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## “I Can’t Give Up When I Have Them to Care for”: People’s Experiences of Pets and Their Mental Health

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### ABSTRACT

Contact with animals has been increasingly recognized as being beneficial to mental health and wellbeing due to their therapeutic function, with “animal-assisted therapies” gaining in popularity. There is less research exploring how companion animals within the home impact upon mental health and wellbeing. This qualitative study explores people’s experiences of the role of their pets in reducing or exacerbating their mental health symptomatology and general wellbeing. One hundred and nineteen adults, 41 with a diagnosed mental health condition, and 70 recently struggling with their mental health, completed an online survey with open and closed questions to explore their experiences of their pets and mental health. Through thematic analysis, seven key themes were identified. Six themes encompassed benefits of pets; increased hedonic tone; increased motivation and behavioral activation; reduced anxiety symptoms and panic attacks; increased social connections and reduced loneliness; reduced risk behaviors; and coping and aiding the recovery process. One theme encompassed negative impacts: increased negative feelings and emotional strain. Notably, pets reduced urges of self-harm, and prevented onsets of panic attacks and suicide attempts. Both direct mechanisms (e.g., lowering physiological anxiety through physical touch) and indirect mechanisms (e.g., elevating mood through humor, increased mindfulness and disrupting rumination) were identified. These findings encapsulate the complex roles that pets can play in people’s mental health and wellbeing, and highlights that even when the human–pet relationship is regarded positively, pets cannot “treat” mental health difficulties, and should not be viewed as such. Mental health practitioners should be aware and considerate of the importance of pets in people’s lives as well as individual differences in the potential capability of pets to both reduce or exacerbate mental health symptomatology and overall wellbeing.

### KEYWORDS

Anxiety; depression; human–animal interaction; mental health; pets

Mental health problems are common in the general population with an estimated one in six people in any past week experiencing a common mental health difficulty (McManus et al., 2016). Poor mental health is the main cause of the overall disease burden

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worldwide, with depression and anxiety being the most predominant (World Health Organisation, 2017). The importance of social relationships for “protecting” against negative mental health, that is, the “social buffering hypothesis,” is well known (Cohen & Wills, 1985), with an abundance of research being published since. For example, social relationships reduce mortality risk (Holt-Lunstad et al., 2010). One such important social relationship is the human–pet relationship. Around 70% of the UK population are pet owners, and similar figures are shown worldwide (PDSA, 2019). These pets may be helping people cope with, or even hindering mental health in ways in which we currently do not fully understand. Studies into animals and mental health have mostly focused on general well-being (e.g., Barcelos et al., 2020), therapy animals rather than companion animals, and have focused on clinical populations and specific disorders (e.g., Rothschild et al., 2019) rather than examining mental health in the wider general population. De Souza (2000) highlighted the importance and value of pets for people receiving community-based mental health services, depending on them for social and emotional support.

Pet animals may help people in several important ways. There seem to be health benefits and physiological effects of owning pets, such as reduced blood pressure, reduced risk of heart attacks, improved survival rates, and increased physical activity (see Beetz et al., 2012). However, it is important to note that findings into health are mixed and inconclusive (see Parslow & Jorm, 2003; Wells, 2019). Psychological benefits include increased resilience at times of adversity, increased participation in meaningful activities, increased social functioning, increased happiness and hedonic tone, and increased positive self-view and self-agency (Nathans-Barel et al., 2005; Zimolag & Krupa, 2009). Pets may be an important social companion for those experiencing social isolation, which can buffer against the negative impacts of loneliness; thus, pets have important psychosocial functions (Carr et al., 2020; Wood et al., 2005). Pet dogs appear to provide the most benefits for health and wellbeing, aiding the recovery process (Friedmann & Thomas, 1995), increasing motivation for physical exercise (Westgarth et al., 2019), increasing social contact (McNicholas & Collis, 2000), reducing depressive symptoms (Dembicki & Anderson, 1996), and increasing self-views of holistic wellbeing (Raina et al., 1999). The level of interaction with a pet animal has been associated with positive affect, an indicator of emotional wellbeing (Janssens et al., 2020). Furthermore, people form similar bonds or attachments to their pets as they do with other humans (Zilcha-Mano et al., 2011) and these pet attachments have been associated with a range of positive outcomes, including improved quality of life (Bakerjian, 2014).

