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The 'pet effect'

Health related aspects of companion animal ownership

Background

Numerous studies indicate that companion animal ownership is associated with a range of physical, psychological and social health advantages, yet there is little discussion around the practical ways to integrate companion animals into healthcare and health promotion.

Objective

This article provides a brief summary of the health related aspects of companion animal ownership, and suggests ways in which general practitioners can integrate discussions regarding pet interaction into everyday practice.

Discussion

The subject of companion animals can be a catalyst for engaging patients in discussions about preventive health. General practitioners are in an ideal position to understand the human-pet dynamic, and to encourage patients to interact with their pets to improve their own health and wellbeing. Questions relating to companion animals could be asked during routine social history taking. The knowledge gained from this approach may facilitate more tailored patient management and personalised lifestyle recommendations.

Keywords

general practice; preventive medicine; health promotion; doctor-patient relations

about the role pets may play in healthcare. It also provides practical ways in which to integrate the 'pet effect' into general practice.

Limitations of the research

Although most studies report small to moderate improvements, several studies failed to report any relationship between pet ownership and health.¹³⁻¹⁵ Replication of findings has been a consistent problem, and the literature is supported almost exclusively by correlational-type study designs. Thus, while it can be concluded that pets are good for many people and may contribute to improved quality of life,¹⁶ there is a lack of conclusive evidence suggesting that pet owners as a group, are any healthier, happier or live longer than nonpet owners.¹⁷ In addition, many of the studies regarding the influence of pets on human health use small samples from specific population groups, fail to consider or control for confounding variables such as age, gender, socioeconomic status, number of children and pets, do not factor in the time spent with each animal, or simply focus on ownership.¹⁸ In reality, benefits gained are highly dependent on the time and/or quality of the attachment or bond with the pet.¹⁹⁻²⁰ Therefore, any health related benefits are most likely gained by the direct carer of the pet, rather than other members of the household.⁴

The health benefits

Companion animals offer a range of health related benefits including improvement in overall health and psychological wellbeing, which is important given the increased life expectancy and the prevalence of chronic diseases in the population.^{4,8} These benefits can be classified into three categories:

- physical health, by facilitating improvements in cardiovascular health and physical fitness (particularly for dog owners who exercise their

People keep pets for companionship, recreation and protection,¹ rather than for the specific purpose of enhancing their health. However, a considerable body of literature supports the idea that companion animals can improve overall quality of life, including physical, social and psychological health.²⁻⁵ This phenomenon has been described as the 'pet effect'.⁶

Pet ownership may have implications for the healthcare system and public expenditure, as improved health and wellbeing associated with pet ownership has been found to reduce the use of healthcare services.⁷ To date, there has been little discussion of the role that companion animals can play in primary healthcare and health promotion.

This article provides a brief review of the literature in an attempt to increase awareness

- dogs), and the human immune system
- psychological health, including the ability of pets to assist practitioners during therapeutic work ('animal assisted therapy'), playing an important role in child development and providing psychological health benefits
 - social health, due to the role pets can play as social enablers.

Examples of the health related benefits of pet ownership are shown in *Table 1*.

The adverse effects

Ways in which pet ownership and interaction can have a direct negative impact on human health

include the potential for the spread of zoonotic diseases and allergies, mammalian bites and the avoidance of medical care. For example: a typical scenario facing older pet owners who are no longer competent to live independently in the community, is the trauma of losing their home and their pet because many aged care facilities prohibit pets 'for health reasons'.⁹ High levels of grief may also be experienced in the event of a pet's death. Other aspects include cost, time, and behavioural problems that may lead to further stress, anxiety and loneliness. Although these factors must be considered, many can be reduced or prevented if properly managed (*Table 2*).

