

How are fenced dog parks used in Adelaide?

Dr S. Hazel¹, P. Van Hout, Mr B. Luxton² **

¹University of Adelaide, ²Dog & Cat Management Board, South Australia

Introduction

Australia has one of the highest rates of pet ownership in the world, with almost 36% of Australian households having a dog (Australian Companion Animal Council 2010). Although dog ownership is common, it is becoming increasingly difficult for people to own dogs in urban areas. In most councils of Adelaide dogs are not permitted off the leash in public places, which combined with the trend towards smaller backyards makes it harder to provide dogs with adequate exercise. Dogs that are walked regularly are less likely to display unwanted behaviour like constant running around, excessive barking, pacing and escaping (Kobelt, et al. 2003). It is also believed that when dogs have frequent interaction with people and other dogs, especially at a young age, they tend to be better socially adjusted and less likely to engage in aggressive behaviour (Lee, et al. 2009). The advantages of walking dogs are not restricted to the dogs themselves. Dogs are a powerful source of motivation, companionship and social support for walking (Cutt, et al. 2008). People who regularly walk a dog are more likely to reach recommended levels of exercise, and people are more likely to regularly walk their dog if there is a dog-supportive park in the vicinity (Christian, et al. 2010). As well as being beneficial to dog owners, having dogs may also increase the social capital in a suburb, resulting in a ripple effect on health (Wood, et al. 2005).

Local councils have responded to the need for people to be able to exercise and socialise their dogs by developing fenced dog parks. Off leash dog parks can provide safe and effective places where dogs can exercise, play and interact with other dogs to reduce boredom and pent-up energy (Kawczynska, 1999). There have been few scientific studies on the use of fenced dog parks, with Lee et al. 2009 in their study of fenced dog parks in Texas being an exception. Although money has been spent developing fenced parks in Adelaide, no formal evaluation of their use has been performed. Therefore there is no data on how fenced dog parks are being used in Adelaide, and whether the money spent by councils has been worthwhile.

The current study was developed primarily to provide students studying at the University of Adelaide with an authentic assignment relating to urban animal management. Students collected surveys and made observations at 12 fenced dog parks in the Adelaide metropolitan area. With over forty students enrolled in the course, the end result was valuable information which may be used to assist in future management and signage of fenced dog parks.

Methods

The assignment was designed with the assistance of the Dog and Cat Management Board of South Australia (DCMB). Second year students (n=44) enrolled in the course 'Companion Animal and Equine Studies' (ANIML SC 2500RW) collected data as part of a major assignment in this course. The assignment was worth 25% of the final mark for the course: 5% for the data collection and 20% for a scientific report.

Data was collected from late March to early May, 2010. Students worked in groups of 2-3 to ensure safety when visiting the park. A total of 12 fenced dog parks were visited, with different groups visiting the same park for Pet Park Golden Grove, Dry Creek Linear Park Mawson Lakes, Jenkins Reserve Salisbury Park and Oaklands Rd Dog Park Marion (see Table 1). Students selected a fenced dog park according to proximity to where they lived as the visits were made when they were not at university. A total of five visits of at least 30 minutes each were performed. Visits were at random intervals, depending on when the students had free time.

Table 1 Fenced Dog Parks visited by students in March-May 2010

Council Area	Fenced Dog Park	No of groups visiting
Tea Tree Gully	Bentleigh Reserve, Holden Hill	1
Tea Tree Gully	Pet Park Golden Grove	3
Mitcham	CC Hood Reserve, Panorama	1
Burnside	Dog Exercise Area, Glenside	1
Salisbury	Dry Creek Linear Park, Mawson Lakes	3
Salisbury	Golding Oval, Para Vista	1
Salisbury	Jenkins Reserve, Salisbury Park	2
Salisbury	Canterbury Reserve, Salisbury Heights	1
Salisbury	Bolivar Rd Reserve	1
Salisbury	Happy Home Reserve, Waterloo Rd	1
Marion	Oaklands Rd Dog Park	2
Charles Sturt	Tedder Reserve, Flinders Park	1

Surveys were given to find out demographic data on the owners and dogs, such as how many dogs they owned, the sex and neuter status of the dog, and also how long it takes to get to the dog park and the frequency of their visits (See Appendix 1). A question was also asked to rate the satisfaction of the owner with the dog park, with a scale of 1= extremely dissatisfied through to 7= extremely satisfied.

