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## Pet Yourself Positive

## Introduction

Throughout history humans have kept pet animals from cats and dogs to elephants and tigers. You only have to look at a Chihuahua to realise that owning a pet animal does not have the sole purpose of providing protection-so why do we do it? The presence of a furry friend could aid our survival in a less obvious way, one that we may even be unaware of. Research suggests that owning a pet is related to a broad range of physical and psychological benefits from reducing our risk of cardiovascular disease to increasing our self-esteem.

In this wiki page we focus in on some key areas of interest
 but for a more general overview and history of the topic we refer you to a previous page (http://fims.moodle.gla.ac.uk/mod/ouwiki/view.php?id=22976\&group=449). We will assess why owning a pet might produce benefits for our wellbeing by considering the role of attachment and social needs; consider how the effect might vary between populations, such as the socially isolated; provide some examples of how these findings are being translated into practical applications like Animal Assisted Therapy; draw on some neuropsychological evidence that might help explain the positive influence our pets have on us; and finally we will discuss why research in this field must be taken with a pinch of salt.

## A Good Point to Start - Key Paper to Read



Sable, P. (2012). The Pet-Connection: An Attachment Perspective. Journal of Clinical Social Work, 41, 93-99.

Sable's ethological-evolutionary framework of attachment approach gives a deeper theoretical insight to all aspects of pet-ownership and highlights some of the clinical implications that pet-connections pose.

Interwoven with personal experiences by the author, it may seem at times informal, albeit arguably making for an easier read. Sable proposes that the feelings of affection and devotion directed towards pets can be explained by the reflection of certain dynamics of attachment. She supports her underlying theoretical framework of emotional attachment with evidence from neuroscience and animal studies and uses it to explain why people with pets may feel happier and healthier in a multitude of settings. The paper touches on how clinicians may help owners cope with the loss of their pet and the importance of keeping the animal's well-being in mind. Although lots of the evidence mentioned has been criticised by reviews of empirical studies and there may be a disconnect between theory and findings, this paper fills
a theoretical gap by displaying the overarching importance of attachment, which more and more studies are coming to realise the significance of.

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## Man's best friend

"Animals are such agreeable friends - they ask no questions; they pass no criticisms." - George Eliot


Key paper:Stenseng, F. Attaching Person-Pet Attachment to Positive Psychology: In Response to Andreassen, Stenvold, \& Rudmin (2013).

This paper provides a good run through different positive psychology perspectives on pet ownership. Very short paper, easy to read and a good starting point.

## Why are our pets so special to us?

Cohen (2002) found evidence that pets can function as family members. In their study, 81\% of participants reported that there would be circumstances under which they would give a scarce drug to their pet rather than an unrelated person. Clearly we value our pets a lot, but how does this relate to the proposed benefits of owning a pet to our wellbeing?

Stenseng (2013) proposes that theories from the field of Positive Psychology might help us explain the alleged link between pet ownership and wellbeing. These theories suggest that there are benefits associated with secure attachment and social connections. Stenseng postulates that benefits related to pet ownership are observed when a person's pet is able to satisfy these goals.

In the following section we will attempt to explain how the link between pet ownership and wellbeing could relate to established theory in the field of Psychology. Specifically we will address how having a pet is like having a friend and why this is significant.

## Pets as Social Support

## Theory

The needs-satisfaction postulates of Self Determination Theory (Deci \& Ryan, 2001) propose that humans possess 3 psychological needs:

- Autonomy= motivation of individuals to pursue their personal values and interests.
- Competence= development of key skills and abilities.
- Relatedness= a sense of belonging in groups or close relationships with friends and family.

Baumeister \& Leary (1995) propose that humans have an inherent need to belong, this is very similar to the 'relatedness' need described by Deci \& Ryan. They propose that we are genetically programmed to need the company of others and being denied this opportunity can be extremely damaging.

