Disability, Depression, and Dogs During Covid-19: Is There a Relationship?

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Introduction

Human-dog interaction has long been recognized for its therapeutic value. Studies have consistently demonstrated that physical interaction with dogs is associated with a decrease in mental health challenges such as stress, anxiety, and fear (Barcelos et al., 2020). Nearly a decade ago, a meta-analysis of 69 evidence-based studies reported a wide range of health benefits of human-animal interactions (HAI) in humans with and without special physical or mental health conditions (Beetz et al., 2012).

According to the Centers for Disease Control and Prevention (CDC), American adults meet the criteria for mild (11.5%), moderate (4.2%), and major (2.8%) forms of depression (Villarroel & Terlizzi, 2020). However, since the emergence of the COVID-19 pandemic, the prevalence of depression in the United States has increased over three-fold to 27.8 percent in April, 2020 (Ettman et al., 2020).

Smith and Lim (2020) examined multiple sources of evidence that demonstrate that physical distancing, shelter in place, and quarantine policies have been implemented at the expense of isolation, loneliness, depression, and other forms of psycho-social disharmony. The negative effects of social distancing may be even more pronounced for vulnerable segments of the population such as the disabled and chronically ill. The benefits animals provide to support human health and wellbeing may carry implications for informing evidence-based clinical practices, disability services, and policies (Thompson & Elad, 2020).

Methods

A pilot test was conducted as a preliminary step to evaluate if an association could be measured between animal ownership and depression among disabled adults during the COVID-19 pandemic. Data a convenience sample of N=30 adults completed a short online survey posted between January 7 and January 26, 2021 on social media sites and networks created for use only by the disability community. Responses were stratified by dog ownership. As part of the overall survey, respondents were asked two questions from The Patient Health Questionnaire (PHQ)-2 which is commonly used as a first line approach to screen for depression. The PHQ-2 asks about the frequency of depressed mood (feeling down, depressed, or hopeless) and anhedonia (little interest or pleasure in doing things) over the past two weeks. The tool has 97 percent sensitivity (true positive) and 67 percent specificity (true negative) in identifying major depression as defined by the Diagnostic and Statistical Manual of Mental Disorders (DSM) (Levis et al., 2020).

A total PHQ-2 score ranges between 0-6, with the higher the score, the stronger the likelihood of depression. In this pilot study, the scores achieved were categorized as “no depression” (0-1), “mild depression” (2-3), and “major depression” (4-6). Two inferential tests (t-test and chi-square) were conducted to determine if differences in PHQ scores by pet ownership were statistically significant at the p≤.05 level.

Results

Among the N=30 respondents who completed the survey, 18 reported ownership of either a dog (83.3%) or cat (16.7%). The average PHQ-2 score was of μ=2.03 (1.73) for all respondents. However, when PHQ-2 scores were estimated by pet ownership, it was noted that pet owners scored μ=1.55 (.856) compared to μ=2.75 (2.42) for non-owners. While the 1.19-point gap suggests that non-owners may experience a dramatically higher level of depression, differences for this small sample size did not reach statistical significance (t=-1.937, p=.063) at the .05 level. When continuous scores were converted to categories of depression (none, mild, and major), a chi-square test estimated that non-owners were 4.5 times more likely than pet owners to experience a form of depression at 11.1% and 50% respectively. Differences in depression categories were also statistically significant (X²=6.82, p=.033) (Figure 1).
Conclusion

In this small pilot study of adults living with a disability or chronic illness, outcomes suggested that animal companionship may in fact be associated with a decrease in depression experienced due to social isolation during the COVID-19 epidemic. This holds considerable implications for promoting the use of emotional support animals (ESA) as a non-pharmacological strategy to prevent or reduce the negative psycho-social effects of social distancing among a highly vulnerable population. The preliminary findings are a reminder of the benefits animals provide to support human health and wellbeing and carry implications for informing clinical practices and disability services.

Participation in this pilot study was limited to a small sample of users of media sites and networks serving the disability community. However, the preliminary outcomes justify conducting a larger randomized study to further explore the psycho-social health effects of animal-human interaction during this period of mandated social distancing. The therapeutic benefits of human-animal interactions and the role policies play in increasing or diminishing access to ESAs for disabled individuals warrant further study.

Homeless individuals are a vulnerable population and their status of being homeless must be viewed from the lens of a healthcare perspective in order to provide safety and address health needs. Homelessness is increasing in the United States and so are the associated healthcare challenges. From increasing disease outbreaks, violence, and the logistic difficulties to managing health, measures must be taken to prevent and improve health outcomes. The expansion of Housing First initiatives is an important part of the puzzle and a great first step in answering the greater question of how best to provide healthcare to the homeless.

References


