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How do older adults experience pet companionship? A qualitative study of the affective relationship with pets and its effect on the mental health of older adults during the Covid-19 pandemic

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ABSTRACT

This study aimed to explore the affective relationship of older adults with their pets during the COVID-19 pandemic; and to assess how this contributed to their mental health. This qualitative study included 351 participants aged 65–88 years from Portugal, the United Kingdom, and Spain. All interviews went through content analysis. Findings indicated five themes: (1) Enabling a meaningful affective relationship (86%); (2) Strengthening affective sharing with partner (68%); (3) Easing new affective relationships (61%); (4) Enhancing sensory stimuli and physical touch (55%); and; (5) Feeling physical pleasure (23%). Three main themes emerged from the content analysis regarding the second objective: (1) Fewer depressive and anxiety symptoms (73%); (2) Fewer feelings of loneliness (68%); and (3) Fewer mood swings (43%). The affective relationship between older adults and their pets was relevant during the COVID-19 pandemic since it solidified affective relationships with their partners and fostered the creation of new relationships. Additionally, it contributed to a deeper affective relationship with themselves, in terms of sensory stimuli, physical touch, and physical pleasure. Owning a pet improved mental health symptoms, namely those associated with depression, anxiety, and mood swings.

Introduction

The world population is graying. Between 2015 and 2050, the proportion of the world's population over 60 years will nearly double from 12 to 22% (2.1 billion), and the number aged 80 or older is expected to triple, reaching almost 426 million (World Health Organization [WHO], 2022). Population aging brings pertinent challenges to mental health and well-being in old age. Some countries report that up to one in three older people feel lonely and socially isolated. Research shows that social isolation and loneliness have a serious impact on older people's physical and mental health, quality of life, and longevity (WHO, 2022).

Interactions between humans and animals offer benefits across physical, emotional, psychological, and social spheres of human functioning (Hoy-Gerlach et al., 2020) since humans are social mammals that require connections (Correia-Caeiro et al., 2020). Researchers have given increasing attention to animal companionship as a strategy to help reduce loneliness and isolation (Chandler et al., 2015; Friedmann & Gee, 2018; Mueller et al., 2018; Wells, 2019). People with restricted lives are susceptible to increased anxiety (Brooks et al., 2020). Seeking animal companionship during times of exacerbated anxiety can reduce distress-related physical symptoms. During the COVID-19 pandemic, social distancing was one of the most useful tools

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to reduce morbidity; it can be accurately described as physical distancing from others outside of one's immediate household. Despite means to promote connections remotely, people reported feelings of increased loneliness, isolation, and stress, with both physical and mental implications (Stallard & Stallard, 2020).

Touch can also be important for people who live alone or have no other sources of physical contact and affection. Companion animals can provide an invaluable source of touch and contact (Hoy-Gerlach et al., 2020). In a study of adults over 50 years of age, Toohey et al. (2013) found that frequent dog walkers were more likely to report a high sense of community and the benefits of increased physical activity. Therefore, having a companion animal, such as a dog, may also be associated with increased physical activity (Potter & Satore-Baldwin 2019; Levine et al., 2013). Furthermore, indoor play with companion animals also offers physical activity, albeit less rigorous. In a meta-review of how exercise affects mental health, Ashdown-Franks et al. (2020) found that exercise reduced anxiety and depression in older adults. During confinement, walking a dog may have helped ameliorate confinement-related anxiety and depression. This is probably why people anecdotally reported increases in dog walking (Hamilton City Council, 2020).

Pets have an important meaning for older people and contribute positively to their lifestyle (Scheibeck et al., 2011). For many older people, their animal means joy and quality of life (Otterstedt & Rosenberger, 2009). Pets are of particular importance to many older adults, even if this relationship is determined by a variety of influences, emotions, and experiences (Scheibeck et al., 2011). There are two perspectives concerning research about the influence of companion animals on the lives of older adults: pet ownership and animal-assisted interventions (AAI; Gee & Mueller, 2019). The science of Human-Animal Interactions (HAI) seeks to explore and understand how these relationships with animals can impact health and well-being. A burgeoning area of research is the role of HAI in healthy aging, given its potential importance for the health and well-being of older adults (Gee et al., 2017; McCune et al., 2014). In current society, pets have become a key factor in human life. Animal-assisted therapy (AAT) improves human cognitive ability, emotions, and social ability. Pet guardians and companions have become a general form of treatment (Kil, 2021).

