



Title: The Healing Power of Dogs on Humans: Exploring the Health Benefits

Objectives:

1. Describe what is a pet therapy dog.
2. Recognize how therapy dogs contribute to patients in the hospital and the risk involved.
3. Summarize several ways in which dogs affect human health.
4. Describe how a dog can sense illness in a person.
5. Explain how dogs make individuals resilient during stressful times.

Introduction

The companionship between humans and animals has been a longstanding and cherished relationship. Studies have shown that the bond between people and their pets goes beyond simple companionship, leading to numerous health benefits. This educational course dedicated to Maxwell will explore the connections between people and their pets and the various ways in which this bond positively impacts human health. Specifically, it delves into the concept of pet therapy dogs, their contributions to patients in hospitals, their effects on human health, their ability to sense illnesses, and their role in fostering resilience during stressful times.

The bond between humans and animals has transcended centuries, woven into the fabric of our society through companionship, loyalty, and mutual support. Over the years, research has illuminated the profound impact that pets, particularly dogs, have on human health and well-being. This essay delves into the extensive body of evidence highlighting the myriad health benefits associated with the human-pet bond, focusing on the reduction of blood pressure,



cholesterol levels, triglyceride levels, feelings of loneliness, anxiety, and symptoms of post-traumatic stress disorder (PTSD). By examining the scientific foundation underpinning these benefits, we can better appreciate the role that pets play in promoting holistic health.

The Pet Therapy Dog

A therapy dog is a specially trained dog that provides comfort, emotional support, and companionship to people in various settings, such as hospitals, nursing homes, schools, and rehabilitation centers. These dogs undergo training to develop well-mannered and calm behaviors, enabling them to interact with a wide range of individuals, including patients, students, and residents.

Therapy dogs differ from service dogs and emotional support animals. Here's how they're distinct:

Service Dogs: These dogs are trained to perform specific tasks to assist individuals with disabilities. They might help with tasks like guiding a visually impaired person, alerting a person with hearing loss to sounds, or providing mobility assistance. Service dogs have legal access rights to public places.

Emotional Support Animals (ESAs): ESAs provide comfort and emotional support to individuals with diagnosed mental health conditions. They don't require specialized training like service dogs but must be prescribed by a mental health professional to provide therapeutic benefits to their owners. ESAs have certain legal rights like housing accommodation and air travel in some cases.



Therapy Dogs: These dogs are trained to be gentle, friendly, and comfortable around people. Their primary role is to provide emotional support, reduce stress, and improve well-being in various environments. They typically work with their handlers in organized settings, such as hospitals or schools. Therapy dogs don't have the same legal rights as service dogs; their access depends on the policies of the facility they're visiting.

Therapy dogs bring a sense of joy and comfort to those they interact with. They can offer affection and a calming presence, which can have positive effects on individuals' emotional and psychological well-being.

Contributions of Therapy Dogs in Hospitals and Associated Risks

Therapy dogs play a crucial role in healthcare settings, especially in hospitals. Their presence has been linked to decreased stress levels, improved mood, and faster recovery among patients. Interacting with therapy dogs has been shown to lower blood pressure, reduce anxiety, and enhance overall emotional well-being. However, risks of having Support dogs in a hospital setting that includes:

- **Allergies and Infections:** Hospital patients, visitors, and healthcare staff may have allergies to pet dander, fur, or saliva, which can trigger allergic reactions. Additionally, the presence of animals can increase the risk of infections if proper hygiene and sanitation measures are not strictly followed.
- **Asthma Exacerbation:** For individuals with asthma, exposure to pet allergens can worsen their condition and lead to asthma exacerbation.

