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**A survey about sexual linked behavior problems in cats.**

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# A survey about sexual linked behavior problems in cats.

## Introduction.

Many people find that certain normal sexual linked behavior traits among cats, make them incompatible with a life as a household pet. Normal breeding behavior of male cats can be aggression and marking their environment with urine. While female cats may show signs of aggression during estrus. 5,7 to 9,5 million cats were euthanized in 1990 in the USA (*Margaret V. Root Kustritz., 2007*). The predominant age of animals being euthanized in shelters, are adolescent and older animals that have had homes, but are no longer wanted by their original owners (*Janet M. Scarlett et al., 2002*). To prevent more cats being given up as pets, and increasing the free-roaming cat population, it is important to have more knowledge on how to reduce or even hinder such unwanted behavior. As behavior problems are listed as the second most common reason people give when they give way their cat (excluding litters) (*Janet M. Scarlett et al., 2002*).

A way to hinder the cats sexual behavior would be to remove their sexual hormones, by gonadectomy. Either by ovariectomy or ovariectomy of the females, and by castration of males. And several studies found that cats have one half to one third the risk of being surrendered to shelter after being neutered. (*Janet M. Scarlett et al., 2002*). This is probably also due to reduction of management problems such as unwanted estrus cycles, as well as objectionable sexual linked behavior traits. An other study found that the undesirable behaviors decreased to the greatest extent in male cats by neutering, were sexual behaviors, roaming and urine spraying (*Hart 1973, 1979; Hart and Barrett 1979*). It has also been shown that the decrease in gonadal steroid hormones, by gonadectomy is correlated with decrease in sexual dimorphic behavior. Sexual dimorphic behaviors are those mostly displayed by one sex. Like mounting and urine marking. Some forms of aggression may be considered dimorphic. Like the aggression associated with a female in estrus (e.g aggression between females, or between males housed with a female in estrus). It has also been stated that “*sexual behavior of male cats makes them extremely undesirable, and often unsafe, as household pets. A decrease in sexually*

*dimorphic behavior after castration of male cats is an extremely powerful benefit of elective gonadectomy.*” (Margaret V. Root Kustritz., 2007). The same article also states that although sexual behavior of the female cat can also be undesirable, it is less common so severe to make them unfit as a household pet (Margaret V. Root Kustritz., 2007). Hilit Finkler et Al. Found though a trap-neuter-return program, that aggression between two neutered male cats were very rare. And that in most displays of aggression at least one un-neutered male was present. Suggesting that in encounters between neutered and un-neutered males, the neutered cats simply respond to the threat from the un-neutered cat. (Hilit Finkler et al., 2011)

But more factors play a role, and an other study found that although the likelihood that gonadectomy will influence sexual dimorphic behaviors is not correlated with the duration of the problematic behavior. But that it may or may not, be associated with the prior sexual experience of the affected animal (Margaret V. Root Kustritz, 2007). Hilit Finkler et Al. Also found that when cats gathered in feeding groups the aggression increased, presumably because the occasional breakdown of the so-called personal space of the cats, increasing tension between the cats. (Hilit Finkler et al., 2011) This might imply that overcrowding of cats may also increase aggression.

Elimination problems are given as the most common behavioral trait for relinquished cats. (Janet M. Scarlett et al., 2002). Cats that eliminate inside at least once a week, are 2 to 6 times more likely to be relinquished, compared to cats that occasional or never show such behavior (Janet M. Scarlett et al., 2002). But non-disease related elimination problems can have many more causes than sexual linked behavior, and may not be solved only with gonadectomy. For example urinating outside the litterbox is more common in a multi-cat household, than a single-cat households (Janet M. Scarlett et al., 2002). And even though in 90% of castrated male cats, elimination problems was markedly reduced, or eliminated by the castration. 10% still had the same problem after the castration (Valarie V. Tynes et al., 2003). The same article also found that 10-20% of all neutered males still performs normal sexual behavior. And that this reinforces the concept that the neural basis for the androgen dependent behavior can be activated in some cats without gonadal hormone support (Valarie V. Tynes et al., 2003).

Aggression towards humans was given as the reason for relinquishment of cats in 5 % of

cases. And towards other animals in 7% of relinquished cats. Among the surrendered, aggressive cats, 71% had bitten people (*Janet M. Scarlett et al., 2002*). But here the studies are contrasting each other, one found that aggression towards people did not increase the chance of relinquishment. While an other found that a cat with daily aggression towards humans, where 4 times more likely to be surrendered to a shelter (*Janet M. Scarlett et al., 2002*). However aggression towards other animals was found not to increase the risk of relinquishment. (*Janet M. Scarlett et al., 2002*).

