0-5)		0	0-6
Children (6-12)		0	0-4
Children (13-17)		0	0-4
Adults (18-64)		2	0-5
Elderly (>65)		0	0-4
Number of animals that live in the house			
Dog		0	0-6
Cat		2	1-6
Type of house			
Flat	61.5	337	
Independent house	38.5	211	
Size of the house			
Small	29.7	163	
Medium to large	70.3	385	

Perceived income		
Low	4	22
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Is the house big enough?		
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No	13.9	76
Is there enough air in the house?		
Yes	95.1	521
No	4.9	27
Family situation during lockdown		
We are all confined and none of us work from home	18.1	99
We are all confined and some of us work from home	19	104
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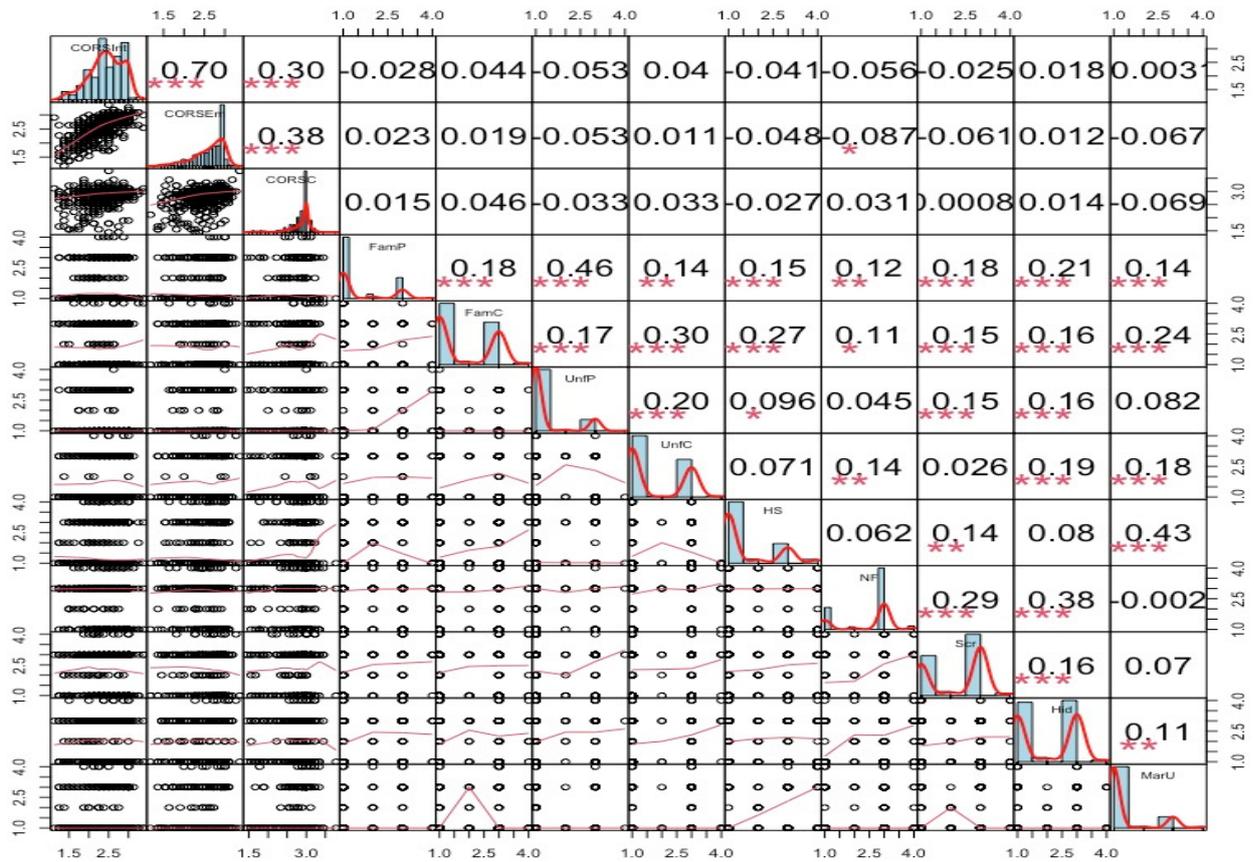


Figure S1: Scatterplot graph of the Spearman's correlations. The distribution of each variable is shown on the diagonal. On the bottom of the diagonal are reported the bivariate scatter plots with a fitted line are displayed. CORShi = cat-owner interaction domain, CORSEi = emotional bond domain, CORSCi = perceived costs domain, FamP = aggression towards familiar people, FamC = aggression towards familiar cats, UnfP = aggression towards unfamiliar people, UnfC = aggression towards unfamiliar cats, HS = house soiling, NF = noise fear, Scr = scratching, Hid = hiding, MarU = marking with urine. On the top of the diagonal are reported the value of the correlation plus the significance level as asterisks. Each significance level is associated to a symbol: p-values 0 = "****", 0.001 = "***", 0.01 = "**", 0.05 = ".".