There has been increasing scientific interest into the potential beneficial effects of pet animals for human mental health. However, findings have been inconsistent, largely due to methodological limitations such as cross-sectional designs, and oversimplification of the complexities and individuality of each human–pet relationship (see Barcelos et al., 2020), such as focusing on pet owners vs non-pet owners. For example, a recent systematic review (Hughes et al., 2020) found associations between pet ownership and lower rates of late-life depression in 13 studies, and lower rates of late-life anxiety in four studies. However, four other studies found no association between pet ownership and anxiety, seven studies found no association with depression, and three studies found an association between pet ownership and increased self-reported rates of depression. Studies have further found increased self-reported psychopathological symptoms in workers

from high-risk occupations who displayed higher attachment to their pet dogs (Lass-Hennemann et al., 2020), and an increased likelihood of reporting symptoms of depression and anxiety in pet owners compared with non-pet owners (Fraser et al., 2020). There is a complex association between pet ownership and self-reported mental health symptoms that cannot be attributed to the ownership of a pet alone. For example, one study found that it was not pet ownership alone that was important for depression, but owners' positive attitudes towards those pet dogs that was associated with fewer depressive symptoms (Wong et al., 2019). Another study found lower rates of self-reported depression for dog owners who were single and female only (Cline & Marie, 2010). Although based on correlational research, pet ownership may therefore only be beneficial for some, and the inconsistencies in the research findings mean no definitive conclusions can be made regarding whether pets reduce mental health symptoms.

Given the potential but complex role of the human–animal relationship for people's health and wellbeing, pets have become a source of debate for services and policymakers to consider (Brooks et al., 2018). Although some previous correlational research concludes that pets do provide benefits to those with mental health conditions, there is a lack of research into the nature and extent of this relationship, such as the types of support that pets can offer. There has also been a bias toward researching the benefits of pets, and a lack of consideration for the potential adverse impacts of having a pet such as worsening of symptoms. For example, Müllersdorf et al. (2010) found that some pet owners perceived their mental health as poorer than that of non-pet owners, and Parslow and Jorm (2003) found that pet ownership did not promote positive mental health. One hypothesis is that those who suffer from mental health may be more likely to obtain a pet for support. The aim of this study was to therefore explore the key themes surrounding the potential value or hinderance of pets for people's mental health and wellbeing from participants personal, individual experiences. To gain a diverse qualitative insight into the complexities of pets and mental health, the focus here is the general population with and without a formally diagnosed mental health condition.

## **Methods**

### ***Participants***

Participants were recruited from the general population, using a convenience sampling method, recruited via social media (Facebook, Twitter), where information about the study was disseminated. Participants were self-selected volunteers. There were no incentives to take part in the study. Inclusion criteria were (1) over 18 years of age, (2) a pet owner, and (3) able to give informed consent.

### ***Procedure and Online Survey***

Data were collected prior to COVID-19. Ethical approval was granted by the Universities Ethics Committee. The online questionnaire was advertised on social media and participants were fully informed about the nature and purpose of the study through an online participant information sheet. Participants self-chose whether to take part.

Interested participants provided electronic informed consent before being directed to the survey questions. Following basic demographic questions, participants were asked a series of open-ended and closed-ended questions relating to their pets and mental health with some probes to enable more detailed responses to gather rich qualitative data. Responses were fully anonymous and pet names have been removed from the data. Discussion between members of the research team based on evidence on pets and mental health, and elements of psychological therapies that could be applicable to pet ownership was used to formulate the interview questions. Example questions include, (1) Do you think your pet(s) has had an impact on your wellbeing? If so, what is it about your pet(s) that has a positive/negative impact on your wellbeing? (2) Would you say your pet(s) help you cope with any mental health difficulties you have had? If yes, has your pet(s) helped with specific symptoms? (3) Do you think your pet(s) ever have a negative impact upon your mental health and wellbeing?

All answers were anonymous, and the survey took ~30 min to complete. At the end of the survey, participants were de-briefed. If the study raised any concerns regarding mental health, participants were advised to contact their healthcare provider, contact a mental health helpline, and/or speak to a family member or friend. A list of worldwide mental health resources was provided that outlined the name of the service, the telephone number, opening hours, a description of the service, and a link to the web page, along with online self-help websites such as Mind, the Mental Health Foundation, Big White Wall, and Mood Gym.

