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RESEARCH ARTICLE

Expectations for dog ownership: Perceived physical, mental and psychosocial health consequences among prospective adopters

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Abstract

Dog ownership is popular worldwide, with most human-dog dyads forming successful attachment bonds. However, millions of dogs are surrendered to animal shelters annually, possibly due to mismatches between owner expectations and the realities of dog ownership. The aim of the current study was to explore the benefits and challenges people expect from dog ownership and how these expectations vary with previous ownership history. An Australian-wide sample of 3465 prospective adopters completed a self-administered online questionnaire about the physical, mental and psychosocial health benefits and challenges they associate with dog ownership. Among the potential benefits, respondents expected increased walking (89%), happiness (89%) and companionship (61%) and decreased stress (74%) and loneliness (61%). Among the challenges, they expected increased responsibility (64%) and dog training (62%). Ownership history influenced respondents’ expectations, with previous/current dog owners having consistently greater odds of expecting benefits and reduced odds of expecting challenges than non-owners. A possible explanation is that previous/current dog owners’ exhibit bias when considering dog ownership by selectively recalling positive experiences from previous ownership. Our findings support the need for education of prospective dog owners to ensure their expectations align with the reality of ownership, based on current scientific evidence.

Introduction

Dog ownership is common around the world with 39% of Australian, 50% of USA and 27% of UK households owning a dog [1]. The vast majority of owners report a high level of satisfaction with their dog [2]. Nevertheless, millions of companion animals are relinquished to
animal shelters each year [3]. In the USA, it is estimated that 3.3 million stray or surrendered
dogs (or 10.2 dogs/1000 residents) are admitted to animal shelters annually. A large proportion
of these dogs (20.3%) are euthanized [4]. Similar annual statistics are seen in Australia, with
9.3 dogs/1000 residents being admitted to welfare organisations and 43,900 dogs (20% of all
admissions) being euthanized [5].

Relinquishment to animal shelters has a negative effect on the health of both owner [6] and
dog [7]. Shelter environments are known to increase canine stress due to restrictions in space
and social isolation [8]. The surrender process also places a strain on the mental wellbeing of
some relinquishing owners, with many procrastinating and increasing their tolerance of dog-
related problems prior to relinquishment [6].

The surrender of an animal can occur for a variety of reasons including behavioural prob-
lems, owner ill-health, lack of time and unanticipated costs [2,9–13]. A disparity between
owner expectations and the reality of companion animal ownership is also known to influence
the risk of relinquishment [14]. For example, the presence of problematic behaviours is regu-
larly cited as a primary reason for relinquishment [10,11,15]. However, the ability of owners
to correctly identify canine behaviour is poor [16], despite most dog owners rating their
understanding of dog behaviour highly [17]. Therefore, relinquishment is likely to at least par-
tially reflect the owner’s perception that a behaviour is a problem, due to unmet expectations
[18] or a disparity between owner lifestyle and the needs of the dog, rather than simply canine
behavioural disorders.

The human-dog relationship is influenced by both canine and human characteristics [19],
with previous research suggesting owner factors can affect canine behaviour and affective state
[20]. Younger [21] or low socioeconomic status dog owners [22] have a greater risk of reporting
canine behavioural problems. Previous ownership experience also plays a role, with first-
time dog owners reporting a higher prevalence of problem behaviours such as fear, over-excit-
ability [23,24] and owner-directed aggression [23,25].

In successful human-dog dyads, dog ownership is often associated with physical, mental
and psychosocial health benefits, although the literature is incongruent. Most studies have
shown dog owners have greater levels of physical activity than non-owners [26–30]. Some
research suggests dog ownership is associated with improved cardiovascular functioning [31]
and lower risk of cardiovascular and all-cause mortality [32], whilst other studies show no
association between dog ownership and all-cause mortality [33,34]. It has been proposed that
dogs influence mental wellbeing by moderating the human physiological response to stress,
specifically via attenuation of the hypothalamic-pituitary-adrenal (HPA) axis and heart rate
response to stressors [35–37]. The ability of dogs to act as catalysts for social interactions is
also thought to benefit human psychosocial health [38].