In the absence of physical contact due to social distancing during the pandemic, particularly for those living alone, pets can fulfill tactile needs and provide comfort via hugging, petting, or stroking (Young et al., 2020). Among the identified benefits, companionship is the most discussed topic. Pets are described as 'an excellent company' and, due to the pandemic, pets have provided company to those who spend more time at home. The benefits of having more time with their pets is interconnected with companionship (Applebaum et al., 2021). Pets can also act as a distraction for older adults, allowing them to focus on something fun and distracting from worries about the virus (Applebaum et al., 2021). Thus, older adults outlined two benefits of having a pet: companionship and love; and indicated how living with a pet can bring a sense of life meaning or purpose (Applebaum et al., 2021).

Pet ownership may benefit community-dwelling older adults by providing companionship, giving a sense of purpose, reducing loneliness, and increasing socialization, thereby increasing resilience against mental health disorders (Hui Gan et al., 2020). Having an animal companion improves quality of life and can attenuate symptoms of depression, anxiety, cognitive impairment, and the behavioral and psychiatric symptoms of dementia. Moreover, physical health is also improved, as increased physical activity (Mičková, Machová, Dad'ová & Svobodová, 2019) results in improvements in blood pressure and heart rate variability (Hughes et al., 2020).

According to Feng et al. (2014), older adults who own a dog are 12% more active than their peers who do not own one. Older dog owners are also 23% less likely to spend more than eight hours per day sitting down (Garcia et al., 2015). Hence, older adults with a dog companion suffer less from conditions like depression (Westgarth et al., 2015). Pet ownership benefits older adults by fostering a more active life and more social interactions (Machová et al., 2017).

Older adults are at risk of a decline in mental health as they experience significant life stressors specific to later life. Therefore, suitable approaches that promote healthy aging and address the mental health needs of older adults must be explored.

Although pet ownership has been associated with positive mental health outcomes, there is limited research on this lived experience and its meaning. Moreover, we found no studies on the affective relationships between older adults and pets during the COVID-19 pandemic. Hence, the present study has two main objectives: 1) To explore the affective relationship of older adults with their pets during the COVID-19 pandemic; and 2) To assess how the affective relationship with pets contributed to older adults' mental health.

Materials and methods

Recruitment and sampling

Three hundred and eighty participants from Portugal, the United Kingdom, and Spain were recruited through contact with community centers, senior universities, personal e-mails, and social networks. From these, 29 participants were excluded due to incomplete data, yielding an unweighted response rate of 91.7% and a weighted response rate of 94.8%. The final purposeful sample included 351 participants, of which 64.7% were women, between 65 and 88 years of age ($M = 74.4 \pm 5.65$); 73.5% of participants reported living in the same household; and 25.6% completed high school (see Table 1). Eligibility criteria were the following: (a) aged 65 or older; (2) clear decision to participate in the study; (3) no history of cognitive deficit functions owing to psychiatric or neurological diseases, or drug or alcohol abuse, among others; and (4) animal companion ownership.

Individuals responded to an online semi-structured interview (Skype, Survey Monkey, Zoom, and Whatsapp). Participants were provided with telephone or online support, resulting in all questions being answered. The interviews were held in an individualized format, with an average total time of 35 minutes per interview (see Table 1). The interviewer adopted a mainly non-directive posture during the data collection process (von Humboldt & Leal, 2014, 2015; Friedmann & Gee, 2018). During the interviews, content focused on (1) the affective relationship with their pet and (2) how this relationship influenced their mental health. The following two questions were asked during the interview: 'How did your pet influence your experience of affective relationships during the COVID-19 pandemic?' and 'In your opinion, how does the affective relationship with your pet contribute to your mental health?' Whenever necessary, interviewers asked the following follow-up question: 'Could you please tell me more about your experience?'

Interviews were performed between May, 1st and September, 30th, 2021. All procedures were approved by the Research Ethics Committee of the ISPA - Instituto Universitário and William

Table 1. Sample of sociodemographic and health characteristics.