## Evidence

McConnell et al (2011) investigated the positive consequences of pet ownership with a series of 3 studies addressing the following questions:

- Do Pet Owners Enjoy Better Well-Being Than Non-owners?
- Do pets fulfill social needs?
- Can Pets Stave Off the Sting of Social Isolation and Rejection?

They found that:

- On average, pet owners exhibited better physical and psychological wellbeing as well as more favourable personality traits (e.g. more extraverted, conscientious, less fearful).
- These benefits were more pronounced for pet owners whose pets fulfilled their social needs more effectively.
- Pet owners who were asked to draw a picture of their pet suffered less than those asked to draw a map in a condition designed to induce feelings of social rejection and isolation.
- This same effect was observed in those asked to draw their best (human) friend.

Loneliness and social isolation are damaging to our psychological and emotional wellbeing. People use lots of different strategies to remedy this, often through 'taking their mind off being alone'. For example they might watch T.V. or look at photographs of their loved ones. McConnell et al. conclude that owning a pet is one way to feasibly sooth these feelings.

In summary, the present work presents considerable evidence that pets benefit the lives of their owners, both psychologically and physically, by serving as an important source of social support, much in the same way as a friend would.

## In the Company of Wolves: The Physical, Social, and Psychological Benefits of Dog Ownership

Knight and Edwards (2008) carried out a qualitative study in which they interviewed dog owners between the ages of 25 and 85 about what their pets mean to them. Frequently dogs were described as 'companions' or 'friends and, in addition to the physical benefits of owning a dog (such as exercise), a range of psychological and social benefits were also reported:

- A great deal of value was attached to pet dogs as companions who vastly improve their owner's quality of life.
- For some dogs acted as a source of comfort and unconditional love, producing feelings of calmness and security.
- When the subject of losing a pet was brought up, participants described the experience as akin to losing a family member, each dog being unique and irreplaceable.
- The comfort provided by a pet dog was particularly important and salient for those who were lonely or isolated. A pet dog acted as a source of motivation for individuals who were grieving or depressed.


## Critique

- These results don't explain the physical benefits of owning a pet...
- Studies have shown that higher levels of social support can have both important psychological benefits and physiological ones. For example, Uchino (2006) found evidence that improving social support also improves cardiovascular, endocrine, and immune functioning.
- Lonely 'cat lady' argument...pets may be of particular benefit to those who are isolated, lonely or suffering from physical or psychological stress. Surely a happy person with good friends and family wouldn't place a budgie or a dog in the same category?
- Epley et al (2008) found that those who were lonely were more likely to anthropomorphize their pets.
- However, McConnell et al found that pets do not supplement unsatisfied human social needs. The benefits of having a pet were significant regardless of the amount of support participants were receiving from human sources. The pets and humans made independent contributions.

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## Pet Attachment

## Theory

Attachment theory (i.e. Bowlby \& Ainsworth) shows that the type of attachment (if any) can significantly impact the mental and physical wellbeing of the child and carer/parent.

Andreassen, Stenvold and Rudmin (2013) suggest that the extent to which a pet meets our social needs (i.e. satisfy our need to belong) depends on the strength and type of attachment we have with the animal. They found evidence for differential attachment behaviours between pet-owner
 combinations:

- Pet owners tend to report each pet relationship as qualitatively different.
- A positive relationship with a pet improves temperament and mood.


## Evidence

Mueller (2014) investigated the relationship between human-animal interaction (HAI) and positive youth development. Her results showed that emotions and thought processes towards animals were related to the ' 5 C's' of positive youth development: Competence, Confidence, Connection, Character, and Caring. The study concludes that HAI is an important developmental context which fosters the construction of beneficial skills and cognitions.

An interesting aspect of this study was the importance of pet attachment in social skills development. Results showed that having a bond with a pet animal is tied to strong social networks with humans. A high level of emotional attachment with an animal was related to more feelings of empathy, sympathy and connectedness towards others.

