

The Mitigating Effect of Pet Companionship on Depression in Elderly Individuals Living Alone and Analysis of Its Psychological Mechanisms

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Abstract: With the acceleration of population aging, the number of elderly individuals living alone continues to rise, and depression has become a significant issue affecting their physical and mental health. This study focuses on elderly individuals living alone, exploring the mitigating effect of pet companionship on their depression and delving into the underlying psychological mechanisms. Additionally, it offers recommendations on how to promote the pet companionship intervention model. Through analysis, this paper aims to provide references for improving the mental health of elderly individuals living alone.

Keywords: Pet companionship; Elderly individuals living alone; Depression; Psychological mechanisms; Emotional connection

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1. Introduction

Living alone, elderly individuals are prone to negative emotions such as loneliness, anxiety, and depression due to issues like a lack of family companionship, narrow social circles, and decreased autonomy. Relevant data indicate that the incidence of depression among elderly individuals living alone is 2.3 times higher than that of their non-solitary counterparts^[1]. Depression not only leads to physiological problems such as sleep disorders and decreased appetite but also increases the risk of cognitive decline and cardiovascular diseases, severely impacting their quality of life and life expectancy. Currently, interventions for depression in elderly individuals living alone mainly include community psychological services, family visits, and organization of interest activities. However, due to factors such as resource coverage and elderly individuals' willingness to participate, the effectiveness of these interventions varies. In recent years, pet companionship has gradually gained attention as a novel intervention method. From domesticated cats and dogs to community-promoted “pet therapy”, pets provide emotional support

to elderly individuals living alone with their unique characteristic of “non-judgmental companionship.” Studies have shown that elderly individuals living alone who own pets score significantly lower on depression scales compared to those without pet companionship ^[2]. However, further systematic analysis is needed to understand how pet companionship specifically alleviates depression and the underlying psychological mechanisms.

2. The mitigating effect of pet companionship on depressive emotions in elderly individuals living alone

2.1. Emotional support: Filling emotional gaps and providing “non-judgmental companionship”

The most notable characteristic of pets is their “non-judgmental” nature. Regardless of the emotional state or clarity of speech of elderly individuals, pets will accompany them with an accepting attitude, effectively filling emotional gaps. For instance, when an elderly person feels sad, a dog may proactively nuzzle their hand or lie beside them, while a cat may curl up on their lap. Such physical contact can transmit a sense of “security” through tactile nerves, activating “pleasure hormones” (such as dopamine and oxytocin) in the brain, thereby alleviating anxiety and depressive emotions. Simultaneously, pets provide elderly individuals with a stable outlet for emotional expression. Many elderly individuals living alone habitually “converse” with their pets, sharing daily trivialities. Although pets cannot respond verbally, the feeling of being “listened to” allows elderly individuals to release their emotions.

2.2. Social facilitation: Breaking social isolation and building “social bridges”

Pets are not only “companions” within the household but also serve as “bridges” for elderly individuals living alone to step out of their homes and expand their social circles. On the one hand, raising pets requires regular outdoor activities, which increases opportunities for elderly individuals to interact with the outside world ^[3]. For example, while walking their dogs in the neighborhood, elderly individuals may engage in conversations with other dog owners about pet behaviors and caregiving experiences, gradually forming a “pet social circle.” Some communities also organize “pet gatherings” and “pet charity events”, further expanding the social networks of elderly individuals. On the other hand, pets can reduce social pressure for elderly individuals ^[4]. For those with a tendency to “avoid social interactions”, pets act as natural “social mediators.” When communicating with strangers, using pets as a conversation starter can reduce awkwardness and make social interactions more natural.

2.3. Value reconstruction: Reshaping self-worth and imparting “meaning to life”

Raising pets requires elderly individuals to take on caregiving responsibilities, which can help them rediscover their self-worth and imbue their lives with new meaning. For example, feeding pets on time every day and taking dogs for walks can make the elderly feel that “they are needed.” This sense of being needed is an important source of self-worth. Some elderly individuals also enhance their abilities and further boost their self-confidence by learning pet care knowledge. For the elderly who feel lost due to the loss of their previous roles, pets can help them establish a new role identity—that of a “pet owner.” Although this role is simple, it enables the elderly to refocus their lives and reduce feelings of uselessness.