Students made observations during the visit to the park. These included:

- Number of dogs at park
- Number of adults at park
- Number of children at park

Behavioural observations were also made every five minutes. These included:

- Friendly interactions between dogs
- Friendly interactions between a dog and person
- Aggressive interactions between dogs
- Aggressive interactions between a dog and person
- People picking up dog poo
- People reading the signage
- People sitting at a picnic table

Statistical analysis

Data were analysed using SPSS 17. To test the relationship between different factors, such as the specific dog park and satisfaction rating, Chi square tests were used. When ordinal data were compared the Kendall tau-b test was used. Statistical significance was set at $p < 0.05$.

Results

A total of 83 visits were made to fenced dog parks by groups of students during this study. There were slightly more adults ($n=540$) than dogs ($n=527$) present at the parks during the student visits (see Table 2). The maximum number of people and dogs visiting in a single 30 minute period was 38 and 32, respectively, both at Tedder Reserve, Flinders Park.

Table 2 Visits by people, children and dogs to the individual fenced dog parks from March-May 2010

Fenced Dog Park	No of visits	No of adults (range/visit)	No of children (range/visit)	No of dogs (range/visit)
Bentleigh Reserve, Holden Hill	5	35 (1-17)	0 (0-0)	43 (1-25)
Pet Park Golden Grove	15	153 (1-19)	32 (0-5)	137 (2-18)
CC Hood Reserve, Panorama	5	34 (2-10)	6 (0-6)	39 (2-14)
Dog Exercise Area, Glenside	5	22 (3-6)	7 (0-3)	23 (3-7)
Dry Creek Linear Park, Mawson Lakes	15	19 (0-5)	2 (0-2)	15 (1-4)
Golding Oval, Para Vista	5	6 (3-3)	2 (0-2)	8 (4-4)
Jenkins Reserve, Salisbury Park	8	71 (1-21)	12 (0-5)	66 (2-19)
Canterbury Reserve, Salisbury Heights	5	26 (4-7)	8 (1-2)	15 (2-4)
Bolivar Rd Reserve	5	31 (1-11)	0	37 (1-14)
Happy Home Reserve, Waterloo Rd	5	5 (0-2)	0	6 (0-2)
Oaklands Rd Dog Park	5	88 (1-38)	9 (0-6)	85 (1-32)
Tedder Reserve, Flinders Park	5	88 (1-38)	9 (0-6)	85 (1-32)
TOTAL	83	540 (0-38)	78 (0-6)	527 (0-32)

During the 83 visits, students observed a total of 96 people taking poo bags and 12 people not picking up poo after their dog. Only six people were observed reading signage during their visit. There were 62% (48/78) of the children observed at the fenced dog parks who were playing.

Observations were made of the dog-dog and dog-human interactions during the visits. There were some discrepancies in how the students performed these observations, with some recording continuously, some every five minutes, and some just stating there were 'constant' interactions. While the numbers are likely to be inaccurate, some idea of the types of interactions is given. Most dog-dog and dog-human interactions were friendly, although there were 44 (44/488 = 9%) aggressive encounters between dogs recorded and two aggressive encounters between a person and a dog.

Table 3 Friendly and aggressive dog-dog and dog-human interactions observed during visits to fenced dog parks

Fenced Dog Park	No of visits	No of friendly dog-dog	No of friendly dog-human	No of aggressive dog-dog	No of aggressive dog-human
Bentleigh Reserve, Holden Hill	5	55	15	3	0
Pet Park Golden Grove	15	108	57	17	0
CC Hood Reserve, Panorama	5	0	0	0	0
Dog Exercise Area, Glenside	5	0	0	1	0
Dry Creek Linear Park, Mawson Lakes	15	14	19	0	0
Golding Oval, Para Vista	5	6	7	0	0
Jenkins Reserve, Salisbury Park	8	26	16	5	0
Canterbury Reserve, Salisbury Heights	5	0	22	0	0
Bolivar Rd Reserve	5	0	45	5	1
Happy Home Reserve	5	3	4	2	0
Oaklands Rd Dog Park	5	252	172	5	0
Tedder Reserve, Flinders Park	5	24	10	6	1
TOTAL	83	488	367	44	2

When visiting the parks students gave out anonymous surveys to collect data relating to the people and dogs visiting the parks. A total of 297 surveys were completed by dog owners during the study. The majority of people visiting the parks had a single dog, with very few owners having three or more dogs (Figure 1).