In a series of experiments, Zilcha-Mano et al (2011) expanded attachment theory to pet-owner relationships. They constructed a Pet Attachment Questionnaire (PAQ) and found that attachment avoidance and anxiety can affect owner-pet relationships in a similar way to human-human relationships. Interestingly, they found that differences in pet attachment affected how the owner reacted to the loss of a pet, suggesting that pet attachment patterns affect the grieving process in a similar way to human
attachment patterns.

## Critique

- The PAQ used in the Zilcha-Mano study was based on a two-dimensional organization of attachment orientations. This limited their attachment measurements to the two attachment components; avoidance and anxiety.
- Future studies should explore whether there are other dimensions.
- However it did have good test-retest reliability.
- Stallones et al (1990) found conflicting results. They failed to establish any relationship between pet ownership or attachment to pets with illness behaviour (e.g. number of physician visits) or emotional distress scores in a group of individuals aged between 21 and 64. They conclude that the relationship between pet ownership, attachment and health may be inconsistent and complex.
- Zasloff \& Kidd (1994) found no associations between pet attachment and loneliness. Further, there were differences in attachment behaviour towards dogs and cats. Women living alone with a dog were significantly more attached to the dog than women who lived with a dog and other people. However, women living alone with a cat were significantly less attached to their pet.
- The following video demonstrates how owner-pet relationships can vary tremendously depending on the species, in a rather amusing way:


## At-Risk Minorities \& Socially Isolated Populations

Three contrasting populations will be focused on (the homeless, the elderly, and children with ASD) regarding how and if the presence of companion animals aid well-being and positive interactions.

## The Homeless

Homeless populations often experience severe emotional and physical distress that the presence of a companion animal has been shown to mitigate. In particular the psychological health components to owning a pet have been recognised as something especially beneficial to the homeless population (Crawford et al., 2006). A companion animal can become a coping strategy and a tool in which to combat the issues that affect this population. For example, owning a pet can give one a sense of responsibility and instill self-worth, by providing care for the pet and feeling needed in return (Rew, 2000; Taylor et al., 2004). An exploratory study aiming to investigate the value that homeless people find in animal companionship suggested that having a pet made a difference to homeless people's lives by providing friendship and responsibility, as well as contributing to emotional wellbeing (Slatter et al. 2012). Indeed, increased feelings of responsibility seem to be a recurring theme and appear to be particularly beneficial in this population. Take for example findings illustrating that some homeless petowners avoided engagement in substance abuse and high-risk behaviours due to a sense of responsibility for their companion animals (Taylor et al., 2004).

Due to the nature of being homeless those with pets spend the majority of their time with them. This can be related to findings which show that the extent of attachment to an animal is a significant positive predictor of psychological well-being (Peacock et al. 2012; Cavanhaugh et al. 2008). At risk minorities such as the homeless may be the ones that benefit most from the companionship of a pet (see the critique of 'Pets as Social Support' in section one to understand why).

## Homeless Youth

Homeless youth are a highly vulnerable minority, and it has been suggested anecdotally that pets may provide significant benefits to this population. An American study (Rhoades, 2013) found that one quarter of homeless youths who participated owned a pet of some form, with the most popular being a dog (53\%). The youths reported that their pets made them feel safe, loved, provided company, improved their health status, and made it easier to ask for money from strangers.

These vulnerable adolescents further recognise the therapeutic value that their pets have (Rew, 2000), with around $40 \%$ discussing the value of having a dog. Youths acknowledged that caring for a dog enabled them to act more responsibly and to make better choices. This cultivation of responsibility created a feeling of self-worth in these youths, which in turn resulted in a more positive identity.

## Homeless Women

Homeless women are another particularly vulnerable at risk minority, with men having more power and control, socially and economically, than women in the street environment (O'grady \& Gaetz. 2004). Furthermore, homeless women suffer from higher rates of mental illness compared with men (Fischer \& Breakey, 1991).

An investigation of homeless women in Canada showed pets to be of benefit by providing; companionship; unconditional acceptance; comfort; and a sense of responsibility, with women recognising of the therapeutic value of their companion animals (Labrecque \& Walsh, 2011). Relationships with animals were found to contribute significantly to the women's well-being by enhancing feelings of acceptance, and empathy, and providing a source of companionship, safety, and increased physical and psychological health. These findings are in line with research that suggests women to be more likely to benefit from dog ownership (Clark Cline, 2010).