Characteristics	Portuguese 132 (37.6)	Spanish 115 (32.8)	English 104 (29.6)	Total 351 (100.0)
Age, Average \pm SD				74.4 \pm 5.65
Biological Sex, n (%)				
Female	87 (65.9)	68 (59.1)	72 (69.2)	227 (64.7)
Male	45 (34.1)	47 (4.9)	32 (30.8)	124 (35.3)
Education, n (%)				
Primary school	61 (46.2)	32 (27.8)	23 (22.1)	116 (33.1)
Middle school	54 (4.9)	46 (4.0)	45 (43.3)	145 (41.3)
\geq High school	17 (12.9)	37 (32.2)	36 (34.6)	90 (25.6)
Household				
Living with someone	101 (76.5)	76 (66.1)	81 (77.9)	258 (73.5)
Living alone	31 (23.5)	39 (33.9)	23 (22.1)	93 (26.5)
Family Annual Income, n (%)				
\leq 25,000 €	78 (59.1)	87 (75.7)	71 (68.3)	213 (60.7)
$>$ 25,000 €	54 (4.9)	28 (24.3)	33 (31.7)	138 (39.3)
Perceived Health, n (%)				
Good	67 (5.8)	56 (48.7)	53 (51.0)	176 (50.1)
Poor	65 (49.2)	59 (51.3)	51 (49.0)	175 (49.9)

James Center for Research, and were in accordance with the ethical standards of the Declaration of Helsinki of 1964 and its subsequent amendments or comparable ethical standards.

Data analysis

Interviews were fully transcribed and translated and subsequently submitted to an in-depth reading (Erlingsson & Brysiewicz, 2017). Content analysis was used for data analysis as this qualitative method is aligned with our research objectives and is appropriate for our dataset. Content analysis allows for subjective interpretation of data content through a systematic classification process of coding and identifying themes (Erlingsson & Brysiewicz, 2017). The replicability and reliability rules of the coding process were respected, e.g., mutually exclusive codes, consistently applied codes, coding process implemented by more than one coder (Erlingsson & Brysiewicz, 2017). All interviews were independently coded by two clinical psychologists.

After finding the main themes and subthemes, these were subjected to a categorization process. The main themes were grouped into clear and independent categories, discussed, and agreed upon by the two coders. First, the thematic elements were isolated and then reorganized and grouped according to the information content (von Humboldt et al., 2018). Finally, an interpretation matrix was constructed. This was fundamental for the theoretical and empirical discussion of the contents. All analyses were made with IBM SPSS Statistics for Windows, version 29.

Results

The first objective of this study was to explore the affective relationship of older adults with their pets during the COVID-19 pandemic. Content analysis yielded five main themes: (1) Enabling a meaningful affective relationship (86%); (2) Strengthening affective sharing with partner (68%); (3) Easing new affective relationships (61%); (4) Enhancing sensory stimulus and physical touch (55%); and (5) Feeling physical pleasure (23%). There were no significant differences between the young-old and the oldest-old participants; and between older participants living alone and participants having others in the household for both objectives. In terms of sex, we found differences between older women and men. Older women primarily indicated the themes: enabling a meaningful affective relationship (92%) and strengthening affective sharing with partner (89%), while men mostly reported easing new affective relationships (78%) and feeling physical pleasure (67%). Key quotes indicating the variety of narratives were selected to illustrate the diversity of the studied sample. All names are fictitious. Additionally, to evaluate the reliability of the process, Cohen's kappa was calculated ($.83 < k < .90$), using a p -value $\leq .01$ in all analyses.

Theme 1: enabling a meaningful affective relationship

To the first question, 86% of older participants reported that pets allowed them to experience a meaningful and genuine affective relationship. Indeed, they verbalized that they fully shared their lives with their pets and that pets are a frequent part of their daily lives. As Jenny verbalized, 'I consider him essential to me. He is part of my life now. Walking my dog, buying him his favorite treat, are all things that are part of my routine. I used to share my life with my husband, but in the last 10 years, we both shared our lives with our dog. Being socially isolated, this means the world to me.' (Jenny, female, 76 years old).

