Dog Park Health

Promoting Health and Fitness Through Social Communities in Dog Parks

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Summary (DL)

Obesity is a significant issue in both the human and animal populations. There are numerous factors that contribute to its prevalence, including improper diet, environment, genetics, and various metabolic diseases. The best way to measure the amount of fat cover on an animal is through Body Condition Scoring. This gives a point of comparison between animals, and indicates how far away from optimum fat coverage an animal is. Many of the health issues that occur as a result of obesity in animals can be extremely costly and prevented through proper diet and exercise. Examples of these conditions include diabetes, osteoarthritis, and coronary heart disease. One of the best options for getting proper exercise is by going to dog parks. This setting creates a unique social community where people communicate their ideas and are able to talk with individuals who may be able to motivate others to exercise. In order to address this issue, we set up an event at a dog park where our group members spoke about the issues involved with obesity, and tried showing them the fun that their dogs would have at the dog park. The psychological phenomenon that occurs when people communicate with one another at dog parks is explored in this paper, and explains how this is no different that the forms of social media like Facebook or Twitter. This will hopefully foster the proper health and fitness attitude, and help it spread through the community.

Video Link

http://www.youtube.com/watch?v=phMBv5t-iac

Advantages of Dog Parks as Social Groups (SS)

According to the Association of Dog Pet Trainers, they said that participation in a social group at a dog park is a "good opportunity for owners to learn about dogs through observation and provides the opportunity to learn from more experienced owners." Social communities at dog
parks also allow for the opportunity to learn. In these communities, there are many different people that have different levels of experience in dog parks. This experience can span from knowledge of health, nutrition, fitness for dogs, for humans, knowledge of different dog breeds, training, and an infinite amount of topics. Being a part of a group with a never ending spectrum of information can benefit an individual greatly.

Social communities also provide the "opportunity for well-mannered-dog advocates to demonstrate how they turned their dog into a well-mannered dog." That speaks on the training aspect of things. Not all owners have trained dogs and it is not necessarily required that the animal have training. The dog just needs to be animal friendly. Whatever happens at a dog park between animals is the complete responsibility of the owners. If an owner at the dog park has a well-trained animal, it might spark interest in an individual with a less trained animal. Friendships can develop from a situation like this.

**Social Phenomenon of Dog Parks (DL)**

Dog parks provide a unique opportunity where dogs are able to socialize with one another, play, and exercise. This exercise is good not only for maintaining a dog’s fitness but also challenging their minds so that they are more obedient. When going to a dog park, play can also be initiated through stimulus with various toys, like tennis balls, Frisbees, or any toy that a dog is motivated by.

According to Seeman (1995), social communities have been important in reducing the rates of death in a variety of public health issues. The psychological benefits on health can be demonstrated from the drastic effects that isolation has on mental capacity, as well as overall physical health. The Seeman article found that socialization has significant impacts due to the mechanism through which the human psyche is developed. Social support is also an important part of both health promoting and damaging behaviors. Our argument focuses on how social support from others who have issues with obesity motivates health promoting behaviors like exercise and proper diet (Seeman 1995).

Wenger (2000) argues that success of social organizations or communities depends on the system that is developed. Initiating this program at dog parks will information be presented to individuals so as to be able to structure a beneficial experience for participants. Wenger argues that there are different elements that define a community system. This includes “communities of practice, boundary processes” (Wenger 2000), and the identity that forms of ourselves based on our participation. According to this author, social learning is based on the definition that was previously established by others. Information development is based on the accumulation of knowledge. This is important because accumulation of knowledge regarding exercise and diet is important for promoting proper health and increasing awareness. Boundary processes are important for identifying with a group and gaining a sense of belonging. Belonging involves engagement, imagination, and alignment with group views or philosophies. Boundaries are important for constructing learning and allow for convergence of learning. Developing a sense of identity, and of oneself, helps with the process of belonging. Individual contributions help make social communities effective means of perpetuating our ideas of fitness and diet. Understanding
these different levels helps explain the reason for the effectiveness of implementing this program.

Another key aspect of the social phenomenon of dog parks is the opportunity for people to interact with one another while their dogs are playing. The ability to communicate with other dog owners allows for information regarding proper diet and fitness to be talked about to help foster healthy living styles. This environment is similar to the many forms of social media that are utilized on a daily basis, like Facebook and Twitter. It creates a space where people are able to “post” their ideas and talk with others about how they feel about these issues. What makes this a unique and special environment is the fact that this communication is occurring in person, making it more valuable and meaningful.

**Social Media and How It Mimics Community Support (MK)**

Social networks utilize websites and applications to communicate or advertise to other viewers. It can also be used to locate people with similar interests. The development of social networking is extremely user friendly, which allows easy access to things such as events, locations, sources, hobbies, and good materials. Social networking is positive since it provides social support. Involvement with peers dealing with similar interests lets us know that we are not dealing with our issues alone.

Social media mimics community support by enabling people to communicate with each other on similar interests. Social media allows people to gain support and knowledge in the comfort of their own homes. It is an easy way to initiate communities by simply typing in some key search words of interest. This allows people to access many resources and ideas.

One very popular social network that students use on a daily basis is Facebook. Facebook allows students to search for their peers, celebrities, events, likes, dislikes, etc. By creating a Facebook page, Phat Dog Health & Fitness is capable of raising awareness of the obesity issue to viewers. This website advertises our purpose to prevent obesity. It allows viewers to give feedback by commenting and ‘liking’ our posts. They can also send private messages to us if they do not want to publicize their questions.

The Phat Dog Health & Fitness Facebook page provides various dog parks of the week. Suggesting dog parks of the week and acknowledging the details and specifics of the park, allows viewers to get an idea of which park best suits their dog’s needs. This gives viewers many options to choose from. For example, there are on-leash or off-leash parks, sections specifically for big dogs or little dogs, drinking fountains, parks that provide dog waste bags, and much more to choose from.