## Drawbacks of Pet ownership for the Homeless

Pet ownership may be a barrier to other needs, particularly access to shelters or transitional and permanent housing. The inability of many people to maintain their companion animals while staying in homeless shelters has resulted in feelings of enduring grief, loss and pain (McNicholas et al, 2005), with many homeless people saying that they had to give up their pet due to their homeless situation despite wanting one. Researchers have emphasised the importance that needs to be placed towards reducing barriers to animal companionship that homeless people face (Slatter et al. 2012).

## The Elderly

A Dutch nationwide study revealed that pet ownership amongst the elderly wasn't related to self-reported general or mental health and did not contribute towards perceived health or social well-being (Rijken \& van Beek, 2011). Furthermore, they found no associations between pet ownership and the frequency of social contacts or feelings of loneliness.

Despite this, higher levels of attachment may indicate that the pet plays a central role in the older adult's life and may substitute for human companionship, but such attachment levels have been associated
 with higher levels of depression in windows (Miltiades \& Shearer, 2011). This negative impact on emotional well-being may arise due to the responsibility of pet ownership, which could create anxiety, especially if the animal or owner is in poor health; such is often the case in the elderly population (Wells \& Rodi, 2000). Being able to care for a dog and satisfaction with human relationships is however associated with lower levels of depression in elderly people. It has been suggested that pets motivate their owners to make lifestyle changes and engage in healthy behaviours (Herrald et al., 2002), some of which may include increasing the opportunity to socialise by, for example, walking the dog.

## Autistic Children

The human-animal bond may play a unique role for children with ASD, providing benefits such as the opportunity to learn responsibility and companionship (Gretchen \& Carlise, 2013). Since social benefits are widely acknowledged to arise from human-animal interactions and relationships through the use of therapy dogs, this may indicate a possibility of similar benefits for autistic children and their pets. It may be that interaction with a pet has the potential to enhance communication skills and social interaction, key deficits of ASD.

Dog ownership is common among families with autistic children (Gretchen \& Carlisle, 2013), and while some children find the presence of a dog too overwhelming there is always the possibility that a different kind of pet would have similar benefits. For example O'Haire et al. (2013) demonstrated that children with ASD were more social towards peers and showed less self-focussed behaviours while in the presence of guinea-pigs.

It seems that animals possess a unique capacity to serve as an emotional bridge and to act as social catalysts (Berry et al., 2013), something which sufferers of ASD may particularly benefit from.

## Concluding Remarks

Pets may act as a buffer in crisis situations (Garrity et al, 1989) but only when social support is lacking (Miltiades et al, 2011). This may explain the extended benefits of pet ownership amongst socially isolated and marginalised populations, such as the homeless and the elderly (Enders-Slegers, 2000; Raina et al 1999). This said, the relationship between the elderly and the benefits of pets seems to be more complicated, with factors such as the ability to care for the pet, health concerns, and the extent of attachment to other humans coming in to play. Benefits regarding the ability to learn social interaction in autistic children also appear to arise due to pet ownership. For these reasons benefits of owning a pet on well-being may be less pronounced in the general population, whose need for social support is less extreme.

See reference section 2
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## Animal Assisted Therapy

Pets can have many practical applications and one that has been the scrutiny of much research and positive praise is Animal Assisted Therapy or AAT. Having examples can help make the facts stick, so take a look at these two inspirational dog therapy videos and see what critical conclusions you can draw about the practical application of pets in a clinical setting.

Pawsitive Pals (volunteers)

Caleb's Story (therapy dogs)

These videos provide a good idea of the benefits of animals in a clinical setting but for a brief history of how AAT came to be established we redirect you here (http://fims.moodle.gla.ac.uk/mod/ouwiki/view.php?id=22976\&group=449\#applications).

AAT can be applied in a variety of clinical settings, leading to both psychological and physiological improvements within patients.