- **Fear and Anxiety:** Some individuals, including patients and healthcare staff, may have a fear of dogs or other animals. The presence of a support dog can induce anxiety or stress in such individuals.
- **Distraction and Disruption:** Support dogs, while providing comfort, can also cause distractions in a hospital setting. Barking, movement, and interactions with patients can disrupt the medical environment.
- **Incompatibility with Medical Equipment:** Support dogs may inadvertently interfere with medical equipment, potentially affecting its proper functioning.
- **Risk to Immunocompromised Patients:** Hospitalized individuals with compromised immune systems are more susceptible to infections. The presence of animals could increase the risk of transmitting harmful pathogens to these vulnerable patients.
- **Legal and Liability Issues:** Hospital policies, legal regulations, and liability concerns need to be addressed when allowing support dogs in a healthcare environment.

The Canine Instinct: Sensing Illness in Humans

Beyond the realm of emotional support, dogs possess an astonishing ability to sense illnesses in humans. Their acute sense of smell enables them to detect chemical changes in the human body associated with various medical conditions, including seizures, hypoglycemia, and certain types of cancer. Emerging research indicates that dogs can be trained to recognize specific scents linked to medical events, making them potential allies in early disease detection and treatment. Additionally, Dogs possess an extraordinary sense of smell, which has led to their ability to detect illnesses in humans. The remarkable olfactory abilities of dogs are being harnessed for early disease detection, offering potential benefits for medical diagnostics.

Effects of Dogs on Human Health

Numerous studies have demonstrated the positive effects of dogs on human health. The companionship provided by dogs leads to decreased feelings of loneliness and increased social interaction. Moreover, the bond between humans and dogs has been associated with decreased blood pressure, cholesterol levels, and triglyceride levels, thereby contributing to cardiovascular health. Additionally, interactions with dogs have been shown to reduce anxiety levels and alleviate symptoms of post-traumatic stress disorder (PTSD).

The Bond and Its Impact on Cardiovascular Health

The bond between humans and dogs has been found to have a significant impact on cardiovascular health. Numerous studies have highlighted the positive effects of this bond on reducing the risk of cardiovascular diseases and improving overall heart health. This section explores how the bond with dogs contributes to cardiovascular well-being.

Blood Pressure Regulation:

One of the remarkable benefits of the bond between humans and dogs is its role in regulating blood pressure. Interacting with dogs, such as petting or spending quality time, triggers the release of oxytocin, a hormone associated with stress reduction and emotional bonding. The presence of oxytocin leads to a reduction in blood pressure, promoting cardiovascular health.

Research by Allen et al. (2001) demonstrated that simply petting a dog for a few minutes can result in decreased blood pressure levels. This effect is particularly important considering that high blood pressure is a significant risk factor for heart diseases.

Cholesterol and Triglyceride Management:

The bond with dogs also extends its positive influence to cholesterol and triglyceride levels.

Engaging with dogs, including activities like walking and playing, encourages physical activity.

Regular exercise has been associated with favorable changes in lipid profiles, including lower levels of low-density lipoprotein cholesterol (LDL-C) and triglycerides.

A study conducted by Bauman et al. (2017) found that dog owners were more likely to engage in regular physical activity, leading to better cholesterol and triglyceride levels. The constant companionship of a dog encourages individuals to engage in daily walks and activities, thereby contributing to improved cardiovascular profiles.

Stress Reduction and Heart Health:

Stress is a significant contributor to heart diseases. The bond between humans and dogs acts as a buffer against stress, primarily through the release of oxytocin and endorphins during interactions. Oxytocin counteracts the effects of stress-related hormones, leading to relaxation and reduced heart rate.

A study by Miller et al. (2009) demonstrated that individuals who interacted with dogs experienced a decrease in heart rate during stressful tasks compared to those without dog interaction. The calming influence of dogs on the human nervous system contributes to improved heart health and reduced stress-related cardiovascular risks.

The bond with dogs is more than just companionship; it extends its benefits to cardiovascular health. Through the release of oxytocin, the encouragement of physical activity, and the



reduction of stress, dogs play a crucial role in blood pressure regulation, cholesterol and triglyceride management, and overall heart health. As the bond strengthens, the heart health of individuals is nurtured, emphasizing the profound and multi-faceted impact of the human-dog relationship.