By having a large selection of dog parks, owners can also choose the most convenient location. After selecting a specific dog park, owners can establish a community of dog owners that enjoy dog parks. Creating communities in dog parks increases the publicity of our Facebook page. As we gain more followers on our social network, more people become aware in the risks of obesity in humans and their pets.

**Why is obesity a problem?**
Health issues involved with being obese (SS)

Obesity is characterized by an excessive accumulation of body fat on an individual. This accumulation is due to an imbalance in caloric intake and energy expenditure (WebMD). This can be seen in individuals that eat a high calorie diet and exercises very little to none to burn off the excess energy gained from the meals. The most common measurement of obesity is the body mass index (BMI). The BMI is a measurement based on an individual’s height and weight. With an algorithm, the numbers are given as a percent and used to create ranges that are used to categorized weight classes. Individuals that are normal have a BMI of 18.5-24.9%, those who are overweight have a BMI of 25-29.9%, and those who are obese have a BMI of 30% or more. In this case, we will focus on individuals with a BMI greater than 30%. These individuals are usually about 60 to 100 pounds overweight (National Heart, Lung, and Blood Institute).

There are several causal links to obesity in humans. The same factors that influence obesity in humans have also been known to influence obesity in animals as well. These factors include, but are not limited to age, gender, genetics, environmental factors, physical activities, illness, and medications.

Age (SS)

As an individual age, their caloric need decreases because their metabolism slows down as the individual gets older. With a slower metabolism, the body breaks down food much slower; therefore, the body retains the excess calories not used for energy and stores them in adipose tissue, which adds on to the weight gain. Animals age more quickly than humans. This also means that animal’s metabolisms slow down much faster. With age, it is very important to watch the amount and type of food eaten. Older people and animals should eat a diet with less fat being that their bodies will store it.

Gender (SS)

In the case of gender, females have been known to be more prone to obesity than males. Females are unfortunately at a disadvantage because women have a lower resting metabolism rate. The resting metabolism rate is the rate at which food is broken down while the body is at rest. Since men have a higher resting metabolism rate, they are able to burn more calories easier than women (National Heart, Lung, and Blood Institute). According to this fact, if a male and a female ate the same meal and was not active afterward, the female would gain more weight by retaining more calories. This also contributes to the reason why women gain weight after menopause. After menopause, in conjunction with age, the metabolic rate decreases tremendously. With that being said, the female does not require many calories to maintain body weight. Similarly, female animals have more fat too. After a few years of being spayed, female animals begin to develop a pouch in their abdominal area. This pouch they develop is nothing more than a fat filled pocket where their uterus once was. Without adequate care, and exercise, female animals will gain weight.

Genetics (SS)

Weight has been linked to genetics. In a study done on adults that were adopted as children, the study showed that their weights matched/ were similar to those of their biological parents. Although these adopted adults lived with their adoptive parents, that environment had
Little to no effect on their weight. This proves that genetics may be a factor in determining how thin or big a person will be. In addition, it was also found that depending on your mother's weight, the child is 75% likely to develop her weight characteristics (WebMD).

Environmental Factors (SS)

Environmental factors play a significant role in the health of an individual. These factors include personal lifestyle behaviors, availability of resources, and surrounding communities. These three factors collectively have a major influence on how a person will live. Areas where there are little to no fitness gyms, but several fast food places such as city and urban areas are more likely to inhabit individuals that overall do not live healthily. If the inhabitants of the area do not live healthily, they form unhealthy communities. The lack of fitness gyms and the formation of unhealthy communities can have a strong negative influence on a person’s health, leading to their obesity. This can be equated to owners buying and leaving their pets very palatable foods for free choice. Whether the palatable or not, if an animal is left inside the home for long periods of time without the presence of an owner, and they have food free choice, they may get bored and eat it out of boredom. Having busy owners can cause this issue in animals (National Heart, Lung, and Blood Institute).

Lack of Physical Activity (SS)

Inactivity has a progressive, gradual and direct link to causing obesity. The lack of movement means that the body is not using the ingested calories and fats for energy. Instead, they are being stored. The more weight a person gains, the hungrier they become at more meals. If they continue the inactivity, they will be ingesting extraneous calories and a tremendous amount of fats. Active individuals require more calories than less active individuals to maintain their weight. In addition, physical activity tends to decrease appetite in obese individuals while increasing the body's ability to metabolize fat as an energy source much quicker. Unsurprisingly, much of the increase in obesity in the last 20 years is thought to have resulted from the decreased level of daily physical activity. The same effect happens to animals. When they eat and do not work out, the calories are stored for use as energy later on. However, if they eat without expending the energy stored earlier, they will continue to store more and more; therefore, packing on the pounds. Physical activity is very important to dogs, especially.

Psychological (SS)

Psychologically, people have been said to be obese based on some psychological factors. Some psychological links to obesity and poor eating habits are emotional state, such as sadness, depression, boredom, and anger. These negative emotions can develop from being lonely. People that have issues being able to manage their weight may be at risk of facing more emotional and psychological issues (WebMD). These individuals, along with many others that are affected by negative emotions have issues with binge eating. Binge-eating is depicted as a person eating large amounts of food while feeling they can't control how much they are eating (National Heart, Lung, and Blood Institute). Since most of these individuals are “lonely,” it is recommended that individuals that suffer from these potentially debilitating issues should counteract those issues by joining support groups and undergoing therapy to restore them to a healthy state of mind (Callahan). It is difficult to pinpoint depression and binge-eating episodes in animals. However, animals have been said to deal with psychological issues as well. As far as
diagnosing a psychological problem may be difficult.

