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Dogs as a gateway to the good life: using thematic analysis to explore the mechanisms underpinning dog ownership and human well-being

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ABSTRACT

Some research has shown that spending time with dogs improves human well-being. However, findings regarding the impact of dogs on human well-being and the underpinning explanatory mechanisms have been inconsistent. There is potential to support existing theoretical mechanisms, modify existing ideas, and discover new ones by using participant's own descriptions and beliefs regarding their relationships with their dogs. This study utilises a thematic analysis to examine semi-structured interviews of eight undergraduate students who had experienced dog ownership. Five themes were identified that suggest routes to well-being via dog ownership: the benefits of the care routine, the mood boosting effect of dogs, the facilitation of human-human bonds, the provision of unconditional love, and that any negative experiences are ultimately worth it. This study provides a valuable insight into how dog owners make sense of their relationship with their dogs, via everyday realities, contextualising this through the lens of human well-being.


KEYWORDS

Dog-ownership; dogs; good life; happiness; well-being

Introduction

There is a historical relationship between dogs and humans that is well documented across different cultures (Rodriguez, Herzog, and Gee 2021; Walsh 2009). The human-dog relationship is often described in terms relating to protection, work, care, stewardship, and health (Amiot and Bastian 2014; Walsh 2009). There is a common-sense notion that pet ownership is a strong contributor to human well-being and this can be seen reflected in Western culture, e.g. adverts for pet insurance, 'insure your happiness' (ManyPets, n.d.). Importantly, there is considerable evidence to support the idea that animals have a positive impact on humans with regard to broad health and physical well-being measures (see Amiot & Bastian, 2014 or Wells 2019, for a review). However, when considering dogs and human well-being specifically, findings are mixed (Barcelos et al. 2021, 2023; Gee et al. 2021; Herzog 2011; Mueller et al. 2021).

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Dogs and human well-being – an unclear relationship

There are a number of reviews that examine the animal-human relationship and its association with human well-being (see Amiot & Bastian, 2014; Beetz et al. 2012; Gee and Mueller 2019; Herzog 2011; Wells 2019). Relationships with dogs (via ownership or regular contact) do seem to have positive impacts on humans (Gee et al. 2021; Gravrok et al. 2020); for example, Bao and Schreer (2016) found that dog-owners have higher well-being, measured via life satisfaction, happiness, and positive and negative emotions, compared to cat-owners and those who do not have pets; dog companions have reduced the symptoms of PTSD, and broadly improved happiness and loneliness in their owners (Olmert 2021; Tanaka et al. 2019). However, there are contradictory findings (Barcelos et al. 2021). For example, particular groups have been found to have a reduced likelihood of depression associated with dog-ownership (e.g. people living with AIDS (Siegel et al. 1999)) while others had an increased risk (e.g. those highly attached to their dogs, those who are unemployed (Gee et al. 2021; Mueller et al. 2021)). Dog ownership has also been associated with negative emotions, such as distress, anxiety, and helplessness, and has been described as being detrimental to well-being by owners (Furtado et al. 2023).

Studies that examine the impact of dogs as somewhat temporary well-being interventions (i.e. canine-assisted interventions, CAIs, a form of animal-assisted intervention that utilises temporary or short-term interactions with dogs as part of a complementary or holistic approach to care and support) have also found mixed findings. Evaluations of CAIs used with university students have found that a trained therapy dog regularly visiting a student counselling centre at key times of stress during the semester provided comfort and reduced student stress (Daltry and Mehr 2015); weekly group interaction with dogs led to decreased student homesickness and improved satisfaction with life (Binfet and Passmore 2016); interacting with a therapy dog before an exam reduced short-term, but not long-term, stress (Trammell 2017). However, for older adults in care, while lower levels of depression have been reported in response to such interventions, it is not a consistent finding, with some studies finding no effect (Wells 2019).

There are a number of explanations for what appear to be contradictory findings. One is publication bias towards positive, significant effects and a relative lack of inquiry into negative effects (Barcelos et al. 2023; Furtado et al. 2023; Herzog 2011). Another is a lack of nuance in the field with regard to variations in dog ownership. For example, simply comparing dog-owners to non-dog owners fails to account for individual differences in owner interactions with dogs, such as dog walking (Barcelos et al. 2020; Westgarth et al. 2017). Walking dogs is associated with stress relief and improved mood, but not all dog-owners walk their dogs (Barcelos et al. 2020; Westgarth et al. 2017).

