

Discovery, The Student Journal of Dale Bumpers College of Agricultural, Food and Life Sciences

Volume 23

Article 9

Fall 2022

Pandemics and Animal Welfare: A Quantitative Inquiry into how the Covid-19 Pandemic has Affected the Companion Animal Industry in Northwest Arkansas

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Recommended Citation

DeSmet, K. N., & Whitehead, I. M. (2022). Pandemics and Animal Welfare: A Quantitative Inquiry into how the Covid-19 Pandemic has Affected the Companion Animal Industry in Northwest Arkansas. *Discovery, The Student Journal of Dale Bumpers College of Agricultural, Food and Life Sciences*, 23(1). Retrieved from <https://scholarworks.uark.edu/discoverymag/vol23/iss1/9>

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Cover Page Footnote

Kayla N. DeSmet is a May of 2022 honors program graduate with a major in Animal Science with a Pre-Professional concentration. Isabel M. Whitehead, M.S. is the honors faculty mentor and is an instructor for the Dale Bumpers College of Agricultural, Food and Life Sciences.

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Meet the Student-Author



Kayla DeSmet

Since I was about six years old, I have had a passion for animals; they fascinated me, and I knew that I wanted to make a difference and become a veterinarian. I graduated from Swansboro High School in North Carolina, and in my time spent on the coast, I developed an interest in marine life. Throughout my time pursuing my bachelor's degree in animal science with a pre-veterinary medicine concentration at the University of Arkansas, that passion and love for working with and understanding animals of all kinds only grew stronger. I was a member of the National Society of Colligate Scholars, the Pre-Vet Club, and was also active within the Bumpers College Honors Program. I worked as a veterinary assistant consistently throughout my time pursuing this degree, and it has allowed me to work with small and exotic animals which have further directed and inspired me to continue following my dreams of becoming a veterinarian. I would like to give a special thanks to my honors mentor Isabel Whitehead, and my honors committee members Dr. Jeremy Powell and Dr. Lauren Thomas for their steadfast support and guidance throughout my undergraduate studies. I would also like to thank Sabrina Cox for all the memories of late nights spent working, laughing, and even crying throughout all the ups and downs of college. I will forever be thankful to have had the opportunity to work with all of you!



Kayla performing a routine vital examination on Bandit, a patient of Wedington Animal Hospital.

Research at a Glance

- Sectors of the companion animal industry experienced varying degrees of setbacks related to their business practices as a direct result of the COVID-19 pandemic throughout 2020 and 2021.
- This research covered the COVID-19 timeline, shortages and setbacks associated with the outbreak, and contingency of the pandemic, and includes steps taken to address these specific setbacks in the companion animal industry.
- Results show that animal daycare and boarding facilities, animal shelters, and rescue organizations all experienced an overall decline in business in 2020, followed by an increase in 2021, with the employees of animal rescues and shelters reporting an increased number of completed surrender applications as pandemic restrictions were lifted.

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Kayla DeSmet and Isabel Whitehead†*

Abstract

Since the emergence of the COVID-19 pandemic in late 2019, industries have been impacted globally. The companion animal care industry has not received much recognition in mainstream news, and as pandemic stressors increased, individual facilities such as animal rescues, shelters, and day care and boarding facilities felt the pressures associated with them. Little is known about the long-term effects of the pandemic on these facilities and how companion animal care may have changed. The purpose of this study was to explore the day-to-day impacts and long-term effects of COVID-19 on the companion animal industry in Northwest Arkansas from early 2020 to 2021. This study recruited participants from animal daycare and boarding facilities, shelters, and rescue organization facilities in Northwest Arkansas and used a non-experimental survey research design. Twenty-eight facilities were contacted and six agreed to participate. Results showed an overall decrease in the number of clients and animals requiring services in 2020, but in 2021, these numbers increased. Open response analysis showed that non-profit organizations were not subject to the same mandated shutdowns as other businesses, which was an unexpected finding. The results also showed a brief increase in the number of pet surrenders and abandonments, followed by a notable increase in the number of pet adoptions and foster home applications at the start of the COVID-19 pandemic and its related quarantine and restrictions.