## **Analysis**

Data were analyzed using Thematic Analysis, following Braun et al. (2019) six-step method (also see Braun & Clarke, 2019), facilitated through using NVivo (version 11 and 12). This is a widely used inductive and meticulous method of qualitative analysis which firstly involves familiarization with the data by reading through participants' quotes and identifying (recurring) themes in those quotes and potential patterns. These are then used as a basis for the generation of initial codes, searching for overarching key themes. In further screening rounds, the themes are reviewed and refined and named and renamed where suitable. The coding process is interactive and incorporates disassembling and reassembling data, evaluation, as well as interpretation and concluding (Saldaña, 2015; Yin, 2016). A collaborative and iterative approach was undertaken whereby all three researchers examined the data in detail, produced initial codes, and met to discuss emerging themes. The initial analysis produced 21 codes. Following further analysis and refinement, these codes were condensed into seven core themes based on data coverage ensuring that final themes were data driven. The focus here was on the unique findings relating to the improvement of, or worsening of, mental health symptoms. The final codes were reviewed by, and agreed by, all researchers.

## **Results and Discussion**

### **Participants**

Participants were 119 adults from a volunteer sample from the general population. Forty-one participants had a diagnosed mental health condition, and 70 were struggling with

their mental health at the time of the study. Full socio-demographic characteristics of the participants can be found in [Table 1](#). Although not all participants had a formal diagnosis, non-diagnosed depression and anxiety were common, with 32 participants (26.9% of responders) mentioning “depression” or being “depressed,” and 59 participants (49.6% of responders) mentioning “anxiety” or being “anxious.” Six participants (5% of responders) mentioned post-traumatic stress disorder (PTSD), one participant (0.8% of responders) mentioned obsessive–compulsive disorder (OCD), and one participant (0.8% of responders) mentioned schizophrenia.

The analysis identified seven prominent themes: Theme 1: Increased hedonic tone (data coverage = 107/119 participants); Theme 2: Increased motivation and behavioral activation (data coverage = 110/119 participants); Theme 3: Reduced anxiety symptoms and panic attacks (data coverage = 111/119 participants); Theme 4: Increased social connections and reduced loneliness (data coverage = 115/119 participants); Theme 5: Reducing risk behaviors (data coverage = 102/119 participants); Theme 6: Coping and aiding the recovery process (data coverage = 96/119 participants); Theme 7: Increased negative feelings and emotional strain (data coverage = 86/119 participants).

### ***Theme 1: Increased Hedonic Tone***

This theme encapsulates participants reflections on the ability of pets to increase hedonic tone, reducing mental distress. Participants reported that pet ownership could directly and immediately improve their mood and wellbeing, despite experiencing mental health symptoms:

I’ve struggled with depression, and my cats have definitely helped ease my symptoms. When I see them playing with each other, I can’t help smiling.

... it’s hard to be upset with a sausage dog licking your face!

When I feel as though I’m failing and worthless, they show me love, being with them lifts my spirit.

Humor and laughter were important mechanisms to increasing hedonic tone, relieving mental health symptoms according to participants, with pets providing “comic relief,” “they make me laugh by being silly,” “their antics make you smile.” There is scientific evidence to support these reflections, highlighting the benefits of laughter and humor for mental wellbeing (Gonot-Schoupinsky & Garip, 2019). A further important and commonly reported mechanism was the mutual increase in mood between human and pet when together, seemingly making a sense of joy infectious:

When I get home [dog] meets me at the door with a waggy tail and smile on her pretty face. No matter how bad my day has been she will make it all go away within seconds.

Their utter joy and excitement every time they see you never fails to make me feel loved and happy.

After a long day at work there is nothing better than opening the door to a dog who is so visibly excited to see you.

**Table 1.** Details of the participants ( $n = 119$ ).

Pet ownership	Dogs	Cats	Small mammals (rabbit, hamster)	Horses/pony and other (goats, sheep)	Fish or birds	Reptiles and other (amphibians, arachnids)	Multiple species	
<i>Mental health</i>	69 Recently struggling with mental health	36 Diagnosed mental health condition	9 Have sought help from a mental health professional/GP	7 Never sought help from mental health professional/GP	17	7	42	
Gender	70 Female	41 Male	69 Nonbinary or third gender	38 Prefer to self-describe gender				
Age (years)	96 18–24	10 25–34	1 35–44	1 45–54				
Location	5 European	38 North American	28 Australian	31	6 55–64	9 65+		
Relationship/family status	83 Married/civil partnership	20 Cohabiting	3 In a relationship (non-cohabiting)	9 Divorced/separated	7		Single	Living with children
	56	16	9	7	19	20	Children but not living with them	No children
							13	75

Note: Numbers do not add to total participants because some preferred not to say.