The aim of this study was to collect the owner's opinion on their cat's behavior, and the effect of neutering on behavioral problems. It is important to realize how many owners see their cat's behavior as a problem. And if they feel that neutering is a good solution to treat or improve behavior issues. The questionnaire was formed to collect the cat owner's opinion on these issues. And also to see if other variables like keeping of the cats, and overcrowding of cats in a household, as well as in the immediate environment, can affect the cats behavior. And perhaps to shed more light on how to effectively treat unwanted feline behavioral traits.

## Methods.

The questionnaire was made as an online survey for cat owners to answer anonymously. It was divided into 4 main parts; information about the owner, information about the cat, and the last two about elimination problems and aggression, were only to be answered if the cat had such issues. It was also translated in Norwegian, for norwegian cat owners to answer. The questionnaire was inspired from the questions from the *Feline behavior questionnaire* out of the *BSAVA Manual of Canine and Feline Behavior Medicine 2<sup>nd</sup> edition*.

In the first part, *Owner Details*, the questions were formed to establish knowledge about age and the previous cat-keeping experience of the owners. As well as knowledge about other household pets, and their relationship with the cat in question.

In the cat (*Details about your cat in question*) section, the questions where asked to get general information like age, sex and neutering status of the cat. Also the reason for neutering, success of the procedure, as well as if other medical ways of treating behavior problems were tried. There were also questions about when the cat was obtained, and sexual experience of the cat, to see if it would influence the success of neutering. Further there was a under-section about housing. To give information about if exercise and social stress at home would influence the result of neutering.

The questions in the section about *Urination Problems* where asked in a way to try to distinguish actual sex linked marking behavior from others, like lower urinary tract infections. As well if to see if multiple cat households would affect the behavioral problems of the cat. And if a high population of cats in the neighborhood would do the same.

In the details about aggression (*Aggression Problems*), questions where asked to see whom the aggression was directed towards. And if there were a difference between cats kept inside or outside. In both the elimination section and the aggression, the last question was formed to see, in case the cat was neutered, how the owner perceived it had changed the cats behavior.

The survey was distributed online through surveymonkey.com on facebook and at some local veterinary clinics in Norway and Australia.

**Table 1.**

**The Questionnaire.**

<p><b>Owner details:</b></p> <ol style="list-style-type: none"><li>1. Age of owner:<ul style="list-style-type: none"><li>• Under 20 years</li><li>• 20-50 years</li><li>• 50-80 years</li><li>• Over 80 years</li></ul></li><li>2. Is this your first cat?<ul style="list-style-type: none"><li>• Yes</li><li>• No</li></ul></li><li>3. If no, when did you get your first cat?</li><li>4. Please list other household pets.</li><li>5. If other household pets, how do they interact with your cat? E.g. Avoids, plays, fights.</li></ol> <p><b>Details of your cat in question:</b></p> <ol style="list-style-type: none"><li>6. sex:<ul style="list-style-type: none"><li>• Male</li><li>• Neutered Male</li><li>• Female</li><li>• Neutered female</li></ul></li><li>7. If neutered, reason for neutering?<ul style="list-style-type: none"><li>• Birth control</li><li>• Behavior</li><li>• Other</li></ul></li></ol>
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8. Has the neutering fulfilled your expectations?
  - Yes
  - No
9. If no, why not?
  - Still aggressive
  - Still marking
  - Other
10. Age of your cat?
11. Age when obtained?
12. Have your cat been sexually active that you know of?
  - Yes
  - No
  - Uncertain

**Medical history:**

13. Is your cat on any medication for its behavior?
  - Yes
  - No

If yes, fill in name of drug.

14. Is the treatment successful?
  - Yes
  - No

**Housing:**

15. How do you keep your cat?
  - Indoor
  - Outdoor
  - Both
16. What kind of home do you live in? (flat/apartment, house etc)
17. How often do you see other cats in your garden?
  - Daily

- Several times a week
  - Once a week
  - Rarely
18. How much time does your cat spend outside each day?
19. How far does he/she go on average?
- Stays in garden
  - Goes to the neighbors
  - Further ranging

**Urination problems: Here I asked the owners only to answer if their cat had a problem with urination.**

20. Does your cat urinate outside the litterbox, inside the house?
- Yes
  - No
21. How often does this happen?
- Always
  - Once a day
  - Once a week
  - Once a month
22. Where does your cat urinate? (is it close to windows, on furniture/plants etc.?)
23. What posture does your cat assume when urinating or spraying outside the litterbox?
- Standing
  - Squatting
24. Where is the urine located?
- On the floor
  - On walls/on objects
25. How many cats live in the immediate vicinity to your cat?
- None
  - 5

- More than 5
26. Does your cat seem agitated by the presence of other cats at present time?
- Yes
  - No
  - Only before neutering
27. What kind of interaction does your cat have with the other?
- Fights
  - Avoids
  - Friendly interactions
28. Does your cat have a previous history of urinary tract infections?
- Yes
  - No
29. If your cat is neutered, did you see any change in the behavior after the neutering?