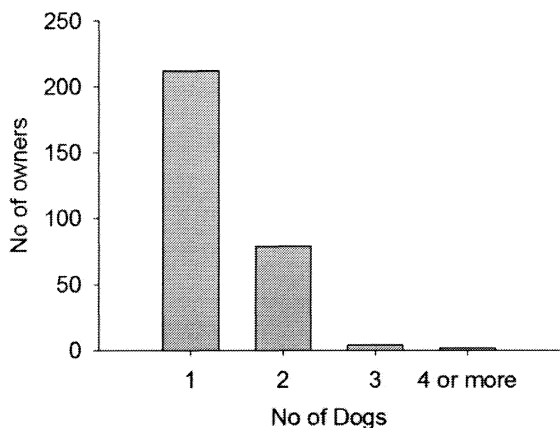


Figure 1 Number of owners from surveys at fenced dog parks with one, two, three or four or more dogs

The majority of people visiting the parks had neutered dogs (Figure 2). There were 29% of females and 34% of male dogs unneutered.

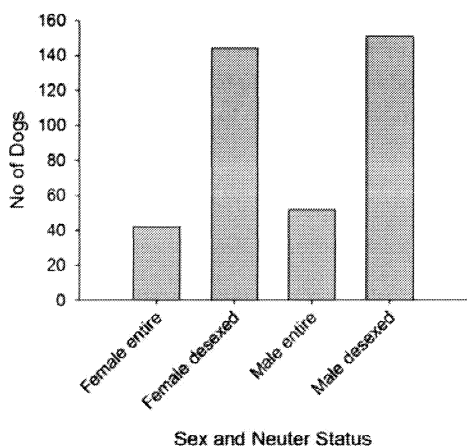


Figure 2 Sex and neuter status of dogs from a survey of dog owners at fenced dog parks

The majority (54%) of dogs visiting the parks were between one to five years of age (Figure 3). However there were seven dogs of less than three months of age and 17% of dogs overall were aged more than five years.

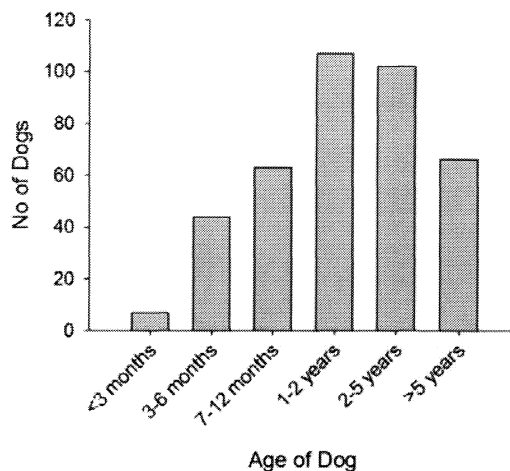


Figure 3 Age of dogs from surveys given to dog owners at fenced dog parks.

The reason most people gave for visiting a dog park was to exercise their dog, with socialising their dog close behind (Figure 4). Exercising or socialising themselves was far less important as a reason for visiting a dog park.

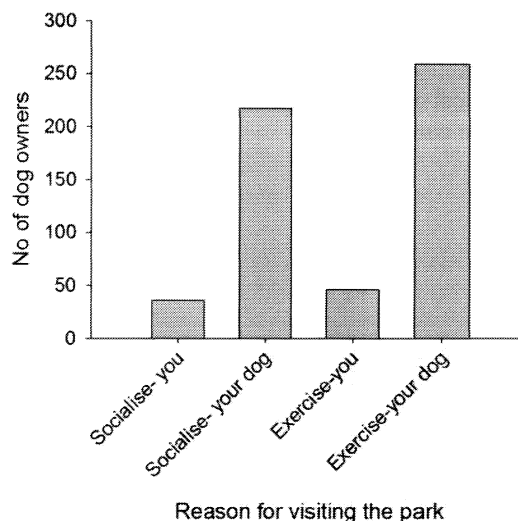
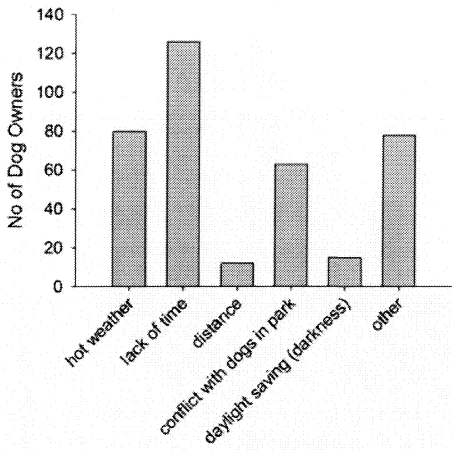


