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Does a Single Session Psychoeducation Change Perception?

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ABSTRACT

The present study aimed to measure the effect of a brief psychoeducation on college students' perception of service animals within a single session assessment. This study utilized a pre-test, post-test design involving two groups: an experimental group and a control group. Both groups completed a Knowledge Test and then an Attitudes Scale about service, emotional support, and therapy dogs. The experimental group was provided with a brochure designed to inform the participants about assistance animals while the control group was provided with a brochure that provided unrelated information irrelevant to the study. Both groups, after viewing their respective brochure, again completed the Knowledge Test and Attitudes Scale about service, emotional support, and therapy dogs. The following study found that the experimental group scored better on the knowledge post-test than the control group had. In contrast, there was little difference found between measured attitudes of the post-test scores of both groups. An increase in knowledge was shown within the pre-test and post-test data of the experimental group alone. In addition, the attitudes of the experimental group became more agreeable in the post-test.

Keywords: Single session, psychoeducation, assistance animals, pre-test post-test design, knowledge, attitudes

INTRODUCTION

In my study, I aimed to examine and measure the effect of a brief psychoeducation on college students' perception of service animals within a single session assessment. Undergraduate psychology students from McNeese State University were randomly elected to participate in the study and were expected to complete a pre-test to determine their initial knowledge of, and attitudes towards, service animals, emotional support animals, and therapy dogs. The participants then were presented with a short brochure about assistance animals that provided them with information and definitions regarding each of the following: service animals, emotional support animals, and therapy dogs. The brochure was designed to inform the participants of information crucial for the understanding of assistance animals as given by the Americans with Disabilities Act. After they were given ample time to read and review the brochure, the participants were given a posttest screening to measure if the brochure influenced a change in knowledge and attitudes.

There are multiple categories of assistant animals: service animals, emotional support animals, and therapy animals. The difference must be known between the different types of assistant animals to be able to distinguish them from one another. According to Schoenfeld-Tacher et al. (2017), the difference between these animals is as follows: A service animal is an animal (most commonly a dog) that provides disability-related assistance and has protected access to public locations under the Americans with Disabilities Act, Title II, and Title III (p. 1). They noted service animal certifications are limited to dogs and miniature horses—the latter only in special circumstances. Service animals have been through advanced training to assist people with coping with their disabilities. There is a recognized subset of service animals called psychiatric service dogs that are trained to carry out specific tasks for the individual to which they are assigned. Schoenfeld-Tacher et al. (2017) also noted the ADA definition of a service dog excludes dogs providing nothing more than emotional support. In contrast, emotional support animals (ESAs) do not require training, are not registered, nor is there a species requirement. ESAs are owned pets intended to provide aid related to psychological disabilities. Similarly, therapy animals are not species regulated. Therapy animals are given varying levels of training to assist professionals; however, therapy dogs do differ from ESAs in that they are registered.

Animal assistance has been utilized in various ways to aid individuals; some professionals have gone as far as to provide Animal Assisted Therapy (AAT), utilizing therapy animals for the benefit of both the mental health professional and the client. Despite this, not only are people in the general public still unaware of the purpose and function of AAT and assistance animals, but professionals can be as well. Velez (2019) studied this unawareness by creating a fifty-question survey presented to mental health professionals of varying backgrounds. From their survey, Velez found providers were engaging in AAT without proper training or certification. By extension, their survey highlighted the need for proper training on uses for therapy animals, including for professionals. Their findings also support the idea mental health providers also are confused as to what the animal species requirements of therapy animals are. Such ignorance can be detrimental to individuals with disabilities, further proven by the following research: Hediger et. al. (2021) performed a meta-analysis to determine the overall efficacy of assistance animals based on findings across forty-one different studies. Based on the results of their analysis, animal assistance is important to the aid of those with disabilities—

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highlighting the need for public awareness and understanding. Specifically, the results of the meta-analysis determined that across the forty-one selected studies, individuals suffering with mental impairments (their study focused on PTSD and depression) had reduced symptoms because of the usage of assistance animals. In fact, the cross examination found that overall, utilization of assistance animals for PTSD had a small (though not statistically significant) preeminence over the usage of psychotherapy to treat symptoms. It is important to note that Schoenfeld-Tacher et al. (2017) identified a person with disabilities to have significant limitations in performing major life functions due to bodily or cognitive impairment.