2.4. Rhythmic regulation: Restoring life order and establishing a “regular routine”

The living habits of pets are characterized by regularity (such as eating, defecating, and needing outdoor activities

at fixed times). This regularity “forces” the elderly to adjust their own life rhythms and restore daily order. For instance, to feed pets on time, the elderly will develop regular eating habits; to walk dogs, they will fix their daily outdoor time, avoiding a reversal of day and night. This regular daily routine helps the elderly rebuild physiological and psychological balance. Physiologically, regular eating improves nutritional status, and outdoor activities enhance physical fitness. Psychologically, an orderly life state enhances a sense of “control”, making the elderly feel that life is predictable and manageable, thereby reducing anxiety and depressive emotions.

3. Psychological mechanisms of pet companionship in alleviating depressive emotions in elderly individuals living alone

3.1. Based on attachment theory: Building a “secure attachment relationship” to alleviate emotional anxiety

Attachment theory posits that individuals form attachment relationships with significant others (such as parents and spouses) during their growth process, which provide emotional security and help individuals cope with stress ^[5]. For elderly individuals living alone, traditional attachment figures (such as spouses and children) may not be present, leading to an “attachment void” and subsequent anxiety and depressive emotions. The presence of pets precisely fills this void, forming a “secure attachment relationship” with the elderly.

The attachment relationship between pets and the elderly is characterized by three features: First, “proximity seeking”, where the elderly actively approach pets, such as through petting and hugging; The second is the “safe haven.” When the elderly feel uneasy, they will seek comfort from pets, such as hugging them to relieve tension. The third is the “secure base.” The presence of pets gives the elderly more courage to explore the outside world, such as being willing to go out because they need to walk their dogs. This secure attachment relationship enables the elderly to regain emotional security, reduce anxiety caused by attachment vacancies, and thereby alleviate depressive emotions.

Neuroscience research has also confirmed that when the elderly interact with pets, the activity level of the amygdala (the brain region responsible for processing fear and anxiety) in their brains decreases, while the activity level of the prefrontal cortex (the brain region responsible for regulating emotions) increases. This change in neural activity directly reflects the alleviation of anxiety and provides a physiological basis for the psychological regulatory effect of attachment relationships.

3.2. Based on social support theory: Providing “multiple social supports” to fill support gaps

Social support theory states that an individual’s mental health depends on a social support system (including emotional support, informational support, and instrumental support). When social support is insufficient, negative emotions are prone to arise ^[6].

The social support systems of elderly individuals living alone are often relatively weak—they lack emotional support (having no one to talk to), have insufficient informational support (lacking access to external information channels), and have limited instrumental support (having no one to help when encountering difficulties in life). Pet companionship can compensate for this support gap from multiple dimensions.

In terms of emotional support, the companionship and interaction with pets can provide emotional comfort and meet the emotional needs of the elderly. In terms of informational support, by communicating with other pet owners, the elderly can obtain information on pet care, community activities, etc., and broaden their sources

of information. In terms of instrumental support, some trained pets (such as service dogs) can also provide practical assistance, such as reminding the elderly to take medication, opening doors, and fetching items, reducing inconveniences in life. This multiple support of “emotional + informational + instrumental” can improve the social support systems of elderly individuals living alone and reduce depressive emotions caused by insufficient support.

It is worth noting that the social support provided by pets is “immediate”—whenever the elderly need it, pets can offer companionship. This kind of “on-call” support is more flexible than human support and can effectively address sudden negative emotions in the elderly.

3.3. Based on self-determination theory: Meeting “basic psychological needs” to activate positive psychology

Self-Determination Theory posits that an individual’s mental health is closely tied to the fulfillment of three basic psychological needs: autonomy, competence, and relatedness. When these three needs are met, individuals experience positive psychology; conversely, they are prone to negative emotions. The depressive emotions of elderly individuals living alone are essentially related to the unmet fulfillment of these three basic psychological needs: a lack of autonomy (feeling a lack of control over their lives), a sense of incompetence (feeling useless), and weak relatedness (lacking social connections). Pet companionship can effectively meet these three needs.