For some participants, pet ownership helped to regulate, or stabilize low mood, consistent with previous research (e.g., Turner et al., 2003).

My cat makes the good days even better and the bad days more tolerable. If I am struggling with my mood or wanting to stay in bed all day, having her coming to get me and asking for food helps give me motivation and purpose.

I think my mood is more stable when around them, perhaps it's a self-regulating thing, knowing they're there even if nobody else is.

### **Theme 2: Increased Motivation and Behavioral Activation**

This theme encompassed participants' reflections about how their pets helped to increase their general motivation and goal-directed behavior through an increased sense of responsibility, which can be generally low in a range of mental health problems (Brown & Pluck, 2000):

I want him [dog] to have a good life so just by existing he pushes me not to sink into the worst places. I have to keep going for him.

When feeling low I have a reason to get out and about because they need taking care of and walking which always makes me feel better too even if I don't initially want to go out.

I depend on [dog] to wake up in the morning and MAKE me get out of bed when I just don't see any hope in the world or people.

When I get depressed, they force me to get up and move since I know I have to take care of them.

The positive effect of behavioral activation may be ascribed to an increase in reinforcing positive effects of increasing activities that were previously avoided (Carvalho & Hopko, 2011), and scheduling activities that fit within one's own life goals and values, which are common elements of mental health treatments, especially for low mood (Kanter et al., 2010). For the participants, the most notable behavioral changes due to pet ownership were spending more time outside in nature and participation in physical activity:

Having to walk my dog when I didn't want to go out made me get out and see the beauty of the world, get some fresh air, see her joy at running about and playing and made me exercise. All of that helps you to get back to normal when you aren't in a good place.

Having a dog means going for long walks in beautiful countryside which alleviates the worst of my mental health issues.

I plan my day in accordance with my dog to make sure she's living a happy and healthy life, which in turn helps me live a happy and healthy life.

This increased time in physical activity and time spent in nature can consequently increase happiness, alleviate mental health symptoms and maintain positive wellbeing (Alexandros et al., 2012; Chekroud et al., 2018; Howell & Passmore, 2013; Westgarth et al., 2019).

### **Theme 3: Reduced Anxiety Symptoms and Panic Attacks**

The most commonly reported reflection across participants was that pets helped to reduce symptoms of anxiety, having a positive impact on both milder and more severe

symptoms including providing support when experiencing panic attacks, and potentially prevent anxiety from escalating into panic attacks, as well as easing symptoms of PTSD:

My dogs wake me up from nightmares and surround me when I'm having panic attacks.

They were a source of comfort during a time of immense grief, and they helped bring me out of (or at least calmed me after) panic attacks. When I am sad, they are always right there to purr and snuggle which again brings comfort, warmth, and clarity.

She helps with my PTSD – helps keep me in the present when I'm being pulled into the past – helps me get back to sleep after having a nightmare – stroking her helps me feel calm when I'm anxious – being around her makes me so happy and feel so much love which helps on a bad day.

Previous research lends support to the beneficial role of animals for helping people to cope with anxiety (Young & Horton, 2019) and for relieving psychological stress for those diagnosed with PTSD (Stern et al., 2013). Participants reflected upon key mechanisms in which their pet animals helped relieve anxious symptoms. A first key mechanism appears to reflect increased mindfulness (being in the present moment), and interrupting rumination (being a distraction from recurrent thoughts), both of which play a role in mental health (Arditte Hall et al., 2019; Cooney et al., 2010):

If I am feeling overwhelmed in a situation, I often seek out [dog] and a quiet, comfortable place to try and reconnect with what is going on around me. If I am upset and crying, [dog] is there to lick away my tears and remind me that he's here and I should focus on him right now, not what is making me upset.

They make me be present and mindful.

The second mechanism in which participants reported that pets helped relieve symptoms of anxiety was through physical touch, which can lower physiological arousal and play an important role in maintaining positive wellbeing (Lockhart, 2019):

Just having them nearby to rest a hand on and feel their warmth always makes me feel happier and calmer when I'm stressed, anxious or upset.

Having a cat to stroke and love calms me down when I'm especially anxious, as it's hard to maintain the anxious energy/movement/pacing I get when the cat wants to sleep on you. Even if my mind is still going a million miles an hour, the physical calm eventually helps with that too.

... otherwise I would possibly go weeks at a time without touch.