There are numerous moderators, mediators, and confounding variables that have not been accounted for (Bao and Schreer 2016; Mueller et al. 2021). For example, the impact on well-being is likely to be mediated by owners personality (Bao and Schreer 2016) or be moderated by physical activity with the dog, which in turn is confounded by dog breed (Mueller et al. 2021). Methodology and design also come into play, and studies tend to use self-report measures, which may introduce individual or sample bias, self-selected samples (i.e. people who like dogs are likely to volunteer for intervention studies, people who own dogs may already have higher well-being), and cross-sectional designs that fail to take into account the passage of time (Gravrok et al. 2020; Herzog 2011; Rodriguez, Herzog, and Gee 2021). CAIs will use ‘good’ dogs, i.e. those who are well trained and therefore well behaved (Beetz et al. 2012). This, in combination with their focus on brief interactions with dogs, is likely to skew findings, as they do not account for the responsibility and cost of dog ownership. Finally, a wide variety of outcome measures, such as physical responses (e.g. blood pressure), clinical measures such as anxiety or depression, stress, social contact/interaction, loneliness, but also life satisfaction, happiness, emotions, etc., are used to study the effects of dogs on humans. The conflation of these varied outcome measures to represent ‘well-being’ may also cause inconsistent findings.

It may be best then to represent the impact of dogs on well-being as complicated, rather than mixed or inconsistent. This complexity may mask potential underpinning mechanisms that explain how dogs impact human well-being.

Potential mechanisms

There are a number of theories that seek to explain the link between human–dog interaction and human well-being. Biophilia is the idea that humans are naturally drawn towards animals, but while it is often mentioned as potentially underpinning the human–dog relationship it does not adequately explain the various positive or negative impacts and there is little in terms of direct, empirical support (Barcelos et al. 2023; Gravrok et al. 2020; Wells 2019).

The companionship/social support mechanism represents the idea that dogs provide companionship and most evidence for this mechanism comes from studies investigating dog-ownership (Barcelos et al. 2023; Wells 2019). For example, the Comfort Dog Programme of Northern Uganda provides participants with a ‘comfort dog’ (local dogs who have been donated or rescued), instruction in basic dog training and bonding, and group counselling (Olmert 2021). The soothing effects of holding and stroking dogs, and the unconditional love from the dogs reported by the participants, have been suggested as possible explanations for the subsequent reduction in participants’ PTSD symptoms and improved well-being (Olmert 2021).

However, Trammell (2017) reported no difference in self-reported stress when comparing groups of students who watched a film about dogs before an exam or spent time with a real dog, suggesting that physical closeness, or bonding, with dogs may not explain the apparent well-being benefits to students in CAI contexts.

Some evidence suggests that dogs impact human well-being by being a catalyst of human interaction (Barcelos et al. 2023; Beetz et al. 2012; Wells 2019). In other words, dogs facilitate interaction and relationships between people, which affects well-being. For example, in an evaluation of CAI sessions (Binfet and Passmore 2016) identified that the dogs were a social lubricant, helping student participants to interact with each other, leading to feelings of familiarity, reminders of home, and a sense of community. The ability to bring humans together may depend on the characteristics of the dog though; some dogs are judged more positively than others, the noisy or aggressive behaviour of some dogs may cause people to avoid each other (Barcelos et al. 2023; Wells 2019).

Research tends to be focused on these aforementioned, broad mechanisms, and they have been found to not fully explain the impact dogs on human well-being (Gravrok et al. 2020). More specific, biological (e.g. oxytocin (Beetz et al. 2012), exercise (Wells 2019)), psychological (e.g. attachment (Gravrok et al. 2020)), and psychosocial (e.g. emotional contagion, social norms, routine (Barcelos et al. 2023)) mechanisms have been suggested. A dynamic bio-psycho-social model explains the mixed findings in the field by accounting for immediate and delayed responses in outcomes (Gee et al. 2021). ‘Thriving through relationships’ builds on the social support model, which accounts for the impact of the relationship changing over time, across different life circumstances, and improves on other explanatory mechanisms by utilising a clearly defined well-being outcome, thriving (Gravrok et al. 2020). Supporting evidence for these more specific mechanisms has varied, or is lacking (Barcelos et al. 2023; Gravrok et al. 2020; Wells 2019). As such, there is potential for a qualitative approach, providing an in-depth examination of the experience of the human–dog relationship, to provide further insights into mechanisms that could be investigated further.

Contextualising well-being in the field and the current study

Compared to studies that consider the impact of dogs on well-being on adversity and distress, there are far fewer that utilise ‘the perspective of normalcy’ or approach well-being from a positive perspective (Gee et al. 2021; Gravrok et al. 2020). For example, in a review of human-animal interaction (HAI) studies, only 18 of 49 studies using an adult sample used adults who were not diagnosed with psychiatric or mental health conditions, in long-term care, or in a wheelchair (Beetz et al. 2012).