Theme 2: strengthening affective sharing with partner

The second theme was highlighted by 68% of older participants. Older adults pointed out that their relationship with pets created opportunities and intensified their affective sharing with their partner. Helen explained, 'Our cat brings us closer and makes us touchier. This was very obvious when we had

to stay in and could not go out. It's a huge difference between having a cat walking around the house and having an empty house, which is what happened before. Sometimes my husband and I are sitting on the couch and our cat comes over, asking to be petted. And, of course, we can't resist, and we both end up giving her affection and to each other.' (Helen, female, 81 years old).

Theme 3: easing new affective relationships

Easing new affective relationships was the third most mentioned category, listed by almost 61% of the participants. Participants verbalized that having companion animals and doing activities with them, such as walking a dog, facilitated new significant social relationships with neighbors, strangers, and others.

'Walking the dogs is my favorite part of the day, now that I have to be at home all the time. I usually go for a walk with my dogs three times per day and I often meet other neighbors who were also in the park next to our home. We simply start a conversation and often I have never met that person before. We end up letting our animals play while we talk. I already made two new friends because of my dogs.' (Dino, male, 71 years old).

Theme 4: enhancing sensory stimulus and physical touch

Enhancing sensory stimulus and physical touch was verbalized by 55% of the participants. These participants reported that having an affective relationship with their pet strongly contributed to being stimulated sensorily (e.g., tactile, olfactory, and auditory). Moreover, they indicated that pets fostered moments of meaningful and rewarding physical touch. Diana reported, 'Incredibly, touching the fur of my pet makes me relaxed. Also, since my dog has very soft fur, I feel really satisfied touching his fur. I feel I can feel him and he can feel me as well. It is such a powerful moment for me.' (Diana, female, 67 years old).

Theme 5: feeling physical pleasure

Feeling physical pleasure was the last theme reported by 23% of the participants. Indeed, these participants indicated that stroking, cuddling, and being loved by their pets gave them physical pleasure, especially in moments of solitude during confinement.

'I like it when he brushes my legs and jumps into my lap. It gives me physical pleasure!' Maria added, 'When I give him food and he licks my fingers, I feel that his tongue is very comfortable. I feel a bit ashamed of talking about this.' (Luka, male, 67 years old).

In summary, the affective relationship between owners and their pets strengthened existing affective relationships, promoted the creation of new affective relationships, and also deepened relations with themselves, including sensory stimulus and physical pleasure.

Three main themes resulted from the narratives for the second study objective, which aimed to assess how the affective relationship with pets contributed to older adults' mental health: (1) Fewer depressive and anxiety symptoms (73%); (2) Fewer feelings of loneliness (68%); and (3) Fewer mood swings (43%). Women mostly reported fewer feelings of loneliness (88%), while men mostly expressed fewer depressive and anxiety symptoms (79%).

Theme 1: fewer depressive and anxiety symptoms

Feeling fewer depressive and anxiety symptoms was mentioned by 91% of the participants. Indeed, for these participants, owning a pet gave them a sense of purpose, a motivation to live their lives, and feelings of love and being needed.

'After my husband's death from Covid-19, I felt very angry and then depressed. After all, he was the love of my life and the person I spent more than 50 years with. My dogs loved me very much and they

helped me at that moment because they gave me a reason to be alive, they needed me, and they helped me to smile and feel cherished. I became more motivated to get up from bed, to do my own things, and to meet my friends.’ (Erica, female, 82 years old).

Tom explained, ‘Because of this recent pandemic situation, I felt anxious and frequently worried. But over time, my dog helped me to get more relaxed and comfortable and to appreciate the little things in life, as I spent more time with him. He helped me feel calmer and make the most of each day, through walks in the parks, going to the supermarket, and concentrating on my cooking.’ (Tom, male, 70 years old).