Despite substantial interest in the influence of dog ownership on human health outcomes,
research investigating the expectations of prospective dog owners for benefits and challenges
of ownership is scarce. Early research suggests the primary expectation and reason for acquisi-
tion of a companion animal is for companionship [23,24,39]. A more recent pilot study of 7
prospective dog adopters found undesirable animal behaviour was the most commonly
expected challenge [40]. An additional study of 85 prospective dog adopters found owner fac-
tors such as relationship status and animal-care knowledge can explain some of the variation
seen in expectations for dog ownership [41].

The expectations of prospective owners are likely to play a significant role in their decision
to acquire a dog, and their overall satisfaction with the dog, thus influencing the likelihood of a
positive human-dog relationship. Consequently, the aims of this study were to use an Aus-
tralian-wide sample of prospective dog owners to a) explore expectations of the physical, mental

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and psychosocial health benefits and challenges from dog ownership and \( b \) investigate how these expectations differ with dog ownership history and current status.

**Methods**

An anonymous online survey was conducted from May 4\(^{th}\) to October 25\(^{th}\) 2016 among a cohort of potential dog owners. Participants were recruited through convenience sampling; potential prospective dog adopters who visited Pet Rescue’s website (www.petrescue.com.au), and clicked on ‘search for a dog’ were presented with a pop-up screen asking if they were willing to take part in an online survey. Pet Rescue is an Australia-wide animal welfare charity with an online directory of homeless pets and pet adoption organisations [42]. After providing informed consent, respondents over the age of 18 years were invited to complete the survey. Ethical approval was obtained from the Human Research Ethics Committee of the University of Sydney (2015/746).

Respondents were eligible to be included in the analyses if they completed at least 70% or more of the survey and reported a plausible age value (set to \(<\) 103 years, which was the age of the oldest participant in a large epidemiological New South Wales cohort study [43]. The 70% completion criterion was set to ensure the analytical sample was relatively consistent across outcomes.

**Questionnaire**

Data were retrieved from specific questions that formed part of a larger questionnaire. Questions relating to the current analysis explored reasons for considering dog adoption; perceived physical, mental, and psychosocial health benefits from owning a dog, and possible challenges of dog ownership (S1 Table). Further questions (reported elsewhere) asked about participants’ interests in and preferences for incentives to participate in future research studies about dog ownership; and whether they would consider delaying adoption of a dog by up to 3 months for the purpose of research [44]. Information on participants’ demographic characteristics, including age, gender, education level, and dog ownership status (never owned a dog, previous dog owner, current dog owner) was also obtained. Previous dog ownership status refers to whether the participant had previously owned a dog within the last 10 years.

**Data analysis**

Multiple logistic regression models were used to examine the associations between dog ownership status and the four most common stated mental, physical, and psychosocial health benefits thought to be associated with dog ownership. The same analytical methods were used to describe the six most common expected challenges of dog ownership. Only the four/six most common reasons for each category are reported in the current analysis due to manuscript and analyses limitations; all remaining reasons were excluded. The referent category of dog ownership status for each analysis was ‘never owned a dog’. Model 1 was unadjusted while Model 2 was adjusted for age, sex, and education level. Statistical significance was defined as a two-tailed \( p \leq 0.05 \). All statistical analyses were performed with SPSS software (version 22.0; SPSS Inc, Chicago, IL).

**Results**

The full dataset included 3,919 participants. Of these, 449 participants were excluded for completing less than 70% of survey questions or not providing details of their age and gender. Seven participants were excluded due to implausible age values and another seven were
excluded due to missing responses to questions. The final analysis included a sample of 3,465 participants. Descriptive statistics of the sample are presented in Table 1. The majority of participants were female (85%), younger (18–44 years; 52%), and university educated (56%). Over half (55%) of participants had previously owned a dog, 39% currently owned a dog, and 6% have never owned a dog.