One of the most compelling findings in the realm of human-pet relationships is the notable impact on cardiovascular health. Studies have consistently shown that individuals who share their lives with pets, particularly dogs, experience a reduction in blood pressure, cholesterol levels, and triglyceride levels. These cardiovascular benefits are attributed to the calming effect that pets have on their owners, leading to decreased stress levels and improved heart health. The bond between humans and their pets triggers the release of oxytocin, a hormone that promotes bonding and reduces stress, ultimately contributing to a healthier cardiovascular profile.

Alleviating Emotional Burdens: Loneliness, Anxiety, and PTSD

The emotional companionship provided by pets holds a unique power to mitigate feelings of loneliness and anxiety. Loneliness, often a silent burden, can be alleviated by the constant presence and unwavering companionship of a pet. The nonjudgmental and unconditional love offered by pets creates a sense of security that combats the isolation often associated with loneliness. Moreover, the act of caring for a pet fosters routine and responsibility, providing a sense of purpose that can counteract the feelings of emptiness.

Anxiety, a prevalent mental health concern, is also positively affected by the presence of pets. Interacting with pets' releases endorphins and reduces cortisol, the stress hormone, resulting in a calming effect on the human mind. This emotional connection has led to the emergence of



animal-assisted therapy, where trained animals, particularly dogs, aid in reducing anxiety levels and promoting emotional well-being in therapeutic settings.

In the realm of mental health, the bond between humans and their pets has also demonstrated efficacy in mitigating symptoms of PTSD. Veterans and trauma survivors who incorporate pets into their recovery process report decreased symptoms, improved emotional regulation, and enhanced overall quality of life. The unconditional support and empathy provided by pets create an environment of safety and healing, aiding in the journey towards recovery.

Research has shown that having a dog as a companion can have a significant impact on alleviating emotional burdens such as loneliness, anxiety, and symptoms of post-traumatic stress disorder (PTSD). The presence of a dog can provide companionship, emotional support, and a sense of security, thereby contributing to improved mental well-being. This section explores the ways in which dogs alleviate these emotional burdens.

Alleviating Loneliness:

Loneliness, often characterized by feelings of social isolation and emotional emptiness, can have detrimental effects on mental health. Dogs serve as constant companions, offering unconditional love and a consistent presence that helps mitigate feelings of loneliness. The daily interactions, such as playing, petting, and talking to a dog, create a sense of connection that counteracts the isolation that often accompanies loneliness.

Research by McNicholas and Collis (2000) found that dog ownership was associated with reduced loneliness and increased social interaction among elderly individuals. The companionship and emotional bond shared with a dog offer a fulfilling relationship that combats the negative emotions associated with loneliness.

Managing Anxiety:

Anxiety disorders are common mental health issues that can significantly impact an individual's quality of life. Interacting with dogs has been shown to trigger the release of oxytocin and endorphins, hormones that induce feelings of relaxation, comfort, and happiness. The tactile stimulation of petting a dog and the rhythmic breathing of a calm dog can help regulate a person's own breathing patterns, promoting a sense of calmness.

A study conducted by Barker and Dawson (1998) found that individuals who spent time with dogs experienced a reduction in anxiety levels. The tactile and sensory engagement with dogs led to a decrease in heart rate and blood pressure, suggesting a physiological response to the calming effect of dog interactions.

Support for PTSD Symptoms:

Post-traumatic stress disorder (PTSD) is a condition that arises from exposure to traumatic events and is characterized by symptoms like hypervigilance, flashbacks, and emotional distress. Dogs can play a significant role in supporting individuals with PTSD. Their presence offers a sense of security and comfort, helping to create a safe environment. Trained therapy dogs can provide emotional grounding, helping individuals regain a sense of control during episodes of distress.

A study by Yount et al. (2013) investigated the effects of service dogs on veterans with PTSD. The findings indicated that service dogs helped reduce symptoms of PTSD, including nightmares, anxiety, and emotional numbness. The constant companionship and ability of dogs to respond to distress cues were identified as key factors in alleviating PTSD symptoms.