**Illness (SS)**

There are illnesses that are linked to causing obesity. However, this is not as common as most people would think. These illnesses include defects in hormones, which may tie back to genetics. Such hormone issues are hypothyroidism (decreased production of Thyroid Hormone), depression (imbalance in serotonin), and some rare dysfunctions of the brain that can lead to overeating. Certain drugs that are necessary to treat some illnesses such as steroids and many antidepressants, and birth control have been known to cause excessive weight gain. In cats for example hypothyroidism causes obesity. It is a very common issue in older felines. If it is not recognized early and given the proper treatment, it can advance and potentially be detrimental to the cat.

**Health Risks Due to Obesity (SS)**

For both animals and humans, there are many risk involved with being overweight and obese. These risks include but are not limited to hypertension, high cholesterol, high concentration of fats in the blood, diabetes, coronary disease, increased probability of a stroke, arthritis, cancer, liver disease, pancreatitis, reduced immunity, urinary problems, kidney failure and many other debilitating illnesses (Natural Pet Care for Dogs and Cats). Many humans and animals can suffer from many of these issues at the same time. The majority of these illnesses can lead to death in many individuals if they remain undiagnosed and treated.

There are many ways these diseases can be reduced in severity, treated, cured and/or prevented. For some of the aforementioned diseases such as cancer, diabetes, arthritis, and others, they cannot be cured. They are chronic diseases that last a lifetime. The only thing that can be done is to treat them and make sure the human or animal is living comfortably. Following protocols and daily life plans for the individuals ensures a healthier life, with a possible increase of lifespan. For some of the other diseases such as urinary problems, high blood pressure, high cholesterol, and coronary disease can be cured. With some exercise, proper medication, time, and persistence, those issues will go away.

**The Solution (SS)**

It is suggested that humans work out with their animals, particularly dogs to lose the weight together. There are many ways to lose the weight to become more fit and healthy, to have a better lifestyle. By working out with both the human and the animal, their bond will strengthen; they can do the exercises as if they were fun and games. They would not feel like they are exercising with a cause. Some of these workouts include running / jogging, biking, fetching, swimming, stair climbing, dancing, dog classes, and agility courses.

The best option is to find a location that has a nice park; whether it is a regular park or a dog park. Dogs are supposed to be walked at least twice a day with length varying by breed. Once the dog begins to move, it will love it and not want to stop. Walking the dog is a simple and necessary aspect of keeping the human fit and keeping the dog active. Once the pet and the owner walk outside and familiarize themselves with the area, they can begin to jog and run. Dogs love to run. By running, they are in a true state of happiness. They would not have any idea that they are actually working out. Simply walking, jogging, running, or any form of
extreme movement can have a significant change in the animal's and owner's lives. Taking more simple actions such as going up stairs, rather than elevators also pumps up cardio. Also, at dog parks, people are drawn to each other because they have a commonality. Social groups are formed between the individuals that attend dog parks regularly. These social groups can also aid in the weight loss process.

Another reason to work out with a pet is motivation. Animals and humans feed off of each other's energy. If the owner is running or playing fetch, the excitement of the dog running and catching the ball excites the owner. Lastly, doing agility is a phenomenal and high intensity way to get the animal active (Pet Transport, Pet Shipping, Dog Transportation). Once you begin agility, it’s very hard to quit. This is extreme cardio. The owner and the pet are moving at top speed to achieve the fastest time. Agility training is an amazing way to lose weight with one another.

Aside from working out with one another, a great day to become fit is through nutrition. Depending on the age of the animal, they require certain foods. They require diets specific for their age range. For example, puppies, kittens, and any developing animal is fed diets that are high in fat, protein, vitamins, and more to aid healthy development. Once they get older, they require fewer fats in their diets. The same goes for humans. As people get older they require lower calorie diets. If an owner can properly make a dish for themselves that’s nutritionally balanced, they should be able to make a conscious decision to purchase a high quality, healthy, and age appropriate food for their pets. A popular brand of food that is given to animals at Veterinary Hospitals is The Science Hill Diet. Science Hill creates many different types of food that cater to Kittens/ Puppies, Adults, and Seniors. They also make U/D, K/D, I/D, Z/D and many others. These are specific diets given to animals with specific problems. For example, I/D is given to animals with digestive discomfort or irregularity. Z/D is given to animals with allergies (Natural Pet Care for Dogs and Cats 2010). These diets, if fed in an appropriate amount, will help the animal achieve and maintain a regular weight while targeting issues that may prevent the animals from eating food such as Alpo, Friskies, and others. This brand of food is very affordable and effective.

**Correlation between humans and domesticated animals (MK)**

Humans and dogs have co-existed in a friendly partnership for thousands of years. The first solid evidence of a domestication partnership was found during 7000-5800 BC. This occurred at the Neolithic Jiahu site, in China’s Henan Province. At first, the dog began to evolve from the wild wolf species (Hirst). As wolves evolved into dogs, they started to linger around human hunter campsites. Eventually, humans and dogs co-existed together, and dogs were domesticated for many productive uses. The reason why this relationship is a “partnership” is because the human and dog both benefit from each other in many various ways.

The dog’s natural instinct is to hunt and scavenge for survival. This drew them in to hanging around humans, which were mainly hunters at the time. Hunters trained dogs to assist them in hunting for meals, and herding animals for farming and agriculture. Dogs were also beneficial for sounding alarms when there were fires, dangerous animals and thieves. Dogs served humans as a convenient source of protection. Back in the day, dogs were sometimes used
for a food source when hunting was scarce. People ate what they needed to survive. Nowadays, hunting and eating dogs are frowned upon by society. Dogs benefitted from hanging out with hunters because they would be provided with shelter and protection. This way, dogs are not lingering in the wild as prey for any other larger predators. They would also get all the scraps and remains of food after the hunters were done eating (Hirst). Dogs and humans have a natural companionship for each other.