**Aggression: Here I asked the owners only to answer if their cat had a problem with aggression.**

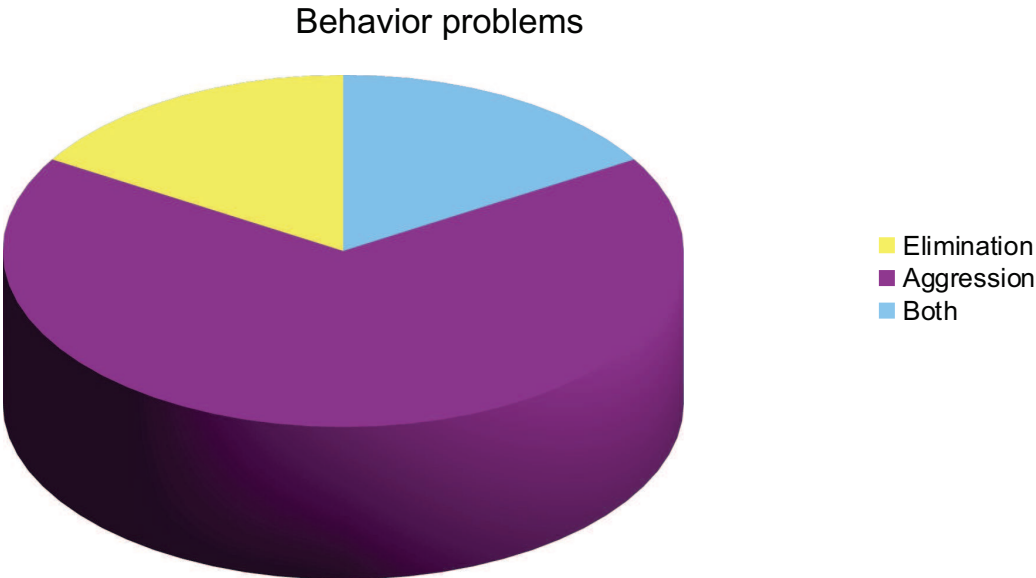
30. Who are your cat aggressive towards?
- Humans
  - Other cats
  - Other animals
31. If he/she is aggressive towards other cats, is it against household cats or outside cats?
- Household cats
  - Outside cats
32. How frequently does your cat come home with wounds?
- Never
  - Several times per week
  - Several times per month
  - Several times per year

33. If your cat is neutered, did you see any change in the behavior after the neutering?

**Results.**

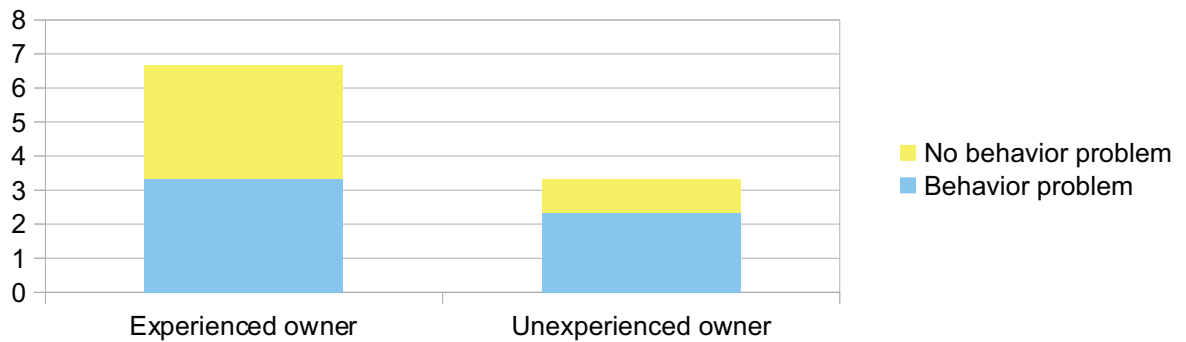
In total there were 81 replies. Over 85 % of the repliers were between 20-50 years. 53% answered that their cat had a behavior problem. 67,4% of the cats with behavior problems, were aggressive, 16,3% had an elimination problems, and 16,3% had a problem with both (Table 1).