The field of positive psychology sought to define well-being, with an aim to more consistently measure it and study it empirically (Seligman and Csikszentmihalyi 2000) leading to the development of several conceptualisations, definitions, and measures. Many of these emulate a model of utilising positive and negative feelings in combination with a cognitive judgement that allows an individual to weigh up their life on their own terms, i.e. using the information that they see fit (e.g. subjective well-being (Diener, Sapyta, and Suh 1998), UK government national well-being programme (Randall, Corp, and Self 2014)). There is a school of thought that conceptually separates well-being into two ‘types’, eudaimonic and hedonic (Kashdan, Biswas-Diener, and King 2008). Broadly, and simply, eudaimonic well-being tends to be defined as concerning the experience of meaning and purpose in our lives, whereas hedonic well-being is widely accepted as representing pleasure and happiness (McMahan and Estes 2015). There is debate as to the extent to which these are fully separable (Kashdan, Biswas-Diener, and King 2008). For example, subjective well-being, which includes a cognitive assessment of one’s own life, tends to be considered a hedonic measure even though people are likely to be utilising eudaimonic ideas in their judgement (Lea and MacLeod 2018).

Using mixed-methods, Barcelos et al (2020, 2021) developed a framework to demonstrate whether dog owners felt particular dog-human related activities (DHRA, i.e. activities usually associated with, but not limited to, dog ownership) related positively or negatively to hedonic and eudaimonic well-being, and life satisfaction. Little difference was found between activities in terms of the two types of well-being: ‘dog presence’ (i.e. the dog simply being around physically or being thought about), ‘providing for the dog’ (i.e. grooming, feeding, and other aspects of dog care), and ‘tactile interaction’ (i.e. petting and close contact) all had positive impacts on both eudaimonic and hedonic well-being (Corrêa, Barcelos, and Mills 2021). Participants rarely related DHRA to their life satisfaction, despite being asked to. This is likely to reflect the fact that an assessment of life satisfaction involves a cognitive judgement that requires the weighing up of various domains (Lea and MacLeod 2018). As such, it is probably more difficult to align specific activities to general life satisfaction than to more straightforward concepts such as ‘positive feelings’.

An awareness that theoretical well-being concepts may not fully reflect life as it is experienced, and that lay-people do not make such distinctions (Lea and MacLeod 2018) is a useful lens when trying to understand dog owners’ experiences of their own well-being. This, and the lack of difference found between different activities and their impacts on hedonic and eudaimonic well-being (Corrêa, Barcelos, and Mills 2021), provides justification for not restrictively focussing on specific types of well-being when analysing participant responses in the present study. The current study uses a broad definition of well-being that reflects a multi-faceted concept comprising short- and long-term emotions and feelings, a positive outlook

regarding one's self and life, and meaning and purpose (Henderson and Knight 2012; Huppert and So 2013).

Context for the present study

Studies have yielded findings that are inconsistent or difficult to align, in terms of both the impact of dogs on human well-being and the underpinning mechanisms. There is potential to support existing theoretical mechanisms via dog owner's lived experiences, whilst also using owners' own descriptions and beliefs regarding their relationships with their dogs to modify existing theories and identify new ones. This study intends to add to existing research by examining the human–dog relationship as described by owners, actively creating themes that represent the routes by which relationships with dogs are perceived, by the human participants, to influence their own well-being.

Method

Participants

The sample consisted of eight people, six females and two males. Participants who had experienced dog ownership, through current, or previous, ownership as an individual, or jointly as a part of a family, were recruited at a university in the South East of England. Participants' ages were not recorded, all were over the age of 18, and were undergraduates on Psychology courses. Participants were rewarded with 'research points' for taking part, a reward system designed as a formative assessment to encourage taking part in research that did not have any impact on course credits.

Data collection procedure

Individual, semi-structured interviews were used to enable participants to talk openly about their experience of dog ownership and their relationship with their dog. The interview schedule consisted of a bank of questions, developed following engagement with existing literature (e.g. Westgarth et al. 2017), that aimed to explore the thoughts and feelings of participants regarding their companion dogs. The full interview schedule is provided in the appendix, example questions included 'how does greeting your dog make you feel?', 'what aspect of the relationship with your dog do you most enjoy?', 'does your dog ever effect how you relax?', and 'can you describe the relationship between you and your dog?'. The interview schedule was not piloted, but the flexible, semi-structured schedule meant the number of questions, and the specific questions asked, varied according to the responsiveness of the participant. Questions were sometimes asked in a different order, with different phrasing.

Additional prompts were also utilised to illicit further detail. On average, the interviews lasted 20 min (ranging from 5 to 25 minutes). One 5-min interview was an outlier, with the rest being much nearer 20 min, but was included because the participant still provided some meaningful responses.

Every interview was conducted in a private space. Each interview was conducted, audio-recorded, and transcribed verbatim by the second author. Informed consent was obtained. To address issues of confidentiality and anonymity, the names of people, the names, sex, and breeds of dogs, and places have been redacted or pseudonymised.