Conversely, in another study by Husband et. al. (2020) including individuals with PTSD, psychiatric service dogs (as opposed to therapy animals as investigated in the aforementioned study) significantly assisted in recovery from substance abuse. In their study, they recruited, via a psychiatric service dog organization, four participants that abused substances within two-years of the study. They started by surveying their participants to identify how having a psychiatric support dog aided in the aversive symptoms they experienced due to their post-traumatic stress disorder diagnosis. The participants then identified the emotional benefits they had because of their psychiatric service dogs. In addition to the testimonials of the participants, the researchers surveyed the use of prescribed and self-reported drug use over the two years prior to the study. The data supported the participants' reports, yielding that the number of prescribed medications decreased during the two years of having a psychiatric service dog. It is important to note a psychiatric service dog is different than a service dog utilized for medical or mobility assistance. Similar to the psychiatric service dog study, Rodriguez et. al. (2020) studied participants who either own, or are on a waitlist to receive, a mobility and/or medical service dog and recruited them from a service dog provider. The study consisted of a survey of four open-answer questions: three qualitative and one open-ended response. The questions focused on the benefits and drawbacks to having a service animal, the open-ended response provided the participants with the opportunity to add any comments they felt were important to the study. The overall consensus from their study showed that for their participants, as individuals with disabilities, having a service dog greatly improved their quality of life in a multitude of ways. Among the drawbacks that were named by the participants in the survey, the second most common answer had to do with the public, specifically with education and access.

As specified above, emotional support animals (ESAs) differ from therapy animals and service animals in that they do not have species requirements nor are the protections established by the ADA for service animals applicable to them. In a study by Kogen et. al. (2016), they measured perceptions of, and experiences with, ESAs at the University Counseling Centers of Washington State University, New Mexico State, and Colorado State University. The directors of each respective university's counseling center were asked to respond to a survey questioning how often they receive requests for disability diagnosis in order to obtain an ESA, requests to write letters in support of student acquisition of an ESA, how they handle such requests, if their university has written policy regarding ESAs, and if the staff of the counseling center wrote the policies. Notably, the majority of the counseling centers did not have any current written policies and exhibited a general avoidance of the diagnosis of or recommendation for emotional support animals. For the protection of those who need the assistance of an emotional support animal, as well as the protection of the university from misuse of such, it would be beneficial for the University Counseling Centers to establish a set of written policies (Kogen et. al., 2016).

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As established in the review of other studies, assistance animals are very important to the lives of those who have need for them, and it is imperative education be given to change perception, raise awareness, and increase knowledge. With that said, psychoeducation can achieve such, as found by Duffy et. al. (2016) in their study utilizing psychoeducation intervention to determine its ability to reduce stereotypes. Their study included a questionnaire in which their participants completed both before and after undergoing a psychoeducation intervention for a week (the topic focused on eating disorders and the participants were medical professionals). The results of the study yielded data that support the idea that the psychoeducation intervention succeeded in the reduction of stereotypical beliefs among the participants. Similarly, Gillespie-Lynch et. al. (2015) held the belief that preconceptions and lack of understanding can harm individuals in the population, and it is important to determine an effective way to amend such issues. Their study included 365 participants and utilized a pre-test post-test design in which the participants (college students) were given a questionnaire before and after a brief psychoeducation (presented via an online format). Presenting the psychoeducation as an online training saved time and resources for the researchers. Results from the study also yielded data that demonstrate the brief psychoeducation decreased instances of misconception, increased understanding, and ultimately increased acceptance. Despite Gillespie-Lynch et. al. (2015) focusing on stigma and misinformation surrounding college students' perception of autism, the results of both the above listed studies concluded psychoeducation improves knowledge and awareness.

Research has highlighted a general deficiency in knowledge and awareness of assistance animals. Thus, I hypothesized participants who read an informational brochure about assistance animals would demonstrate more knowledge and more agreeable attitudes towards assistance animals.

METHOD

Participants in this study consist of McNeese State University undergraduate freshmen enrolled in psychology courses, recruited via SONA (an online research program) and were either above the age of 18 or were 17 and had, by reading the informed consent form provided, acknowledged they were required to have written parental consent on file with the university to participate. To encourage participation, students were incentivized with extra credit or course credit. Participants were randomly divided into two groups: control and experimental. Forty people participated in each group (eighty total) via SONA. Two validity question were randomly placed in the study. Individuals who incorrectly answered one or both validity questions were not included. There were eleven participants in the control group and five in the experimental group whose responses were subsequently not included in data analysis, meaning only thirty-five participants' data were used for experimental group analysis and twenty-nine for the control group. As identified in the demographic questionnaire, no participants owned a service animal while some had a friend or family member who owned one (three in the control group, four in the experimental). Neither gender nor age were a focus in the study.

