

*Supplementary Material – Appendix 5*

## Conflict and affiliative behavior frequency between cats in multiple cat households, a survey-based study

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### Chi Square Test of Independence (Results included in Table 8)

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**Table S8.1 – Nose Touching and Home Size**  
*Observed and Expected Frequencies*

Nose Touching	Home_Size			$\chi^2$	df	p
	Less than 1499 sqft	1500-3499 square feet	More than 3500 square feet			
Never	120[122.19]	155[154.90]	15[12.92]	4.35	8	.824
Once a month or less	115[114.18]	149[144.75]	7[12.07]			
Weekly	238[229.63]	283[291.10]	24[24.28]			
Daily	326[327.38]	418[415.01]	33[34.61]			
Several times a day	232[237.63]	302[301.25]	30[25.12]			

*Note.* Values formatted as Observed[Expected].

**Table S8.2 – Nose Touching and Litterboxes**  
*Observed and Expected Frequencies*

Nose Touching	Litterbox		$\chi^2$	df	p
	FALSE	TRUE			
Never	200[218.44]	96[77.56]	11.23	4	.024
Once a month or less	198[202.20]	76[71.80]			
Weekly	409[410.31]	147[145.69]			
Daily	585[584.47]	207[207.53]			
Several times a day	447[423.59]	127[150.41]			

*Note.* Values formatted as Observed[Expected].

**Table S8.3 – Nose Touching and Food Stations**  
*Observed and Expected Frequencies*

Nose Touching	Food		$\chi^2$	df	p
	FALSE	TRUE			
Never	92[110.70]	204[185.30]	12.63	4	.013
Once a month or less	90[102.48]	184[171.52]			
Weekly	201[207.94]	355[348.06]			
Daily	314[296.21]	478[495.79]			
Several times a day	235[214.67]	339[359.33]			

*Note.* Values formatted as Observed[Expected].

**Table S8.4 – Nose Touching and Scratching Posts**  
*Observed and Expected Frequencies*

Nose Touching	Scratch_Post		$\chi^2$	df	p
	FALSE	TRUE			
Never	116[112.96]	180[183.04]	2.40	4	.663
Once a month or less	102[104.56]	172[169.44]			
Weekly	223[212.18]	333[343.82]			
Daily	304[302.24]	488[489.76]			
Several times a day	206[219.05]	368[354.95]			

*Note.* Values formatted as Observed[Expected].

**Table S8.5 – Nose Touching and New cat added to house in the past 6 months**  
*Observed and Expected Frequencies*

Nose Touching	Time_Any_LessThan6mo		$\chi^2$	df	p
	No	Yes			
Never	267[261.08]	29[34.92]	6.39	4	.172
Once a month or less	249[241.67]	25[32.33]			
Weekly	496[490.40]	60[65.60]			
Daily	691[698.56]	101[93.44]			
Several times a day	495[506.28]	79[67.72]			

*Note.* Values formatted as Observed[Expected].

**Table S8.6 – Allogroom and Home Size**  
*Observed and Expected Frequencies*

Allogroom	Home_Size			$\chi^2$	df	p
	Less than 1499 sqft	1500-3499 square feet	More than 3500 square feet			
Never	187[208.14]	281[263.86]	26[22.00]	12.77	8	.120
Once a month or less	118[109.55]	132[138.87]	10[11.58]			
Weekly	168[186.23]	254[236.08]	20[19.69]			
Daily	259[237.63]	279[301.25]	26[25.12]			
Several times a day	299[289.46]	361[366.94]	27[30.60]			

*Note.* Values formatted as Observed[Expected].

**Table S8.7 – Allogroom and Litterboxes**  
*Observed and Expected Frequencies*

Allogroom	Litterbox		$\chi^2$	df	p
	FALSE	TRUE			
Never	345[374.15]	162[132.85]	23.07	4	< .001
Once a month or less	186[194.08]	77[68.92]			
Weekly	317[329.87]	130[117.13]			
Daily	439[424.33]	136[150.67]			
Several times a day	552[516.57]	148[183.43]			

*Note.* Values formatted as Observed[Expected].

**Table S8.8 – Allogroom and Food Stations**  
*Observed and Expected Frequencies*

Allogroom	Food		$\chi^2$	df	p
	FALSE	TRUE			
Never	150[189.62]	357[317.38]	23.62	4	< .001
Once a month or less	90[98.36]	173[164.64]			
Weekly	165[167.18]	282[279.82]			
Daily	230[215.05]	345[359.95]			
Several times a day	297[261.80]	403[438.20]			

*Note.* Values formatted as Observed[Expected].

**Table S8.9 – Allogroom and Scratching Posts**  
*Observed and Expected Frequencies*

Allogroom	Scratch_Post		$\chi^2$	df	p
	FALSE	TRUE			
Never	202[193.48]	305[313.52]	2.55	4	.635
Once a month or less	95[100.37]	168[162.63]			
Weekly	160[170.58]	287[276.42]			
Daily	227[219.43]	348[355.57]			
Several times a day	267[267.13]	433[432.87]			

*Note.* Values formatted as Observed[Expected].

**Table S8.10 – Allogroom and New cat added to house in the past 6 months**  
*Observed and Expected Frequencies*

Allogroom	Time_Any_LessThan6mo		$\chi^2$	df	p
	No	Yes			
Never	442[447.19]	65[59.81]	25.11	4	< .001
Once a month or less	247[231.97]	16[31.03]			
Weekly	411[394.26]	36[52.74]			
Daily	508[507.16]	67[67.84]			
Several times a day	590[617.42]	110[82.58]			

*Note.* Values formatted as Observed[Expected].