Figure 4 Number of people per reason for visiting the fenced dog parks

The main limitation that people reported that reduced their visits to the dog park was lack of time. Hot weather, conflict with other dogs and 'other' reasons were the next most common. Distance to the park and darkness were not reported as a common limitation for people visiting the dog parks.



Limitations to Visiting Park

Figure 5 Number of people per limiting factor for visiting fenced dog park

People reported that they used a car to get to the dog park most frequently (Figure 6). There were still a significant proportion of people who walked to dog parks. A significant interaction between the specific park and the method that people used to get to the park was found (Chi square $p < 0.001$). In the Dog Exercise Area, Glenside, and Canterbury Reserve, Salisbury Heights, most people walked to the park. However in most other parks the majority of people used a car to visit the park.

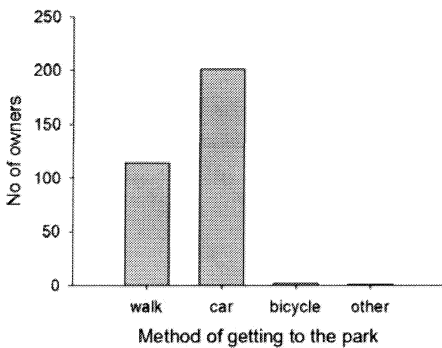


Figure 6 Methods surveyed dog owners used to get to the fenced dog parks

It took most people less than ten minutes to get to the park, with only 8% of people taking more than 20 minutes to get to the dog park (Figure 7). There was no relationship between the specific park and the time that it took people to get to the park (Chi square $p > 0.05$).

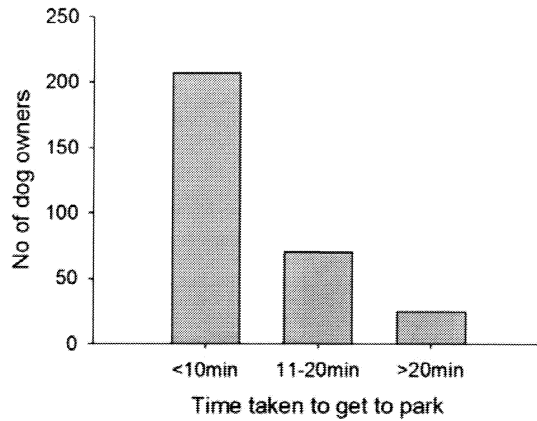


Figure 7 Time taken to get to a fenced dog park by surveyed dog owners

Most people went to their fenced dog park two to three times per week (Figure 8). There was a relationship between the specific park and the number of times per week that dog owners visited (Chi square $p < 0.001$). At Jenkins Reserve, CC Hood Reserve and Bentleigh Reserve most people visited at least four times per week, with the majority of people visiting less frequently at other parks. There was also a significant relationship between the time taken to get to the park and the frequency of visits (Kendalls tau-b; $p < 0.001$) with more frequent visits when the time taken to get to the dog park was decreased.

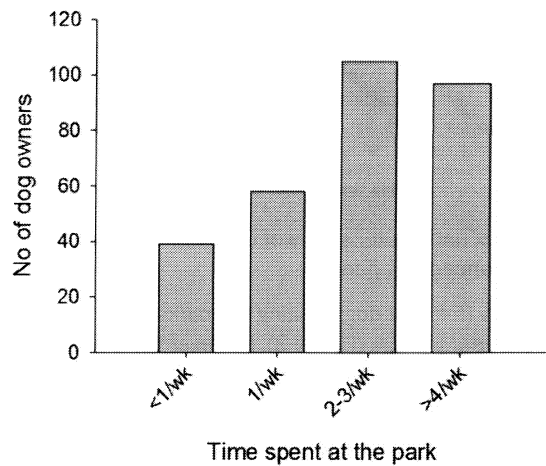


Figure 8 Frequency of visits to a fenced dog park by surveyed dog owners

Most people reported staying at the dog park 30 to 60 minutes (Figure 9). There was also a significant interaction between the specific park and how long dog owners spent at each visit (Chi square $p < 0.001$). For example, at the Dog Exercise Area, Glenside, and Canterbury Reserve, Salisbury Heights, most people stayed less than 30 minutes, while at Jenkins Reserve, Salisbury Park, most people stayed for more than one hour.