Materials for this study consisted of a basic demographic questionnaire, a single-page brochure based on information from the American with Disabilities Act (ADA), and two questionnaires that measured knowledge and attitude. There was a validity question included in the questionnaires: are you a dog? The answer choices were brown, blue, green, or no and if the

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participant answered with a color, their answers were not used in the data analysis. There was also a question that asks, did you read through the entire infographic? If the participant answers the yes or no question with no, their answers were also excluded from subsequent analysis. The demographic questionnaire did not ask for any identifiable information and primarily was used to characterize the sample. The experimental brochure used was made using information given by Schoenfeld-Tacher et al. (2017) to briefly educate and increase awareness while the control brochure was made using unrelated information. Bright colors were used to attract attention, and it was only a single page as to prevent an overload of information and disinterest. Two questionnaires were used: one to study overall knowledge and the other was the questionnaire used in the study done by Schoenfeld-Tacher et al. (2017). The first questionnaire determined if the number of questions answered correctly changed from the pre-test to the post-test. The second questionnaire examined attitudes about service animals and participants were asked to rate various statements on a Likert scale.

Utilizing a pre-test post-test design, the study focused on the effectiveness of single session psychoeducation on increasing awareness of service animals.

Prior to the initial analysis, the validity check response was reviewed to ensure the data from each participant was reliable. Then, the initial analysis was conducted to summarize sample characteristics and pretest and post-test scores. Then, to test hypotheses that most students will display overall lack of understanding of assistance animals, most students believe misinformation about animal assistance, and after reading the brochure most participants will display greater knowledge of, better attitudes towards, individuals with service animals, pretest scores were analyzed for responses indicating a change from before the brochure to after reading the brochure. A paired-samples t-test was used to determine if there was a difference in pretest and post-test responses.

Each participant signed up to participate in one of the two groups. The groups were posed as separate experiments on SONA, indistinguishable from each other as to not give away the nature of either group. Participants were only able to participate in one of the two groups, regulated by the restrictions I placed on both entries on SONA. Participants read the informed consent form, completed the demographic questionnaire, and then were given two surveys: A knowledge test designed for this experiment and an attitudes questionnaire. The knowledge test was a 5-question quiz that covered basic knowledge of assistance animals. Specifically, it consisted of three definition questions and two questions regarding basic Americans with Disabilities Act information. The attitudes scale was a five-point Likert scale used in the study by Schoenfeld-Tacher et. al (2017). The survey asked participants to rank how agreeable they were with certain statements, answers ranged from strongly disagree, somewhat disagree, neither agree nor disagree, somewhat agree, to strongly agree. Three of the questions were phrased favorably towards assistance animals while two were phrased unfavorably. Participants were then shown one of two brochures created for the experiment. The experimental group was shown a brochure about service animals while the control group was shown a brochure about an unrelated topic (for reference, the topic chosen was coffee shops). Participants were then reissued the same knowledge test and attitudes scale as before and upon completion were debriefed and thanked for their time.

