The Effects of Pet Visitation and Human Interaction on the Happiness of Retirement Home Residents

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THE EFFECTS OF PET VISITATION AND HUMAN INTERACTION ON THE HAPPINESS OF RETIREMENT HOME RESIDENTS

BY

CANDACE JEAN DONAGHY
B.A., Florida State University, 1984

THESIS

Submitted in partial fulfillment of the requirements for the Master of Science degree in Clinical Psychology in the Graduate Studies Program of the College of Arts and Sciences University of Central Florida Orlando, Florida

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INTRODUCTION

In recent years, the notion that animals can provide humans with physical and emotional benefits has become a popular field of investigation. Pets can provide an outlet for affection, companionship, and give their owners unconditional love. For example, in a study conducted by Lyle Vogel and colleagues (1981) at the School of Public Health at the University of Michigan, four areas were recognized by pet owners and non-pet owners alike as advantages of having an animal. These areas and their ranking were (1) companionship - 70.5%; (2) love and affection - 52.2%; (3) pleasure - 39.3%; and (4) protection - 36%. This study addresses the possibility that animals, particularly dogs and cats, may have a positive effect on a person's emotional well-being.

Of the many investigations of the human/animal bond, few empirical studies have been conducted. Based on experience obtained as a psychiatrist, Levinson (1969, 1970, 1972, and 1978) greatly extended the published literature on the subject of animal companionship. Benefits to clients reported from casual observations include increased feelings of self-esteem, control and personal accomplishment, increased interaction with people, and increased physical activity (Levinson, 1972). Levinson (1978) has also hypothesized that benefits to the elderly include decreased loneliness, retardation of the process of devolution and senility, and increased interaction with other people.
Case studies have also shown some positive effects of using animals to benefit humans. Kaye (1984), through behavioral observations, found that a classroom environment with animals produced more positive pupil behavior toward teachers and resulted in fewer disciplinary referrals when compared with another classroom without animals. In an exploratory project, dolphins were used to elicit communication from an autistic child, with positive results (Smith, 1984). In a case study of private pet ownership by the elderly, Burt, Gallant, and Nussmann (1984) found that the majority of residents at an independent living facility for the elderly and handicapped believed pets were "a good thing" and thought they were good for morale. Although this literature consists of case reports rather than scientific studies, these reports are suggestive of benefits of the human/animal bond.

In the last few years, more systematic efforts have been taken to explore the possible therapeutic effects of animals in enhancing the psychological and physical well-being of humans. In exploring the physiological effects of contact with animals, Friedmann, Latcher, Lynch, and Thomas (1980) conducted a study to explore the association between pet ownership and the one-year survival of patients who were hospitalized in a Coronary Care Unit with a diagnosis of myocardial infarction or angina pectoris. In their analyses, age correlated with mortality and with physiological severity; however, pet ownership was correlated with survival. This association was not related to the walking of the pets or to the severity of illness, demonstrating that pet ownership itself is an important source of companionship and positive health benefits.
Baun, Bergstrom, Langston, and Thoma (1983) investigated the physiological responses to petting a dog with whom a companion bond had been established as opposed to petting a dog with whom no previous bonding had occurred. Electrocardiogram, respiratory, and blood pressure rates were recorded at baseline and continuously for three study periods in which the subject petted either his/her own dog or the investigator's dog, or sat reading magazines. Data demonstrated no significant differences between the groups concerning heart and respiratory rate; however, there were significant differences between the groups for both systolic and diastolic blood pressures. The greatest decrease in both systolic and diastolic pressures occurred during the protocol in which the subjects petted the dogs with whom they had established a companion bond.