*Table 1: number of cats with behavior problems.*



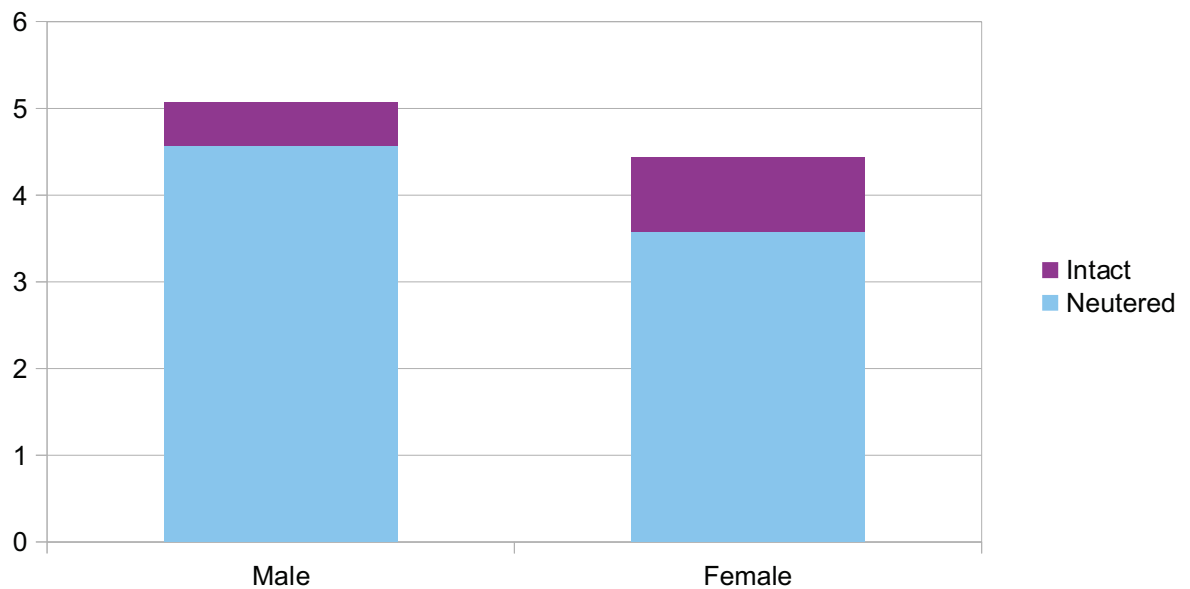
66,7% had previous experience with keeping of cats. Out of the people experienced with keeping cats, 50% had a cat with behavior problems. While 70% of the first-time cat owners had a problematic cat (Table 2). But since the pool of experienced answers were much larger, there can not be drawn any conclusion from this. Perhaps experienced cat owners will answer these kind of surveys more easily.

Table 2: Ratio of owners and their experience with keeping cats.



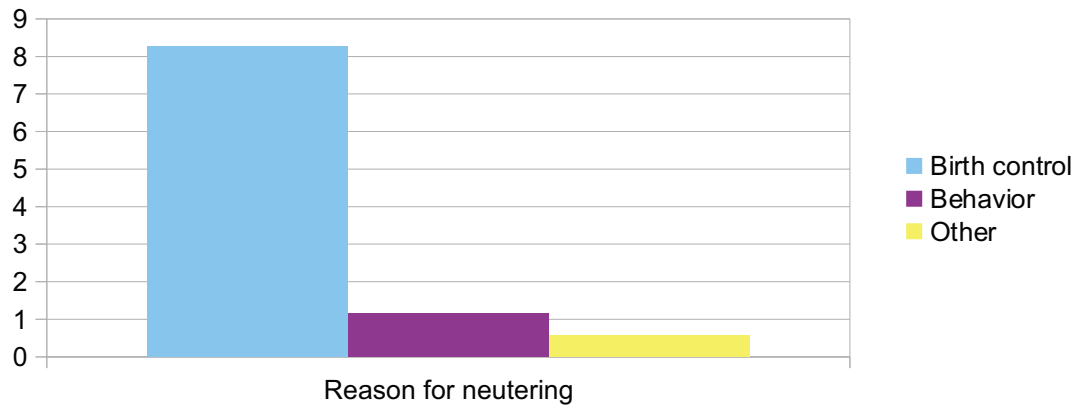
50,6% had a male cat, and out of them, 90,2% where castrated. 44,4% had females, and 80,6% of them where castrated (4 people did not answer this question) (Table 3). So 85,7% of all the cats were neutered.

Table 3: Ratio of the cat's sex, and the cats neutering status.



To the question why they had neutered their cat, 82,6% answered birth control, 11,6% behavior and 5,8% other reasons (Table 4).

Table 4: Owners reason for neutering.