**Table S8.11 – Sleep Same Room and Home Size**  
*Observed and Expected Frequencies*

Sleep_same_room	Home_Size			$\chi^2$	df	p
	Less than 1499 sqft	1500-3499 square feet	More than 3500 square feet			
Never	22[23.17]	31[29.38]	2[2.45]	13.55	8	.094
Once a month or less	19[26.12]	41[33.12]	2[2.76]			
Weekly	57[73.73]	108[93.47]	10[7.80]			
Daily	309[311.79]	400[395.25]	31[32.96]			
Several times a day	624[596.19]	727[755.78]	64[63.03]			

*Note.* Values formatted as Observed[Expected].

**Table S8.12 – Sleep Same Room and Litterboxes**  
*Observed and Expected Frequencies*

Sleep Same Room	Litterbox		$\chi^2$	df	p
	FALSE	TRUE			
Never	31[42.06]	26[14.94]	27.76	4	< .001
Once a month or less	41[47.23]	23[16.77]			
Weekly	123[134.31]	59[47.69]			
Daily	535[552.73]	214[196.27]			
Several times a day	1109[1062.66]	331[377.34]			

*Note.* Values formatted as Observed[Expected].

**Table S8.13 – Sleep Same Room and Food Stations**  
*Observed and Expected Frequencies*

Sleep Same Room	Food		$\chi^2$	df	p
	FALSE	TRUE			
Never	10[21.32]	47[35.68]	22.03	4	< .001
Once a month or less	19[23.94]	45[40.06]			
Weekly	50[68.07]	132[113.93]			
Daily	282[280.12]	467[468.88]			
Several times a day	571[538.56]	869[901.44]			

*Note.* Values formatted as Observed[Expected].

**Table S8.14 – Sleep Same Room and Scratching Posts**  
*Observed and Expected Frequencies*

Sleep Same Room	Scratch_Post		$\chi^2$	df	p
	FALSE	TRUE			
Never	24[21.75]	33[35.25]	7.02	4	.135
Once a month or less	22[24.42]	42[39.58]			
Weekly	85[69.46]	97[112.54]			
Daily	285[285.83]	464[463.17]			
Several times a day	535[549.53]	905[890.47]			

*Note.* Values formatted as Observed[Expected].

**Table S8.15 – Sleep Same Room and New cat added to house in the past 6 months**  
*Observed and Expected Frequencies*

Sleep Same Room	Time_Any_LessThan6mo		$\chi^2$	df	p
	No	Yes			
Never	47[50.28]	10[6.72]	9.43	4	.051
Once a month or less	57[56.45]	7[7.55]			
Weekly	163[160.53]	19[21.47]			
Daily	680[660.63]	69[88.37]			
Several times a day	1251[1270.11]	189[169.89]			

*Note.* Values formatted as Observed[Expected].

**Table S8.16 – Sleep Touching and Home Size**  
*Observed and Expected Frequencies*

Sleep Touching	Home_Size			$\chi^2$	df	p
	Less than 1499 sqft	1500-3499 square feet	More than 3500 square feet			
Never	211[240.16]	334[304.45]	25[25.39]	11.10	8	.196
Once a month or less	165[157.58]	193[199.76]	16[16.66]			
Weekly	179[173.17]	214[219.52]	18[18.31]			
Daily	198[187.91]	233[238.22]	15[19.87]			
Several times a day	278[272.18]	333[345.04]	35[28.78]			

*Note.* Values formatted as Observed[Expected].

**Table S8.17 – Sleep Touching and Litterboxes**  
*Observed and Expected Frequencies*

Sleep Touching	Litterbox		$\chi^2$	df	p
	FALSE	TRUE			
Never	392[429.49]	190[152.51]	21.04	4	< .001
Once a month or less	272[280.43]	108[99.57]			
Weekly	317[308.47]	101[109.53]			
Daily	348[335.77]	107[119.23]			
Several times a day	510[484.84]	147[172.16]			

*Note.* Values formatted as Observed[Expected].

**Table S8.18 – Sleep Touching and Food Stations**  
*Observed and Expected Frequencies*

Sleep Touching	Food		$\chi^2$	df	p
	FALSE	TRUE			
Never	177[217.67]	405[364.33]	34.72	4	< .001
Once a month or less	129[142.12]	251[237.88]			
Weekly	146[156.33]	272[261.67]			
Daily	181[170.17]	274[284.83]			
Several times a day	299[245.72]	358[411.28]			

*Note.* Values formatted as Observed[Expected].

**Table S8.19 – Sleep Touching and Scratching Posts**  
*Observed and Expected Frequencies*

Sleep Touching	Scratch_Post		$\chi^2$	df	p
	FALSE	TRUE			
Never	231[222.10]	351[359.90]	7.20	4	.126
Once a month or less	123[145.02]	257[234.98]			
Weekly	156[159.52]	262[258.48]			
Daily	182[173.64]	273[281.36]			
Several times a day	259[250.73]	398[406.27]			

*Note.* Values formatted as Observed[Expected].

**Table S8.20 – Sleep Touching and New cat added to house in the past 6 months**  
*Observed and Expected Frequencies*

Signs_A_sleep_touching	Time_Any_LessThan6mo		$\chi^2$	df	p
	No	Yes			
Never	524[513.34]	58[68.66]	23.97	4	< .001
Once a month or less	355[335.17]	25[44.83]			
Weekly	370[368.69]	48[49.31]			
Daily	398[401.32]	57[53.68]			
Several times a day	551[579.49]	106[77.51]			

*Note.* Values formatted as Observed[Expected].