



# Effects of Animal-Assisted Therapy on Self-Reported Anxiety Among Healthcare Employees

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## Background and Significance

- Working as a healthcare professional is one of the most stressful occupations because of the complexity of the job and obligation to manage critical situations<sup>18</sup>. Anxiety levels are the highest among healthcare personnel who work in a hospital setting<sup>16, 21</sup>.
- High levels of anxiety in healthcare and nursing employees affect the quality of patient care and staff satisfaction; as well as cause increased job burnout, employee retention and recruitment<sup>16, 18, 21</sup>.
- Strategies for health promotion within the practice environment using holistic therapies may decrease nursing and other healthcare staff anxiety. Although clinical settings are known to increase anxiety levels, hospitals generally do not offer a variety of holistic activities for their healthcare employees<sup>16</sup>.
- Implementing a holistic intervention such as animal-assisted therapy can aid to ease personal anxiety at work and improve the employee's mood, which could indirectly affect the quality of patient care<sup>3, 12, 17, 26</sup>.

## Iowa Model of Evidence Based

- The current DNP study was used as an example in describing how the Iowa model could be used effectively in implementing AAT among healthcare employees
- The first and second step of the model is to identify and determine if the clinical problem is a priority for the organization<sup>4</sup>. A reduction in the quality of patient care due to workplace anxiety is the most important problem trigger identified
- A team will need to be formed for the third step in the Iowa model. The DNP project team consisted of:
  - the DNP nurse leader, unit manager, head of the volunteer services, and the dog handler supervisor from Therapy Dogs International (TDI).
- Once the team was formed, the next step in the Iowa model was to gather and critique the AAT evidence using a doctoral prepared nurse<sup>4, 15</sup>.
- The next step in the Iowa model, and for this project, was to implement AAT into a pilot practice change.

## Methodology

**Method:** descriptive survey design using a pre-test post-test method with healthcare employees in a high acuity medical-surgical and oncology setting.

**Participants:** Convenience sampling was the method used to select the participants. The participants included 50 healthcare employees. The project excluded employees who were less than 19 years of age, allergic to animals, or disliked or had a fear of dogs.

**Measures:** This project focused on measuring the characteristics of state anxiety, measured by the Spielberger State-Trait Anxiety Inventory (STAI)-S anxiety questionnaire to imitate the employee's feelings of workplace anxiety at a given moment<sup>14</sup>. A high STAI-S score (48 or above) can be related to a high level of anxiety<sup>5, 19</sup>. The STAI-S consists of 20 items scored using a 4-point Likert-type scale<sup>14</sup>. A fill-in-the-blank demographic section was also given before intervention. The demographic section identified age, gender, job position, and number of years employed.

**Intervention:** At the time of the study's implementation, there was a Dog Visitation program in place at the facility. The program requires the dogs to be pet therapy certified and in good health by their established pet therapy organization. Participants were free to choose how long they wish to stay in the AAT session. The participants had strict instruction not to hold the animal on or near their clothing.

**Procedure:** When the dog handler arrived, the dog was wiped down by the handler with sanitation wipes appropriate for animal use. The participants filled out a pre-intervention tool just before the intervention which included the demographic and the STAI-S questionnaires. The participant and the dog handler were then directed to a semi-private area. Before each participant encounter with the dog, hand sanitizer was provided to the dog handler and participant. After the participant completed the AAT intervention, the participant completed the post-intervention tool which included the same STAI-S questionnaire. Hand sanitizer was used immediately before the participant returned to work or break.



## Results

- Minutes spent in the AAT session ranged from 2-17 minutes
- Number of years employed ranged from less than 1 to 44 years and ages ranging from 19-71 years old
- Majority of the participants were female (80%, n = 40)
- 34% (n = 17) of the participants were registered nurses and 20% (n = 10) were patient care technicians.
- Post-test total scores were lower significantly after the AAT session when compared to the pre-test total scores

### Paired-Samples t-test of Pre- and Post Total Scores (N = 50)

	M	SD
Pre-test Scores	38.78	9.79
Post-test Scores	27.30	6.06

$t_{(49)} = 10.305, p < .001$

- A significant, positive relationship was found ( $r = .595, p < .01$ ) between the pre-total and the post-total scores, but not in minutes spent in therapy and post-total scores. This suggests that any length of time spent with the animal may be beneficial in reducing workplace anxiety
- Significant chi square differences were found between pre- and post-total scores for the indecisive ( $\chi^2(6) = 58.200, p < .001$ ) and worried variables ( $\chi^2(6) = 26.091, p < .001$ ). This suggests a perception of feeling indecisive and/or worried may decrease after a session of AAT with a therapy dog.

### Frequencies of Selected Pre- and Post-Intervention Variables

	Pre-intervention (N = 50)		Post intervention (N = 50)	
	n	%	n	%
I am worried				
Not At All	25	50.0	36	72.0
Somewhat	13	26.0	12	24.0
Moderately So	9	18.0	2	4.0
Very Much So	3	6.0	0	0.0
I feel indecisive				
Not At All	28	56.0	43	86.0
Somewhat	16	32.0	6	12.0
Moderately So	5	10.0	0	0.0
Very Much So	1	2.0	1	2.0

## Nursing Implications

- Providing time for the hospital staff to interact with the therapy dogs may increase staff approval of an already existing policy<sup>3</sup>.
- Nurses and other healthcare professionals should be educated and become familiar with AAT policy within their organization.
- The World Health Organization believes the clinical environment plays a crucial role in recruitment and retention of healthcare staff and affects the quality of patient care<sup>13</sup>.
- The Magnet program encourages organizations to provide environments that assist in attracting nurses and improving nurse retention rates<sup>10</sup>.
- Furthermore complies with recommendations from Joint Commission as well as IOM report (2204), which addresses the link between the work setting and patient quality and safety.

## Conclusion

- A healthcare provider who has a decreased perception of anxiety may be better able to provide a higher quality of care.
- Healthcare organizations need a caring, healthy, and satisfied employee workforce as the system advances toward new initiatives required by health care reform to deliver quality of patient care<sup>17</sup>.
- By using the Iowa Model of Evidence Based Practice, animal-assisted therapy may provide, with minimum clinical effort, a socially valid and personalized, holistic intervention<sup>27</sup>.
- AAT has been proven to produce a calming effect in patients, however, this study represents the unique possibility of using AAT in helping healthcare workers in reducing workplace anxiety<sup>1</sup>.
- The use of AAT decreased self-reported anxiety in healthcare employees especially in feelings of indecisiveness and worry.
- Additionally, AAT was shown to be applicable in a busy clinical workplace. The amount of time spent with the therapy dog did not affect perceived changes in anxiety.
- AAT can be applied easily and shows flexibility in a variety of settings. AAT functions economically because it is often volunteer-based and typically insured through their AAT organization.

For additional information and/or a copy of the reference list. Please contact Jenna Hussey at [jhussey@troy.edu](mailto:jhussey@troy.edu).