Theme 2: fewer feelings of loneliness

The second theme was mentioned by more than 88% of older participants. These participants indicated that their pets were very relevant for them to feel accompanied and less lonely. Caroline explained, ‘The pandemic and social distancing forced me to stay at home and restrict my contact with my friends and family. Fortunately, my cat has been here with me and she is so affectionate to me that she ended up keeping me company and prevented me from feeling lonely’ (female, 74 years old). Tara verbalized, ‘My dog kept me company all the time. Without him, I would feel very lonely and lose my purpose for that day. Sometimes the thing that would get me up out of bed with energy was that I had to feed my dog or take him for a walk. It was not always easy, especially in the last few years with the restrictions and social withdrawal. However, when I was with him, I never felt lonely and he actually helped me to get acquainted with neighbors.’ (Tara, female, 66 years old).

Theme 3: fewer mood swings

The last theme mentioned by more than half of the participants (43%) was fewer mood swings. Tara verbalized, ‘When we were forced to stay at home, I felt a roller coaster of emotions. One moment I was okay, and the other I felt miserable. In the beginning, I felt in a bad mood every morning. My two cats were there for me, always, and they were my anchor to earth. They loved me so much. Being surrounded by them helped me feel more stable and less worried.’ (Tara, female, 66 years old).

The three categories for the second objective showed that owning a pet was very relevant and improved mental health symptoms associated with depression, anxiety, and mood swings.

Discussion

Findings show that owning a pet influenced the experience of affective relationships during the COVID-19 pandemic in several ways: by enabling a meaningful affective relationship; strengthening affective sharing with a partner; easing new affective relationships; enhancing sensory stimulus and physical touch; and promoting the feeling of physical pleasure.

Enabling a meaningful affective relationship was the most referred theme by our participants (86%), in general, and also by all three nationalities. Most pet owners consider their pets to be family members and share with them strong attachments (i.e., the ‘multispecies family,’ Irvine & Cilia, 2017). Although humans have coexisted with dogs and cats for thousands of years, that coexistence has taken on various meanings over time. Only recently have people openly included their pets as members of the family. What it means for a pet to ‘be’ a family member remains unsettled, because of the cultural ambivalence toward animals. Becoming a family member has always been contingent on a cast of nonhuman characters, and recognition of ‘more-than-human’ members can enhance our sociological understanding not only of the family but also of other aspects of social life (Irvine & Cilia, 2017). Moreover, the literature highlights the importance of affective relationships with pets, through the relevance owners give to pets’ health and care, while also implicating pets in the maintenance of the owner’s health and well-being (Applebaum et al., 2021). Owners also expressed worries related to

caring for pets during the pandemic (e.g., getting food and medication, veterinary care, and planning for contingency pet care) (Applebaum et al., 2021).

Strengthening affective sharing with partner was the second most indicated theme (68% of the participants). Animal contact has an important place in the lives of older adults. However, it seems that animals offer much more than just companionship, since these may positively contribute to supporting relationships between partners, by increasing moments of sharing and affection; and by involving both partners in tasks and roles in the process of taking care of a pet (Cheung & Kam, 2018; Carneiro, et al., 2020; Horowitz, 2010; von Humboldt et al., 2014; von Humboldt, Leal, & Pimenta, 2013a; von Humboldt, Low, & Lead, 2020; von Humboldt, Ribeiro-Gonçalves, et al., 2020).

Easing new affective relationships was the third most reported theme (61% of the participants). Existing research indicates that pets can promote connections between different owners and stimulate interactions with others, by revealing common topics of conversation (Young et al., 2020). A pet may represent a valid socialization tool, promoting a connection with the outside world and a feeling of social integration (Peluso et al., 2018). Participants said that having socialization tools was relevant during the pandemic, during which social distancing was strongly promoted. Moreover, strong pet attachment, as well as general positive attitudes toward companion animals, was often implied in the advice given by older adults to pet owners in future pandemics (Applebaum et al., 2021) and in the development of social skills (Cheung & Kam, 2018; Horowitz, 2010).

Fifty-five percent of the participants referred to enhancing sensory stimulus and physical touch as a relevant theme for them. Research indicates that pets can fulfill tactile needs, provide tactile gratification, satisfy human sensory needs, and provide comfort to their owners (Hui Gan et al., 2020; Young et al., 2020). The literature supports the relevance for older adults of touching, cuddling, and having a physical connection with pets; and its positive effects on health and well-being. Indeed, by interacting with pets, older adults, promote their health (Coveney & Bunton, 2003; Hughes et al., 2020; Hui Gan et al., 2020).