**Physical health**

Participants expected an increase in walking (89%) to be the main physical health benefit of dog ownership, followed by an increase in physical fitness (52%), decrease in blood pressure (40%), and weight loss (30%) (Table 1). Table 2 presents the odds ratios describing the association between dog ownership status and the four most common expected physical, mental, and social wellbeing benefits.
psychosocial health benefits. Compared with those who had never owned a dog before, after adjusting for age, sex, and education level, previous dog owners (OR 1.83; 95% CI: 1.17 to 2.88) had higher odds of expecting to walk more. Additionally, both previous (OR 1.37; 95% CI: 0.99 to 1.89) and current (OR 1.62; 95% CI: 1.17 to 2.25) dog owners had higher odds of expecting a reduction in blood pressure as a result of dog ownership.

Mental health

Most participants expected improvements across all mental health outcomes namely through increases in happiness (89%), and decreased stress (74%), loneliness (61%), and depression (57%) (Table 1). After adjusting for age, sex, and education level, current dog owners had higher odds of expecting increased happiness due to dog ownership (OR 2.12; 95% CI: 1.36 to 3.29). Previous dog owners were also associated with increased odds, but to a lesser extent (OR 1.67; 95% CI: 1.10 to 2.55). A similar trend was observed for all remaining mental health outcomes; both current and previous dog owners had higher odds of expecting decreased stress, reduced depression, and decreased loneliness than participants who had never owned a dog.

Psychosocial health

Over half of participants expected the dog to provide companionship (61%) and more opportunities to meet new friends (51%) (Table 1). Fewer participants expected they would get to know the neighbourhood (38%) or meet a new partner (7%). Both previous and current dog owners had higher odds of expecting they would get to know the neighbourhood (OR previous dog owners 1.40; 95% CI: 1.02 to 1.91; OR current dog owners 1.41; 95% CI: 1.03 to 1.94) and experience companionship from their dog (OR previous dog owners 1.31; 95% CI: 0.97 to 1.77; OR current dog owners 1.29; 95% CI: 0.95 to 1.74) (Table 2). Previous and current dog owners had lower odds of expecting to meet a new partner (OR previous dog owners 0.62; 95% CI: 0.39 to 0.98; OR current dog owners 0.63; 95% CI: 0.39 to 1.02) compared with participants who had never owned a dog.

Challenges

Among all respondents, increased responsibility (64%), dog training (62%), and dog behavioural issues (50%) were the most common expected challenges of dog ownership (Table 1). Less common expected challenges were excessive financial costs (28.6%), upsetting neighbours (15.2%) and compromised sleep quality (13.3%). Previous and current dog owners displayed an inverse association with all expected challenges compared to the reference group (Table 3). Being a current dog owner was associated with a 58% and 49% decrease in the relative odds of expecting increased responsibility (95% CI: 0.29 to 0.60) and dog training (95% CI: 0.36 to 0.73) respectively. Compared to never having owned a dog before, previous (OR 0.59, CI: 0.40 to 0.89) and current (OR 0.81, CI: 0.55 to 1.19) owners had lower odds of expecting dog ownership to compromise sleep quality.