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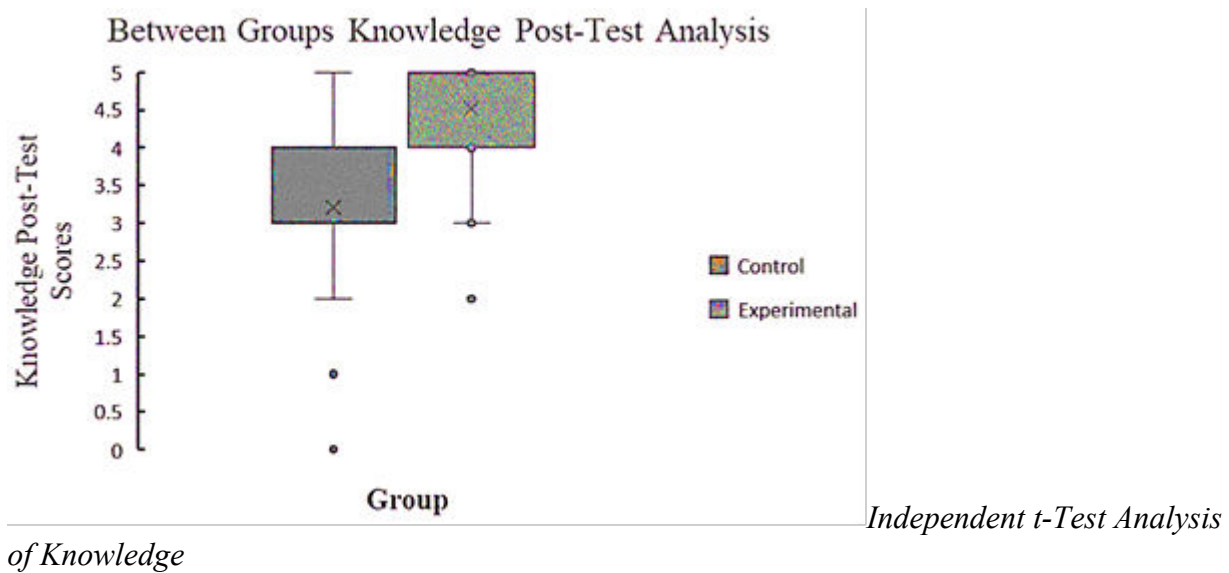
This study received approval from the McNeese State University Department of Psychology Institutional Review Board before it was conducted. Participants under the age of 18 were asked to have a parent/guardian consent to them participating in research prior to registering on SONA and, at the time of the study they provided consent. Participants were given brief details about the study in the consent form. Details included that participants would answer a questionnaire related to service animals before and after reading an educational brochure. They were informed after the study was completed that the questionnaires measured knowledge during the debriefing. Potential risks included the participant fearing judgment based on their answers or feeling overwhelmed by having to read a brochure. To prevent feelings of judgment, participant answers were completely anonymous, and they were informed of such in the consent form. To prevent participants from feeling overwhelmed by having to read a brochure, the brochure was kept concise and limited to one front-only page in landscape format. Finally, to prevent the participants from feeling overwhelmed by the entirety of the study, the entire study took no more than 30 minutes for each participant. The potential increase in knowledge for participants regarding service animals could benefit both themselves, in that they can better connect with individuals with support animals, and their community.

RESULTS

Two independent *t*-tests were conducted in order to determine if there was a difference in the post-test data between the control group and experimental group. I conducted one for knowledge and one for attitudes. In order to investigate the data of the experimental group more closely, two dependent *t*-tests were conducted in which the difference in pre-test to post-test data for both knowledge and attitudes were analyzed. To elaborate what each score means--for the knowledge test, the number of correct responses was evaluated (for instance someone who made a perfect score would have a 5 recorded in the data, someone who missed one question would have a 4, and so on). For the attitudes scale, the level of agreeableness was given a numeric value between 1 and 5, strongly disagreeable was scored as a 1 and strongly agreeable was scored as a 5. To elaborate, someone who answered "strongly agree" to all three favorable statements and "strongly disagree" to both unfavorable statements would have an average score of 5 (otherwise can be translated to mean 100% favorable). Data analysis from the independent *t*-test on knowledge post-test scores determined there was a significant difference between the control group and experimental group. Upon data analysis, the mean of the control group was 3.21 and the standard deviation was 1.24, the mean of the experimental group was 4.51 and the standard deviation was 0.82, see Figure 1.