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Introduction

Over the last two years, the COVID-19 pandemic has impacted multiple aspects of the companion animal welfare industry, including pet owners, private businesses, and volunteer organizations. At the beginning of the COVID-19 outbreak, many pet owners were fearful of contracting the virus from their pets, resulting in a brief increase of pet surrenders and abandonments in 2020 (Van Dobbenburgh and De Briyne, 2020). Additionally, there was a notable increase in the number of pet adoptions and completed foster home applications in mid to late 2020 when quarantine and other pandemic restrictions were strictly enforced (Van Dobbenburgh and De Briyne, 2020).

The demand for goods and services provided by the pet care industry is expected to increase as the number of pet owners grows. Pet services that are likely to experience increased demand include veterinary visits, grooming, overnight boarding, animal daycare, and behavioral or obedience training (Boesel, 2020). Dog walking and training operations have been on a decline since COVID-19 began; however, when pet owners return to work, it is likely going to cause separation anxiety in many pets. Separation anxiety, after owners go back to work and children go back to school, in these pandemic pets will ultimately lead to an increase in services associated with animal behavior and training (Boesel, 2020).

While these recent studies focused on pets and pet related industries, there is limited information available about the direct effects of the pandemic on animal shelters, rescue centers, and daycare and boarding facilities from the employee perspective. The purpose of this study was to explore the impacts of COVID-19 on the companion animal industry in Northwest Arkansas (NWA) from early 2020 through 2021. The research objectives were to 1) identify the day-to-day impacts and long-term effects of COVID-19 on animal shelters, rescue organizations, and daycare and boarding facilities in NWA; 2) identify how aspects of COVID-19 changed (if at all) the way companion animal care is provided to animals throughout the facilities; and 3) explore aspects of COVID-19 that have most affected animal shelters, rescue organizations, and animal daycare and boarding facilities in NWA.

Materials and Methods

This study utilized a non-experimental survey design to explore the impacts of COVID-19 on companion animal service providers in NWA. The survey instrument was adapted from surveys released by the American Veterinary Medicine Association (AVMA, 2020) and the U.S Bureau of Labor Statistics (2020), to gather information through multiple choice, Likert-style questions, close- and open-

ended questions. To address content validity, the survey instrument was reviewed by a panel of agricultural communications and animal science experts, and three cognitive interviews were conducted with individuals in the companion animal industry prior to survey distribution. Human subjects approval was sought from the University of Arkansas' Institutional Review Board (IRB) prior to conducting the study (Protocol #2201381645). The sample included staff and workforce members of animal daycare and boarding facilities, shelters, and rescue organizations located throughout NWA. Convenience sampling was used to recruit facilities in the region. Facilities were recruited by phone, and business consent forms were acquired from the office manager or owner prior to collecting data. Data collection took place over four weeks. Office managers were emailed instructions about whom the email should be forwarded to, the link to the survey, and were sent email reminders on day seven. Descriptive statistics were run using an online data analysis platform to identify means, frequencies, and standard deviations. Open responses were downloaded as a separate document, with double spacing and wide margins, and organized by question item. The open responses were qualitatively analyzed using three rounds of coding. First, the data were coded for affective responses and procedural descriptions. Secondary coding was then performed to refine the categories and codes. A final round of coding was performed to finalize the categories and name the common themes observed among the responses.

Results and Discussion

Overall, 28 facilities were contacted, and six of those facilities agreed to participate in the study and a total of ten individual responses were received ($n = 10$). Regarding closures, three employees reported their facility experienced a government or locally mandated shutdown as a direct result of the COVID-19 pandemic. Of the three facilities that experienced a shutdown, one animal daycare/boarding employee reported their location was closed for a duration of two months, one local animal shelter employee reported adjusting to emergency services only, while one other animal shelter reported closing their doors to all public foot traffic.