Analytical steps

Thematic analysis (TA) is an umbrella term for qualitative approaches that analyse data via the systematic identification and labelling of information that is meaningful to the research question (i.e. coding), and ‘sense-making’ of the codes by the researcher’s identification, description, and interpretation of apparent patterns of meaning (i.e. themes) from the codes (Braun and Clarke 2006; Willig 2013). The method used in this study was a reflexive thematic analysis, underpinned by a realist approach which aims to report the experience and reality of the participants (Braun and Clarke 2021). Codes and themes are ‘grounded in’ the data as much as possible, ideas from previous research were not actively looked for initially. Although the further interpretation of the themes was informed by existing research and theory, effort was also made to ensure interpretations remained true to the participants words (Braun and Clarke 2021).

Braun and Clarke’s six-step process of conducting thematic analysis was followed (Braun and Clarke 2006, 2021). Once the researcher had familiarised themselves with the text through transcription and reading each interview multiple times, initial codes were generated for each transcript. Coding was systematic and cyclical, each transcript was coded multiple times and codes were cross-referenced across all transcripts. Codes were then grouped into potential, initial themes which were given representative and descriptive names, before being reviewed multiple times via an iterative ‘refining, defining, and naming’ process to establish a ‘best fit’ (Braun and Clarke 2021, 331). Software was not used to manage the analytical process.

Reflexivity

Reflexivity is a key aspect of qualitative work, requiring the researcher(s) to consider their role in the research process, in terms of the design, data collection, and analysis (Willig 2013). The researchers acknowledge that before conducting the study they held a strong conviction that pet dogs were beneficial for their owners’ well-being. Given ‘common-sense’ notions and

cultural beliefs (Herzog 2011) it is likely that the participants felt the same way, and this is reflected in their responses. The second author, who conducted the interviews, would be considered an ‘insider researcher’ meaning that, as a dog owner, they are a member of the group being studied (Greene 2014). According to Greene (2014), insider research enables researchers to develop a more authentic and accurate account of the group, being less likely to stereotype and more likely to have an effective understanding of the practicalities of the phenomena. Insider research is commonly criticised for being biased and too subjective, however Saidin (2016) argues that this may be an important source of insight, rather than a challenge to overcome. This point seems particularly valid given that the aim of the study was to identify not whether dogs improve their owner’s well-being, but potential mechanisms of how. As such, a starting point of being able to discuss the phenomenon as ‘real’ was key.

Ethical approval

This study was approved by the School of Humanities and Social Science Ethics Committee, project ID 11 829.

Analysis

For our participants the impact of dog ownership, or taking care of dogs, on their well-being is clear and explicit. Five key themes were created from the data: *the benefits of the care routine; dogs boost moods; the provision of unconditional love; facilitating human–human bonds and stressful, but worth it*. These themes seek to demonstrate how spending time with, and having a relationship with dogs, is perceived by the owners to have an impact on various aspects of well-being.

The benefits of the care routine

The routines involved in caring for a dog, for example, a daily morning walk, may be an integral aspect of the human–dog relationship that helps dog owners experience positive feelings. Multiple participants explained that their dogs had helped them to build and maintain a routine, especially for the mornings, and this seemed to inform their well-being in a variety of ways. P4 expressed that:

There’s some days where I don’t wanna have to walk [the dog], but I feel like because I do have to then it becomes something I enjoy.

When describing how owning a dog had affected his physical well-being, P5 replied:

... without a dog I wouldn't ever go outside to take [them] for a walk, you know, it really gives you that sort of fresh air, you know, like some days, some mornings you'll wake up and it's 'I can't be arsed to walk it' but you do it, you know, and you feel better afterwards.

Not only are aspects of the routine considered to be sources of positive feelings, but several participants described that they felt that the routine of caring for their dog was an important aspect of motivation and purpose for them. For example, P2 suggested that '*you have like a reason to get up . . . you have responsibilities that drive you*', and P4 stated that '*I feel like it's just nice having someone . . . and sort of like a reason to sort of get up in the morning*'. When attempting to understand the individual experience of meaning in life via photo-elicitation interviews, Steger et al. (2013) identified pets as one of the main sources of meaning in life. The routine aspects of caring for a dog, and the routine it then imposes on the human caregiver, therefore provides sources of positive feelings and broader ideas of meaning and purpose. However, evidence from other work does not necessarily support this; the regimen of pet care has been found to have a negative impact on owners' feelings of control over their own life (Barcelos et al. 2023).