A third mechanism can be described as the subjectively experienced benefits of pets being attentive and responsive to participants' emotional state:

He's [dog] incredibly intuitive, just knows when you're not entirely happy or if something is wrong. If I have an anxiety attack, he'll come and sit next to me and put his head on my lap, sometimes he just curls up on top of my feet. It's a nice gentle reminder of how things will be ok even if you don't feel ok.

The youngest [cat] knows when I am anxious or needing comforted and puts her weight on my chest cuddling into me.

This attentiveness may have been experienced as emotional support. In addition, (lack of) physical touch may harbor an additional wish for more connectedness, though the format of the questions did not allow for eliciting information in that level of detail. The relevance of pets for support and connectedness will be elaborated on in the next section.

#### **Theme 4: Increased Social Connections and Reduced Loneliness**

People with mental health difficulties more often experience a sense of isolation (Meltzer et al., 2013). A plethora of research has demonstrated the negative impact of loneliness and isolation on both mental and physical health outcomes including increased suicide and general mortality risk (Henriksen et al., 2019; Mann et al., 2017; Wiktorsson et al., 2010), with prolonged loneliness being a public health issue (Gerst-Emerson & Jayawardhana, 2015). Participants reported that pets help alleviate loneliness and increase connectedness with others:

I think that my pets have had a positive impact on wellbeing as when in the house on my own I do not feel lonely or isolated.

I've struggled with my mental health at times and she's helped, in that I've had "someone" there when I've felt really lonely.

My rabbit helps me keep things in perspective and helps prevent feelings of loneliness if I'm alone for long periods of time.

Connectedness is a key to mental health recovery, and isolation may limit mental health outcomes (Leamy et al., 2011). In line with previous research (McNicholas & Collis, 2000; Pikhartova et al., 2014), the notion of pets being a "social catalyst" or "social lubricant" was commonly reported, most notably in dog owners. Pets may therefore have an important sociability function', increasing human-human contact and feelings of social connectedness, belonging, and community, which can help to alleviate mental health difficulties (Holt-Lunstad et al., 2010; Williams et al., 2019):

Especially for dog owners the daily walks are a means of meeting people and reducing isolation. It is not just older people for whom their dogs are a lifeline.

Of note, participants described that they felt that their pets acted as ice breakers, and a safe topic of conversation, which increased their confidence in speaking to others and reduced social anxiety, thus facilitating human-human connections:

I find that I communicate better with people who have pets or are animal lovers as I have something in common with them and feel less socially anxious in their company.

Speaking about him with others and using him as an ice breaker makes people relate to one another faster than those who do not have dogs, or a similar interest in animals as you do.

As observed in the previous quote, pet ownership appeared to be able to help create immediate bonds between individuals due to their common interests and sense of shared identity of being a "pet person":

Because of my animals I have become part of my local community. I have made friendships with other animal owners that have developed into a support network and best friend status.

My relationship with animals is integral to my identity. This is partly due to my mental health issues resulting in a lack of identity, and animals is a strong element I can hold on to.

This is in line with previous findings, that social identity is relevant for mental health (e.g., Cruwys et al., 2014).

### ***Theme 5: Reducing Risk Behaviors***

This theme captured participants reflections around how their pets helped with reducing risk behaviors, in line with previous research (Young et al., 2020), one such behavior was self-harm:

They can help reduce urges of self-harm, stroking my cat helps take away wanting a physical sensation of pain.

Because the dog is there it has prevented many incidents of self-harm.

In addition, some participants reported a key role for their pets in reducing suicidality. One of the reasons that their pets prevented a suicide attempt was due to worrying about their pet's needs:

At my worst point, when I began having suicidal ideation, the thought of abandoning my pets was unacceptable to me so I knew I had to stick around to care for them.

Upon further reflection on the prevention of suicide and self-harm, participants commented upon how pets increased their sense of purpose and meaning in life and gave them a "reason to live." Research demonstrates how a sense of purpose in life is important for a better quality of life and thus maintaining positive mental wellbeing (Ryff & Keyes, 1995):

They give me a reason to live each day. Without them I would probably consider taking my own life.

My life is a lot better with pets, a few years ago (before I got my cats) I felt as though my life had no purpose and no reason. Now they are the reason I get up every morning and always give me something to look forward to, and something to work for.

I'm responsible for them. I can't give up when I have them to care for.

### ***Theme 6: Coping and Aiding the Recovery Process***

Nearly all participants agreed that pets do not "treat" or "fix" mental health problems, and pets are not expected to. In the view of participants, alleviating mental health problems is not as simple as getting a pet, but pets do, however, help them to cope with, or reduce the severity of symptoms, and can aid the recovery process:

I think that pets can be a very strong part of a recovery process, assuming you have the right pet, but I don't believe any one thing alone can fix mental health issues.