It is this unspoken companionship of dogs and humans that brings our relationship with animals to how it is portrayed today. Today, many domesticated dogs are mainly utilized for companionship and protection, instead of hunting. Although it is not as common, there are still a few dogs that are used for hunting and agriculture. Dogs are highly intelligent animals that can be trained as service dogs. Tasks a service dog provides are dogs assisting the blind and mental, assisting people with physical disabilities, working as search-and-rescue dogs, working for the police force sniffing out drugs, threats, and criminal activity, or working with firefighters to find victims lost in a fire wreckage. Lastly, dogs will always be trained for the protection of the home and family. They keep intruders out, and sound alarms. Dogs help provide health benefits for humans by keeping humans at a relaxed state, lowering blood pressure, and keeping humans fit and more active (Stregowski). Humans in return continue to provide shelter and protection, like back in the day. They also love, care, and provide food for their pets.

Feeding your domesticated animal is essential in keeping them healthy, satisfied, and in shape. In order to keep in good health and shape, animals need a well balanced diet and exercise plan. Since animals became domesticated, they have lost their natural instinct to hunt for food. They basically rely strictly on humans to provide their meals. Most veterinarians recommend feeding Science Diet, Iams, or Eukanuba. These are only a few popular choices of the many various dog food brands.

People in America are struggling from an obesity epidemic. Their beloved animals can also be affected by the same obesity issues. There is a popular saying that, ‘You are what you eat.’ For example, if you consume a healthy diet, your body will be healthy. This same saying applies to our pets as well. Dogs that consume the same scraps as humans from the dinner table, are more likely to have trouble maintaining their weight. Humans need a large variety of nutrients and calories in our diets, which are not necessary for dogs. Once in awhile, it is okay to add a few scraps to their dry dog food. However, overfeeding animals leftovers from the dinner table can lead to health issues, like obesity.

**Food Sources and Hazards (MK)**

Certain foods that humans feast on can be more dangerous for dogs. For example, rancid, heavily preserved fats in animal poultry, is tremendously complicated for dogs to digest. Not only can this lead to extreme obesity, but it can accumulate discomfort in the dog, such as vomiting bile or food, diarrhea, gas, and bad breath (Newman). Some food choices, such as avocados, grapes, and raisins can be a problem for their digestive system. These may be toxic or deadly if ingested. Garlic and onions, which are considered flavorings and seasonings for human foods, contain sulfoxides and disulfides that can damage a dog’s red blood cells and cause anemia. Yeast, which is found in bread, can cause discomfort and rupture the stomach and
intestines. Mushrooms can also be toxic for dogs (Jennifer). Feeding your pets table scraps, not only leads to obesity, but can also cause many different negative side effects, including death.

**Dangerous Health Effects (MK)**

It is not only unattractive to suffer from obesity, but it can also be the cause of many other serious and life-threatening diseases. Dogs that carry extra weight puts serious pressure on their organs in their body. Diabetes is one of the most common complications of obese dogs. It causes an increase in the secretion of insulin in response to the increased blood glucose level in the overweight dog. Insulin becomes more in demand because there is a greater amount of tissue in an overweight dog. When requirements for insulin exceed the ability of the body to produce it, diabetes mellitus develops. If the need for insulin increases over a long period of time, the cells in the pancreas, which produce insulin, can actually 'burn out,' resulting in diabetes. Carrying a large amount of excess weight causes damage to joints, bones, and ligaments. They are then more prone to torn ligaments and discomfort. In comparison to humans, obesity causes an increase in blood pressure. The heart would then have to increase the amount of pumping for addition blood to excess tissues. This can lead to heart disease. Animals and humans will experience difficulty in breathing because of the extra fat in the abdomen that pushes against the diaphragm. Females can have reproductive issues during the time they are giving birth. They may develop digestive disorders such as constipation, intestinal gas and flatulence. Since their body is not functioning properly, they have a decreased resistance to viral and bacterial infections. Obesity causes a decrease in stamina, heat intolerance, increased risk of cancer, skin and hair coat problems, and most disheartening of all, decreased quality and length of life (Nash).

**Scientific Evidence That Proves Exercise Cures Obesity in Dogs (MK)**

As pet owners become more obese with unhealthy diets, so do their pets. There is a strong correlation between obese people and their obese pets. It is based on their personal behavior and attitudes towards animals. Owners are the most crucial factor in whether or not their pets will live a healthy or overweight lifestyle. This correlation will continue to rise if obese pet owners do not change their ways in healthy eating. A study done in 2009, by Marieke L. Nijland and colleagues in Amsterdam, concludes the most recent scientific evidence that links the weight of dog owners to the weight of their dog. In this study it showed that cats did not have this problem. This study observed forty-seven dogs and their owners and thirty-six cats and their owners. They demonstrated a positive relationship between the degree of overweight dogs and the BMI (body mass index) of their owners. This problem was solved as pet owners walked their dog more frequently, and committed in exercise and activities (Nijland). As pet owners increase their activity, such as walking, running, and any other outdoor sports, their pets would increase their activity to keep up with their owner. The more effort people put into working out and health, the more their pets would follow along their paths. This would benefit both pet owners and pets because it gives them a reason to fight obesity together. They have each other’s support.

Below is a list of websites that helps make it easy to find other local dog parks:

- [http://dogster.com/local.newjersey](http://dogster.com/local.newjersey)
- [http://www.doggoes.com](http://www.doggoes.com)
Body Condition Scoring (MK)

A reputable method to determine obesity in your dog includes following the body condition scoring (BCS) for dogs. Body condition scoring is an assessment of the animal's weight for age, weight for height ratios, and its relative proportions of muscle and fat. The assessment is made by eye on the basis of amount of tissue cover between the points of the hip, the cover over the transverse processes of the lumbar vertebrae, the cover over the ribs, and the pin bones below the tail. Each animal is graded by comparison with animals pictured on the chart. The grading may be in range from one through nine ("body condition score.").