Discussion

To the authors’ knowledge, this is the largest study to investigate expectations of dog ownership among prospective dog owners. In accordance with previous studies [41], our findings indicate that most prospective adopters expect to receive a range of health benefits and some challenges. Dog ownership status appears to influence these expectations, with previous/current ownership history being associated with greater odds of expecting benefits and reduced odds of expecting challenges.
Table 2. Multiple logistic regression describing the associations between dog ownership status and the top four expected physical, mental and social health benefits from dog ownership.

| Variable                        | Model 1                      | Model 2                      |
|---------------------------------|------------------------------|------------------------------|
|                                 | Cases/n | OR (95% CI) | P       | OR (95% CI) | P       |
| **Physical health**             |         |             |         |             |         |
| Increase in walking             |         |             |         |             |         |
| Never owned a dog               | 174/200 | 1           | <0.001  | 1           | <0.001  |
| Previous dog owner              | 1742/1903 | 1.63 (1.04,2.53) | .031     | 1.83 (1.17,2.88) | .008     |
| Current dog owner               | 1178/1362 | 0.99 (0.64,1.54) | .960     | 1.06 (0.67,1.65) | .815     |
| Increase in physical fitness    |         |             |         |             |         |
| Never owned a dog               | 104/200 | 1           | .007    | 1           | .005    |
| Previous dog owner              | 1026/1903 | 1.09 (0.81,1.46) | .567     | 1.15 (0.86,1.55) | .346     |
| Current dog owner               | 655/1362 | 0.87 (0.65,1.17) | .357     | 0.91 (0.68,1.23) | .550     |
| Weight loss                      |         |             |         |             |         |
| Never owned a dog               | 63/200  | 1           | <0.001  | 1           | <0.001  |
| Previous dog owner              | 620/1903 | 1.07 (0.78,1.46) | .684     | 1.08 (0.78,1.49) | .638     |
| Current dog owner               | 347/1362 | 0.76 (0.55,1.05) | .096     | 0.77 (0.55,1.07) | .118     |
| Decrease in blood pressure      |         |             |         |             |         |
| Never owned a dog               | 60/200  | 1           | .000    | 1           | .004    |
| Previous dog owner              | 734/1903 | 1.49 (1.08,2.04) | .015     | 1.37 (0.99,1.89) | .054     |
| Current dog owner               | 580/1362 | 1.76 (1.27,2.43) | .001     | 1.62 (1.17,2.25) | .004     |
| **Mental health**               |         |             |         |             |         |
| Increase in happiness           |         |             |         |             |         |
| Never owned a dog               | 170/200 | 1           | .009    | 1           | .003    |
| Previous dog owner              | 1685/1903 | 1.38 (0.92,2.09) | .124     | 1.67 (1.10,2.55) | .017     |
| Current dog owner               | 1242/1362 | 1.82 (1.18,2.80) | .007     | 2.12 (1.36,3.29) | .001     |
| Decreased Stress                |         |             |         |             |         |
| Never owned a dog               | 134/200 | 1           | .012    | 1           | .003    |
| Previous dog owner              | 1400/1903 | 1.39 (1.02,1.90) | .038     | 1.57 (1.14,2.15) | .005     |
| Current dog owner               | 1041/1362 | 1.60 (1.16,2.20) | .004     | 1.76 (1.27,2.44) | .001     |
| Reduced depression               |         |             |         |             |         |
| Never owned a dog               | 105/200 | 1           | .002    | 1           | .001    |
| Previous dog owner              | 1036/1903 | 1.08 (0.80,1.44) | .626     | 1.21 (0.90,1.63) | .207     |
| Current dog owner               | 825/1362 | 1.37 (1.01,1.84) | .041     | 1.53 (1.13,2.08) | .006     |
| Decreased loneliness            |         |             |         |             |         |
| Never owned a dog               | 110/200 | 1           | .001    | 1           | .001    |
| Previous dog owner              | 1117/1903 | 1.18 (0.88,1.58) | .279     | 1.31 (0.97,1.77) | .081     |
| Current dog owner               | 876/1362 | 1.49 (1.10,2.01) | .010     | 1.61 (1.19,2.20) | .002     |
| **Psychosocial health**         |         |             |         |             |         |
| Meet new friends                |         |             |         |             |         |
| Never owned a dog               | 98/200  | 1           | .855    | 1           | .659    |
| Previous dog owner              | 969/1903 | 1.08 (0.81,1.45) | .612     | 1.14 (0.85,1.54) | .378     |
| Current dog owner               | 696/1362 | 1.09 (0.81,1.47) | .576     | 1.11 (0.82,1.50) | .501     |
| Meet new partner                |         |             |         |             |         |
| Never owned a dog               | 25/200  | 1           | .015    | 1           | .115    |
| Previous dog owner              | 131/1903 | 0.52 (0.33,0.82) | .005     | 0.62 (0.39,0.98) | .040     |
| Current dog owner               | 95/1362  | 0.53 (0.33,0.84) | .007     | 0.63 (0.39,1.02) | .059     |
| Get to know neighbourhood       |         |             |         |             |         |
| Never owned a dog               | 66/200  | 1           | .333    | 1           | .096    |