These studies indicate that for those individuals who have established a bond with their animals, physiological benefits can be achieved. If physiological advantages can be obtained, it is probable that psychological benefits can also be attained from pet ownership. This has been demonstrated in a study by Kidd and Feldmann (1981). In their study, 104 adults ranging in age from 65 to 87 years completed an experimenter-designed questionnaire and a copy of the Adjective Check List. At the time of the study, 25 males and 26 females were pet owners, and 27 males and 25 females were non-pet owners. Results from the Adjective Check List showed that pet owners scored significantly higher than non-pet owners on the number of favorable adjectives checked, indicating responsibility, dependability, and a lack of egotism and self-centeredness, and on the Nurturance scale, indicating helpfulness and benevolence. Pet
owners scored lower than non-pet owners on the Succorance scale, indicating that they are independent and self-sufficient, and on the Abasement scale, showing that they tend to be optimistic, poised, and productive.

This study shows there are personality advantages in the elderly associated with pet ownership; however, it is impossible to determine from the data whether pet ownership per se produces the benefits or whether, instead, healthier personalities choose to own pets. This does not appear to be the case since other studies have noted improvements in the emotional well-being of individuals when they were given pets. Brickel (1979) surveyed nursing staff on a hospital-based intermediate care unit where patients had access to cat mascots for two years. The staff members completed a series of open-ended questions regarding patient-pet interactions, advantages and disadvantages to patients and staff, and uses of pets in different situations. The mascots were observed to have increased patients' responsiveness, provided patients with a pleasurable experience, enhanced the treatment milieu, and helped in keeping patients in touch with reality.

Two other studies have noted improvements in the emotional well-being of individuals when given pets. In a study conducted at the Lima State Hospital for the criminally insane (Lee, 1981), patients on one of the six "pet wards" were compared with one of the six wards without animals. The patients with pets needed half as much medication, had drastically reduced incidents of violence, and had no suicide attempts during the year-long comparison. The ward without pets had eight documented suicide attempts during the same year.
Mugford and M'Comisky (1975) obtained results which indicated that taking care of a parakeet versus a begonia may have a positive effect on elderly pensioners in areas that concern attitudes towards other people and their own psychological health. In this study, two groups were given parakeets, two groups received begonias, and a final group received neither treatment. A 30-item questionnaire which measured attitudes towards self and others, as well as the physical and psychological environment, was administered prior to and after a five-month treatment period. Those individuals who received the birds showed marked improvement in areas that concerned attitudes towards other people and their own psychological health when compared with the other groups.

The studies previously cited demonstrate that for those individuals in which a bond with an animal has been established, psychological and physical advantages can be attained, regardless of whether the individuals chose to have animals or the animals were given to them. However, additional research has shown that psychological benefits for individuals have been gained without an animal bond being established.

Brickel (1984) investigated the utility of a pet animal in the treatment of clinical depression in a nursing home population. Fifteen male residents of a nursing home care unit, identified as depressed following completion of the Zung Self Rating Depression Scale, were randomly assigned to one of three conditions: conventional therapy, pet-facilitated psychotherapy with a dog, and a no-treatment control group. The treatment consisted of two 45-90 minute sessions per week for four weeks. Brickel obtained results...
which showed significant reductions of depression for both the conventional therapy group and the pet-facilitated psychotherapy group. In addition, the pet group displayed a greater reduction in depression than the conventional group.

Francis, Turner, and Johnson (1984) conducted a study to determine the value of domestic animal visitation to semi-institutionalized elderly living in group homes. The treatment group received pet visitation weekly. The control group had weekly human visitors only. Each group was pre- and post-tested for health self-concept, life satisfaction, psychological well-being, social competence and interest, personal neatness, psychosocial and mental function, and depression. No significant differences were obtained in the control group on these variables; however, the residents who had interacted with the pets significantly improved in all areas except personal neatness and health self-concept.

The research cited lends support to the notion of pets providing therapeutic advantages for humans. In particular, animal/human interactions appear very beneficial for the elderly. In nursing and retirement homes, the individuals are typically away from family, isolated from social interactions, and may feel rejected by society. Generally, staff to resident ratio is low and residents do not have the tactile contact and stimulation they may need. Given these characteristics, it appears that the presence of animals could provide needed sensory stimulation and a sense of purpose to the elderly.