In a similar way to antidepressants – they don't cure depression, but they can help settle you enough to work on the cause of depression.

I do not think that pets can fix mental health problems but a source of coping. I still experience anxiety but believe that my dog can help to relieve these emotions.

Pets encourage recovery because you have to think about their care.

Some participants demonstrated concern over the “administering of pets for mental health” and pets being a “quick fix” for mental health problems. There were worries over pets making symptoms worse for some people:

I also believe there are certain situations where a pet could potentially exacerbate mental health issues, the extra responsibility won't be for everyone.

I think they just help people cope. Mental health is too complex to be solved by a puppy dog and it should not be positioned as such – that can have really poor outcomes for the animal.

### ***Theme 7: Increased Negative Feelings and Emotional Strain***

This theme reflected participants experiences of their pets exacerbating some of their mental health difficulties at times. Most notably, pets caused emotional strain, and increased negative feelings about themselves and their ability as a pet owner. This is consistent with previous research where people with diagnosed borderline personality disorder reported negative feelings from pet ownership including guilt, worry, and fear (Hayden-Evans et al., 2018):

Whenever she has been ill, I worry I'm doing something wrong and she would be better off without me.

I worry that I stress her out and make her unhappy. I worry that because she's so empathetic, my mental health issues impact her happiness and welfare especially raising her stress levels.

The last quote above is noteworthy because research supports the idea that some pets can pick up on human emotional cues and may display synchronized emotional states, such as stress (Sundman et al., 2019). Furthermore, a commonly used word across participants was “guilt.” People experienced feelings of guilt over their pets for a variety of reasons, the most common being not providing adequate care. Research has shown the role of maladaptive guilt in mental health difficulties (Kim et al., 2011):

I feel guilty because I have to work and they are home alone. Particularly with some of their issues [dogs] (thunderstorm phobia, epilepsy). It makes me wonder if I'm being selfish to have pets, as it's putting my interest ahead of theirs.

If they're sick [cats] and they need vet treatment and they're howling and crying I can't help but feel guilty.

Bereavement is inevitable given the shorter life span of pets, and this was of significant concern for most participants and in some cases, worsened mental health conditions:

A distressing illness and death of one of my dogs caused a long bout of depression and coincided with the start of my marriage breakdown.

[dog] being likely to die of HCM in the next few months is very hard for me and I know my friends and family are convinced when he dies it will precipitate another suicide attempt.

The mere thought of not having them makes me well up and I worry a lot about how my husband will react to losing them because he suffers from quite severe depression and I don't think he will cope well when they die.

Research has shown that bereavement of a pet can be just as severe as bereavement for another human, experiencing the same symptomology and can be equally long-lasting (Lee, 2020). Pet bereavement can have a negative impact on both personal and work life, and those who only display a strong bond to their pet may find pet loss particularly mentally distressing (Cowles, 2016).

## General Discussion

An increasing number of research articles refer to pets as “therapeutic agents” (e.g., Krause-Parello et al., 2019), and sensationalist media articles give the impression that pets are a “magical cure” for mental health (e.g., Robinson, 2020). However, such claims tend to be greatly exaggerated and do not consider the complexities of the role of pets in both helping and hindering people’s mental health and wellbeing. This qualitative study incorporated both positive and negative experiences with pet ownership; it explored a variety of roles that pets may play in improving human mental health and wellbeing, as well as also looking at the potential adverse impacts that pets may have on symptomology, through people’s personal experiences. This study yielded several important findings.

First and foremost, most participants agreed that pets do not “fix” or “cure” mental health difficulties. Instead, pets can play a noteworthy role in reducing and/or preventing worsening of symptoms and improving enjoyment of life despite having symptoms. According to the Constitution of the World Health Organization (1948), health is a “state of complete physical, mental, and social wellbeing and is not merely the absence of illness or infirmity.” In a positive psychology view, there is a place for enjoyment in mental health, and it has been argued that wellbeing should have a central place in recovery (Slade, 2010). Pets should therefore be viewed not as “treatments” for mental health, but that for *some* people, they can positively increase a sense of wellbeing, helping people manage their symptoms, and live a happy and healthy life. For some, pets may help to reduce symptoms such as the lowering of physiological arousal thus potentially preventing panic attacks, and for some, they may help prevent relapse and increase motivation and confidence to either engage in self-help, or to seek external support from health professionals.