(Continued)
Table 2. (Continued)

| Variable                  | Cases/n | Model 1 OR (95% CI) | P | Model 2 OR (95% CI) | P |
|---------------------------|---------|---------------------|---|---------------------|---|
| **Previous dog owner**   | 714/1903| 1.22 (0.90,1.67)    | .203 | 1.40 (1.02,1.91)    | .037 |
| **Current dog owner**    | 522/1362| 1.27 (0.93,1.74)    | .139 | 1.41 (1.03,1.94)    | .034 |
| **Companionship from dog** |        |                     |   |                     |   |
| Never owned a dog        | 112/200 | 1                   | .327 | 1                   | .205 |
| Previous dog owner       | 1170/1903| 1.24 (0.93,1.74)   | .147 | 1.31 (0.97,1.77)   | .075 |
| Current dog owner        | 835/1362| 1.25 (0.93,1.69)    | .077 | 1.29 (0.95,1.74)    | .106 |

*Cases; number of participants that expect the benefit or challenge, n; number of participants in sample
Model 1 is unadjusted
Model 2 is adjusted for age, sex and education level
OR; Odds ratio, CI; Confidence interval
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Table 3. Multiple logistic regression describing the associations between dog ownership status and the expected challenges of dog ownership.

| Variable              | Cases/n | Model 1 OR (95% CI) | P | Model 2 OR (95% CI) | P |
|-----------------------|---------|---------------------|---|---------------------|---|
| **Excessive financial costs** |         |                     |   |                     |   |
| Never owned a dog     | 77/200  | 1                   | .005 | 1                   | .051 |
| Previous dog owner    | 538/1903| 0.63 (0.46,0.85)    | .002 | 0.72 (0.53,0.98)    | .034 |
| Current dog owner     | 375/1362| 0.60 (0.44,0.82)    | .001 | 0.68 (0.49,0.93)    | .015 |
| **Upsetting neighbours** |       |                     |   |                     |   |
| Never owned a dog     | 39/200  | 1                   | .083 | 1                   | .190 |
| Previous dog owner    | 297/1903| 0.76 (0.53,1.11)    | .156 | 0.85 (0.58,1.24)    | .391 |
| Current dog owner     | 192/1362| 0.66 (0.45,0.97)    | .036 | 0.74 (0.50,1.08)    | .121 |
| **Dog Behavioural issues** |     |                     |   |                     |   |
| Never owned a dog     | 120/200 | 1                   | .002 | 1                   | .024 |
| Previous dog owner    | 906/1903| 0.60 (0.45,0.81)    | .001 | 0.69 (0.51,0.93)    | .015 |
| Current dog owner     | 692/1362| 0.68 (0.50,0.92)    | .013 | 0.78 (0.57,1.05)    | .105 |
| **Increased responsibility** |     |                     |   |                     |   |
| Never owned a dog     | 158/200 | 1                   | <0.001 | 1                   | <0.001 |
| Previous dog owner    | 1292/1903| 0.57 (0.40,0.81)   | .002 | 0.68 (0.48,0.98)   | .037 |
| Current dog owner     | 777/1362| 0.36 (0.25,0.51)    | <0.001 | 0.42 (0.29,0.60)   | <0.001 |
| **Dog training and disciplining** |     |                     |   |                     |   |
| Never owned a dog     | 153/200 | 1                   | <0.001 | 1                   | <0.001 |
| Previous dog owner    | 1195/1903| 0.53 (0.37,0.74)   | <0.001 | 0.63 (0.45,0.89)   | .008 |
| Current dog owner     | 795/1362| 0.44 (0.31,0.62)    | <0.001 | 0.51 (0.36,0.73)   | <0.001 |
| **Compromised sleep quality** |     |                     |   |                     |   |
| Never owned a dog     | 39/200  | 1                   | <0.001 | 1                   | .002 |
| Previous dog owner    | 217/1903| 0.53 (0.36,0.77)    | .001 | 0.59 (0.40,0.87)    | .007 |
| Current dog owner     | 205/1362| 0.73 (0.50,1.06)    | .100 | 0.81 (0.55,1.19)    | .272 |