Brickel (1982) discusses the benefit of pets in psychotherapy and proposes that the manner in which pets reduce emotional
discomfort is theoretically explained through the competing-response theory of extinction via attention shifts. Brickel states that by using pet psychotherapy, attention to anxiety-generating stimuli is diverted. He further adds that repeated exposure through the pet's diversional properties, without negative consequences, aids in the extinction of anxiety in which the therapist than nurtures the appearance of functional alternative response patterns. This theory can be applied to the elderly who have contact with animals. The pet animals may serve as stimuli that compete with depressive thoughts and therefore, shifts their attention to happier times.

The above studies have indicated that the effects of contact between pet animals and humans may include improvements in attitudes toward oneself and others, decreases in depression and violence, and more positive personality traits, as well as association with decreased risk of recurrent myocardial infarction and lower blood pressure. In addition, many hypothesized effects of animal/human interaction can be derived from anecdotal reports and case histories. The therapeutic effects of animal/human contacts have been supported more on the basis of case studies and descriptive surveys than on the basis of controlled investigations.

Of the literature cited, Brickel (1979), Mugford and M'Comisky (1975), and Francis, Turner, and Johnson (1984), did not use adequate measures to test their hypotheses. Measures were either subjective or did not have adequate validity and reliability. In a few of the studies, a control group (Brickel, 1979) or an additional control group in the study by Francis, Turner, and Johnson (1984), would have strengthened the results they obtained. Although the
Francis, Turner, and Johnson study examined human interaction separately from pet interaction, a group without either intervention was not included. Since many of these studies reported used the elderly as a subject population, other variables that have been shown to influence happiness in the elderly could have been included.

Markides and Martin (1979), using a path analysis model, found that in persons aged 60 years and over health and activity emerged as strong predictors of life satisfaction. Other studies, (Spreitzer, Synder, and Larson, 1979 and Dickie, Ludwig, and Blauw, 1979), found self-reported health status to be a strong predictor of life satisfaction for both institutionalized and non-institutionalized older adults. Kozma and Stones (1983) found that the main independent predictors of happiness for urban and institutional persons were housing satisfaction, self-reported health, activities, and changes in life events. For rural individuals, only self-reported health and marital status were consistent predictors of happiness.

In order to conduct a more controlled investigation of the potential therapeutic effects of animal/human interaction, this study has included three groups with different interventions. This study consisted of a pet visitation group, an enhanced human interaction group, and a no-treatment control group. The elderly were chosen as the subject population since the literature suggests that this segment of the population has the potential to benefit most from this type of intervention.

Considering the importance of social activities in predicting older adults happiness, this study obtained retirement homes that were comparable in the amount of activities offered residents and
information concerning the amount of activities each resident participated in weekly was gathered. In addition, each resident reported their health status on a 10-point scale. A reliable instrument that has been validated on the elderly was used to obtain happiness scores.

It was hypothesized that elderly residents in a retirement home with a pet visitation program would obtain a higher measure of happiness than the retirement home with only human interaction. In addition, it was expected that the retirement home with human interaction and the retirement home with no treatment intervention would not display significant differences on the happiness measure. This second hypothesis was formulated under the assumption that all residents participating have human interaction through staff and activities and therefore, the additional amount of human interaction would not have a significant impact.
METHOD

Subjects

The subjects for this study were obtained from three local retirement homes. A retirement home with pet visitation was chosen as it was the only retirement home in the vicinity with this program. Since it was impractical for the investigator to implement a pet visitation program, the retirement home with this existing program was asked to participate. Through telephone contacts and visits to retirement homes by the investigator, two additional facilities were chosen to participate in the study. The selection of these two retirement homes was based on their environmental and resident similarity to the home with pet visitation.