In terms of autonomy, during the process of raising a pet, the elderly can independently decide the pet’s diet and activity arrangements. This “autonomous choice” enhances their sense of control over their lives and fulfills their need for autonomy. In terms of competence, by caring for their pets, the elderly can feel their own abilities, and this “recognition of ability” enhances their sense of competence. In terms of relatedness, emotional connections with pets and social interactions with other pet owners can make the elderly feel “they belong to a certain group”, fulfilling their need for relatedness ^[7]. The simultaneous fulfillment of these three basic psychological needs can activate positive psychology in the elderly, reduce negative emotions, and alleviate depression at its root.

4. Practical recommendations for promoting the pet companionship intervention model

4.1. Individual adaptation: Providing personalized pet companionship plans based on the needs and conditions of the elderly

Not all elderly individuals living alone are suitable for raising pets. Personalized plans should be provided based on their physical conditions, lifestyles, and interests ^[8]. For example, elderly individuals with limited mobility can be recommended to keep pets that do not require frequent outings, such as cats and hamsters. For those who enjoy outdoor activities, dogs may be a suitable choice. For elderly individuals allergic to animal fur, hairless pets like fish and birds can be recommended. Meanwhile, communities can offer a “pet trial” service, allowing seniors to spend time with potential pets before making a commitment, helping them determine compatibility and avoiding issues arising from impulsive pet adoption. Additionally, it is essential to provide elderly individuals with guidance on pet care—such as inviting veterinarians to conduct “pet care seminars” and compiling easy-to-understand “Pet Care Manuals”—to equip them with basic pet care skills and reduce negative emotions caused by the stress of pet ownership.

4.2. Community support: Establishing a pet companionship service platform and enhancing supporting resources

As the primary living environment for solitary elderly individuals, communities should take on an organizational and supportive role in pet companionship interventions. On one hand, communities can establish a “Pet Companionship Service Center” to offer one-stop services, including pet adoption, boarding, and medical care. For instance, they can collaborate with animal protection organizations to provide healthy pets free of charge to eligible, solitary elderly individuals; offer pet boarding services for seniors who need to travel temporarily ^[9]; and partner with nearby veterinary clinics to provide discounted medical services for pets owned by the elderly. On the other hand, communities can organize a variety of pet-themed events, such as “Pet Sports Meets”, “Pet Charity Days”, and “Pet Photography Exhibitions”, to attract solitary elderly individuals to participate. These activities can further promote social interaction and enhance the effectiveness of pet companionship interventions. Meanwhile, communities should also strengthen the construction of public spaces, such as designating specific “pet activity areas”, to facilitate elderly individuals in bringing their pets out and reduce neighborhood conflicts.

4.3. Social security: Improving policy and legal support to reduce intervention risks

The promotion of pet companionship interventions also relies on policy and legal support at the societal level. First, relevant supportive policies should be introduced, such as providing financial subsidies to community pet companionship service centers and offering tax relief to institutions that provide discounted pet medical services for elderly individuals living alone, so as to encourage the participation of social forces. Second, pet management regulations should be improved to clarify the responsibilities and obligations of pet owners, such as requiring pets to be vaccinated and wear identification tags, in order to prevent pet-related injuries and ensure the safety of the elderly and their neighbors ^[10]. Third, a “pet companionship intervention evaluation system” should be established to regularly track the psychological state of the elderly, evaluate the effectiveness of interventions, and adjust plans in a timely manner to ensure the scientificity and effectiveness of interventions.

5. Conclusion

The intervention of depressive emotions among elderly individuals living alone is an important social issue in the context of population aging, and pet companionship, with its unique advantages in emotional support, offers a new solution to this issue. Of course, pet companionship is not a “panacea”; its intervention effectiveness needs to be considered in conjunction with factors such as individual differences among the elderly, community support, and the social security system. In the future, further long-term follow-up studies should be conducted to explore the intervention effects of pet companionship on different types of elderly individuals living alone, while leveraging technological means to expand the forms and scope of pet companionship. It is believed that through the joint efforts of individuals, communities, and society, pet companionship can become an important force in the mental health intervention for elderly individuals living alone, helping more of them overcome depressive emotions and enjoy a healthier and happier later years of life.

Disclosure statement

The author declares no conflict of interest.

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