*Cases; number of participants that expect the benefit or challenge, n; number of participants in sample
Model 1 is unadjusted
Model 2 is adjusted for age, sex and education level
OR; Odds ratio, CI; Confidence interval
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Prospective owners expected benefits across three primary areas of health, namely physical, mental and psychosocial health. The vast majority of participants expected increased physical activity levels (89%) and enhanced mental wellbeing, including increased happiness (89%) and decreased stress (74%). Just over half of participants expected companionship from the dog (61%) and decreased loneliness (61%). These results suggest that historic attempts such as “Walk the Dog” [45] intended to raise awareness of the potential health benefits of dog ownership may be effective. Several of the commonly expected benefits, such as increased physical activity [26] and decreased stress [36, 37] are, to some extent, supported by the literature investigating dog ownership and human health. Other common expectations, such as increased happiness or decreased loneliness are less supported by the current findings, with most published reports showing dog owners are no happier [46, 47] or less lonely than non-pet owners [48].

Our findings also demonstrate that previous ownership history and current status is associated with an increased likelihood of expecting benefits. Current and previous dog owners displayed consistently greater odds of expecting mental and psychosocial health benefits than non-owners, with one exception: meeting a new partner. The associations for anticipated physical health benefits show some variation with both previous and current dog owners displaying greater odds of expecting a decrease in blood pressure but only previous dog owners displaying greater odds of expecting an increase in walking. Perhaps current owners are already walking their dogs to the extent they see necessary, and do not expect a further increase in walking with the addition of another dog. Alternatively, current owners may anticipate that acquiring a second dog will reduce the need for them to walk their dogs, in the belief that play among dogs can reduce the need for owner-initiated exercise. It is plausible that participants with dog ownership history who are actively seeking another dog are more likely to expect physical, mental and psychosocial health benefits as they have possibly had positive experiences from previous ownership. It is also possible that current and previous dog owners exhibit some bias (selectively recalling positive experiences) when considering expectations for benefits, resulting from feelings of affection towards their current/previous dog(s). Supporting this interpretation, dog owners are known to exhibit a positive bias when viewing their own dog compared with the average dog [49]. It is also possible that drawing a sample from prospective owners who are willing to house a rescue dog inadvertently selects for those who have better dogmanship skills than the average owner and know how to cohabit and bond with dogs favourably [50].

Our study found the most frequently documented expected challenge was increased responsibility (64.3%) followed by dog training (61.8%) and dog behavioural issues (50%). These expectations broadly align with previous research that identified the primary concern of prospective adopters to be problem behaviour [40]. Our findings also mirror research investigating relinquishment, with the expectation of increased responsibility and dog training reflecting two of the most commonly cited relinquishment reasons; management problems and dog misbehaviour, respectively [51].