Twenty-nine retirement home residents agreed to participate in this study. Of the 29 participants, three dropped out during the treatment period due to lack of interest. These three residents were in the human interaction group and contained two males and one female. The number of subjects in the pet visitation group, the human interaction group, and the no-treatment group were nine, nine, and eight, respectively. All subjects were female and ranged in age from 68 to 95. The mean ages for the pet visitation group, the human interaction group, and the no-treatment group were 83.7, 83.5, and 82.8, respectively.
Materials

An information and release form informing subjects of the general purpose of the study and the rights of participants in a research project was utilized in accordance with the ethical standards of the American Psychological Association (see Appendix A). An experimenter-designed questionnaire consisting of 10 questions was used to obtain information concerning the amount and frequency of social activities and length of residence in a retirement home. Supplementary questions concerned age, sex, marital status, and self-reported health status (see Appendix B).

The Memorial University of Newfoundland Scale of Happiness (MUNSH), developed by Kozma and Stones (1980), was used to obtain measures of happiness from the subjects (see Appendix C). The MUNSH contains items from the Affect Balance Scale (Bradburn, 1965), the Life Satisfaction Index-Z (Neugarten, Havighurst, and Tobin, 1961), the Philadelphia Geriatric Center Morale Scale (Lawton, 1972), plus newly constructed items by Kozma and Stones to measure happiness in the elderly. The scale consists of 24 questions and statements about general life experiences, the majority of which can be answered in a dichotomous fashion.

Adequate reliability and validity for this measure has been obtained for the elderly. Using elderly subjects from urban, rural, and institutional settings, Kozma and Stones (1980) obtained an internal consistency score of .80 and a test-retest score of .70. Kozma and Stones (1983) conducted a re-validation of the MUNSH with the elderly from larger urban populations (populations over 100,000).
Correlations between the MUNSH and avowed happiness scores (self-reported happiness) ranged from 0.75 to 0.86.

Procedure

All participants were informed that a graduate student in clinical psychology was studying how different types of activities and involvement with others may influence feelings about oneself and life satisfaction. In a group setting, subjects received the package of materials. The information and release form was read aloud by the investigator. Signatures of all participants were obtained on the consent form before completion of the additional materials. The experimenter-designed questionnaire and the MUNSH were then distributed and completed. The subjects in the pet visitation group did not receive the MUNSH at this time, since their self-reported health status would serve as a pre-treatment happiness score. For all groups, the investigator read all materials aloud and in many cases, individual assistance was necessary in aiding subjects to fully complete materials.

During the treatment phase, the retirement home with pet visitation received eight weekly consecutive visits by the animals, the investigator, and a volunteer from the humane society. Prior to this study, pet visitation was offered for an hour twice a month. The visiting animals consisted of two puppies and two kittens. All participants met as a group in the recreation room for approximately one hour each visit.

During the treatment phase, the investigator was also conducting weekly one-hour visits to the retirement home whose treatment was
that of enhanced human interaction. The investigator, along with the activities director, conducted word games with the subjects. These games consisted of crossword puzzles, constructing grammatically correct sentences from a group of words, and creating new words from a given word. These activities were conducted in a group setting in the recreation room. For both the pet visitation and enhanced human interaction groups, there were residents attending who were not participating in the study. The third retirement home, the no-treatment control group, was not contacted again until the end of the eight-week treatment phase.

Following the eight-week treatment phase, the investigator administered the MUNSH to all the subjects in the groups in the same manner and setting as the administration of materials before treatment. The test administrator remained at the retirement homes after completion of the MUNSH in order to provide subjects with the purpose of the study and to answer questions.

Data Analysis

The experimenter-designed questionnaire was used to gather psycho-social data from the three groups of subjects. Descriptive statistics were used to compare the groups on this information. The MUNSH was utilized to gather data from the three groups of subjects for happiness ratings. Pre- and post-test measures on the happiness scale were collected for all groups, except the pet visitation group. In addition, self-reported health status was obtained from all residents in the groups to serve as a pre-test happiness score.
A data analysis was completed using an analysis of covariance. This data analysis consisted of the pet visitation group, the enhanced human interaction group, and the no-treatment group to determine if these groups differed significantly on post-test happiness using health status as a covariate. The second analysis of covariance consisted of the enhanced human interaction group and the no-treatment group to determine if these groups differed significantly on post-test happiness using pre-test happiness as a covariate.
RESULTS

The analyses of covariance and descriptive statistics were calculated. Means and standard deviations for the psycho-social data revealed initial differences between the groups. Age and marital status were similar for all groups. The mean ages for the pet visitation, human interaction, and no-treatment groups were 83.7, 83.5, and 82.8 years, respectively. With the exception of two, all subjects were widowed.