Only 2 people answered that they were not satisfied by the result of the neutering. Also 2 people answered that their cat received medication for their behavior problems, and they were both satisfied with the results of the medical treatment. 74,3% of the cats were kept indoors and outdoors.

14,8% answered that their cat had an elimination problem. 75% were already neutered, all due to reproduction control (Table 5.). No one said that they saw a change after neutering, most explained that the cat was too young at time of neutering. 58 % were females, 42% male cats.

42% of the cats urinated outside the litterbox once a week or more frequently. Out of the cats with the most frequent problem, both sexes were equally represented. All of the females were squatting when urinating and the males were standing (except one that did not answer this question). 58% seemed to have a clear marking behavior, marking objects like furniture, walls close to windows etc.

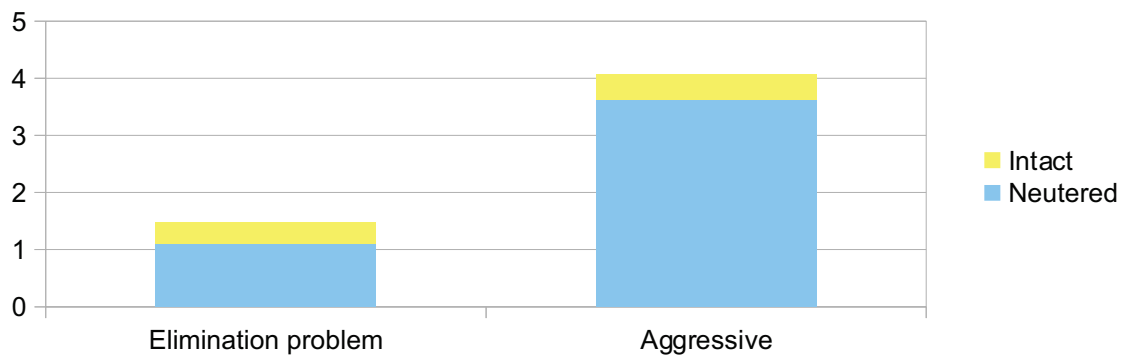


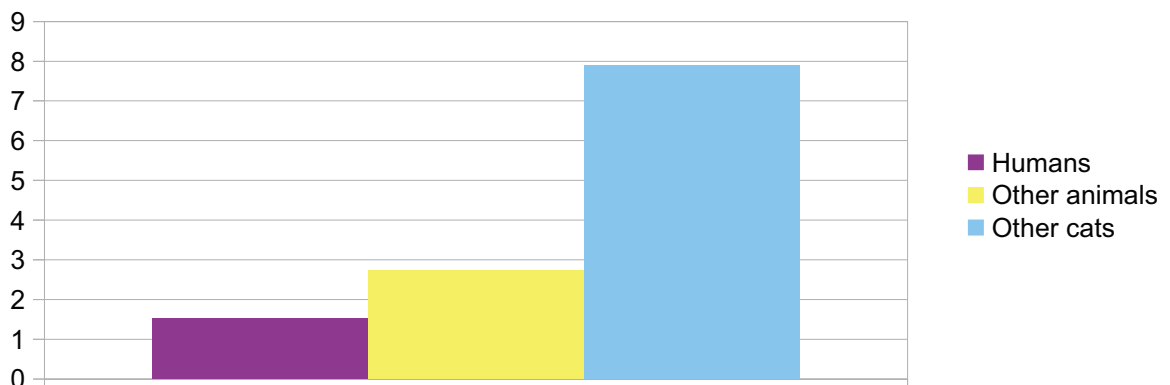
Table 5: ratio of different behavior problems, and their neutering status.

33 % was living in a multi-cat home, and 58 % reported of many cats in the immediate vicinity of their home. But only 25% reported that their cat was agitated in the presence of other cats, and one by the presence of household dog.

58% were kept outside and inside, the rest were indoor cats only. Two of the males had a previous history of lower urinary tract infections.

40,7 % answered that their cat had a problem with aggression. Out of these 15,2% were aggressive towards humans, 27,3% against other animals and 78,8% against other cats (Table 6).

Table 6: Ratio to whom the cat's aggressive behavior was directed towards.



Out of the cats aggressive towards other cats, 90,4% reported that their cat was aggressive towards outside cats, and only 9,6% towards household cats. Only 14% said that their cat came home with wounds once a month or more frequently (33 people did not answer this question.).

89,2% of the aggressive cats were neutered (Table 5). Only 3 owners reported that they saw a positive change after the neutering. One owner thought it might be a bit calmer. But mostly people answered that their cat was too young at neutering making it hard to see any change, or that they did not see any change. Only 13,5 % of the cats had been sexual active before the neutering known to the owner.