Respondents with current/previous ownership experience displayed lower odds than non-owners of expecting challenges, such as increased responsibility and dog training. This contradicts previous results that suggest greater animal-care knowledge is associated with an increased expectation for effort required in owning a dog [41]. These findings may be the result of positive biases exhibited by previous/current dog owners from previous ownership experience or even selection bias. A study of 307 unsuccessful dog adopters who returned their dog to an animal shelter, found previous dog ownership negatively influenced the likelihood of a successful adoption [51]. Specifically, current/previous dog-owners were more likely than first-time owners to return a dog to an animal shelter due to behavioural problems. This
suggests they are less tolerant of misbehaviour [51] possibly due to unrealistic expectations from biases such as having grown accustomed to their previous dog’s needs and behavioural traits.

To optimise the human-dog bond, it is important that prospective dog owners’ expectations for benefits and challenges are realistic. This could be achieved through preadoption counseling, whereby veterinarians and shelter personnel educate future dog owners on the realities of dog ownership, based on current scientific evidence [3]. Staff should endeavour to educate all prospective owners of the potential for management challenges such as dog training difficulties, increased time demands and responsibility, regardless of their ownership history. Individuals adopting from animal shelters should also be informed of the limitations of behavioural testing in kennel environments [52] to ensure the adopters are aware of the possibility their dog may exhibit different behaviours in the home environment to the shelter.

This study has several limitations which must be acknowledged. Firstly, the cross-sectional study design limits our ability to determine a causal relationship between dog ownership status and expectations for benefits and challenges. Therefore, it is possible the observed associations are a result of reverse causation. For example, individuals with greater expectations for benefits and reduced expectations for challenges may be more interested in dog ownership initially, as reflected by their previous ownership history/current status. Secondly, residual confounding may have influenced our results, as there was no information collected on possible confounding factors such as socioeconomic status and race. A lack of information regarding the characteristics of non-respondents also precludes us from identifying differences between participants and non-respondents. Additionally, a convenience sampling method was used whereby individuals were invited to participate only if they were actively seeking a dog via the PetRescue website. In Australia, an estimated 16% of dogs are obtained through animal shelters [53]. Motivations for acquiring a rescue dog vary, but often include the belief that it is the ethically correct choice, the desire to save an animal from possible euthanasia or because it requires less financial outlay [3]. Given the difference in motivating factors, it is possible the demographics of our sample systematically differ from the general population of prospective dog owners. As mentioned above, this may be reflected in the current respondents’ dogmanship. Finally, the sample was predominantly female, middle aged and university educated which, to some extent, reflects the demographics of Australian dog owners who are most likely to be female and aged 18–49 [53]. Female respondents comprised a considerable proportion of the sample (85%), which parallels other studies in the field [41, 54]. Owner gender has been associated with differences in canine behaviour, although it is unknown whether these differences are the result of variations in perceptions of behaviour or true interactions between human sex and canine behaviour [55]. Nonetheless, the high percentage of female participants limits the generalizability of our findings to the wider population of prospective dog owners. The proportion of participants who had never owned a dog sample was also relatively small (6%).

In conclusion, our findings show that most prospective adopters expect to receive health benefits from dog ownership, such as increased walking, happiness and companionship and decreased stress and loneliness. Most prospective adopters also anticipate challenges, such as increased responsibility and training difficulties. Expectations vary depending on previous dog ownership experience, with current and previous dog owners generally displaying greater odds of expecting physical, mental and psychosocial health benefits and lower odds of expecting challenges than non-owners. Future longitudinal studies are required to further understand the differences in pre-adoption expectations and the health benefits and challenges resulting from dog ownership. Future research regarding the role of ownership history in prospective owners’ expectations could also benefit from the inclusion of previous/current dog
owners who have no interest in acquiring a new dog. These findings could provide insight for
the development of future interventions to optimise the human-dog bond and reduce relin-
quishment to animal shelters.

Supporting information
S1 Table. Survey questions relating to perceived mental, physical, and psychosocial health
benefits and possible challenges associated with dog ownership.

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