Study into efficacy of Pet Remedy as an aid to reducing stress in canines during grooming

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About the author

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Andrew is a Certified Animal Behaviourist working in the UK. Andrew has over 10 years experience working in animal behaviour, predominantly with dogs. He was Chair and Trustee, of the Association of INTODogs, and was a driving force behind the UK dog behaviour and training charter. He works as an independent behaviour consultant for Pet Remedy, advising on animal behaviour, and analysing data to support external independent clinical studies.

Abstract

Background to Research

The grooming salon, and the process of grooming, can be stressful for many dogs. Groomers find the introduction of calming products combined with careful handling and suitable environment, can help anxious dogs cope better with the grooming process. This study was designed to test this hypothesis.

Methodology

This is a large-scale study involving 71 grooming salons. The salons were provided with a Pet Remedy calming spray and plug diffuser. Groomers were asked to provide feedback via an online survey to determine the effect of Pet Remedy on comfort and anxiety levels of the dogs they groomed. The survey provided data on the use of Pet Remedy with 244 dogs.

Conclusion

Over 95.7% of groomers said that they would recommend Pet Remedy to their clients.

Albeit the remaining 4.3% were unsure, not one stated they would not recommend Pet Remedy.

87.1% of the groomers said that they would continue to use Pet Remedy in their grooming salon.

The remaining 12.9% indicated they were unsure but did not rule out continued use Pet Remedy in the salon.

For 84% of dogs included in the survey, groomers felt Pet Remedy moderately or significantly improved behaviour.

In nearly 80% of cases, where a dog had a particular dislike, the groomers felt Pet Remedy moderately or significantly improved the response of the dog to that aspect of the grooming they particularly disliked.

Whilst it is recognised this study is reliant upon the opinions of the groomers taking part, the results are overwhelming in support of use of Pet Remedy within the grooming environment by grooming professionals.
Method

150 groomers were invited to take part in the study and provided with Pet Remedy calming spray and plug diffuser for use in their salons. Groomers were asked to provide feedback on how Pet Remedy affected comfort and anxiety levels dogs, particularly those known to find the grooming experience stressful.

To keep the study independent, the services of Select Statistical Services, were used www.select-statistics.co.uk. Select Statistical Services were provided with an email list of grooming salons along with the questionnaire that had been created for the groomers to complete. Select Statistical Services created an online survey based on that questionnaire (via Survey Monkey), and were responsible for downloading data once the survey had been completed. All data collection and collation was performed by Select Statistical Services.

Groomers were encouraged to respond to the survey regardless of whether they were happy with the product and/or witnessed a positive response. They were also requested to provide responses for all dogs assessed. Guidance was provided on the behavioural language used in the questionnaire and instructions on the use of Pet Remedy were given. A copy of the guidance provided to all groomers and the questions from the survey, are included as an Appendix to this report.

Data Collection

Groomers were invited to begin providing responses to the survey on 23rd April 2015 and the survey was closed on 30th September 2015. Following closure of the survey, the final set of questionnaire responses was exported from SurveyMonkey and downloaded as a csv file. These data were then read into the statistical software package R, ready for analysis.

Prior to analysis, the data were cleansed to remove any ineligible and incomplete responses. Before analysing the groomer-level responses, and where possible given the information provided, multiple submissions from the same groomer/salon were consolidated. Where there were multiple responses from a groomer for the same groomer-level question, the most recent response was selected for inclusion in the analysis. The most recent response was thought to best reflect the opinion of the groomer at their most informed point, i.e., when they had obtained most experience with the product.

Out of the three-hundred and fifteen questionnaires received in total, 23 (7.3%) ineligible responses were removed where the groomer indicated that the owner had not given verbal consent for their dog to be assessed and 1 (0.3%) where the response provided was for a cat. A further 47 (14.9%) incomplete responses, where the groomer had only provided general information and no product feedback, were also removed prior to analysis. Two (0.6%) partially-complete responses, which had missing data for the final overall, groomer-level questions, were retained as dog-level feedback was still available from these questionnaires.

Two-hundred and forty-four responses remained for analysis, which were provided by 71 different grooming salons. The grooms recorded took place between 4th March and 30th September 2015 inclusive. The number of responses (i.e., dogs) per groomer ranged from 1 to 17, with a median of 2 per salon (mean=3.44). A bar plot of the number of responses received per groomer is given in Figure 1 below.
The results of the statistical analysis of the survey responses are given below. As this was not a randomised study and no control (or placebo) product was included, the analysis focusses on simple summaries of the responses/opinions provided by the groomers.