Intergrating the pet effect into general practice

Companion animals can be helpful in practical ways for patients with weight problems, high blood pressure, susceptibility to stress and anxiety, loneliness, depression and difficulty socialising. The psychological benefits are greatest among vulnerable populations such as children, the elderly, and the socially isolated, chronically ill or handicapped, but these benefits can be highly variable.^{21,22} Recommendations to patients, which may be as simple as increasing the time spent with their pet (eg. walking the dog), have the potential to become integrated into self management plans

Table 1. Health related benefits of companion animal ownership

Health benefit	Benefits to owners	Patients most affected
Physical health	Cardiovascular health ³⁴⁻³⁷ <ul style="list-style-type: none"> • Pets can help reduce stress and lower blood pressure (eg. patting a dog or watching fish swim peacefully in an aquarium) • Pet owners show improved recovery rates from heart surgery 	Adults and the elderly, in particular those who are stressed, and/or have cardiovascular disease
	Physical fitness (primarily for dog owners) ³⁸⁻⁴⁰ <ul style="list-style-type: none"> • Dogs are great exercise partners and provide social support • Dog owners are more physically active (primarily through walking dog) and have reduced risk of obesity and better physical health 	All ages, particularly those who are physically unfit or overweight
	Immune system development ^{41,42} <ul style="list-style-type: none"> • Exposure to pets lowers the likelihood of developing allergies 	Children
Psychological health	Animal assisted therapy (AAT) ^{26,27,28,43,44} <ul style="list-style-type: none"> • AAT with dogs and/or fish can increase morale, eating habits and overall health in Alzheimer patients • AAT increased attendance, decreased violent behaviour, and increased language and social skills in children with ADHD • In clinical settings, AAT reduces stress in children 	People of all ages with various disorders
	Mental health ^{21,45,46} <ul style="list-style-type: none"> • Owners are less likely to experience loneliness and depression, as pets provide social support (with similar effects to human-human relationships), and provide a sense of purpose • Older people with pets are less stressed by major adverse life events than nonpet owners 	Adults (particularly during times of stress or loss of a loved one), the elderly, socially isolated, chronically ill (physical or mental) or those with a terminal illness, and/or physical impairment
	Child development ^{47,48} <ul style="list-style-type: none"> • Pets may play a role in the social-emotional development of children, including self esteem, autonomy and empathy for others • Children who own pets show increased trust, community feeling, safety, self confidence and self enhancement 	Children and adolescents
Social health	Pets as social enablers ^{49,50} <ul style="list-style-type: none"> • Pets are a good catalyst for meeting people (eg. neighbours, strangers) • Other social opportunities, including animal clubs and societies • Pet attachment is positively correlated with family cohesion and adaptability • Improves social interaction for the elderly and those with Alzheimer disease when used in visiting programs 	People living alone and/or those having difficulty meeting others

Table 2. Adverse effects of companion animal ownership

Health risk	Summary	Minimising the risk
Zoonotic diseases ^{24,25}	<ul style="list-style-type: none"> Potential for transmission of infectious agents from companion animals to humans (eg. dermatophytosis, toxoplasmosis, toxocariasis, echinococcus, giardia) 	Relatively low risk which can be reduced by vaccinating animals and employing hygiene practices such as washing hands after touching animals, avoiding pet-derived secretions and avoiding ill animals
Allergies ²⁴	<ul style="list-style-type: none"> Many people have allergies to animals 	Some breeds of cats and dogs are less likely to exacerbate allergies
Mammalian bites ^{25–30}	<ul style="list-style-type: none"> Bites are extremely common (85–90% from dogs): most often the dog is known to the victim (family dog or neighbour) and the attack occurs within the family home 	<ul style="list-style-type: none"> Educating children about how to safely interact with dogs (eg. not inciting aggression) Children should be supervised at all times when around pets that have the potential to bite
Avoidance of care ^{35,36}	<ul style="list-style-type: none"> High attachment to a pet may result in a reluctance to prioritise health interests if it conflicts with the human-pet relationship 	<ul style="list-style-type: none"> Check that the patient has friends/family or boarding facilities that can care for pets in their absence Be aware of any pet attachment that may impede help-seeking, and consider this in the patient's care plan
Other ^{31–33}	<ul style="list-style-type: none"> Cost of owning a pet Time it takes to care for a pet: training, walking Grief experienced due to the loss of a pet 	<ul style="list-style-type: none"> Pets obtained from a shelter (eg. RSPCA) or pet foster programs are de-sexed and vaccinated Discounts on registration are available for dogs that are trained and de-sexed

for patients with chronic diseases.²³ Incorporating pets into these plans provides an individualised way for patients to be actively involved in their own healthcare.²⁴