Participants were initially presented with a set of perception statements regarding specific setbacks brought on by the pandemic. On a scale of 1 to 5, with 1 being strongly agree and 5 being strongly disagree, the results showed participant reports were between agree and neutral with issues related to supply shortages with a mean of 2.6 ($sd = 1.2$) (Table 1). When participants were asked if their facilities experienced setbacks due to a lack of animal food the results were between disagree and strongly disagree with a

mean of 4.20 ($sd = 0.87$). The additional statements regarding setbacks due to understaffing, local mandated government shutdowns, and lack of access to other resources all had means in the neutral to disagree range.

When employees were asked about their perceptions of the ongoing effects of the pandemic associated with animals and their human counterparts, the results varied slightly. On a scale of 1 to 5, with 1 being strongly disagree and 5 being strongly agree, participants responses to the statement, "there would likely be an increase in the number of pets suffering from separation anxiety once the pandemic ends," fell between somewhat agree and strongly agree with mean = 4.3 ($sd = 0.64$) (Table 2). However, when participants were given the statement, "there will

likely be an increase in the number of animal owners that suffer from separation anxiety once the pandemic ends," the mean fell between neutral and somewhat agree at 3.90 ($sd = 0.94$). Additionally, results from the statement, "the COVID-19 pandemic has had an effect on the companion animal industry," fell between neutral and somewhat agree with a mean = 3.90 ($sd = 0.83$). Lastly, the results illustrated that participants agreed that the COVID-19 pandemic has resulted in a stronger human-animal bond with a mean = 4.10 ($sd = 0.83$). The topic of separation anxiety in humans was not discussed much in preexisting literature, and future research could be used to help further understand the impacts of COVID-19 on humans' and animals' overall health and well-being.

Table 1. Setbacks reported by facility employees.^a

Item	Mean ^b	Standard Deviation
My facility experienced setbacks due to supply shortages.	2.60	1.20
My facility experienced setbacks due to understaffing.	3.10	1.04
My facility experienced setbacks due to a lack of animal food.	4.20	0.87
My facility experienced setbacks due to lack of access to other resources.	3.30	1.19
My facility experienced setbacks due to mandated local government shutdown.	3.20	1.33

^a n = 10.

^b Scale: (1) = strongly agree to (5) strongly disagree.

Table 2. Employee opinions about pandemic-related companion animal industry changes.^a

Item	Mean ^b	Standard Deviation
There will likely be an increase in the number of pets that suffer from separation anxiety once the pandemic ends.	4.30	0.64
Due to the COVID-19 pandemic the relationship between animal owners and pets has resulted in a stronger human-animal bond.	4.10	0.83
The COVID-19 pandemic has had an effect on the companion animal industry.	3.90	0.83
There will likely be an increase in separation anxiety in the number of pet owners once the pandemic comes to an end.	3.90	0.94

^a n = 10.

^b Scale: (1) = strongly disagree to (5) strongly agree.

Participants were asked to note the change, if any, in the fluctuation of residing animals throughout 2020 and 2021. There was between no change and a decrease in the number of residing animals during 2020 with a mean of 2.80 (*sd* = 0.60). Respondents indicated that there was an increase in the number of residents once pandemic restrictions were lifted in 2021 with a mean of 1.80 (*sd* = 0.98). These fluctuating animal adoptions and surrenders were further described by respondents in the open-response section using the term “pandemic puppies.” The term referred to animals that were adopted in 2020 during times of quarantining and working from home, and later returned to animal shelters in 2021 as pandemic restrictions began to be lifted. These findings aligned with previous research showing an increase in the number of pet adoptions during the quarantine time period in 2020 (Van Dobbenburgh and De Briyne, 2020),