Data Analysis

Exclusions for Dog-level Results

We note that the opinions of the groomers are necessarily subjective and that the results could be vulnerable to biases where comparisons are made between visits where Pet Remedy was applied versus previous groom(s) without Pet Remedy. For example, general improvements in behaviour and/or reductions in stress and anxiety could occur over time (between visits) for these dogs, separate from any effect of Pet Remedy. However, where possible, attempts were made to limit any biases in the results.

In particular, for the dog-level comparisons between visits, exclusions were applied to ensure that only results where the conditions of the groom were not more favourable to the Pet Remedy visit, in terms of a number of key factors, were included in the analysis. Advice regarding the possible confounding factors to consider was sought from a dog behaviour specialist and included the use of oral sedation and other non-medical support, dog training and behaviourist classes, the number of dogs present during the groom, the use of flea shampoos and the condition of the dog on arrival at the salon. Forty-two (17.2%) of the responses were excluded prior to analysis where differences were reported in the conditions of the groom between those grooms where Pet Remedy was applied and previous visit(s) without Pet Remedy. Excluding these responses helps to avoid the potentially biasing effects of the possible confounders considered.
RESULTS

Groomer-level

Seventy (98.6%) of the 71 groomers who responded to the survey answered the overall, groomer feedback questions. Of these 70 groomers, 67 (95.7%) said that they would recommend Pet Remedy to their clients, with the remaining 3 (4.3%) indicating that they were unsure whether they would. No groomers said that they would not recommend Pet Remedy to their clients.

Sixty-one (87.1%) of the 70 groomers said that they would continue to use Pet Remedy in their grooming salon, with the remaining 9 (12.9%) indicating that they were unsure whether they would. Again, no groomers said that they would not continue to use Pet Remedy in their grooming salon.

The results of the groomer-level questions are given in Table 1 (towards the end of this report) and visualised in Figure 2 below.

![Figure 2: A Likert plot of the responses to the groomer feedback questions. Note: one missing response has been excluded from each question.]

Dog-level

Complete responses to the dog-level questions were received for 242 dogs from the 71 groomers.

A summary of the number of dogs by breed (and breed group according to the Kennel Club breed standards) is given in Table 3. The most common breed group in the study was the utility group with 59 (24.2%) dogs, followed by gundog and “Other” both with 45 dogs (18.4%) in each. The “Other” breed responses are included as a group in Table 3 and the free-text “Other” breeds given are listed in Table 4.

The ages of the dogs ranged from 1 month to 24 years, with a median of 3 years and 9 months, and a mean of approximately 4 years and 3 months. One-hundred and fifty-nine (65.2%) of the dogs had been neutered. Of those dogs that had been neutered, there were 36 missing responses for the age
of neutering. Where available, the reported age of neutering ranged from zero months to seven years and six months, with a median age of 1 year and a mean of 1 year and 2.76 months.

The ownership histories of the dogs are summarised in Table 5. The most common history was “Owned from puppy” for 160 (65.6%) of the dogs, followed by “General Rescue” for 31 (12.7%).

The groomers reported that 22 (9.0%) of the dogs had medical history of note. Details of these histories are provided in Table 6.

When asked whether the dog was normally friending or unfriendly around other dogs, 159 (65.2%) were reported as friendly, 35 (14.3%) unfriendly and 50 (20.5%) of the groomers were unsure.

In Table 7, a summary of the existing anxiety issues reported for the dogs is provided. The most common existing anxiety was separation anxiety which was recorded for 76 (31.1%) of the dogs, followed by fear aggression for 47 (19.3%). Details of the other existing anxiety issues reported are given in Table 8.

Overall, for the 244 dogs included in the survey, the groomers felt that in 126 (51.6%) of cases Pet Remedy moderately improved the dog’s behaviour and in 80 (32.8%) significantly improved the dog’s behaviour. In only 2 (0.8%) cases did the groomers feel that the dogs became slightly or much more anxious with Pet Remedy.

One-hundred and forty-eight (60.7%) of the dogs were reported to have an aspect of the grooming that they particularly dislike. Details of these dislikes are given in Table 9. Where a dog had a particular dislike, the groomers felt that in 66 (44.6%) of cases Pet Remedy moderately improved the response of the dog to the aspect of the grooming that they particularly dislike, and in 52 (35.1) significantly improved it. In only 1 (0.7%) case did a groomer feel that the dog became slightly more anxious when using Pet Remedy.

The results of these overall, dog-level questions are given in Table 10 and visualised in Figure 3 below.