Figure 1

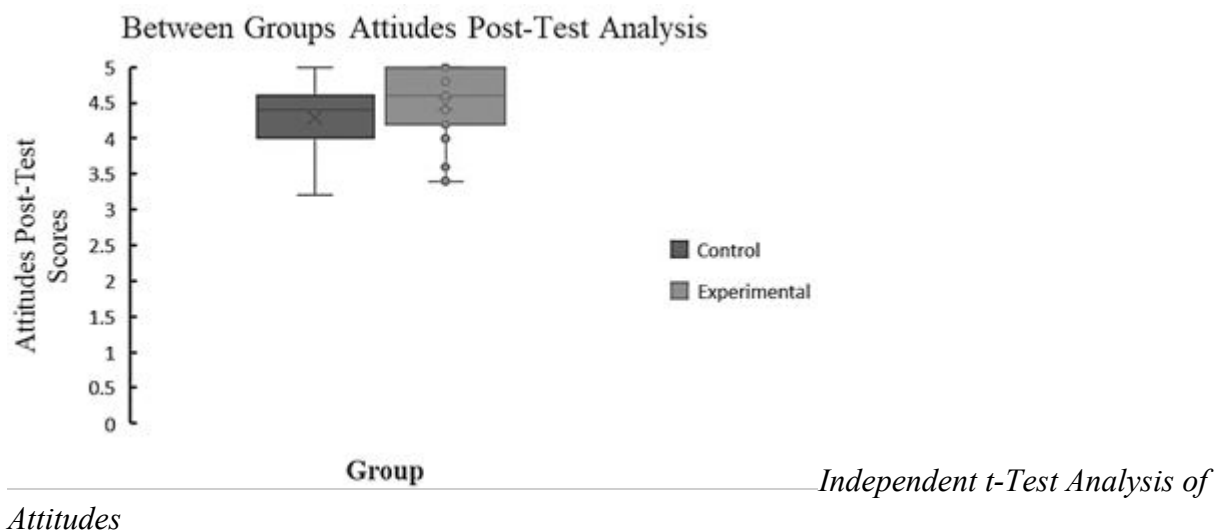
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Note. Utilizing an independent t -test, analysis of post-test Knowledge Test data found a significant difference in scores between groups.

With forty-seven degrees of freedom, the t -statistic came out to be -4.88 and the p value as 0.0000126 . In the independent t -test using data from the attitude scale, there was not a significant difference in post-test attitude scores between the control group and the experimental group. The control group had a mean score of 4.29 with and 0.45 standard deviation while the experimental group had a mean score of 4.49 , standard deviation of 0.56 , see Figure 2. Further data analysis showed that with 62 degrees freedom, and a t -statistic of -1.57 , the p value came out to 0.12 .

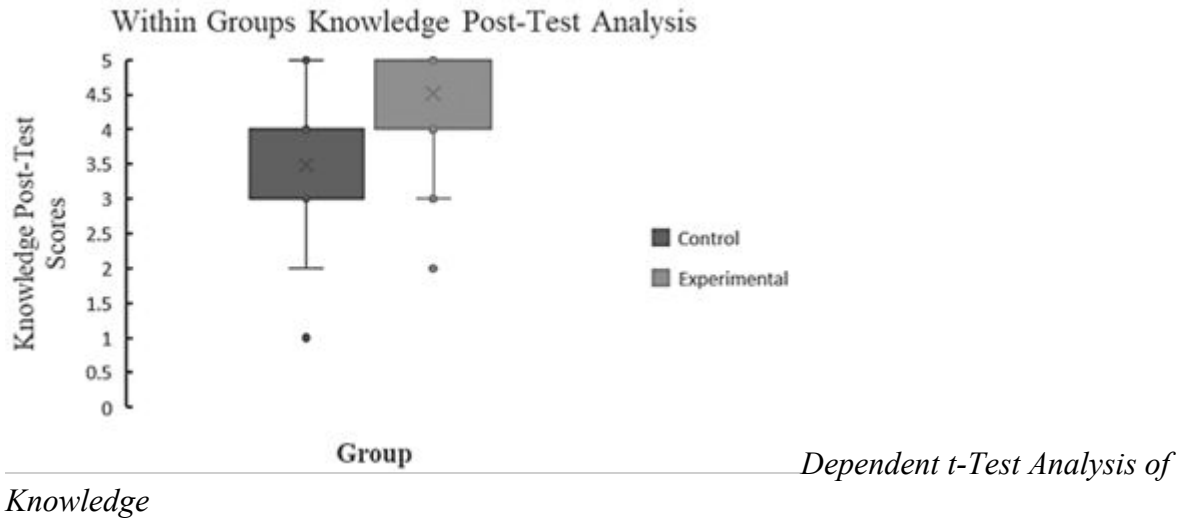
Figure 2



Note. Attitude Scale post-test data from both the control group and the experimental group were analyzed in an independent t -test.

A dependent *t*-test was then run with the data from the pre- and post-tests of the experimental group's knowledge test: There was a significant difference in knowledge scores between the pre-test ($M = 3.49$, $SD = 0.85$) and post-test ($M = 4.51$, $SD = 0.82$); $t(34) = -7.75$, $p = 5.17E-09$, see Figure 3.