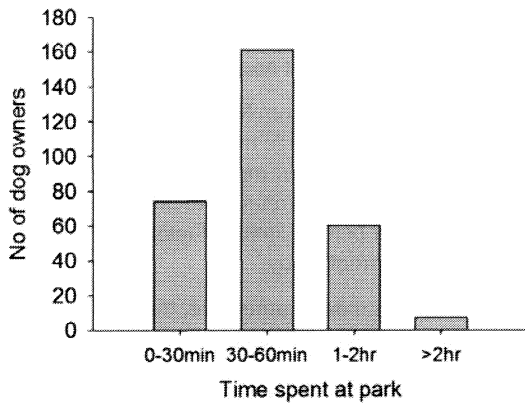


Figure 9 Time spent at the fenced dog park by surveyed dog owners

Most people visited the dog parks between midday to 6pm (Figure 10). Less than five per cent of dog owners reported they had no preference for the time of day that they visited the fenced dog park.

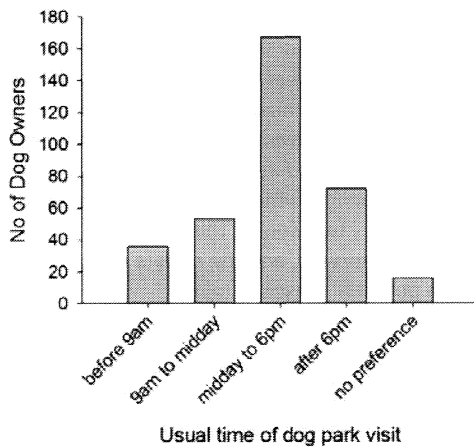


Figure 10 The usual time that surveyed dog owners visited a fenced dog park

The spread of people visiting on different days of the week was fairly uniform, with only 25 people reporting no preference for the day they visited (Figure 11). Friday, Saturday and Sunday were the most popular days selected.

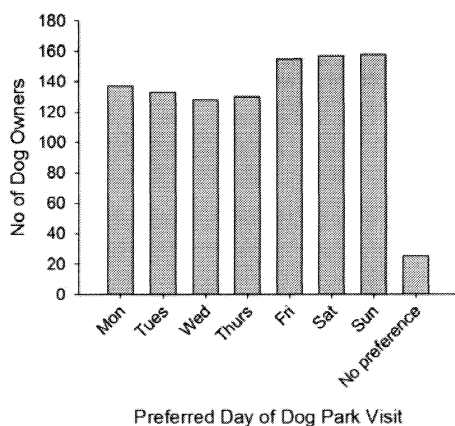


Figure 11 The preferred day that surveyed dog owners visited a dog park

The majority of people scored a 5-6 for their satisfaction with their fenced dog park (Figure 12). There was a significant effect of the dog park on the satisfaction scores (chi-square $p < 0.001$). Most dog owners at Oaklands Park scored a satisfaction level of 7, while at Jenkins Reserve, Pet Park, Golden Grove, and the Dog Exercise Area at Glenside most people scored the park a 5.

There was a significant relationship between the time that people spent at the park on average and their satisfaction rating, with people who were more satisfied with the park spending more time there ($p < 0.05$).

There was no significant relationship between the time it took to get to the dog park, or the frequency of park visits and the satisfaction score (Kendall's tau-b; $p > 0.05$). However there was a significant relationship between the time that owners stayed at the park and the satisfaction score (Kendall's tau-b; $p < 0.001$). Owners who scored a higher satisfaction score for the dog park also tended to stay longer. There was also a significant relationship between the satisfaction score and the time that it took to get to the dog park (Kendall's tau-b; $p < 0.001$) people taking longer to get to the park having higher satisfaction scores.