![Figure 3: A Likert plot of the responses to the dog-level feedback questions.](image)

Stratifying the responses to these dog-level questions by the dog demographics reported above, we can explore whether the results vary by breed, for example. The results of this stratified analysis are
Presented in Figure 4. Given the largely consistent, positive feedback received and the relatively low numbers of dogs observed in some of the breed groups (e.g., 7 [2.9%] in the pastoral group), there don’t appear to be any clear differences in the results reported by breed.

As discussed in the Data section above, for the dog-level comparisons between visits, 42 (17.2%) of the responses were excluded prior to analysis where differences were reported in the conditions of the groom between those grooms where Pet Remedy was applied and previous visit(s) without Pet Remedy. For example, there were 11 (4.5%) cases where the dogs presented with matted hair in the groom without Pet Remedy but without matted hair in the groom when Pet Remedy was applied (see Table 11). In these cases, any reduction in stress/anxiety observed in the Pet Remedy visit could be due to the lack of matted hair compared to the visit(s) without Pet Remedy.

When rating the dog’s level of comfort on arrival at the grooming salon: out of the 128 cases where they were recorded as being mildly or very anxious at previous visit(s), 77 (60.2%) dogs were recorded as being “confident, friendly and relaxed” or “relaxed but slightly reserved” with Pet Remedy. Whereas, for only 3 out of 54 (5.6%) dogs was the opposite true, i.e., where they were recorded as being mildly or very anxious with Pet Remedy and “confident, friendly and relaxed” or “relaxed but slightly reserved” at previous visit(s). A cross-tabulation of these results is given in Table 12.

Recording the change in the dog’s emotional state during the grooming session: out of 105 cases where they were recorded as becoming slightly or very anxious at previous visit(s), 76 (72.4%) were
recorded as having no noticeable change or becoming more relaxed with Pet Remedy. Whereas, for only 4 out of 33 (12.1%) dogs was the opposite true. A cross-tabulation of these results is given in Table 13.

When recording whether the dog appeared worried and displayed calming signals (such as lip licking, turning head away, avoiding physical contact, and showing whites of eyes): out of 109 cases where they were recorded as doing so at previous visit(s), 59 (54.1%) were recorded as not doing so with Pet Remedy. On the other hand, for only 13 out of 92 (14.1%) dogs was the opposite true. A cross-tabulation of these results is given in Table 14.

Reporting whether they were able to pick up each of the dog’s paws easily for nail clipping: out of 114 cases where the groomers recorded that the dog pulled their paws away or was very anxious at previous visit(s), 69 (60.5%) were recorded as being “mildly uncomfortable but tolerant” or “happy for their paws to be held” with Pet Remedy. On the other hand, for only 2 out of 46 (4.3%) dogs was the opposite true. A cross-tabulation of these results is given in Table 15.

When recording whether the dog showed any anxiety to the noise of the clippers or scissors: out of 98 cases where the dogs were mildly or very anxious at previous visit(s), 58 (59.2%) were recorded as being “relaxed but slightly reserved” or “confident, friendly and relaxed” with Pet Remedy. Whereas, for only 1 out of 41 (2.4%) dogs was the opposite true. A cross-tabulation of these results is given in Table 16.

The results of the dog-level comparisons between visits, described above, are consistent with the groomers observing a lower level of anxiety for the dogs whilst being groomed when using Pet Remedy compared with their previous visit(s) without Pet Remedy.

Conclusion

The grooming process can be very stressful for some dogs. Groomers will try many things to improve the grooming experience and remove as many stresses as possible. The purpose of this study was to determine if Pet Remedy could provide a positive addition to those measures and help reduce the anxiety of the dog being groomed.

Whilst the study had no control group, and focussed on the observational feedback of the groomers, the results are compelling.

Of the 71 groomers who engaged with the study, 96% said they would recommend Pet Remedy. No groomer said they would not recommend the product.

For 84% of the dogs included in the survey, the groomers felt Pet Remedy moderately or significantly improved the dog’s behaviour.

Importantly, where a dog had a particular dislike to part of the grooming experience, in nearly 80% of cases, the groomers felt that Pet Remedy moderately or significantly improved the response of the dog to the aspect of the grooming that they particularly disliked.

This study benefited from a large number of professionals (71) and dogs (244). Very few studies of this type have been completed to include such a large number of dogs, and of such a cross section of
ages and breeds. Groomers deal with stressed dogs daily, so their testimony is important in respect the perceived efficacy of any calming aids. To have such positive results, on every measure, provides a good indication Pet Remedy is helpful in reducing anxiety in dogs when being groomed.