

Beneficial Effects of Guide Dogs in the Visually Impaired

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Previous studies have shown that there are substantial health benefits from sharing our lives with pets, such as lower anxiety, depression and/or stress levels relative to those seen in individuals who do not have regular contacts with pets. The aim of this study was to determine whether the presence of a guide dog positively affects mental and/or physical health in the visually-impaired. Forty-four subjects participated in this study : thirteen participants were visually-impaired and owned a guide dog (5M,8F), 18 were visually-impaired and did not own a guide dog (6M,12F), and 13 participants were not visually-impaired but were dog owners (5M,8F). The mean age \pm SD was 50.3 ± 13.5 for the visually-impaired participants with a guide dog, 50.9 ± 16.5 for the visually-impaired participants without a guide dog, and 45 ± 16.9 for the non-impaired participants who were dog owners.

All groups were matched on age ($p > .26$) and education ($p > .74$). Participants were administered questionnaires of anxiety (Spielberger, 1983), stress (Cohen et al., 1983), depression (Beck et al., 1988) and social support (Sarason et al., 1983). The two visually-impaired groups were also administered a question about ease of locomotion (to be rated on a 1-10 points likert scale) and the two dog owner groups were administered a questionnaire of attachment to their companion animals (Staats et al., 1996). All tests were administered in counterbalanced order. Results were analyzed using one-way ANOVAs with one between-group factor (visually-impaired with a guide dog vs. visually-impaired without a guide dog vs. non impaired dog owners), and one within-group factor (the score on each test).

When a main group effect in the ANOVA was significant, post-hoc Bonferroni t-tests were used to determine which of the groups differed from each other. The relation between the degree of attachment to the animal and social support was calculated using Pearson correlations. The visually-impaired participants with a guide dog reported twice as much facility in locomotion as the visually-impaired without a guide dog ($p = .0001$). Moreover, the visually-impaired participants with a guide dog had lower symptoms of stress ($p = .02$), anxiety ($p = .001$), and depression ($p = .01$) than the visually-impaired participants without a guide dog. In addition, the visually-impaired with a guide dog had marginally lower symptoms of state anxiety relative to the non-impaired dog owners ($p = .06$). The visually-impaired without a guide dog had marginally higher symptoms of depression relative to non-impaired dog owners ($p = .06$). The visually-impaired participants with a guide dog were also significantly more attached to their dogs compared to non-impaired dog owners ($p = .004$). Finally, the stronger the pet attachment, the greater the social support (number of people available) in the groups with ($p = .09$) or without visual impairment ($p = .004$) who were dog

owners. No other significant differences were found among groups. In conclusion, this study demonstrates that guide dogs lead to positive health benefits in both the physical and mental domains in the visually-impaired.