Companion animals can also provide benefits in clinical situations. For example, for children with particular conditions such as autism²⁵ who are usually distressed in clinical settings (eg. physical examinations or hospitalisation), the use of companion animals has been found to decrease procedure-induced stress,^{26,27} as well as help develop rapport between the therapist and child.²⁸ Guidelines for animal assisted interventions in healthcare facilities have been developed by Lefebvre et al.²⁹

The level of attachment to a pet is important to determine, particularly for older and/or socially isolated patients. For example, evidence indicates that high attachment is associated with a reluctance to adhere to medical advice, future avoidance of care¹¹ and a failure to leave inferior housing conditions.¹² Such information is critical for patients who may need prolonged hospital admissions, those who have difficulty coping alone and for patients who need residential care.

Encouraging discussion

Information about smoking, nutrition, alcohol and physical activity is routinely collected when a patient's medical history is taken. The subject of

companion animals is rarely discussed. Asking patients in high risk groups (eg. those who are overweight, depressed or lonely), 'do you have any pets at home?', and determining the level of pet attachment,²⁰ can provide a wealth of information that may inform or influence management of that patient. Talking about pets may also facilitate discussion about health and lifestyle and promote rapport.^{30,31}

Health professionals may wish to consider the following when discussing pets with their patients:

- Does the patient have any health concerns that may be improved by positive pet interaction?
- Once pet ownership has been established it is necessary to determine the patient's level of attachment (eg. asking how much time they spend with their pet). It may also be relevant to explore factors that inhibit a positive human-pet dynamic (eg. pet behavioural problems, injury or time constraints)
- Highlight the health benefits that can be gained by pet interaction and suggest ideas for increasing quality interaction. For example, assist patients wanting to increase physical activity by setting small goals ('try taking your dog for a walk around the block once each day'). Patients that would benefit from social interaction could be encouraged to join an animal-related club or society or to use public dog parks and walking trails

- For vulnerable populations it is important to check that pet care arrangements are organised for times when the patient is absent for medical reasons. In some cases, GPs and other health professionals can become advocates on behalf of patients who wish to become pet owners (eg. housing authorities).

Even though 53% of people without a household pet would like to own one in the future,³² there are many reasons why pet ownership is not possible, including lifestyle factors and financial constraints.^{1,33} It would not be appropriate for a health professional to recommend or 'prescribe' the purchase of a pet as this has ethical and legal implications. For instance, it may be beyond the scope of a GP's role to ascertain the patient's history of pet ownership, ability to care for an animal, living conditions and financial situation. In addition, they risk recommending the wrong pet (or breed), leading to potential animal welfare problems such as mistreatment and/or obligatory relinquishment. In the event that a patient expresses interest in acquiring a pet, they should be referred to a veterinarian for appropriate information and advice on suitability and selection. Alternatively, there are various opportunities available for encouraging animal interactions that could be considered, including spending time with friends' or family pets, offering to pet-sit, or volunteering at local animal shelters.

Key points

- Companion animals can provide mental, physical and social health benefits to their owners.
- Patients most likely to benefit from animal interaction include those that need lifestyle changes (physical or social), and those who are lonely, depressed or socially isolated.
- It is important to become familiar with all issues relating to pet ownership, including those that may interfere with patient health and management.
- It is important to determine patients' level of attachment to their pets, particularly the elderly, as this may influence their help seeking behaviour and/or adherence to medical advice.

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