The body condition scoring for dogs help owners conclude if their dogs are too thin, ideal sized, or too heavy. Being too thin scores ranges from one through three. Score number one consists of: Ribs, lumbar vertebrae, pelvic bones and all bony prominences evident from a distance. No discernible body fat. Obvious loss of muscle mass. Score number two consists of: Ribs, lumbar vertebrae and pelvic bones easily visible. No palpable fat. Some evidence of other bony prominence. Minimal loss of muscle mass. Score number three consists of: Ribs easily palpated and may be visible with no palpable fat. Tops of lumbar vertebrae visible. Pelvic bones becoming prominent. Obvious waist. Being in ideal sizing scores ranges from four to five. Score number four consists of: Ribs easily palpable, with minimal fat covering. Waist easily noted, viewed from above. Abdominal tuck evident. Score number five consists of: Ribs palpable without excess fat covering. Waist observed behind ribs when viewed from above. Abdomen tucked up when viewed. Being overweight ranges from six to seven. Score number six consists of: Ribs palpable with slight excess fat covering. Waist is discernible viewed from above but is not prominent. Abdominal tuck apparent. Score number seven consists of: Ribs palpable with difficulty; heavy fat cover. Noticeable fat deposits over lumbar area and base of tail. Waist absent or barely visible. Abdominal tuck may be present. Score number eight consists of: Ribs not palpable under very heavy fat cover, or palpable only with significant pressure. Heavy fat deposits over lumbar area and base of tail. Waist absent. No abdominal tuck. Obvious abdominal distention may be present. Score number nine consists of: Massive fat deposits over thorax, spine and base of tail. Waist and abdominal tuck absent. Fat deposits on neck and limbs. Obvious abdominal distention (Purina.Com) . By following these guidelines, pet owners will be able to effectively determine whether their pet is obese. This will help owners realize if it is necessary to incorporate more exercise and healthier food choices in their pets’ routines.

The most effective solution to reduce the correlation of obese people and their pets is to get daily exercise, and reduce the amount of table scraps given to animals. It might be difficult to sternly say, ‘No,’ because some dogs are so adorable when they are begging. People need to learn to refuse their dogs human food from the dinner table. These are the most effective methods to prevent obesity.

Epidemiology and Health Care Related Costs of Obesity (DL)

There are currently numerous studies that indicate obesity as a significant health problem in canines, akin to the numerous health problems that occur in humans who are obese. In 1995,
it was determined in a study that 34% of adult dogs over the age of 1 year were overweight. In addition, it found that overweight dogs were more likely to be older. This is due to the fact that geriatric animals become overweight due to caloric intakes greater than their physiological state demands. Many of the senior formulas produced account for this lower energy demand by lowering the caloric content of the food and increasing the amount of fiber present and are recommended for dogs in this weight category. It was also determined in this study that specific breeds, including but not limited to the Cocker Spaniel, Labrador Retriever, Dalmatian, Dachshund, Rottweiler, Golden Retriever, Shetland, Sheepdog, and mixed-breed dogs. In addition, feeding a wet food or homemade food as the primary diet resulted in an increased likelihood that the animal would be obese. This is simply due to the fact that these diets are typically very high in calories and results in weight gain (Lund et al 2006).

Dogs that are considered overweight or obese have an increased likelihood of being diagnosed with musculoskeletal disorders, cardiovascular disease, diabetes mellitus, and bladder and mammary cancer. One study determined through a survey of veterinarians that the prevalence of conditions like osteoarthritis, diabetes mellitus, hypothyroidism, lameness, musculoskeletal disease, oral disease, pancreatitis, renal disease, and ruptured cruciate ligament were significantly more prevalent in animals that were obese or overweight as opposed to those who were considered normal or underweight. By comparing the prevalence of these conditions based among all animals who were determined to be obese or overweight to the prevalence among animals who were not overweight, it made it possible to reduce variation between groups. There are also some studies which have linked obesity with hypertension and poor immune function. Another trend noticed by veterinarians is that animals who are not spayed or neutered are less likely to be obese. This is a result of the fact that animals who are still intact have a much higher metabolic rate due to physiological processes that occur as a result of fluctuating hormone levels (Lund et al 2006).

One of the common misconceptions among owners is the physical shape with which their animal is supposed to appear. I have encountered a countless number of individuals who own Labrador Retrievers and believe that their pet is supposed to be overweight. The main reason for this misconception is that so many of the dogs of this particular breed are overweight. Many owners conclude from seeing this that a healthy dog appears like that. It was determined that interest in pet nutrition, income level, and level of education had effects on the rates of obesity in animals, similar to the effects which are seen in humans (German et al 2006).

**Drugs and Medication (DL)**

One of the key issues that have been determined in addressing animal obesity has been client compliance with the recommendations veterinarians provide to help their animals lose weight. One solution created for this issue was a dietary pill which would help the dog lose weight. The first FDA approved dietary drug for dogs is called Selentrol. This drug functions by decreasing appetite, and promoting healthier eating habits. The goal of a drug like Selentrol is to help owner’s learn how to feed their animals, both with proper amount and type of food. This drug eliminates the issue of client non-compliance due to the fact that a client can feed their dog ad libitum and the dog will only consume an appropriate amount of food due to the drug. The main areas of concern with dietary pharmaceuticals in canines is that is does not directly address
the issue. Once the dog does not take the dieting pharmaceutical, the patient will go back to consuming excess calories and put whatever weight that was lost back on, unless the patient’s food is measured and is consuming the same amount of food in one meal that was consumed while on the drug (Gossellin et al, 2007).