59,5% of the aggressive cats were male cats. 86,5% were kept both outside and inside. 48,6% of the aggressive cats were only aggressive towards outside cats, and never or rarely came home with wounds. So it can be that some of the cases with aggression towards outside cats, is more a territorial behavior perceived by their owners as aggression.

Of the most serious cases, either aggressive towards humans, or coming home with wounds regularly there were only 8 cats. 5 of them were neutered males, 2 intact females and one neutered female. Out of the two intact females, one was aggressive towards humans. The other came home with wounds weekly, but many of those could also be mating wounds as the male tend to bite the female during mating. The neutered female was aggressive towards humans, but she was now on medication for her behavior. And the owner was satisfied with her treatment.



## **Discussion:**

As 75% of the cats with elimination problems, and 89,2% of the aggressive cats were already neutered, neutering is not shown as an effective treatment of behavioral problems in this survey. But cats with behavior problems only made up 53% of the total, and out of the total 85,7% were neutered. It is of course impossible to tell from this survey, how many cats would have had a behavior problem had he or she not been neutered. I can only speculate that it would have been a much higher number. Also it can seem from the 48,6% of the aggressive cases, that at least some of them can be a territorial behavior, and not a type of aggression that is seen as a problem by the owners. And only 53% of the cats with an elimination problem, seemed to be a pure sexual linked marking trait. So the true percentage of cats with a sexual behavioral problem should be lower. This is also impossible to tell for sure. It would require a more thorough research on the cats in question, than what this online survey can provide.

Out of the cats with an elimination problem, 58% were kept both outside and inside. So it would seem from this study that keeping of the cats does not influence the problem. But again a larger portion of the total number of people responding (74,3%), kept their cat outside. And perhaps there were not enough indoor cat responders to show a clear picture.

33% of the elimination problematic cats were kept in a multi-cat home, as well as 58% reported that there were many cats in the close vicinity of their home. Which can be a contributing factor to the problem for some of the cats. According to the book "Treatment of behavior problems of dogs and cats", by Askew H.R, it is more common with elimination problems in cats housed in a multi-cat home, compared to a single cat household. And in a survey done in the U.S 35,5% of the people giving their cat up to shelters, were unaware that a multi-cat home could affect elimination problems. (*Janet M. Scarlett et al.,2002*).

It is important that veterinarians are more aware of the factors contributing to behavior problems in cats, so that those cases presented at the clinic that can not be solved by gonadoectomy, can be effectively treated in other ways. And so the owners of the problematic cats become aware of alternative ways to help their cat, so they do not feel the need to give them

up to shelters, or put them on the street.

Lower urinary tract infections did not seem to be a common problem for the cats in this survey. In retrospect there should also have been a question asking the owners of the cats with elimination problems, if they had been to the veterinarian to try to diagnose, or exclude this problem. But a survey from the USA showed that inappropriate elimination is the most common behavior problem that veterinarians are sought out to help with (*Valarie V. Tynes et al., 2003*). So I can only assume that it is a similar case with the people answering this survey. But the same study also concluded that there were no link between lower urinary tract disease and urine spraying (*Valarie V. Tynes et al., 2003*). As is the same result seen in this survey.

In the section about aggression it seems that the people answering did not completely differentiate between aggression linked problematic behavior of their cats, and the aggression shown between cats to maintain territory outside. This last kind of aggression did not seem to be perceived by the owner as a behavior problem. Unless it was shown towards the cats in the same households. Also here there should have been formed other questions to better distinguish which behaviors were unwanted traits and which were not.

As 89,2 % of the aggressive cats were neutered, it is clear that this behavior is still kept after removal of gonadal hormones. When it comes to the aggression outside, it would be very interesting to see if the other cat is also neutered. As shown in a survey conducted in Tel Aviv, in agonistic encounters where an neutered cat was involved, it was likely that the other part was an un-neutered cat. So the neutered cat was simply responding to the threat of the un-neutered cat (*Ididt Gunther et al., 2011*).

A small percentage (9,6%) were aggressive toward other household cats, it is possible that this is due to increased tension between the cats when they are forced together in a defined space. The same was also shown in the Tel Aviv survey, where the aggression increased when the cats gathered together to feed from feeding stations (*Ididt Gunther et al., 2011*). But in the section where the owners could answer how their cats interacted with each other, many replied that they enjoyed each others company and engaged in friendly interactions. So it is perhaps an individual

difference between the cats when it comes to the need or urge for social interactions.

If this is the case it would be very interesting to see if there are differences between the breeds when it comes to social interactions with other cats. So that if owners would like to have a multi-cat home, there could be breeds to select that would cope better with this.