Length of stay at present retirement home and residence at other retirement homes revealed significant differences between the groups. The mean length of residence at the present retirement home was 18.1 months (pet visitation group), 71.7 months (human interaction group), and 16.3 months (no-treatment group). The subjects in the human interaction group had never resided at other facilities, however, the means for the other two groups were 5.3 months (pet visitation group) and 4.5 months (no-treatment).

The human interaction group received more visitors per week (mean=3.5) than the pet visitation group (mean=1.2) and the no-treatment group (mean=1.3). The pet visitation group and human interaction group were similar in the amount of participation in retirement home activities (means = 4.1 and 4.2, respectively). The mean amount of participation in retirement home activities for the no-treatment group was 2.1 per week. All residents engaged in other activities outside the retirement home. The means for the pet
visitation group, human interaction group, and no-treatment group were 4.2, 2.1, and 1.1 per month, respectively. The breakdown of means and standard deviations by groups for psycho-social data are presented in Table 1.

The mean and standard deviation for the entire population on self-reported health status was 4.88 and 2.14. A breakdown by group displayed significant differences in self-reported health status with the human interaction group reporting to be healthier. In addition, pre-happiness and post-happiness means were larger for the human interaction group than the other two groups. These results show that the human interaction group was significantly different from the other groups before treatment. A breakdown of means and standard deviations by group for pre- and post-happiness scores and self-reported health can be seen in Table 2.

The analysis of covariance using all groups displayed no significant differences in post-happiness after removing pre-existing differences of self-reported health status \((F(2,22) = .177, \ p > .05)\). In addition, no significant differences in post-happiness were found in the analysis of covariance using the human interaction group and the no-treatment group when pre-happiness differences were removed \((F(1,14) = .066, \ p > .05)\).

A Pearson \(r\) correlation was conducted to determine the correlation between self-reported health status and pre- and post-happiness scores. The results of the Pearson \(r\) revealed a negative linear correlation between self-reported health and pre-happiness scores \((r = -.66, \ p < .01)\) for the human interaction and no-treatment.
### TABLE 1

**MEANS AND STANDARD DEVIATIONS BY GROUP FOR PSYCHO-SOCIAL DATA**

<table>
<thead>
<tr>
<th>PSYCHO-SOCIAL DATA</th>
<th>Pet Visitation</th>
<th>Human Interaction</th>
<th>No Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GROUPS</strong></td>
<td>M</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>SD</td>
<td>SD</td>
</tr>
<tr>
<td>N</td>
<td>9</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>Age</td>
<td>83.78</td>
<td>83.56</td>
<td>83.75</td>
</tr>
<tr>
<td></td>
<td>7.90</td>
<td>6.98</td>
<td>6.71</td>
</tr>
<tr>
<td>Marital Status</td>
<td>M</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>SD</td>
<td>SD</td>
</tr>
<tr>
<td>Single</td>
<td>2.00a</td>
<td>1.78</td>
<td>1.88</td>
</tr>
<tr>
<td>Divorced</td>
<td>0.00</td>
<td>.67</td>
<td>.35</td>
</tr>
<tr>
<td>Widowed</td>
<td>18.11b</td>
<td>71.67</td>
<td>16.25</td>
</tr>
<tr>
<td></td>
<td>8.96</td>
<td>73.53</td>
<td>22.85</td>
</tr>
<tr>
<td>Stay at Retirement Home</td>
<td>M</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>SD</td>
<td>SD</td>
</tr>
<tr>
<td>Single</td>
<td>5.33b</td>
<td>0.00</td>
<td>4.50</td>
</tr>
<tr>
<td>Divorced</td>
<td>16.00</td>
<td>0.00</td>
<td>8.33</td>
</tr>
<tr>
<td>Other</td>
<td>1.16c</td>
<td>3.54</td>
<td>1.30</td>
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<td></td>
<td>1.15</td>
<td>3.12</td>
<td>1.54</td>
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<tr>
<td>Residence at Other Homes</td>
<td>M</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>SD</td>
<td>SD</td>
</tr>
<tr>
<td>Visitors</td>
<td>4.11c</td>
<td>4.22</td>
<td>2.13</td>
</tr>
<tr>
<td></td>
<td>1.95</td>
<td>1.92</td>
<td>1.89</td>
</tr>
<tr>
<td>Other Activities</td>
<td>M</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>SD</td>
<td>SD</td>
</tr>
<tr>
<td>Visitors</td>
<td>4.22b</td>
<td>2.11</td>
<td>1.13</td>
</tr>
<tr>
<td></td>
<td>3.23</td>
<td>1.69</td>
<td>1.81</td>
</tr>
</tbody>
</table>