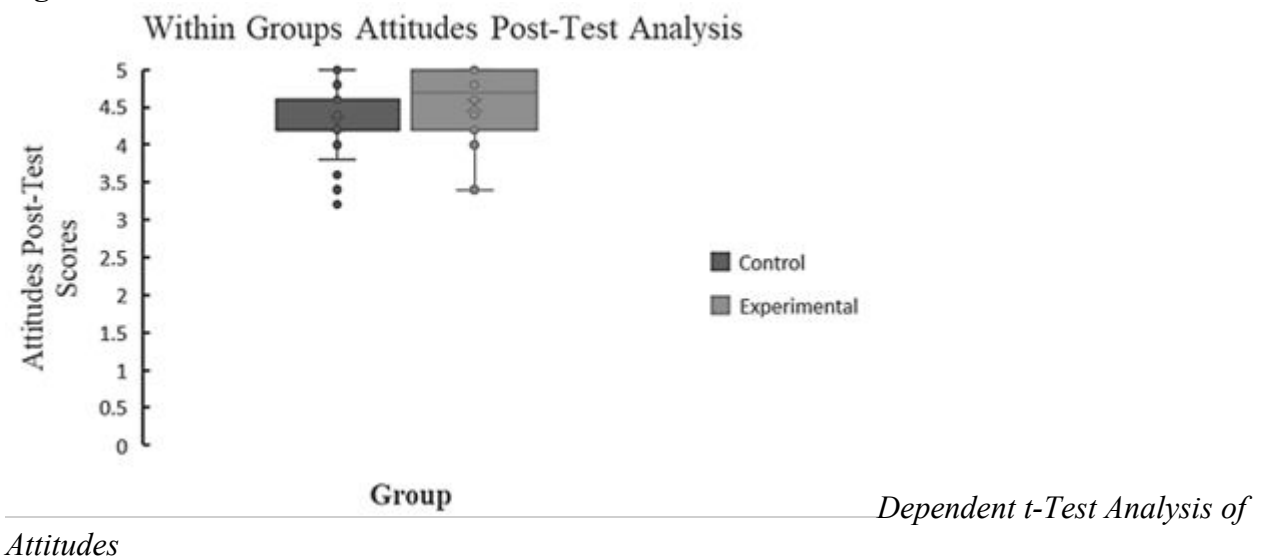
Figure 3



Note. Pre-test and post-test data from the experimental group was analyzed via Dependent *t*-Test.

I finished my analysis with a dependent *t*-test using the attitude scale data from the pre- and post-test of the experimental group: Unlike in the independent *t*-test using data from both groups, within the experimental group there was a significant difference in attitude scores between the pre-test ($M = 4.28$, $SD = 0.47$) and post-test ($M = 4.48$, $SD = 0.56$); $t(34) = -2.85$, $p = 0.0074$, see Figure 4.

Figure 4



Note. A dependent *t*-test analyzed data from the experimental group's pre-test and post-test data.

DISCUSSION

In accordance with the hypothesis, a difference was shown between the knowledge post-test scores of the experimental group and the control group. The experimental group scored better on the knowledge post-test than the control group had. My hypothesis that attitudes in the post-test of the experimental group would be higher than that of the control group was rejected. This is because the measured attitudes did not demonstrate enough of a difference between the post-test scores of both groups to prove such a statement. When studying the pre-test and post-test data of the experimental group alone, an increase in knowledge was shown. The hypothesis that the brief psychoeducation would improve basic understanding of assistance animals was thus accepted. Interestingly, despite the lack of difference in data between the experimental and the control group, the attitudes of the experimental group did become more agreeable in the post-test after the presentation of the brochure, supporting the hypothesis that the brief psychoeducation would improve attitudes. Due to the results of the independent *t*-test however, more data would need to be collected to say the hypothesis regarding attitudes can be accepted or rejected.

Some limitations of my study include the brief nature of the study itself. To fully understand the depth of an individual's knowledge or attitudes towards any given topic, more evaluation would need to be done. Because this was a small-scale study, and to fit it in a 30-minute time frame, short 5-question surveys were used. Because this study was in an online format, there is a lack of certainty the individual read the brochure in part or as a whole and had simply answered the validity question with "yes" when asked. Because this research was made using undergraduate psychology students, it is possible that the participants were biased toward having more knowledge and better attitudes towards assistance animals prior to partaking in the study. Had the study been conducted with students of other fields of study, results may have changed.

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