Another aspect of the routine of care is the consistency that this provides at a broad level when people consider their lives as a whole. One participant described their dogs as a necessary part of their life, a '*tradition*' (P2). This is further evidenced by P8 who felt that her dog provided her with a sense of consistency throughout major life changes:

We got [the dog] when I was [age redacted] and at secondary school. Now I'm [age redacted] at uni, so first I was at school then college and uni, so my routine is constantly changing but one thing that has stayed so persistent is that you know, I always go for a walk. . . I'm always out walking [the dog]

Having some consistency through difficult transitions is likely to be beneficial because it provides something to rely on while adjusting to new circumstances; routines involved with dog ownership may provide owners with a coping mechanism.

The routine of care, including feeding and walking, is put in place for the dogs' benefit as part of being a 'good' owner. There was a perception, on the part of the owners, that aspects of this improved the dogs' positive emotions:

I do like walking the dogs. It does make me feel better like because I know that they enjoy it as well because I like . . . like to see them all running around and happy (P1)

making sure [the dog is] well-fed and stuff like that can bring like a satisfaction because [they] feel happy. (P6)

While it is likely there is a human perception of happiness that is being projected onto the dog due to anthropomorphism (Bastian 2016; Buckland et al. 2014; Walsh 2009), evidence does suggest that dogs

experience and recognise basic emotions and affective states (Albuquerque et al. 2016; Bastian 2016; Kujala 2017; Somppi et al. 2022; Walsh 2009). The full range of dogs' emotions is unclear, nevertheless owners believe their pets express a wide range of emotions (Kujala 2017; Pickersgill, Mills, and Guo 2023; Somppi et al. 2022). Many dog-owners interpret their dog's emotions from behaviours, such as tail wagging and general demeanour (McGowan et al. 2014; Somppi et al. 2022) and some agreement has been found regarding behaviours and the emotions they indicate (Buckland et al. 2014). If we assume that the participants are accurate readers of their dog's feelings, then this suggests that both parties benefit from the routine. The routine put in place for the dog's benefit facilitates the broad well-being of both the dog and the owner.

Dogs boost moods

Dogs were described, directly and indirectly, as the source of positive moods. This idea goes hand in hand with the human perception that dogs experience positive emotions. This was evident in the general idea that dogs were, by their very nature, happy beings, e.g.: *'they're like the happiest things on earth'* (P2). This happiness was, in turn, felt by the owner, exemplified by Participant 7 who said their dog *'always brings a smile to my face'* (P7).

Some reciprocity, or perceived reciprocity, is especially suggested during greetings, i.e. coming home to the dog after an absence. For example: *'as soon as you see your dog, your dog would be happy to see you'* (P5). This sentiment is echoed by P4, who described how she feels when greeting her dog:

Happy, because [the dog is] so excited to see me all the time . . . when I come home . . . and [the dog is] just excited to see me, and I'm just like aww and I feel a bit better.

However, it is important to bear in mind that what is being interpreted by the participant as a positive emotion in the dog may reflect a behavioural response to separation anxiety or mixed emotions (Buckland et al. 2014). The idea is that the dog brings positive feelings into the participants' lives, and the owners also feel that they bring happiness to their dog. P8 expressed that *'seeing [the dog] happy, it . . . always makes me happy'*. These instances seemed to be in relation to the dog simply being present, i.e., greeting after being away, or just being in the same room. P6 discussed how petting his dog made him feel:

It's soothing, it's kind of calming, and just . . . things feel less stressful when you, I feel less stressed in the moment. I feel like I'm a lot more in the moment, I don't have to worry about the outside kind of worries or stress that I have.

Multiple participants also described how their dogs helped them to relax, for example, *'just be in the moment and sit with the dog and just, I guess forget, forget about all the stresses'* (P6). This phenomenon could be related theories of social and emotional contagion (Cacioppo, Fowler, and Christakis 2009; Fowler and Christakis 2009; Hatfield, Cacioppo, and Rapson 1993). While there is some support for emotional contagion between dogs and humans, it is mainly evidenced in the human to dog direction, rather than the other way round (Grigg et al. 2022; Katayama et al. 2019; Van Bourg, Patterson, and Wynne 2020). As such, emotional contagion may not account for what our participants are describing, especially as the mood of the dog, e.g. happiness, may be assumed.

It should be noted that the described 'mood boost' effect was not only evident in response to the simple presence of a dog. Activities and experiences with dogs were explicitly described as having a positive impact on well-being, most specifically walking the dog was articulated as an activity that had a positive emotional effect. P1 described what they experienced when walking their dogs:

It does make me feel better like because I know that [the dogs] enjoy it as well because I like ... like to see them all running around and happy so yeah it does improve my mood.