*a0=single, 1=divorced, 2=widowed

*b months

*c weekly
TABLE 2
MEANS AND STANDARD DEVIATIONS BY GROUP FOR HEALTH STATUS, PRE-TEST HAPPINESS, AND POST-TEST HAPPINESS

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>GROUPS</th>
<th>Pet Visitation</th>
<th>Human Interaction</th>
<th>No Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>5.22&lt;sup&gt;a&lt;/sup&gt;</td>
<td>3.88</td>
<td>5.62</td>
<td></td>
</tr>
<tr>
<td>SD</td>
<td>.83</td>
<td>2.20</td>
<td>2.82</td>
<td></td>
</tr>
<tr>
<td>Pre-test Happiness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>---</td>
<td>12.33&lt;sup&gt;b&lt;/sup&gt;</td>
<td>5.37</td>
<td></td>
</tr>
<tr>
<td>SD</td>
<td>---</td>
<td>7.56</td>
<td>9.31</td>
<td></td>
</tr>
<tr>
<td>Post-test Happiness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>5.77</td>
<td>10.77</td>
<td>5.00</td>
<td></td>
</tr>
<tr>
<td>SD</td>
<td>6.01</td>
<td>10.87</td>
<td>9.56</td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup>Possible Range: 1 - 10

<sup>b</sup>Possible Range: -24 to 24
control groups and post-happiness scores ($r = -.55, p < .01$) for all groups. Thus, lower scores of self-reported health status (healthier) tend to be related to higher pre- and post-happiness scores.

A backward multiple regression analysis was employed to determine whether social activities and length of stay in a retirement home, along with self-reported health status, correlated with level of post-happiness. With all variables in the equation, a significant $R$ was found ($R = .67, F(5,20) = 3.23, p < .05$). Of all the variables, only self-reported health status survived as a significant unique predictor of post-happiness - $R = .55, F(1,24) = 10.26, p < .05$. 
DISCUSSION

The results failed to confirm the hypothesis that individuals interacting with pet animals would score higher on happiness than those with only human interaction or no treatment. The hypothesis concerning the human interaction and no-treatment groups was supported for this population. The additional amount of human interaction did not have a significant impact on the individuals in this group. However, since the homes chosen for this study had social activities available to residents and data revealed that the subjects in the study did engage in social activities, the treatment of intended enhanced human interaction was not different from what the residents were already receiving in this group and therefore, may not fall in the criterion of treatment, per se.