Costs (DL)

Another issue of consideration is the costs that occur as a consequence to the health problems associated with obesity. When an animal is diagnosed with diabetes mellitus, the clients must begin providing their dog with daily injections of insulin following a meal in order to remove excess glucose from the blood. These treatments that must be administered for the rest of that pet’s life are a significant amount of work. One must also consider the monetary costs for treating this condition. This includes the insulin for daily injection, syringes, sharps containers/disposal, and blood glucose monitoring. Unlike humans, where blood glucose levels can be monitored at home, canines or felines with diabetes must have their blood glucose checked at a veterinary hospital. This is due to the fact that checking the blood glucose requires drawing the blood from a vein. Checking a blood glucose level costs an average of $35-40 per check-up. This price will vary from veterinary hospital to veterinary hospital. The frequency with which one must bring their pet in to have the blood glucose checked depends on where the blood glucose readings have been in the past and how the patient is responding to the insulin. The cost of the vial of insulin is about $70, depending on the type of insulin used (Hamid et al 2006). The sharps container for disposal of the needles used to administer the insulin will on average cost about $35. The length of time that it would take an individual to fill the sharps container is undetermined. The average cost per day will vary based on how many units are being administered per day. Overall, the monthly costs can range from $70-$100, depending on a variety of factors.

Osteoarthritis (DL)

Another health issue of concern is development of osteoarthritis, which occurs as the result of excess weight placing strain on the dog’s joints. Osteoarthritis can significantly impair a dog’s ability to move, and can become so drastic that it becomes impossible for the animal to get around comfortably. There are numerous supplements, anti-inflammatories, and pain medications which can be administered to address these symptoms. Supplements which can help address this issue include fish oil and glucosamine/chondroitin/MSM supplements. Fish oil is relatively inexpensive, and can be purchased through one’s local supermarket. Costs will vary based on weight. Fish oil has an estimated cost of $0.05 per 1200 mg pill, with the number of pills administered determined by weight. The general dosage for fish oil is 60 mg/lb. In larger dogs, where osteoarthritis is more common, it can require a large amount of fish oil.

In addition, glucosamine/chondroitin supplements can be relatively expensive, with cost varying based on brand purchased. For example, on www.petcarerx.com, one will find that a 132 tablet bottle of Cosequin DS costs $67.89. This means that each tablet costs $0.51. At maintenance, following the initial regimen for the first 6 weeks, the dosage is one tablet, once per day for every 50 pounds. The instructions on the label provide a general range because each individual case is different, and the amount of needed varies based on individual differences.
One would be able to find detailed instructions on the bottle purchased. Non-steroidal anti-inflammatory drugs can be administered to further help with reducing the amount of friction at the joints. Commonly, these medications are either Rimadyl or Deramaxx. Prices for this drug also vary based on weight, as well as where the drug is purchased from. It is essential to still work on reducing an animal’s weight if an animal develops osteoarthritis due to the fact that the treatments will be significantly less effective if the pressure caused by the excess weight is not removed.

When obesity arises in animals, they are also more prone to rupturing their cruciate ligament. This is an extremely painful issue that can only be corrected by surgery. The cost of this surgery can start at $3,000. There are higher costs associated with animals who are larger in size due to the increased complexity of the procedure. Since obesity is normally of greatest issue in larger dogs like Golden Retrievers and Labrador Retrievers, it is important to express to owners the importance of maintaining their animal’s weight within a healthy range. This would be valuable due to the fact that there is the possibility that they would have to get a surgery for their dog that is extremely expensive, and could be prevented through proper diet and exercise.

Another issue with osteoarthritis is that if it becomes bad enough that it makes it impossible for the animal to get around or that it becomes too painful, than an owner may have to elect euthanasia. This is the most significant and devastating loss that one can have as a result of obesity. With hard work, time, and dedication, one’s best friend will have the opportunity to live his/her life out to its maximal potential. For individuals who are concerned about the welfare of animals, it is devastating to observe the physical ailments and situations that arise as the result of obesity. This is obviously a situation that one would want to avoid, and should be a significant incentive to work on their pet’s weight.

There has also been a correlation found between the likelihood of obesity in humans and the animals they own. This is likely the result of a sedentary lifestyle by the owner. This subsequently has an effect on the pet due to the fact that they are less likely to exercise as well and therefore will gain weight by consuming more calories than those used through movement or activity (Gossellin et al 2007). One issue that is of concern is that the rising rates of obesity in humans parallels the rate of obesity in animals.

Statistics For Obesity (DL)

The statistics for obesity in the United States are startling. Currently, 33.8% of U.S. adults were considered obese. Conditions in humans which occur as a result of obesity include heart disease, stroke, type 2 diabetes, and certain types of cancer. Many of these conditions have a significant impact on quality of life, and can be extremely expensive to treat. The CDC has also determined that obesity is more common among certain ethnic groups, where African Americans have the highest rate of obesity, followed by Mexican Americans, Hispanics, and then Caucasians ([www.cdc.gov/obesity](http://www.cdc.gov/obesity)). This parallels many of the issues found in canines, where specific breeds are more prone to becoming obese than others.

The obesity trends in children are also startling, and overall indicate the need and value for a program addressing this issue. The unique aspect of a program which can utilize the human
animal bond to motivate people and animals to exercise and eat right has a strong potential for addressing the issue. It was estimated in 2010 that 17%, or 12.5 million children between the ages of 2 and 19 years are obese. There was a definitive trend in terms of family income and rate of obesity in children. It was found that 1 out of 7 children of preschool age were obese. Having obesity present in children at very young ages has significant health implications. These obese children will be more likely to face all of the issues that their adult obese counterparts can develop as a result of obesity. Another negative aspect of the obesity in children is that it places the individual under a significant amount of physiological stress, and increases the rate at which their body ages.

These statistics are extremely alarming, for both humans and animals, and demonstrates a possible opportunity to improve the health and well-being of both human and canine through development of a program and support group which would aim to reduce obesity in both animals and humans, and utilize the human-animal bond as a means for motivation. This has the potential to improve the quality of life for all of those motivated and determined to help implement change by reducing their risk for development of numerous health issue, like diabetes, hypertension, and cardiovascular disease.

**Bringing Awareness to the East Brunswick, NJ Dog Park (DL, JF)**

Dog parks serve as communities for individuals that value health and fitness for themselves and their dogs. The purpose of our community service program was to bring awareness to individuals not currently using the dog park in the East Brunswick, NJ and surrounding area. We specifically wanted to target individuals that may not be adequately exercising their dogs.