P8 stated that she finds walking her dog *'quite therapeutic'*, and that if she is *'stressed or in a bad mood or whatever, like my default is always take off for a walk and it always helps'*. It seems that walking their dogs simply made the owners feel good, a finding that has been consistently found in other work (e.g. Campbell et al. 2016; Westgarth et al. 2017). In these cases, this could be explained by the well-documented effect of exercise on well-being and mental health outcomes (Saxena et al. 2005; Scully et al. 1998). There is also the possibility that time spent outdoors, in nature, is beneficial for well-being (Berman, Jonides, and Kaplan 2008; Keniger et al. 2013; Meidenbauer et al. 2020). However, our participants did not make references to enjoying, or noticing, the natural world. Indeed, they may have conducted their dog walks in mainly urban areas, or a variety of settings. Interestingly, one participant explained that *'when you go out for a walk, you don't really have to think'* (P5), which may suggest a meditative, mind-clearing aspect (Shapiro et al. 2008).

While the positive effects of walking with companion dogs could be explained in a number of ways, they do not account for the effect of the bond with the dog and the positive effect of their very presence. This issue is exemplified by P8 who said: *'now that I have had a dog ... I can't go out for a walk and enjoy it fully without having [the dog] there'*. The act of walking potentially loses some of its positive power if the dog is not around.

Provision of unconditional love

Participants referred to their dog as a ‘*companion*’ (P3), a ‘*best mate*’ (P5). P7 described her dog as ‘*a little ball of energy that just wants to be in your business all the time ... stick by you and be a part of your life*’. Companionship has been persistently described as being part of the dog–owner relationship (Adams 2018; Kurdek 2009; Wells 2009). It is an oft-cited and well-supported potential mechanism for the positive impact on human well-being (Barcelos et al. 2023; Wells 2019). However, our participants seemed to describe something more than companionship. Four of the participants (P2, P6, P7, P8) directly referred to their dog as a ‘*part of the family*’, indicating both the significance of the bond and the tendency for it to be characterised in this manner. More specifically, P2 compared her dog to a ‘*sibling*’ and P8 compared the human–canine relationship to a mother-and-baby bond:

[the dog] is like my little human baby ... it’s weird how much you connect with an animal and how much you understand each other and ... [the dog has] learned to communicate with us,[the dog] knows how to tell us what [they] want, and you know, sometimes you gotta remember, like, hang on, you are an animal. (P8)

Our participants described feeling lonely and incomplete without their dogs, such as P1’s statement:

If I am at uni, I do miss them and I do feel different. It feels like you’re alone more of the time. When you’ve got a dog in the room it feels like you’re not so alone

Studies conducted during the COVID-19 pandemic yielded conflicting findings regarding the impact of dog ownership on well-being and loneliness (e.g. Clements et al. 2021; Mueller et al. 2021; Ratschen et al. 2020). However, human – human social support has been found to be necessary for positive well-being (McConnell et al. 2011; Sheldon and Hoon 2007; Siedlecki et al. 2014). For our participants, human–dog support seems similarly vital. P5 stated:

I feel like when you sit down on the sofa with a beer, [the dog] comes and joins you. [The dog’s] nice and happy, it makes you, it makes you feel calm, you know, makes you nice and warm inside.

Dogs provide a calming and comforting presence. The emotional support they appear to provide may be due to their perceived acceptance, or unconditional love, that may not be provided by other people, as suggested by P6:

I feel like it’s quite good to have somebody there just to like, just as that like unconditional love towards you pretty much, and uh, I feel like that’s reciprocated back so yeah. I guess it’s quite nice to have that sort of feeling and warmth.

P5 discussed how his dog is supportive even when other people are unhappy with his actions:

You're in the doghouse for whatever reason, you know you've done something wrong . . . and your dog could come sit there and be, [the dog would] be happy as anything to see you, you know. It's never angry, you know. The dog isn't ever angry or upset with you, the dog's just always happy.

The unconditional love from dogs can also be considered through the lens of unconditional positive regard (UPR), a technique utilised by therapists to allow service users to freely express their thoughts and feelings without fear of judgement, thus helping to build self-esteem (Maurer and Daukantaitė 2020). P5 suggests that his dog creates a non-judgmental atmosphere, and many participants described their dogs as selfless, loving, and supportive. P8 stated that spending time with her dog felt '*therapeutic*' and P5 described the positive impact his dogs have had on his self-esteem:

I could be a miserable bastard sometimes, but like . . . seeing like what I've done for my dogs before, sort of thing it makes me feel like a better person.

Similarly, P8 discussed how her dog provided a comforting presence, in terms of feeling safe and secure:

Being a woman . . . you feel vulnerable going out at certain times, certain places, and I hated that. So, I wanted a dog that I could go out when I wanted to and not feel quite so vulnerable. So, I like that [the dog] takes my vulnerabilities away.

Overall, for our participants, the human–dog bond seems to go beyond social support and companionship. The relationship is characterised by substantial affection and love, perceived as unconditional, and support that fosters inner strengths that an individual may feel are lacking at times, such as self-esteem and courage.