The effect of pet visitation in retirement homes would appear to be positive from the verbal reports of the residents; however, it may be that whatever effect pet animals have on residents is short-term and would not produce a significant change in happiness over time. A limitation of this study was that the residents in the pet visitation group had been receiving this program before this study was employed. Thus, a true measure of this treatment was not obtained. Since other studies (Francis, Turner, and Johnson, 1984 and Brickel, 1984) have obtained positive results using visiting animals with the elderly, the notion that animals can provide the elderly with emotional benefits is worth further investigation.
Aside from the problem of pet visitation occurring before this study, it is possible that the population used in this study would not benefit from such a program. The residents in this study were ambulatory, active, and fairly happy. Their deprivation would appear less than that in a nursing home population (Brickel, 1984) and possibly less than that in a semi-institutionalized group home (Francis, Turner, and Johnson, 1984). If this is true, active retirement homes may not be the best population to study when examining the effects of pet visitation. This suggests that more studies should be conducted in less active retirement homes to determine if pet visitation provides any emotional benefits when social activities are absent.

The differences in the frequency of participation in social activities between the residents in the retirement home groups raises the question of what other variables, inherent in the environments of the retirement homes, may contribute to happiness. From observations, the home involved in human interaction was very different from the other two retirement homes. The physical environment of all retirement homes was similar; however, the social interactions between staff and residents at the home involved in the treatment of human interaction appeared more personal. In addition, residents related more openly with each other and presented themselves as a close-knit family. This may be due to the fact that residents in this home had lived there longer than the residents in the other homes and/or this retirement homes' staff and administration were more concerned with offering a home-like atmosphere. Another difference between the retirement homes was that the home involved in human interaction
was affiliated with a religious denomination. Therefore, this group may have been more social with each other because they saw themselves as similar, particularly in religious beliefs.

In reviewing these differences, it suggests that environment is very important and using three different homes can make it difficult to demonstrate effects of treatment. One way to eliminate this confounding variable, would be to engage a retirement home large enough to enable different treatments in one home. The difficulty in doing this is that residents receiving what they perceive as a less desirable treatment may resent being placed in such group and react differently. This could lead to a post-test difference between treatment groups that could erroneously be attributed to a difference in treatments.

In addition, the investigator noted that when searching for retirement homes to participate in this study, large retirement homes are outside the range of a normal retirement home setting. These retirement homes are typically very affluent and results from a study using retirement home residents from this setting would not generalize to elderly residents of other retirement homes. Since using one retirement home can also contain methodical problems, it appears that a better alternative would be to conduct a long-term appraisal of environmental settings before choosing different populations to participate in a study.

Since this study contained many methodical problems, it is difficult to conclude whether pet visitation could provide any positive emotional benefits for active retirement home residents. In recalling interactions between residents and the pet animals and
verbal reports of the residents in the pet visitation group, a possible explanation for the results obtained appears palpable to the investigator.

During visits, many residents would reminisce about the pets they had owned and in addition, speak about the pets they had to give away upon entering the retirement home. It was apparent to the investigator that for these residents, the pet visitation was producing some depressive reactions. Thus, if pet visitation does have positive emotional benefits, it may also contain the potential for negative reactions. Therefore, the negative impact may counterbalance any positive impact of pet visitation. In future studies, it would appear advantageous to include criteria, such as prior pet history, that against which would measure the extent of negative reflections included in a pet visitation program.

Beyond the planned examination of data, some interesting correlations were obtained. One implication of this study is the finding that self-reported health status is a strong predictor of happiness. This finding is in agreement with Markides and Martin (1979), Spreitzer, Synder, and Larson (1979), Dickie, Ludwig, and Blauw (1979), and Kozma and Stones (1983). This suggests that when studying happiness or life satisfaction in older adults, self-reported health status is a variable that needs to be included in examining treatment effects. In addition, self-reported health status may be used as a pre-test measure of happiness without indicating the variable being measured.

A second finding in this study was that self-reported health status was not correlated with activity level. A multiple regression
analysis revealed a non-significant correlation, \( R = .32, F(4,21) = .61, p > .05 \). Thus, those who were healthier did not engage in more social activities. Graney and Zimmerman (1980-1981) found self-reported health and social participation to be highly correlated. However, their population consisted of older adults living independently. Since the population in this study lived in a retirement home, it is difficult to compare results with the Graney and Zimmerman study.