The emotional burdens of loneliness, anxiety, and PTSD can have profound effects on an individual's well-being. Dogs offer a unique form of emotional support that addresses these burdens by providing companionship, alleviating anxiety, and fostering a sense of security. Scientific research consistently underscores the positive impact of human-dog interactions on mental health, making dogs not only beloved pets but also valuable allies in promoting emotional well-being.

Scientific Basis: The Role of Neurochemicals

The physiological underpinnings of the human-pet bond lie in the intricate interplay of neurochemicals. Oxytocin, often referred to as the "love hormone," is released during interactions between humans and their pets. This hormone fosters social bonding, emotional attachment, and stress reduction. The presence of a pet triggers the release of oxytocin, which, in turn, influences a cascade of positive effects on physical and mental well-being.

The reduction of stress-related hormones, such as cortisol and adrenaline, is another crucial mechanism through which pets' impact human health. Interacting with pets lowers the production of these hormones, leading to decreased stress levels and improved cardiovascular health. Furthermore, the release of endorphins, often referred to as "feel-good" neurotransmitters, contributes to enhanced mood, reduced pain perception, and an overall sense of well-being.

Dogs' Role in Fostering Resilience During Stressful Times

Numerous studies have explored the relationship between human-dog interactions and the release of oxytocin, often referred to as the "bonding hormone" or "love hormone." Oxytocin is a neuropeptide produced in the brain's hypothalamus and is known for its role in social bonding, maternal behaviors, and emotional regulation.



When humans interact with dogs, especially during positive and affectionate interactions such as petting, playing, and gazing, oxytocin levels tend to increase. This phenomenon is similar to the oxytocin release observed in maternal-infant interactions. A study conducted by Nagasawa et al. (2015) found that mutual gaze between dogs and their owners led to increased oxytocin levels in both parties, promoting bonding and trust.

Additionally, various research studies have shown that the presence of a dog, even a brief interaction, can lead to oxytocin release. Handlin et al. (2011) investigated the effects of dog-human interactions on oxytocin levels and found that a mere 15-minute session of petting a dog was associated with increased oxytocin levels in both humans and dogs.

These findings suggest that the human-dog bond triggers the release of oxytocin, contributing to feelings of affection, trust, and emotional connection. This oxytocin-mediated bond is thought to have evolutionary roots, potentially enhancing the social connection between humans and dogs over time.

During challenging and stressful times, dogs provide a unique source of comfort and support.

Their non-judgmental presence and unconditional love create a sense of security and emotional stability. Interacting with dogs' releases oxytocin, a hormone associated with bonding and stress reduction. This physiological response enhances individuals' resilience, helping them cope with stress and adversity more effectively.

Conclusion

The evidence supporting the manifold health benefits of the human-pet bond is irrefutable. From the reduction of blood pressure, cholesterol levels, and triglyceride levels to alleviating feelings of loneliness, anxiety, and PTSD symptoms, pets, especially dogs, serve as remarkable partners



in promoting holistic well-being. The release of neurochemicals like oxytocin, the dampening of stress-related hormones, and the presence of endorphins underscore the scientific foundation of these benefits. Moreover, the exceptional ability of dogs to sense illnesses further emphasizes their potential contribution to medical diagnostics. As we delve deeper into the intricate tapestry of the human-pet bond, we unveil a relationship that goes beyond companionship, unlocking a realm of health and healing that enriches lives and nurtures well-being.

Furthermore, the bond between people and their pets is a multifaceted and deeply enriching relationship with far-reaching health benefits. Pet therapy dogs contribute significantly to the well-being of patients in hospitals, while the positive effects of dogs on human health are extensive, encompassing mental, emotional, and cardiovascular benefits. The ability of dogs to sense illnesses and their role in fostering resilience during stressful times further underscores their remarkable impact on human lives. As research continues to illuminate the intricate ways in which dogs enhance our health and well-being, it becomes evident that these loyal companions hold a special place not only in our hearts but also in our pursuit of holistic health.

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