In order to help specifically address the issues associated with obesity, a potential consequence to not providing enough exercise, we first set up a Facebook group on October 11, 2011 called Phat Dog Health & Fitness and provided information on local dog parks and the places where people could find out more information about where they were. Recently, the Facebook site was renamed to Local Dog Parks: Dog Health and Fitness. The Facebook site contained links to the various local dog parks making it easy and convenient to find a place where one will be able to work out (http://dogster.com/local.newjersey, http://www.doggoes.com, http://www.bringfido.com

We then set up an event to take place at the East Brunswick Dog Park on Nov 19, 2011 that would help bring awareness about the issues associated with obesity. The event was announced on the Facebook page. We prepared a brochure (see the appendix) that provided information on the issue of obesity and how exercise can help deal with this issue. We provided information for our Facebook page as well as other local dog parks aside from East Brunswick Dog Park. We addressed how to determine whether one’s pet is obese or not based on body condition score. This information is important because it helps the owners make better adjustments for weight issues by making it possible for them to monitor the weight at home by gross observation. This reduces the need to travel to the veterinary hospital with the dog every time they want to weigh in.
In addition, the event had various sport and exercise based activities incorporated to get people interested in working out with their dog, something that would be a benefit to both the pet and owner. Due to the cold weather, we could not go swimming. However, the other activities we suggested and had the owners try were Frisbee, fetch, running, and jogging. There was also a station where dogs could attempt working with some of the agility equipment such as the tube, the seesaw, and a couple of jumping stations, and the ramps. Working the agility station with the dog was great in helping the owner to gauge the interest of the dog in the activity. It was also useful to have a station where we gave information about proper diet, for both human and pet, and how to lose weight correctly (i.e. gradually).

Awareness of the program and the issue was developed through a brochure that was emailed and handed out to the participants of the program. We also handed them out at various locations so that we could target both fit and obese individuals. When designing the brochure, it was essential to demonstrate the severity of the issue of obesity, and the ways in which it can be resolved. On the brochure, we also included the possible health ailments that commonly occur as a result of obesity. That might help owners think about whether they have recently noticed any of the symptoms and initiate them to contact their veterinarian. The brochure also contained information about other local dog parks, which serves as a resource that will help them better address the issue.

To our dismay, no one showed up for our event. This was not likely due to the lack of interest in exercising dogs, but more likely due to no one knowing about the event. Simply putting up a Facebook page in cyberspace doesn’t mean someone is going to see it. Additionally, the name of the group did not have the location and had the name “Phat” which would not likely be accessed by anyone remotely interested in obesity or exercising at a dog park event. We presented the information and gave out a few of our brochures to individuals found at the dog park.

Dr. Fagan thought that it would be best to remove our Facebook page and instead, suggest to the East Brunswick Township that runs the dog park that they create a section on their community park Facebook page regarding the dog park. Currently, the East Brunswick Township website and Facebook page does not make any or much mention of their even having a dog park. We spoke with the individual in charge of the East Brunswick Township dog park (Michael Reissner (732) 390-6806 or (732) 390-6797, michael.reissner@eastbrunswick.org) about promoting the dog park as a place to exercise. We suggested that the township create a website where they could add a forum where people would be able to post ideas, utilize the forums for support, and have a place where challenges for workout and dieting can be placed. Optimally, it would be nice for the dog park to develop a web page where each participant can log the amount of activity their pet performs, amount and type of food consumed, and regular weigh-ins so as to make it possible to track the progress of each participant. We suggested that the township set up a Facebook page for the dog park that would function as a point source to receive information about events and programs at the East Brunswick dog park, and so that people would be able to communicate with one another and find other people that are interested in going to the dog park at the same time. After several phone calls and emails, Mr. Reissner of the East Brunswick Township, said that he was not interested in moving forward with our proposal for adding a section to their Facebook page for the dog park. Though we would love to see the program flourish and eventually become a monthly event, it is in the discretion of the owners of the dog
park. We have just merely planted a seed, to get them thinking about the benefits to the dog park to host this event.

Appendix

Contacting Information (DL)

January 9th, 2012 at 4:00 pm: Called East Brunswick Township and left a message with the receptionist for Michael Reissner

January 10th, 2012 at 4:15 pm: Called East Brunswick Township to talk with Michael Reissner, who was unable to speak with me.

-----Original Message-----
From: Dale Levitt [mailto:dlevitt@eden.rutgers.edu]
Sent: Wednesday, January 11, 2012 1:24 PM
To: Michael Reissner
Subject: Facebook Page Note

Dear Michael,

My name is Dale Levitt. I called your office a few days ago and left a message with the receptionist and just wanted to contact you again. My professor, Dr. Julie Fagan, contacted you last week and asked about putting something up on the East Brunswick Recreation Facebook page about dog parks. We were wondering if you would be able to put a note up in the notes section and reference it in the information section of the Facebook page to make it easier to find. I appreciate your help with this. If you want to contact me by phone, my number is (732) 861-5693.

Sincerely,

Dale Levitt
dlevitt@eden.rutgers.edu

Email reply from Michael Reissner on 1/11 at 5:56pm

Hi Dale,

I did speak to your professor. I admittedly, don't understand what you guys are asking for and why it is important to add to our Facebook Page? Please try to be more detailed. Thanks.
---Original Message---
From: Dale Levitt [mailto:dlevitt@eden.rutgers.edu]
Sent: Friday, January 13, 2012 6:43 AM
To: Michael Reissner
Subject: Re: RE: Facebook Page Note

Dear Mike,

Overall, our goal for the facebook page is to create a space where people interested in using the East Brunswick Dog Park are able to network with others and be able to make plans to meet up with new people. We thought that the best place to put it would be in the notes section of the Facebook page. Let me know what you think, and if you would like a draft of the information that would be in the note.