A recent study has found that AAT can significantly enhance psychiatric patients' ratings of stress, mood, pulse, and pain. However, improvements were comparable to those of the traditional stress management program control group (Nepps et al., 2011). This contrasts with findings by Marcus (2013) who concluded that the benefits of participating in dog therapy to reduce pain symptoms can exceed and remain for longer than the benefits of spending time with a friendly volunteer. This indicates that dog therapy can be an effective enhancement of pain management interventions.

Hardiman (2010) offers a review of how AAT can positively impact dementia, Alzheimer's, schizophrenia, and trauma, by, for example, lowering levels of the stress hormone cortisol. Research into the treatment of PTSD and traumatic brain injury of Veterans is moving towards systematic investigation of the physiological, psychological, and behavioural benefits of dog training programmes (Yount et al., 2012). Anecdotal evidence shows huge success and lends importance to this safe, nonpharmacological intervention.

Looking at another sub-group of the clinical population, highly variable outcomes were found in a metaanalysis looking at the effect of AAI on Autism Spectrum Disorder. Findings showed an increase in social interaction and communication, as well as decreased problem behaviours, autistic severity and stress (O'Haine, 2013). For more information regarding this sub-group please see Section 2. Although findings were unanimously positive, there were several methodological limitations, also further applicable to a range of research within the human-animal literature, that will be discussed in the critical section of this page.

Conclusively, there are a large variety of studies that look at how pets can improve the well-being of several clinical populations. Unfortunately they are often poorly controlled for and can offer inconclusive and contradictory findings. Adding to this is the question - Are there any underlying scientific explanations for this 'pet effect'? - We hope to expound in the next section.

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## Neuroscience - A Different Point of View

For the more scientific minded of you, here are two of the main empirical explorations of how pets can affect us.

## Oxytocin

Neuropeptides such as oxytocin (OT) have been found to play an important role in behaviours related to forming social bonds and happiness (Young et al., 2001). In humans and animals alike, oxytocin regulates social behaviour and the development and maintenance of attachment (Coulon et al., 2013). Previous studies have found that OT increases after interaction with a therapy dog, although this was only significant for participants that interacted with their own (therapy) dogs (Odendaal and Meintjes 2003). This aids the argument that the extent of attachment to an animal will influence the extent of the animal's influence. However, other studies have found that regardless of initial attitudes towards pets, interaction will bring about positive benefits (Nepps et al., 2011).

Further considerations were raised by Miller et al. (2009) who concluded that significant increases of oxytocin were found in females but not males, thus suggesting a gender discrepancy. However the study was limited regarding the uncertainty about the extent in which oxytocin levels and reactivity are influenced by people's hormones, personality traits and interpersonal relationships (Miller et. al., 2009).
 Mirror Neurons

Besides oxytocin, mirror neurons have been found to play a role in bonding, socialisation and stress relief. Dogs' abilities to connect to humans during therapy greatly contributes to the success of the therapeutic session and mirror neurons, as well as olfactory ability in dogs (which lends itself to diseasedetection), are often seen as the foundation of being able to build this connection. It is also possible that mirror neurons in humans mediate empathic imitation of a happy and friendly dog and lead to cheerful behaviour, which was supported by Marcus (2013), who as you may remember, looked at the reduction in pain symptoms after dog visits. The symptomatic benefits in relation to pain management were validated by identifying physiological changes in the patients (Marcus, 2013).

See Reference Section Topic 3

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## Wild Uncritical Claims...