Feeling physical pleasure was the last theme, indicated by 23% of the participants. This theme was the least mentioned for the three nationalities. Although our findings show that there is physical pleasure when touching pets, there is still not enough scientific knowledge to corroborate this hypothesis. Indeed, pleasure is an under-researched field, especially among older adults, although important for their health and well-being (Alencar et al., 2014). Most frequently, pleasure is reduced to sexuality and genital sex. Conversely, in a more comprehensive perspective, pleasure might be a motive for older adults to interact and promote their health, particularly in periods of social distancing (Coveney & Bunton, 2003). Touching is part of the relationship with pets, therefore, the pleasure that older adults take from cuddling and touching their pets can be considered a source of physical pleasure, as pleasure is related to physical enjoyment and connection (Coveney & Bunton, 2003; Hughes et al., 2020; Hui Gan et al., 2020).

As for the study's second objective, findings indicated that the affective relationship with a pet has a positive influence on older adults' mental health since these participants indicated fewer depressive and anxiety symptoms, fewer feelings of loneliness, and fewer mood swings.

Existing research indicates that pets can give joy, companionship, and meaning to the life of older adults, who thus experience fewer symptoms like depression, anxiety, and loneliness; increased resilience against mental disorders; and improved physical health (Hughes et al., 2020; Hui Gan et al., 2020).

Fewer depressive and anxiety symptoms were indicated by 73% of the participants. This was the most mentioned theme by all nationalities. The psychological and physical health benefits of pets for older adults include decreased depression and loneliness, improved cardiovascular health, and increased physical activity. Indeed, their involvement in the treatment of mental illness has been demonstrated for several decades, and the resulting benefits are significant (Koukourikos et al., 2019). This may be particularly relevant during the COVID-19 pandemic. There is countless evidence supporting the therapeutic psychological and physical health benefits of animals in the lives of older adults (Krause-Parello et al., 2019). Moreover, animal-assisted activities and therapy have been

associated with lowering depression symptoms for a variety of populations (Souter & Miller, 2007; Virués-Ortega et al., 2012; von Humboldt et al., 2022). Furthermore, affective relationships with pets improve the social skills of patients with depression, breaking the limits of their potential marginalization and providing opportunities for interaction with other people (Cheung & Kam, 2018; Horowitz, 2010).

Existing studies have shown that interaction with animals causes biochemical changes in the patient's brain and the release of neurotransmitters that improve mood and cause relaxation and suppression of anxiety (Koukourikos et al., 2019). These findings suggest that interaction with companion animals may decrease anxiety, sympathetic nervous system arousal, and stress response, providing a feeling of well-being and pleasure (Odendaal & Meintjes, 2003; Peluso et al., 2018). A pet may help reduce anxiety levels, that is, contact with a pet can represent a distraction from anxiety and concerns related to the disease (Peluso et al., 2018). Older adults who have pets can develop care and empathic skills. This interaction has a catalytic effect on the patient's anxiety symptoms (Bachi & Parish-Plass, 2017; Fine, 2018).

Fewer feelings of loneliness were indicated by 68% of the participants and it was the second most indicated theme by the three nationalities. These findings are supported by previous studies where pet ownership is associated with a decrease in loneliness and social isolation, and an increase in self-esteem and engagement in meaningful activities among older adults (McConnell et al., 2011; Stanley et al., 2014; Zimolag & Krupa, 2009). With a greater sense of purpose in life, one is less likely to develop adverse health outcomes, including increased frailty, disability, and clinical strokes (Kim et al., 2013; Yu et al., 2015; Zaslavsky et al., 2014). Indeed, human-animal interaction may provide social support for older adults, thus reducing the risk of loneliness (Gee et al., 2017). Older adults indicated that they felt extremely lonely and isolated during the pandemic. Research highlighted how pets made good companions (Hui Gan et al., 2020). Other studies also indicate that dogs' vigilant behavior contributes to decreasing the sense of loneliness in older adults living in their homes (von Humboldt & Leal, 2017). Moreover, research indicates that pets can provide comfort and safety through companionship, which may contribute positively to older adults' mental health and older adults' aging-in-place experiences (McConnell et al., 2011; von Humboldt et al., 2022). Moreover, owning a pet can provide a sense of purpose to daily routines and a valuable social role in life (Koukourikos et al., 2019).

