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**HUMAN-ANIMAL INTERACTION IN A PRISON SETTING: IMPACT ON CRIMINAL BEHAVIOR, TREATMENT PROGRESS, AND SOCIAL SKILLS**

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HUMAN-ANIMAL INTERACTION IN A PRISON SETTING: IMPACT ON CRIMINAL BEHAVIOR, TREATMENT PROGRESS, AND SOCIAL SKILLS

First, read the Abstract. It will summarize the entire article and give you a good idea if the article is of interest to you. The Title should match what the Abstract and article is meant to discuss.

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ABSTRACT: This quasi-experimental field study evaluated the effects of a forensic human-animal interaction (HAI) program on the criminal behavior of prison inmates. The study assessed the impact of the HAI program using between-subject methods and analyses. A total of 48 male inmates participated in the research by allowing researchers access to their institutional files and completing self-report measures. In general, it was hypothesized the HAI program would result in positive behavioral and psychosocial outcomes for inmates. Dependent measures included the frequency of institutional infractions, inmate treatment level within the prison’s therapeutic community, and social skills. Analyses compared two groups of inmates in a pretest-posttest repeated-measures design, comparing a Treatment group with a Control group. Results indicated that inmates in the Treatment group evidenced statistically significant improvements in these dependent measures, compared to the Control.
the Control group. Figure 2 illustrates this interaction.

**DISCUSSION**

This quasi-experimental field study tested the psychosocial effects of an HAI program on a correctional population. The general prediction that participation in the HAI program would result in psychosocial changes for inmates was supported. Participa-

After reading the *Abstract*, read the *Discussion Section*. It is near the end of the article. The *Discussion Section* recaps the entire study. It will tell you what authors meant to prove and how the experiment ended.

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**FOURNIER, GELLER, & FORTNEY**
Conclusion, and thus did not fully confirm the findings, more specific investigation of this variable in future studies would amplify the meaningfulness of data collected.

External validity may be a third limitation, in that the results may be not be generalizable beyond this particular population and setting. The participants differed from the general prison population; each had at least an eighth-grade reading ability and 72% had completed high school, obtained a GED, or higher degree. This is contrasted with the BJS’s report that only 59% of inmates in state prisons have a high school diploma or GED (1999). However, the nature of the research required that inmates be able to read, and it is unlikely reading ability or level of education would significantly alter the overall effect of an HAI program or the findings of the present research. Nevertheless, external validity is critical to applied research and future research should control for this limitation.

**SUMMARY AND FUTURE DIRECTIONS**

Given the promising findings and yet the limitations noted, future research is warranted in this area. While a true experimental design is recommended, it is unlikely prison administrators would allow inmates to be randomly assigned to HAI programs. Therefore, a design in which correctional institutions are randomly assigned to have an HAI program is indicated. The group-randomized-trial (Murray, 1998), in which whole groups are randomly assigned to treatment or control conditions, is such a research design. Findings from such a design involving several different correctional populations and settings would be more generalizable; the timing of HAI program implementation

Then read the *Conclusion* that follows the *Discussion*. By reading the *Abstract, Discussion,* and *Conclusion* in that order, the overall article is simpler to grasp if you are new to reading scholarly articles.
ABSTRACT: This quasi-experimental field study evaluated the effects of a forensic human-animal interaction (HAI) program on the criminal behavior of prison inmates. The study assessed the impact of the HAI program using between-subject methods and analyses. A total of 48 male inmates participated in the research by allowing researchers access to their institutional files and completing self-report measures. In general, it was hypothesized the HAI program would result in positive behavioral and psychosocial outcomes for inmates. Dependent measures included the frequency of institutional infractions, inmate treatment level within the prison’s therapeutic community, and social skills. Analyses compared two groups of inmates in a pretest-posttest repeated-measures design, comparing a Treatment group with a Control group. Results indicated that inmates in the Treatment group evidenced statistically significant improvements in these dependent measures in comparison to the Control group.

KEYWORDS: Human-Animal Interaction, Criminal Rehabilitation, Social Sensitivity, Correctional Psychology

Incarceration rates are at an all-time high in the U.S. with 6.9 million people involved in the criminal justice system, either incarcerated in jails or prisons or in the community on probation or parole (Bureau of Justice Statistics, BJS, 2004). It is estimated that 95% of those incarcerated in state correctional facilities are eventually released back into the community (BJS, 2004). The change of the role of incarceration in the United States in the 1970’s from providing rehabilitation for inmates to incapacitation

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1 Correspondence concerning this manuscript should be addressed to Dr. Angela Fournier, in the Department of Psychology, Virginia Wesleyan College, Norfolk, VA 23502; afournier@vwc.edu; telephone 757-233-8754 or fax at 757-561-5044. The authors express their gratitude to the inmates and staff of the correctional facility involved in the research, and to David Harris, the lead research assistant on the project.
HYPOTHESES

In general, it was hypothesized the HAI program would result in beneficial inmate outcomes. Dependent measures included inmate treatment level within the therapeutic community, frequency of institutional infractions documented in the inmates’ institutional files, and social skills assessed with a self-report measure. Based on the information cited, it was predicted that (a) the Treatment group would demonstrate greater increases in treatment level in the therapeutic community and self-reported social skills than the Control group, and (b) the Treatment group would demonstrate a decrease in institutional infractions from pretest to posttest in comparison to the Control group.