Thanks,

Dale Levitt
dlevitt@eden.rutgers.edu

---Original Message---
From: Dale Levitt [mailto:dlevitt@eden.rutgers.edu]
Sent: Thursday, January 19, 2012 9:17 AM
To: 'Dale Levitt'
Cc: fagan@rci.rutgers.edu
Subject: RE: RE: Facebook Page Note

Dear Mike,

I was wondering if you could tell me if it would be possible to do what I mentioned in the email that I sent you below. If you have any questions, feel free to contact me at (732) 861-5693.

Thanks,

Dale

---Original Message---
From: Michael Reissner [mailto:Michael.Reissner@eastbrunswick.org]
Sent: Monday, January 23, 2012 10:34 AM
To: Dale Levitt  
Subject: RE: Facebook Page Note

Hi Dale,

At this point in time we are not interested in developing and/or supporting a 'networking' link for the Dog Park for folks to communicate with one another. If one is to be created, it will need to be done privately and not officially supported by the Township. Thank you for your understanding.

Mike Reissner  
Township of East Brunswick  
Director, Department of Recreation, Parks & Community Services  
350 Dunhams Corner Road  
East Brunswick, NJ 08816  
www.eastbrunswick.org  
facebook.com/ebrec

Comments from Group Members on Effectiveness of our Community Service Project

Sirrika Samuels

I would not say that our service project was not creative because I doubt that there are many groups that would go to a dog park to teach individuals about animal health and wellness.

Discussion
A major problem that existed was the fact that we were a very tiny group trying to reach out to the community. In order to get a great representation of the community to come out to the program is to speak to an active community group. Being that only suburban areas have community groups, we would be targeting those individuals. I feel that would be very efficient. By speaking with the head of the community about the program and its initiatives, they would be able to spread the word in their town hall meetings. People would be more likely to come because they are able to discuss the matters with friends and come as a group. I definitely feel that we failed with the marketing aspect of the program. Having a program to discuss animal health and wellness whether it is in a dog park (where our paper is focused), or in a local gym, is a great idea.

Lastly, people are motivated to go to programs and events when food is presented to them. Since the program would be to promote health and wellness, there could be healthy refreshments, also a prize incentive for the first 25-30 people to arrive. Providing incentives and adding more topics/events to the programs, I feel that it would be a success.

Michelle Koo

Another idea to promote a healthy lifestyle for pets and their owners is to create a club at Rutgers University for pet owners and animal lovers. This way, people that are interested in their pet’s
well-being are able to attend this club. News about this club would be spread by flyers around
the campus, announcements, and word of mouth by other animal lovers. People can share
healthy dietary habits and exercises needs for their pets and themselves. Since everyone is
interacting, they can arrange dates and groups to visit the dog parks together. By having
discussions in the club, people would get positive feedback from each other on how to increase
their activity with their pets, eat healthy, and live happy.

Here is a hyperlink to our brochure:

..\Documents\Colloquium-Issues in Animal Agriculture\Brochure.pub
References


“CDC: Overweight and Obesity.” Center of Disease Control and Prevention. 1 Aug 2011


**Letters to the Editor/ Editorials**

**Submitted to The Star Ledger**

SS

Dear Editor,

I am writing this letter to all of the owners of overweight and obese companion animals (primarily dogs and cats). Similar to human beings, animals experience all of the horrible effects of having excess weight. Obesity is strongly correlated with diabetes; which also leads to heart, kidney, and skin disease, along with many others problems. Aside from the worries of diseases, it puts a strain on the animal's heart, lungs, and bones. Obesity in animals can also shorten life expectancies. Not to mention very high Veterinarian bill.

It is very important that we get the weights of these animals under control. I understand that people love their animals and want to give them everything they THINK the animal wants, but they must realize that animals should only eat what it needs. The same applies to humans since obesity is very prominent in humans. To combat obesity, one must change the type and/or amount of food they are giving and leaving for their animals. Next is exercise. There are tons of
fun exercises one can do with their dog such as swimming, fetch, etc. For cats, it is encouraged to purchase new toys that require jumping and climbing.

Regards,

SS

Submitted to The Targum

Dear Editor of the Rutgers Targum Newspaper,

We are a group of students from Rutgers University, doing a research project on the correlation on humans and their pet’s obesity. Many domesticated dogs are mainly utilized for companionship and protection. However, we have found that unhealthy feeding and exercising habits in people, also lead to unhealthy feeding and exercising patterns in their pets. Obesity is a serious health risk in society that can lead to life threatening diseases. We have come up with a project called, Phat Dog Health & Fitness, which would explain and show people how daily exercise and proper food nutrition with their pets can benefit their lifestyles. Some beneficial daily activities with your pets include regular walking your dog around the block, jogging, playing Frisbee, or any other outdoor activities. Proper nutrition includes reducing the amount of table scraps fed to your animal. By following these methods provided by Phat Dog Health & Fitness for Rutgers University, we hope to encourage people and their pets to get in shape, to look better and feel better.

Sincerely,

MK

Submitted to The Washington Post

Dear Editor,

Obesity is an epidemic plaguing the American people due to many of the developments of the modern food that we eat. Many do not consider the implications of obesity in animals, and the negative effects that it can have on health. Overfeeding your dog or cat can lead to significant weight gain, and lead to the development of health issues like diabetes, arthritis, or a ruptured cruciate ligament. Another major reason why it is important to maintain one’s pet at a healthy weight is that they have the potential to live years longer. While it may seem unfair to control the amount of food that one’s pet receives, it is better that they are a healthy weight and have the ability to feel good every day. A part of this issue stems from the attitude many pet owners have about feeding their animals. They believe that it is better to feed a diet of their own, rather than utilize a diet which is already nutritionally balanced in dry dog food. While veterinarians address this issue with owners at annual health check-ups, these only happen once per year, and so make it difficult to provide long term support. Development of a program where animals and
humans could work together on weight loss may be a potential solution to this issue in both the animal and human world.

Sincerely,

DL