Doga: The idea that taking a yoga class with your dog helps create a "deep loving experience for both", due to energy centres on the owners and dogs bodies being connected...
(http://www.dailymail.co.uk/femail/article-2084895/Doga-Yoga-dogs-hot-New-York-trend-upwardly-mobile-pets.html)http://www.dailymail.co.uk/femail/article-2084895/Doga-Yoga-dogs-hot-New-York-trend-upwardly-mobile-pets.html (http://www.dailymail.co.uk/femail/article-2084895/Doga-Yoga-dogs-hot-New-York-trend-upwardly-mobile-pets.html)

While this interestina activitv mav indeed provide positive benefits to both pet and owner. scientific
research suggests, unsurprisingly, that 'enegry centres' may not be the most apt explanation. The social aspects of Doga, such as communication with other pets and owners, may in themselves be enough to provide well-being benefits. Additionally, the increased time owners spend with their dogs as a consequence of Doga may lead to higher levels of human-animal attachment and thus a greater positive influence of pets on well-being. It must finally be noted that this technique is clearly not viable for all types of pet or even all types of dog, with factors such as temperament, size, and obedience coming in to play (i.e do NOT try this at home!).

Hensioners: Raising chickens improves the well-being of OAPs...
(http://www.dailymail.co.uk/health/article-2478885/Meet-hensioners--OAPs-given-CHICKENS-company.html)http://www.dailymail.co.uk/health/article-2478885/Meet-hensioners--OAPs-given-CHICKENS-company.html
/> (http://www.dailymail.co.uk/health/article-2478885/Meet-hensioners--OAPs-given-CHICKENScompany.html)

For budding psychologists and scientists the fact that this article is sourced in a tabloid newspaper might scream unreliability and reek of sensationalism but doesn't it look fun?! The individuals who have been part of this 'hensioners' scheme claim real benefits for them, however subjective and unscientific. In fact, its probably not surprising that neuroscientists haven't thought to investigate how our brain responds to the presence of chickens, it really does sound ludicrous. So yes, this claim remains uncritical but perhaps not so wild...the Big Lottery Fund invested a whopping $£ 168,000$ in this project to get it up and running, so those involved must see promise. Most work into the benefits of owning a pet so far have been done on dogs, occasionally cats, maybe we ought to turn our attention to birdlife. Mugford \& McComiskey in 1975 reported positive psychosocial effects of bird placement with British pensioners and Kidd et al., (1983) found differing personality characteristics in pet owners of different species, suggesting different benefits depending on the individual and the pet.
(http://www.dailymail.co.uk/health/article-2478885/Meet-hensioners--OAPs-given-CHICKENScompany.html)

## Paws for Thought

## A Critique of the Pet Ownership and Well-being Research

While it is widely believed that pets enhance their owner's sense of psychological well-being, research findings concerning this issue have been inconsistent as best. Some of these inconsistencies have been explained through a variety of flaws in research methodology, with methodologically sound empirical studies remaining at present scarce.

## Key limitations:

The failure to replicate initial research which suggested that pet ownership resulted in lower feelings of loneliness and depression (Garrity
 et al. 1989), and higher psychological and physical well-being (Raina et al, 1999). This is a persistent problem, which extends to more recent work, resulting in the insufficient production of evidence to support the contention that pet owners are happier.

## Lack of comparison/control data from non-pet-owners

Inability to establish a causal link: It could be that the same results might suggest that healthy, happy
people are more likely to own a pet than people who are ill or depressed.
Lack of consideration in to the definition of 'pet-ownership': This makes it unclear as to whether the researchers are referring to either: the length of ownership; time spent with pets; perceived quality of the pet-owner interaction; or something else entirely.

Lack of control over socio-demographic variables through multivariate analysis: This makes it impossible to determine whether any impact on well-being comes from the pet-owner interaction or from other unaccounted for variables. Such variables commonly unattended to include marital status and sex (Clark Cline, 2010).

## Small sample sizes

Non-random samples from specific settings (Cutt et al. 2007). This creates problems concerning how to interpret differences between pet owners and non-owners. Furthermore, in most experiments random assignment doesn't occur...quasi-experimental or correlational designs compare people who choose to live with pets between people who don't.

Lack of information regarding the specific species of pet: Makes it difficult to draw unambiguous conclusions. Results may be more applicable to dogs than to pets in general as this is the species most commonly researched. For example, an overview by Wells (2007) was specifically concerned with dogs, leaving the potential health related value of other pets out of consideration.