Last, fewer mood swings were pointed out by 43% of the participants. Pet companionship may decrease mood swings, and increase motivation and social skills (Peluso et al., 2018). Interaction with pets can positively affect older adults during stressful situations since pets can be a tangible source of pleasure and consolation (Koukourikos et al., 2019). This may be particularly visible during social isolation. Moreover, the role of 'parenting' and caring for a pet is socially valuable and relevant to fewer mood swings (Blouin, 2013; Laurent-Simpson, 2017). Caring responsibilities served as a source of motivation to 'get up and do things every day,' which assisted in the development of a daily routine. Motivation and an established routine may contribute to focusing, alleviating feelings of being 'useless,' increasing self-esteem, and providing a sense of purpose (Irving et al., 2017; Ribeiro-Gonçalves et al., 2022; Sowislo & Orth, 2013; von Humboldt et al., 2013b; Zimolag & Krupa, 2009). Accomplishing pet-related tasks can bring a sense of control and an optimistic attitude in life, which may then positively influence older adults' mental health outcomes (Zhao et al., 2017). Moreover, pets seem to help older adults concentrate and achieve stability and a firm social role, even if their other life circumstances start to shift and change. Performing a meaningful role and accomplishing tasks promotes self-determination and self-responsibility, therefore conferring positive benefits to mental health (Blouin, 2013; Gee et al., 2017; Irving et al., 2017; Olsen et al., 2016).

This study has several limitations that must be considered. The dataset was obtained during the COVID-19 pandemic. Given the opportune data collection, our recruitment strategy was purposeful, and thus our findings cannot be generalized. Moreover, the sample did not include participants from different ethnic backgrounds and most of them had moderate and high levels of education and income, which may have biased the findings. Furthermore, this study did not analyze the possible strain on existing relationships that can occur if a pet shows favoritism toward one household member

or if there is disagreement regarding the animal's optimal care. The study's design did not cover negative experiences or potential adverse effects on the mental health of older adults in relation to companion animals. Future comprehensive research should encompass the study of both positive and negative aspects of the experience with companion animals. Additionally, future studies can use a grounded theory approach, in which data collection and analysis occur simultaneously so that the analyzed data guides subsequent data collection (Cullen & Brennan, 2021).

Despite these limitations, this study has strengths, namely the sample was nationally diverse and all participants were community-dwelling. Data regarding older adults' perspectives was collected during the pandemic and social isolation measures. Challenges for older adults with pets living in the community during the pandemic included building companionships, finding purpose and health support, and daily normality. This study also helps understand the relevance and contribution of pet companionship to older adults' mental health during the COVID-19 pandemic.

Indeed, these findings can contribute to a comprehensive and reflective perspective on older adults' mental health, including the relevance of pets. This study was focused on older adults' perspectives; it provides rich information for health professionals, policymakers, and older people about pet companionship and its important connection to mental health in old age. The integration of pets into healthy aging is under discussion and fraught with challenges. Nonetheless, this research area is ripe for growth. While initial findings in many areas of health and well-being are promising, there are numerous opportunities for improving the depth and quality of the research on pets and older adults' mental health. This field is at an exciting and critical turning point, with the potential for significant growth in the understanding of how animals can impact older adults' well-being and mental health, leading to meaningful changes in policy and practice in the future.

Authors' contributions

Contributions: SVH: study concept and design, analysis and interpretation of data, recruitment of subjects, preparation of manuscript; SS: preparation of manuscript; IL: study concept and design, interpretation of data. All authors read and approved the final manuscript.

Ethics approval and consent to participate

The study was conducted according to the guidelines of the Declaration of Helsinki, and approved by the Ethics Committee of ISPA – Instituto Universitário (Protocol code: SFRH/BPD/116114/2016; Date of approval: 11/7/2016). The study did not involve experimental protocols. Informed consent was obtained from all subjects.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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Data availability statement

The datasets in the current study are available from the corresponding author on reasonable request.

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