In line with previous studies (e.g., Brooks et al., 2018; Gee et al., 2017), a reduction in symptoms of anxiety, stress, and depression was the most reported benefits of pet ownership, facilitated through physical touch (such as petting), and feelings of pets being attentive to human emotions; these were central mechanisms to reducing mental distress. Previous research lends support to the physiological impact of physical touch with animals (Pendry & Vandagriff, 2019), and pet animals, particularly dogs, being sensitive and responsive to human emotions (Custance & Mayer, 2012; Müller et al., 2015; Sundman et al., 2019). Depression and anxiety commonly co-occur, and key psychological mechanisms that have been proven to be beneficial for reducing symptoms are increased mindfulness (being in the present moment), distraction (or attention modification) from worries and unhealthy thinking patterns, and reduced rumination (repetitive unhealthy thoughts), all of which were reported by participants in the current study to be a positive consequence of pet ownership. These have been proven to be helpful for mental health

by a large body of research (e.g., Arditte Hall et al., 2019; Cooney et al., 2010). These mechanisms, along with reduced physical sensations of anxiety and a sense of calmness, may also have helped to prevent the onset of panic attacks for some participants in our study.

Our research adds to current knowledge through highlighting that for some, having a pet around may be helpful in reducing urges of self-harm, and prevented suicide attempts. Though there may be many pathways to self-harm (McAllister, 2003), it is commonly accepted that negative emotions play a large role (Fliege et al., 2009). In our study, pets were reported to improve hedonic tone through the mechanisms of comic relief and a sense of mutual happiness and support. Reducing negative feelings through these pathways may explain why for some participants, pet ownership played a protective role in self-harm and suicidality. A further mechanism for the prevention of risk behaviors was evidenced by participants' reports that pets gave life meaning, providing "a reason to live," which along with worrying about pet's needs, appeared to have helped to prevent suicide attempts for some participants. Pets preventing suicide was previously highlighted in interviews with elderly participants (Young et al., 2020), although this was not the original intention of the research. Key mechanisms in Young's study were pets providing support via presence and feeling that another knows you, as well as a feeling of reciprocal and mutual benefit of the relationship. In line with this, it appears that it is not the presence of a pet alone that was important for the participants in our study, but the sense of being mutually dependent on each other and the perception of reciprocating support when experiencing distress. Our findings, along with Young et al. (2020), support the need for research to examine the role of pets in suicidal thoughts and behaviors. It is important to acknowledge the complexities that exist; pets may not simply prevent suicide. For example, in "homicide-suicides" cases, a pet is killed or harmed in "extended suicides" where human-pet attachment is high (see Cooke, 2013).

Congruent with previous research, and we are largely referring to dog ownership here, a key finding is that pets provided company to those living alone, and acted as social catalysts, facilitating human-human connections. Pets therefore both directly and indirectly reduced feelings of loneliness and social isolation, important for mental and physical wellbeing (Mushtaq et al., 2014). However, our findings, along with its predecessors, rely on qualitative findings, and there is a lack of evidence of a direct impact of pets on reduced loneliness (see Gilbey & Tani, 2020). Do pets prevent loneliness? Or do lonely people acquire pets? Pet dogs were important conduits for both incidental social interactions, such as initiating conversations with passers-by when out on a dog walk, as well as friendship building over time, consistent with previous findings (see Wood et al., 2005). Pets were viewed as a "safe topic" of conversation, especially for those who described themselves as being socially anxious; people felt able to practice their communication skills and build their confidence in social encounters through conversing with other pet owners. Furthermore, pets appeared to be important components of people's identities, which seemed to help build and strengthen connections with other "pet people". This may refer to theories of social identity, as this concept has been associated with wellbeing in a range of studies (e.g., Jackson et al., 2009). However, it is important to note that these social networks may no longer be available, and the sense of identity of being a "pet person" may be lost once a pet has passed away, potentially

increasing feelings of isolation and exacerbating symptoms, a potential avenue for future research.