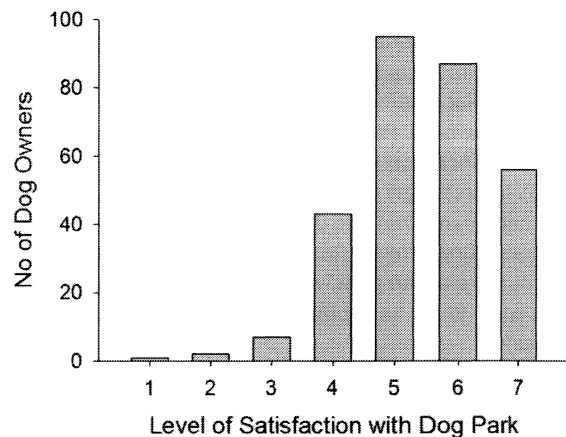


Figure 12 Satisfaction with fenced dog parks

Discussion

This study conducted by students from the University of Adelaide as part of their course work has provided useful baseline data on the usage of fenced dog parks in Adelaide. Thus it has fulfilled its two objectives: 1) teaching students about urban animal management, and 2) providing information that may be used to better manage fenced dog parks in the future.

Most dog owners visiting fenced dog parks in Adelaide spent less than ten minutes travelling to the park and stayed for 30-60 minutes. In a study of dog parks in Florida and Texas similar visiting patterns were seen (Lee, et al. 2009).

There were significant interactions between the specific fenced dog park and factors such as the time spent and satisfaction with the park.

Students noted features such as park benches and play equipment for each park, but a more detailed study of park features would be needed to find the park features that lead to the highest satisfaction and number of visits to a fenced dog park. Different parks may also be used in different ways- at the Dog Exercise Area in Glenside most people walked to the park, and spent less than 30 minutes per visit. At Jenkins Reserve most people drove to the park and stayed for more than an hour. Facilities may also need to be varied depending on the usage and locality of each fenced dog park.

Anecdotal reports of problems with children playing in fenced dog parks have been a cause of concern. Children were not visiting the fenced dog parks in this study as frequently as adults, with only 78 children but 540 adults observed. However, of the children who were at the fenced dog parks, 62% were observed playing. This has the potential to lead to an adverse incident, as if a child and dog unfamiliar to each other meet on play equipment, such as in a play tunnel, there is the chance of the dog biting the child. People may not have a carer to leave their children with, and hence have no choice but to take them to the dog park. When at the park it may be impossible to supervise both the dog/s and the child or children. A solution would be if play equipment for children could be built next to fenced dog parks, so that people could observe their children without risk of them being bitten by a dog.

One of the comments frequently written down on the questionnaires was that people see the dog park as a social gathering place before or after work, where they can speak to other dog owners. Previous studies have reported dog ownership increases peoples social capital (Wood, et al. 2005). Interestingly users of Jenkins Reserve, Salisbury Park, even had an internet site (<http://www.mydog.org.au/>). Dog owners visiting Jenkins Reserve were most likely to spend an hour or more at the park, which would also support the fact that people knew each other and spent longer socialising at this park.

Since a lot of people go to the dog park early in the evening or in the morning it is important to a lot of the visitors that there is proper lighting at the fenced dog parks. The comments that a lot of the dog park visitors wrote down on the questionnaires showed that having adequate lighting when it was dark was a priority for many users of fenced dog parks. If this study had been conducted during the winter months it's likely this would have been even more important.

Fenced dog park visitors that have a long travel time to the dog park are less likely to visit the dog park. The majority of dog park visitors took less than ten minutes to get to the dog park, with few visitors taking more than 20 minutes. The ideal situation would be that every dog owner lives within a ten to 15 minute radius from a fenced dog park. Interestingly there was a significant relationship between the time taken to travel to the park and their satisfaction score, meaning that if people are very satisfied with a fenced dog park they may be prepared to travel further to reach it.

The number of people that read the signage during the observations was small. There may be benefit in further research to find other ways to get information on the responsible use of dog parks across to the fenced dog park visitors.

It is possible that most of the observed dog owners that came to the fenced dog park were regular visitors that already read the signage before. It is, nevertheless, important that the park rules are known to fenced dog park visitors.

The surveys were conducted from March to May 2010. Differences in fenced park usage may occur at other times of the year, for example in summer months hot weather may have been a more important limitation to people visiting the park, with hot weather being a limiting factor for 22% of the respondents in the current study.

Although the numbers may be unreliable, the data do suggest that aggressive encounters do occur between dogs at dog parks. There were almost 18% of respondents to the surveys who reported that conflict with other dogs in the park was a limitation for them in spending time at the park.