As there were only a few cats that seem to have a serious problem with aggression, it is hard to draw any conclusions from this group. But males were in a larger portion, 5 out of 8, all of them already neutered.

Only 13,5% of the cats had sexual experience prior to the neutering known to the owner. And only one of the most aggressive male cats, had been sexually active prior to his castration. As well most of the owners answered in the comment box about the effect of neutering, that their cat had been neutered prior to sexual maturity. So from this survey, no conclusion can be made when it comes to the effect of sexual experience prior to neutering.

As research implies, neutering can decrease unwanted sexual behavior in cats. 90% of gonadal controlled behavior is reduced or eliminated in male cats (*Valarie V. Tynes et al., 2003*). To reduce such behavior, as well as population control and other benefits it is important to keep neutering cats not intended for breeding. But there are still some cats' behavior that are not affected by the gonadectomy. It should be a priority among veterinarians and researchers to learn more about the other different reasons to persistent sexual behavior after neutering. Are there other pathways in the body, from which these sexual hormone linked behaviors can be triggered? To hinder more cats being given up to shelters or simply put on the street, more focus should be given to feline behavioral problems. When it comes to dogs it seems more effort is put into treating such problems. There are people working as dog trainers, it is quite common to take your puppy to puppy-school, and many veterinarians offer help and some have extra education when it comes to canine behavioral problems. Could we have a similar situation for cats?

At least it should be known to the cat owners that there are different ways to try to treat cats with behavioral problems not solved by neutering. Linda K. Lord et al. Found that most

referral behavior services have a much higher caseload for dogs than cats (*Linda K. Lord et al., 2008*). Implying that either cat owners are less likely to pursue help for feline behavior problems, or that cats have fewer perceivable behavior problems compared to dogs. It could also be that cat owners will accept more problematic behavior than what dog owners will, due to the chance for damage and injury from dogs may be higher (*Linda K. Lord et al., 2008*).

In israel free roaming cats can reach the density of 1000 to 2,500 cats/km<sup>2</sup> (*Ididt Gunther et al., 2011*). And cat overcrowding is a recognized problem in many countries, like US (*Lewy and Craford, 2004*), Italy (*Natoli et al., 2006*), Australia (*Toukhasati et al., 2007*), UK (*Murray et al., 2009*) and Israel (*Gunther and Terkel, 2002*). And as one of the three listed reasons for the free-roaming cat population is abandonment (the other reasons are: pets allowed to roam and pets lost) (*Slater et al., 2008b*), it is important that people seek help, and that they are given help for their cats' behavioral problems.

## **Summary.**

Physiological sexual linked behavior traits can make cats hard to keep as household pets. Aggression and marking behavior can be normal breeding behavior of the male cat. And some female cats show signs of aggression during estrus. As stated in this study, cats being given up to shelters, or put on the street is a huge problem in many countries. And behavior problems has being given as a common reason that people no longer want, or can keep their cat (*Janet M. Scarlett et al., 2002*). It is therefor important to find solutions to cats showing unwanted behavior. This study was made to get more information about sexual linked behavior problems.

The aim was to collect and analyze the owner's opinion on their cat's behavior, if they see neutering as a good treatment of behavior problems, and as well if there are other factors contributing to sexual linked behavior problems. First of all it was key to realize how many owners see their cat's behavior as a problem. And if their cat was neutered, if they feel the neutering was a success towards treating sexual linked behavior problems. Further on it is also very interesting to see how other factors like how the cats are housed, if living with other cats or pets creates social stress, and if there are a difference between cats that have access to the

outdoors and the ones kept indoor only. The questionnaire was formed to collect the cat owner's opinion on these issues. And perhaps to shed more light on how to effectively treat unwanted feline behavioral traits.

The results showed that the majority of the cats in this study were neutered at a young age, before puberty and before they could show sexual linked behavior traits. But still over half of the responders, answered that their cat had a behavior problem although most of them were neutered. Some seemed not to be a pure sexual linked behavior, but even though many cats still show sexual behavior, in spite being neutered. So this survey concludes that not all feline sexual linked behavior is reduced or hindered by neutering, according to their owners.

A third of the cats lived in a multi-cat home, and over half answered that there were many cats in the immediate vicinity to their home. This could also be influencing the sexual linked behavior showed by the cats. But as well many of the owners replied that their cat enjoyed the company, and engaged in friendly interactions with other household cats. So it seems there can be a difference among the cats in their want or need for social interaction with other cats. It would be very helpful to know more about which cats are more social, and which are not, when veterinarian, owners and others tries to treat or reduce sexual linked behavior issues.

Most of the responders kept their cat both outdoors and indoors. And since the pool of people keeping their cat indoors only was much smaller, it is impossible to draw any conclusion to the effect of the keeping of cats in this survey.