Previous studies into pets and mental health have been critiqued for having methodological issues (see Friedmann & Gee, 2019), and for being biased, with a tendency to focus on positive outcomes (see Obradović et al., 2020). A benefit of the current study is the exploration of the potential adverse impacts of having pets for mental health, which yielded important findings. The first, and perhaps most obvious adverse impact, is the impact of pet loss and bereavement. Several participants reported that their pets were the only reason that they got up in the morning, and several had concerns over what would happen to their mental health if they no longer had their pet, with some participants mentioning potential future suicide attempts as a result. These findings further highlight the importance of providing adequate pet bereavement support, given the associated trauma, grief, and risk to mental wellbeing (Cowles, 2016; Lee, 2020). Another noteworthy finding is that for some participants, pet ownership appeared to induce negative feelings, particularly feelings of guilt, which were reported to exacerbate mental health difficulties, as supported by psychological literature (Kim et al., 2011). These findings build upon other adverse impacts of pet ownership on mental health (see Brooks et al., 2018), and show that even when an animal interaction is regarded positively, pets may worsen symptoms for some, which is an important future avenue for research. Based on these results, it would be recommended to include the role of pets in clinical practice assessments to understand potential current and future mental health risk factors related to pet ownership.

While this study aimed to be inclusive to all pets, the data presented here were mostly representative of dogs and cats. Although this makes sense given that these are the most common pet types, and there is evidence that people choose to talk about these pets more than others (Hui Gan et al., 2020), this study did not capture the impact of a wider range of pets on mental health. It is important to consider potential individual differences in the ability of different animals to be responsive to human emotions, and the level of support they may be perceived to provide; perhaps some pets (e.g., dogs) may provide more benefits than others (e.g., fish). In the current study, dogs were most often reported to bring about benefits for mental health and wellbeing. This may be due to the types of interactions available and the emotional bond that people form with dogs, that may be different to other pet types (Green et al., 2018; Muldoon et al., 2019), although further research should investigate if this is the case. For example, in a previous study, dog owners were found to score higher on happiness compared with cat owners who scored higher on negative emotions (Bao & Schreer, 2016). In future studies, it may be beneficial to exclusively focus on other pets to explore whether a wider variety of animals can also reduce symptomology. It is also important for future research to consider the length of ownership, as this may be an important factor in the development of the human–pet bond, and therefore may influence the degree to which a given pet has an impact on mental health over time via this route. The age of the pet may also be important as certain mutual activities, such as dog walking, may be easier with younger dogs than they would with elderly ones.

A strength of the current study is the large sample size and diversity of the population sample, comprising participants with and without mental health diagnoses. This study

highlighted high rates of difficulties with mental health, low levels of help-seeking, and provided new qualitative insight into the complex roles of pets in coping with, and reducing, mental health symptoms, and potential roles in helping to prevent relapse. The data are mostly representative of females as few males and other genders participated. However, in line with current findings, previous research had found that men identified their pets as being protective of their mental health (Young et al., 2020). The study sample was mostly limited to European countries and few participants were aged between 18 and 24 years or older than 55 years. Future research should develop strategies to target these harder to reach populations.

## Conclusion

The present qualitative study explored people's experiences about the role of pets in reducing or exacerbating mental health symptomology and wellbeing, highlighting several important findings. The beneficial roles of pet animals for mental health that were reported included: increased hedonic tone; increased motivation and behavioral activation; reduced anxiety symptoms and panic attacks; increased social connections and reduced loneliness; reducing risk behaviors; and coping and aiding the recovery process. Negative consequences of pet ownership for mental health included increased negative feelings and emotional strain. Both direct mechanisms (e.g., lowering physiological anxiety through physical touch) and indirect mechanisms (e.g., elevating mood through humor, increasing mindfulness and preventing rumination) were identified as possible influential factors. Although this study contributes novel and valuable qualitative findings into pets and mental health, conclusions are tentative, and the data cannot establish causality.

Recommendations for practitioners include encouragement to consider the important, and sometimes, critical role of pet animals within people's lives and the impact these may be having on their mental health and wellbeing. When evaluating the effectiveness of mental health interventions, it is advised to take into account whether a person is a pet owner, given the potential impact on reducing or worsening symptomology or incorporating them into self-care practices: pets can hinder as well as help mental health. The benefits and adverse impacts of pet ownership should be carefully considered and weighed up before decisions are made around pet acquisition. We recommend that pets are not prescribed for mental health due to the lack of conclusive evidence and the potential adverse impacts. This is important because some participants mentioned that their mental health professional encouraged them to become a pet owner to help them with their mental distress. The results from this study support the importance of a process to develop, and assess, treatment protocols for individuals with ill mental health that incorporate pets where it may be deemed beneficial. Such protocols would need to be fully assessed in clinical trials to properly assess and quantify the potential benefits and adverse impacts of pets for mental health.

## Disclosure Statement

No potential conflict of interest was reported by the authors.

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