A third finding of interest in this study was the poor correlation between social activities and happiness. This finding contradicts previous literature (Markides and Martin, 1979, and Kozma and Stones, 1983) where results showed a strong correlation between these two variables. These differences may be due to the population employed. Markides and Martin used lower-income older adults living independently. Kozma and Stones found activities to be a predictor of happiness for urban and institutionalized older adults. Although the population in this study was urban, the individuals were living in facilities with available social activities. It is possible that for those with a structured network of social activities, their level of importance in predicting happiness diminishes.

Since the subjects in this study were not chosen randomly, it may be that the results obtained relate only to those who participated in this study. Additional research in this area is needed to clarify the impact of social activities on happiness and secondly, if health status influences level of social activity.
APPENDIX A

INFORMATION AND RELEASE FORM

You are being asked to participate in a research project by a clinical psychology graduate student, Candace Donaghy, at the University of Central Florida, under the supervision of Dr. Richard Tucker. This project is designed to study how different types of activities and involvement with others may influence how you feel about yourself and your satisfaction with life.

All who participate will be asked to complete a questionnaire which consists of general questions about yourself. You will also be asked to complete a 24 item scale measuring happiness. Materials will be given to you at specified times. The questionnaire and the 24 item scale will be distributed to you as a group. Eight weeks later, you will be asked to complete the 24 item scale.

No individual will be personally identified in this project. All information gathered will be confidential and only the experimenter and three faculty members at the University of Central Florida will have access to this information.

All information concerning this study will not be available to you before your participation, however, at the end of this project, Candace Donaghy will provide you with a summary of the entire project.

You may terminate your participation in this study at any time, by saying so, without negative consequences. Please feel free to ask any questions now regarding your participation in this project.

Witness ___________________________ Signature ___________________________ Date ___________________________
APPENDIX B

PSYCHO-SOCIAL QUESTIONNAIRE

Name:

1. Age:

2. Sex:

3. Marital Status: Check one Single___ Married___ Divorced___ Widowed___

4. How long have you lived at this retirement home?

5. If you lived in any other retirement homes before coming to your present home, please indicate your stay at other homes.

In the past three months:

6. On the average, how many visitors do you see weekly?

7. On the average, how many retirement home activities do you engage in per week?

8. If there are any activities engaged in outside of the retirement home, please name them and the frequency in which you participate in them.

9. If your retirement home receives pet visitation, please state how many of these visits you have attended?

10. Based on a scale from 1 to 10, where 1 is excellent and 10 is very poor, how would you rate your overall health at the present time? Please circle the appropriate number.

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APPENDIX C

MEMORIAL UNIVERSITY OF NEWFOUNDLAND SCALE OF HAPPINESS

I would like to ask you some questions about how things have been going. Please answer "yes" if a statement is true for you and "no" if it does not apply to you. In the past months, have you been feeling:

(1) On top of the world?
(2) In high spirits?
(3) Particularly content with your life?
(4) Lucky?
(5) Bored?
(6) Very lonely or remote from other people?
(7) Depressed or very unhappy?
(8) Flustered because you didn't know what was expected of you?
(9) Bitter about the way your life has turned out?
(10) Generally satisfied with the way your life has turned out?

The next 14 questions have to do with more general life experiences.

(11) This is the dreariest time of my life.
(12) I am just as happy as when I was younger.
(13) Most of the things I do are boring or monotonous.
(14) The things I do are as interesting to me as they ever were.
(15) As I look back on my life, I am fairly well satisfied.
(16) Things are getting worse as I get older.
(17) How much do you feel lonely?
(18) Little things bother me more this year.
(19) If you could live where you wanted, where would you live?
(20) I sometimes feel that life isn't worth living.
(21) I am as happy now as I was when I was younger.
(22) Life is hard for me most of the time.
(23) How satisfied are you with your life today?
(24) My health is the same or better than most people's my age.
REFERENCES