This research was conducted by students from the University of Adelaide. Because of this reason a large number of data could be collected. The downside of having a large number of people working on the same research is that the observations are not consistent. For example the students did use some different methods in collecting their behavioural observations. Another limitation is that the surveys that were filled in by the fenced dog park visitors could have been filled in incorrectly. Some dog owners might have filled in the questionnaire incorrectly because they misinterpret the question or to make themselves look better. The dog owner could, for instance, have filled in that they take their dog to the dog park more than four times per week, when actually they only go once every two weeks. This is always a problem with self reporting in surveys, and the results need to be interpreted with potential biases in mind.

Some of the questioned fenced dog park visitors wrote comments on the dog park on the back of the questionnaire. These are some of the recommendations that were most commonly mentioned by dog owners: more lighting; more grass; owners should clean up their own dogs faeces; more faeces bags; more frequent emptying of the bins; more bins; more trees and greenery; more cleaning of the park; more seats and shelter; more play equipment for the dogs. Although some of these comments are outside the control of councils (e.g. owners cleaning up the dog faeces) it would be useful if suggestions such as lighting and more trees and greenery could be addressed, as this may help to attract more dog owners to fenced dog parks, and provide greater satisfaction to dog owners visiting the parks. After all the benefits to people in owning dogs, such as increased social capital and exercise, are well worth investing in for the future.

** Acknowledgements

The students in ANIML SCI 2500RW: Companion Animal and Equine Studies in 2010 are gratefully acknowledged for all of their hard work in collecting the data for this report. These students are: Deborah Adam, Michelle Birkett, Ian Buxton, Sing Chen, Ainslie Colbert, Chelsea Connor, Matthew Cooper, Simone Corletto, Cassandra De Koning, Brook Dearlove, Alexandra Doddridge, Kathrine Ferres, Chelsea Graham, Emma Greenwood, Tara Hall, Mark Harman-Smith, Lana Harriott, Taylor Heath, Elizabeth Hickey, Thomas Hill, Jenna Hoffmann, Alice Hopton, Kristie Hume, Kate-Marie Kalliontzis, Karen Kam, Leanne Katsidis, Georgina King, Lisa Knobben, Brett Lange, Geraldine Laven-Law, Jennifer Mann, Danila Marini, Larissa Mark, Katie Marshall, Justine Partoon, Dena Piro, Simon Pols, Lauren Staveley, Alyce-Maree Swinbourne, Nicky-Lee Willson, Amy Wooldridge, Tiffany Yip, Viridis Yuen, Katherine van Wezel

References

- Australian Companion Animal Council, Inc
2010 Contribution of the Pet Care Industry to the Australian Economy- 7th edition.
- Christian, H., B. Giles-Corti, and M. Knuiman
2010 "I'm Just a'-Walking the Dog" Correlates of Regular Dog Walking. *Family & Community Health* 33(1):44-52.
- Cutt, H. E., et al.
2008 Barriers and motivators for owners walking their dog: results from qualitative research. *Health Promotion Journal of Australia* 19(2):118-124.
- Kobelt, A. J., et al.
2003 A survey of dog ownership in suburban Australia—conditions and behaviour problems. *Applied Animal Behaviour Science* 82(2):137-148.
- Lee, H. S., M. Shepley, and C. S. Huang
2009 Evaluation of off-leash dog parks in Texas and Florida: A study of use patterns, user satisfaction, and perception. *Landscape and Urban Planning* 92(3-4):314-324.
- Wood, L., B. Giles-Corti, and M. Bulsara
2005 The pet connection: Pets as a conduit for social capital? *Social Science & Medicine* 61(6):1159-1173.

ABOUT THE AUTHOR

Dr Susan Hazel BVSc BSc(Vet) PhD GradCert (Public Health) MACVSc
Lecturer in Animal Behaviour, Welfare and Ethics
School of Animal & Veterinary Sciences
THE UNIVERSITY OF ADELAIDE
Roseworthy SA 5371 Australia
Email: susan.hazel@adelaide.edu.au

Dr Susan Hazel is a veterinarian and lecturer in animal behaviour and welfare at the University of Adelaide, School of Animal and Veterinary Sciences, Roseworthy Campus. She has a particular interest in human-animal interactions and also in methods to better engage students in their own learning.