Lack of attention regarding: pet related characteristics, the characteristics of the human sample, and whether there exists an additive effect of multiple pet-ownership.

Future research should aim to address some of these limitations, to allow us to ascertain to a more certain degree the extent to which pets improve our well-being.

## Not so Puurfect After all?

In addition to these flaws, a myriad of conflicting results make up the brunt of the research, contributing towards the inconclusive nature of the topic. A recent review of empirical studies in this field demonstrated that very little of the more well designed research actually concludes that owning a pet has a positive impact on happiness and well-being (Islam \& Towell, 2013). This can be illustrated with the following examples:

No beneficial effects associated with owning a pet: Herzog (2010) found no existing differences in the proportion of pet owners and non-owners who described themselves as 'very happy'. Gilbey et al (2007) demonstrated that individuals who acquired pets were just as lonely as they were before they got their companion animal, and they were no happier than participants who had not gotten a pet.

Negative effects associated with pet ownership: Miltiades \& Shearer (2011) found that older adults highly attached to their dogs tended to be more depressed than individuals who were not as attached to their companion animals. Additionally, more psychological problems (such as depression) have been highlighted in individuals who own pets in studies carried out in Sweden, Finland and Australia (Mullersdorf et al., 2010; Koivusilta \& Ojanlatva, 2006; Parslow et al, 2005).

Taking the above issues in to consideration; why is it so widely believed that pets aid us in our quest towards well-being and happiness?

This may be accounted for by the 'file drawer effect', the tendency for negative results to end up in the researcher's filing cabinet rather than in a journal.

There may also be an unconscious researcher bias in which those conducting the research are pet lovers themselves.

## Concluding Remarks

Conclusively, there is a lack of methodologically sound evidence to support the contention that petownership has a positive impact on well-being. The idea that living with an animal can improve psychological well-being, coined the 'pet effect' (Allen, 2003) is not at present a fact but an unsubstantiated hypothesis. In order for pets to be utilised as a therapy in their own right such claims need to be subjected to the same standards of evidence as a new drug, medical device, or form of psychotherapy. Overall, it is clear that more research is needed which takes in to consideration the methodological issues of previous findings, as above described, in order to produce more reliable and generalizable results.

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## What do our furry friends have to say about all of this?

It is important to remember ethical considerations, not simply when using animals as test subjects, as has so often been done in psychology, but also when promoting their benefits. Making sure that we consider the effect therapy or a 'city pet' life might have on each animal is hugely important. See last year's wiki page (http://fims.moodle.gla.ac.uk/mod/ouwiki/view.php?id=22976\&group=442) for more details on animal rights campaigns and the idea that positive psychology may not relate exclusively to humans.

The good news is that what makes us happy tends to make animals happy and the attachment bond is a reciprocal need (Sable, 2000). Coulon et al. (2013) recently published a study measuring the levels of oxytocin, cortisol, and behavioural responses of lambs after receiving comfort (in the form of petting) from humans. These findings suggest that, similar to humans, oxytocin increases through contact and stimulating experiences, such as petting.

## Pets for the University Library?

Take a look at the petting zoo that the University of Leicester provided for their stressed-out students. We considered starting a petition to get a puppy room of our own... if you are interested let us know!

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## REFERENCE SECTION

## TOPIC 1 - Mans Best Friend

## Key Paper

Stenseng, F. Attaching Person-Pet Attachment to Positive Psychology: In Response to Andreassen, Stenvold, \& Rudmin (2013).

## Primary

Andreassen, G., Stenvold, L. C., \& Rudmin, F. W. "My Dog is My Best Friend": Health Benefits of Emotional Attachment to a Pet Dog.

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## TOPIC 2 - At Risk Minorities \& Socially Isolated Populations

## Key Paper

Islam, A., \& Towell, T. (2013). Cat and Dog Companionship and Well-being: A Systematic Review.International Journal of Applied,3(6), 149-155.

- A recent, concise review of the 'pet effect' empirical research focussing on cats and dogs.


## Primary

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