Facilitating human–human bonds

Participants describing the impact their dogs have on their other relationships provided a prominent theme, particularly regarding ways in which relationships with other people had been affected and improved. Multiple participants explained how their dogs provided an easy topic of conversation:

It's hard not to talk about the dog because you're always around it . . . when you think about what you've done throughout the day . . . you're always thinking about the dog and you know it comes up quite a lot in conversation. (P6)

My friends always ask me how's my dog doing, whenever were not seeing each other, quite a lot, so, it's always a talking point. (P7)

Some participants also reported that their dogs ‘*can help you be more social and talk to people*’ (P3). P8 described how:

Walking [the dog] every day, you get used to walking past strangers and one thing I do more now that I never used to really, is like I’ll look up and smile and say hey. (P8)

Dogs acting as a ‘social lubricant’, in various ways, such as: leading owners to feel calmer and more relaxed, increasing rapport and conversations, with new people, is commonly cited as facilitating human well-being (Barcelos et al. 2023; Wells 2019). Additionally, for our participants, dogs were perceived to benefit and support pre-existing relationships, such as those within the family. P7 and her family bought their dog specifically for this purpose:

It was a family decision really. We wanted something to help us . . . we were going through a bit of a rough patch familywise, and we thought . . . let’s get a dog and see where this takes us.

The idea that dogs act as a social lubricant is not a new one (Amiot and Bastian 2014; Barcelos et al. 2021, 2023; Binfet and Passmore 2016; Corrêa, Barcelos, and Mills 2021; Wells 2009, 2019). This idea can now be considered in conjunction with the theme that supported the mood-boosting aspect of dogs. The increase in positive affect seemingly provided by the presence of a dog, activities such as playing and walking, or the non-judgmental affection and support, could affect everyone in contact with the dog. Increases in positive emotions, even temporarily, have been found to have an upward spiral effect and increase the social support received from others (Fredrickson 2013; Fredrickson, Cohn, and Coffey 2008). This possibility is articulated in the data by one participant explicitly stating that dogs ‘*bring people together*’ (P6). Overall, these factors help improve owners’ social bonds, in turn improving well-being (Keyes 1998; Siedlecki et al. 2014).

‘It’s stressful, but worth it’

Dogs were often described by participants as high maintenance and demanding due to the level of care they require. Participants considered this to be stressful, especially when considering specific circumstances like owning multiple dogs. For example, P3 described the thought of getting another dog as ‘*overwhelming*’. Dogs are a long-term responsibility, and specific phases of their lives, such as sickness and old age, can cause significant stress (Furtado et al. 2023). Spitznagel et al. (2017) describes ‘*caregiver burden*’, where owners caring for sick or elderly dogs experience limited psychosocial functioning, reduced quality of life, and increased depression and anxiety symptoms. This may also occur during puppyhood, due to issues with training, unwanted behaviours, and adjustments to the owners’ lifestyle (Furtado et al. 2023). P8

described how her dog was a ‘nightmare’ as a puppy, and how training them took ‘blood, sweat, and tears’. P4 echoed this idea, describing her puppy as ‘mental at the moment, so it’s quite stressful more than anything’. Owning a dog demands a certain level of commitment and effort from the owners, and while dogs provide many benefits to owners’ well-being, the responsibility associated with taking care of them can have negative implications, such as emotional upheaval and negative effects, especially if they are puppies, older dogs, or have challenging behaviours (Barcelos et al. 2023; Furtado et al. 2023).

Importantly though, while participants described their dogs as a source of stress, they typically thought of this as outweighed by the benefits of having a dog. P2 stated that ‘it’s an emotional rollercoaster at times but it’s worth it’, a sentiment reiterated by P7 stating ‘I do enjoy [taking care of the dog]. It’s a big responsibility; it is another living being that you’re taking care of, but you enjoy taking care of [them]’, and P5 suggests that there are ‘good things and bad things. You’ve got to kind of weigh them out’. In terms of well-being, this explicitly demonstrates the cognitive judgements that people make when thinking about their lives and the idea that positive aspects of life can be given more weight (Diener et al. 2002; Lea and MacLeod 2018; Sul, Kim, and Choi 2013). Participants typically implied this was because of finding joy and contentment in necessary tasks, even when it meant dealing with difficulties. P5 explicitly stated that he enjoyed taking care of his dogs, but that with his parent’s new dog ‘it’s more like work but that’s because [I have not] bonded with [them] that much’, implying that the stress caused by owning a dog, and the work involved is only accepted due to the close bond formed and the associated companionship.