METHOD

Participants and Setting

The study was conducted at a minimum-security male prison in southwest Virginia. The prison confines a total of 352 adult inmates, housed in dormitory-style buildings. Exclusion criteria for this facility include charges for kidnapping/abduction, violent sex offenses and those inmates determined to be escape risks. In addition, the prison is a substance abuse treatment-oriented facility, and thus it is limited to inmates with a history of substance abuse or legal charges related to drugs or alcohol. In conjunction with the facility’s treatment orientation, two-thirds of the inmates participate in the prison’s therapeutic community.

A total of 48 adult male inmates from the prison’s therapeutic community participated in the research. This included 24 inmates who participated in the HAI program, serving as the Treatment group, and 24 inmates who applied to the HAI program but remained on the waiting list, serving as the Control group. The participants’ mean age was 29 with a range of 21 to 46 years old. Participants had completed a mean of 11.6 years of education with a range of 8 to 15 years. All participants were able to read.
For example, the *Methods and Materials* area might discuss 20 student *participants* who listened to loud music *Devices* while answering 20 math questions to *Determine* if noisy music really impaired test taking. (In other words, *Methods and Materials* discuss who or what was tested with a device for the experiment.

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After the Methods and Materials section, the Results of the experiment are discussed.

**RESULTS**

**Human-Animal Interaction**

Mean scores on the HAI Scale are presented in Table 1. Means were compared with a 2 Group x 2 Phase repeated-measures analysis of variance (ANOVA). The ANOVA resulted in a main effect for Group, $F(1, 46) = 24.1, p < .001$, in which HAI Scale scores were significantly higher in the Treatment group ($M = 31.5$) than in the Control group ($M = 19.8$). There was also a main effect for Phase, $F(1, 46) = 7.9, p < .01$, reflecting an increase in HAI Scale scores from Pretest ($M = 23.3$) to Posttest ($M = 27.9$). The Group x Phase interaction was not significant, $p > .05$.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Treatment Group (n=24)</th>
<th>Control Group (n=24)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pretest</td>
<td>Posttest</td>
</tr>
<tr>
<td>HAI Scale</td>
<td>28.8 (10.9)</td>
<td>34.2 (9.1)</td>
</tr>
</tbody>
</table>
The Results section may have a lot of math and scholarly words. If you are not good at either, you can still understand the article because the text explains the math as does the Discussion, and Conclusion, sections you read before the Results area. After finishing Results, re-read the article in order of their proper arrangement.

### Table 2. Total Number of Institutional Infractions, Classified by Group and Phase

<table>
<thead>
<tr>
<th>Group</th>
<th>Total Infractions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pretest</td>
</tr>
<tr>
<td>Treatment (n=24)</td>
<td>7</td>
</tr>
<tr>
<td>Control (n=24)</td>
<td>3</td>
</tr>
</tbody>
</table>

veys, for the Control group. The total number of criminal infractions, classified by Group and Phase, are depicted in Table 2.

As indicated in Table 2, infractions were relatively infrequent, with participants incurring zero to two infractions during the research period. Therefore, the ANOVA statistic could not be calculated. Instead, each infraction was categorized according to the Phase in which it occurred and the Group of the inmate who incurred the infraction. The infractions were analyzed with a $2 \times 2$ Chi Square analysis. The two variables were Phase with two levels (Pretest and Posttest) and Group with two levels (Treatment and Control). The Chi Square statistic indicated the variables Phase and Group were significantly related, $X^2 (1, n = 25) = 3.2, p < .10$. The more liberal $p$-value of .10 was accepted as statistically significant by these authors due to the small number of infractions being analyzed.

**Social Skills**

Social skills were assessed by calculating agreement scores on the CSI checklist.
Remember:

- The *Abstract* and the *Title* best indicate the type of information found in the article.

- Read the *Discussion, Conclusion* and then the *Introduction sections* before reading the *Methods and Material* section (middle) and *Results* area of the article. That is the more complex section. By first reading the article in that order, you will not feel lost in the middle because you will know how the experiment begins and ends.

- If you are not good in math, the formulae will be explained in a non-math way.
What do they mean?

Scientific and Technical scholarly articles usually follow the same approach, even if you have to read it out of numerical order. Once you understand it follows a certain outline, it becomes easier to read. This is what each part does, learning this makes it all the easier:

- **Abstract and Title**: The *Abstract* should match the *Title*. Then you will know what is being discussed.
- **Introduction**: ‘This is what people in my profession think about a subject, but here is my view.’
- **Methods and Material**: ‘To prove it, I have gathered participants or material and some testing equipment.’
- **Results**: ‘This is the raw data I collected from this experiment.’
- **Discussion**: ‘This is a complete summary of the experiment.’
- **Conclusion**: ‘This is where I was right and where I was wrong and what might need to be done by me or others to make it possibly work.’
How it looks:

- Title and Abstract
- Introduction
- Methods and Material
- Results
- Discussion
- Conclusion

How it should be read

- Title and Abstract
- Discussion
- Conclusion
- Introduction
- Methods and Material
- Results

- Re-read it in order.
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