Comparing cats with dogs, it would seem that it is both more social accepted to seek help for your dogs behavioral problems, and easier. There are many dog trainers available, as well it is common to take your new puppy to puppy-school. Perhaps it is not as common, or easy for cat owners to seek help for their cat's behavioral problems. As this survey shows, not all sexually linked behavioral problems seems to be treated by neutering. It is therefor very important to gain more knowledge on the other different factors that can contribute to sexually linked behavioral traits, than the gonadal hormones them self. So that we can prevent more free-roaming cats, and more cats being given up to shelters.

## Összefoglalás

A macskák természetesen előforduló szexuális viselkedési formái gyakran megnehezítik a házikedvencként való tartásukat. A kandúrok agressziója és a jelölésük is mind normális viselkedés forma. A nőtények is mutathatnak agressziót az ivarzási időszakban. Amint a dolgozatban is látható a macskák menhelyre kerülése és az utcára rakása számos országban jelentős problémát okoz. A macskák esetében előforduló viselkedési problémák pedig gyakran szolgáltatnak okot az embereknek arra, hogy megszabaduljanak a macskájuktól (*Janet M. Scarlett et al., 2002*). Ezért fontos megoldást találni a nem kívánt viselkedési megnyilvánulásokra. Így a jelen felmérésnek is egyik célja volt információt gyűjteni a macskák rendellenes szexuális viselkedési formáinak gyakoriságáról.

A célunk az volt, hogy az adatokat összegyűjtve és kielemezve képet kapjunk, hogy az ivartalanítás jó megoldást kínál-e a viselkedési problémákra, vagy más tényezők is szerepet játszanak benne. Első lépésben felmértük, hogy a tulajdonosok mekkora részaránya tekinti problémásnak a macskája viselkedését, és ha ivartalanították, akkor ez mennyire szolgált megoldásként. Továbbá vizsgáltuk a tartási helynek, más együtt tartott állatok okozta szociális stressznek, és a szabad kijárásnak az esetleges hatását is a viselkedésre. A tulajdonosoktól a készített kérdőív segítségével nyertünk információt mindezekekről, amelynek segítségével talán képet kaphatunk a nemkívánt viselkedési formák hatékony kezeléséről is.

Az eredmények azt mutatják, hogy a vizsgálatban résztvevő macskák nagy részét már ivaréés előtt ivartalanították, mielőtt még a szexuális viselkedési formák megjelenhettek volna. Azonban a válaszolók fele, amelybe a fiatal korban ivartalanított állatok gazdái is beletartoznak, viselkedési problémákról számolt be, habár ivartalanítva voltak. Néha ezek nem tisztán a szexuális viselkedéshez voltak köthetőek, habár sok macska az ivartalanítás ellenére is szexuális viselkedési formákat mutatott. Ezért elmondható, hogy az ivartalanítás nem feltétlenül csökkentette vagy akadályozta meg a macskák szexuális viselkedését.

A macskák harmada több macskával együtt élt a kérdőív szerint és több mint a fele a válaszadóknak sok macskáról számolt be a lakóhely környékén. Ezek szintén hatással lehetnek a

szexuális viselkedésre. Habár sok tulajdonos véleménye szerint a macskájuk szereti a társaságot és barátságosan viselkedik más macskákkal. Úgy látszik ezért, hogy nagy különbség van a macskák társaság igénye között. Nagy segítség lenne, ha tudnánk, hogy mely macskák és fajták társaságkedvelők és melyek nem, amikor a tulajdonosok vagy állatorvosok próbálják kezelni, megelőzni, csökkenteni a szexuális viselkedési problémákat.

A válaszolók többsége kint is és bent is tartja a macskáját. Azonban a túl kevés válaszoló miatt, aki csak bent tartja a macskáját, nem lehet következtetéseket levonni ennek a hatásáról.

A kutyák viselkedési problémája esetén a segítség megtalálása sokkal könnyebb, habár jó lenne ha társadalmilag mind a kutya, mind a macska esetében ez lenne az elfogadott és járható út. A kutyaoktatók száma mindenhol magas és teljesen megszokott, hogy a kiskutyával kutyaoviba járnak már fiatakorban. Azonban macskák esetében, ha probléma jelentkezik, nehéz és nem is túl gyakori a segítség keresése. Ezért nagyon fontos, hogy több ismeretre tegyünk szert a jövőben a különböző tényezőknek a szexuális viselkedésre kifejtett hatásáról, valamint a ivarihormonok szabályozásáról, hogy jobban képesek legyünk megakadályozni a macskák kóborlását és menhelyekre kerülését.

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