Discussion

Dog owners place a lot of value in their relationships with, and experiences with, their dogs. For our participants, many aspects of being a dog owner, and the human–dog-relationship, are perceived as contributing directly and explicitly to human well-being. Our participants described joy, unconditional love, and affection. The experience may be stressful at times, but negative experiences were offset, and their human–dog relationship was not dominated by these moments. The themes created suggest that well-being, in its myriad aspects as a multi-faceted concept, is improved by the human–dog relationship via the mundane aspects of care, the therapeutic nature of a non-judgemental relationship and a connection where simply a dog being present has a positive impact on a human being. A connection which, in turn, facilitates human–human bonding. Dogs were best friends, members of the family, and even therapists.

The themes generated from our data do overlap with some previously hypothesised mechanisms. The ‘facilitating human–human bonds’ theme encapsulates aspects of the catalyst of human interaction mechanism, which is represented across the field under various terms, e.g.: social lubrication (Wells 2019), social catalyst/repellent (Barcelos et al. 2023), and social interaction (Beetz et al. 2012). Our findings therefore provide further support for these ideas that are grounded in the experience of dog-owners. We also make the novel suggestion of considering this mechanism in combination with another theme, the idea that dogs boost moods and increase positive affect.

Companionship (Wells 2019) and social support (Barcelos et al. 2023) are already relatively well-supported explanatory mechanisms. However, while they are broad and encompass many types of social support, they have not fully encompassed the idea of perceived ‘unconditional love’. Further, while the biological effects of oxytocin seem likely to underpin the social support mechanism, the perception of unconditional love cannot be explained in the same way (Beetz et al. 2012).

Research examining the impact of dogs on human well-being can be criticised for having a positive bias (Herzog 2011), a bias that is also demonstrated by our own ‘negative but worth it’ theme having a positive skew as a result of the participants description of their experiences and our interpretation. Nevertheless, the theme adds to the growing area of the field that makes space for the negative aspects of dog ownership (e.g. Barcelos et al. 2023; Furtado et al. 2023) and utilises a more nuanced conceptualisation of well-being.

Limitations

A clear limitation of the study, and much related research examining the human–dog relationship, is that it is clearly human-centred; our interviews are one-sided, coming through the lens of the owners only. Previous research has asserted that human–dog relationships are beneficial for the well-being of dogs, the most obvious example being when an otherwise abandoned dogs become cared for (Olmert 2021). Some of the themes created, and how they explain the positive impact of dog ownership, may suggest a reciprocal and enmeshed relationship. This aligns with the idea of ‘becoming with’ and ‘intra-acting’ (Maurstad, Davis, and Cowles 2013, 323), i.e. two beings meeting and changing as a result. For example, our participants suggest the routine of owning a dog has benefited both of them in terms of physical activity and well-being. This is also evident in other human-animal relationships; for beekeepers, working with bees changed their awareness of the weather and the environment (Bastian 2016). The question then is whether this

limitation can be addressed by obtaining well-being feedback from dogs who are 'owned'. This is clearly challenging when a shared language is lacking (Adams 2018).

Further steps then could utilise participatory research, in which dogs are at least part of the creation of data (Bastian 2016). Quantitative approaches may also be appropriate for providing ways to translate dog behaviours and physiology into something that can be interpreted meaningfully as representing their well-being. Future studies could utilise dog movements or physiological data, such as heart rate or cortisol, as a proxy (Amiot and Bastian 2014; Hodgetts and Lorimer 2015) or use our ability to interpret dog facial expressions (Bloom and Friedman 2013). Such work is especially important given that dogs may be capable of greater cognition and emotion than they are often given credit for (Bastian et al. 2016). The data and themes in the present study suggest that dog owners are keenly aware of the great cognitive and emotional capacity of their canine companions.

All participants were students, who received a reward for taking part, and most of them shared the responsibilities of dog ownership with their parents and other family members. As such, our participants may have experienced the benefits of owning a dog while not always having to deal with negative consequences. To this end, further work seeking to demonstrate additional support for the themes created in this study would need to include a variety of dog owners, including those with sole responsibility. Future studies should also aim for samples from different age groups, ethnicities, and economic classes. There should be an aim to recruit more male participants; the ratio of female to male participants in the present study is reflective of the same issue in the wider field (Barcelos et al. 2021). It is also possible that participants with positive experiences, who believe their dogs contribute to their well-being, are more likely to take part. Further studies should actively recruit participants who have negative experiences (e.g. (Furtado et al. 2023)).

In conclusion, the themes created provide evidence that dog-owners, or those who care for and bond with dogs, perceived positive impacts on their well-being. These may arise from routine, a perceived non-judgmental relationship characterised by unconditional love, or the simple presence of the animal, but they are nevertheless significant and profound to the individual human-being.

Disclosure statement

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

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Data availability statement

The participants of this study did not give written consent for their full interview transcripts to be shared publicly.

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