Employees of animal daycare and boarding facilities reported an overall decrease in the demand of their services in 2020, with an individual stating in an open response follow-up question that the boarding business aspects of these facilities dropped at the beginning of the pandemic and that business sales were down nearly 40% to 50% for 2020. However, participants also explained that these facilities are expected to make a complete turnaround once the pandemic is officially over. Employees at animal daycare and boarding facilities reported an increase in demand for their services in 2021, an increase in the number

of clients, and subsequently, an increase in the number of animals that attend animal daycare and boarding facilities as the pandemic restrictions were lifted. A prior study concluded that the grooming and boarding industry has been on a steady incline over the past 5 years and is expected to continue growing (Daly, 2021). Employees of animal daycare and boarding facilities reported that there was a downturn in all areas of business except for grooming which aligned with Daly’s suggestions.

The three common themes that arose in the open responses throughout the qualitative analysis were staffing-related issues, a decline in overall business in 2020 followed by an increase in business in 2021, and lastly facilities implementing new or additional protocols in response to the pandemic. Quotes are provided below along with the overarching theme and the associated facility type that the respondent represented.

For the theme staffing related issues in response to the pandemic, a respondent who works in animal shelter said, “It just led to exhausting workloads. We didn’t have a shortage of supplies however, just staff. The strain was just a lot more.”

The COVID-19 timeline (Table 3) was reported by participants and the theme of an overall decline in business for the year 2020. A participant from a daycare and boarding facility stated: “90% of spring break reservations cancelled. From there, business declined even worse, specifically in NWA.” Another open response indicated that

Table 3. COVID-19 pandemic timeline.^a

Item	Mean^b	Standard Deviation
During 2020, the volume of residing animals or animal patients located at my facility	2.80	0.60
During 2021, the volume of residing animals or animal patients located at my facility	1.80	0.98
During 2020, the volume of clientele	2.50	0.67
During 2021, the volume of clientele	1.70	0.78
The prices that my facility charged for services in 2020	2.00	0.45
The prices that my facility charged for services in 2021	1.80	0.40
The demand for products and services provided by my facility in 2020	1.90	0.94
The demand for products and services provided by my facility in 2021	1.10	0.30

^a n = 10.

^b Scale: (1) increased (2) no change (3) decreased.

there was an overall increase in business in 2021, as local pandemic restrictions were lifted. One animal daycare and boarding facility employee reported: “Clients services decreased the first six months of the pandemic and then increased dramatically.”

The final identified theme was that many business types reported implementing new protocols in response to the pandemic. An animal daycare and boarding facility employee stated, “We wore masks, and we increased our disinfection protocols to the highest possible level.” Employees explained that by doing this, they felt they were keeping animals’ and clients’ well-being a priority. Animal shelter employees also reported that they instituted an adoption application to be filled out prior to meeting with their animal residents. One employee at an animal rescue organization reported that their specific facility type had less changes to adjust to: “We are foster-based so didn’t have to change much. We asked fosters and volunteers to practice distancing and mask when doing meet and greets.”

Conclusions

Employees at animal daycare and boarding facilities, animal shelters, and rescue organizations experienced a decline in business at the beginning of the pandemic and after the restrictions that followed in 2020. There was an increase in the demands and services provided by various facility types as pandemic restrictions were lifted in 2021. Open response analysis revealed that employees of animal daycare and boarding facilities implemented face-mask protocols, increased their levels of sanitation, and overall experienced a downturn in business during 2020. However, animal shelters and rescue organizations report-

ed an increase in demand and services in 2020 due to an influx of people obtaining a pet during quarantine. Lastly, the “pandemic puppies” emerged, which animal shelter employees used to describe the phenomenon of animals adopted in 2020 during pandemic restrictions but returned in 2021 as restrictions were lifted.

Acknowledgments

We would like to thank the University of Arkansas Dale Bumpers College of Agricultural, Food and Life Sciences for their generous funding for this thesis through a Dale Bumpers Honors Undergraduate Research Grant.

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