

# Does early potty training affect indiscriminate relieving?



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# Our Mission





# Early Relieving Training (ERT) Program

Prior to ERT, same substrate throughout (shredded paper)

With ERT: offer alternative substrate for relieving and option to keep sleeping area clean







# Questions

1. Does it work? Can puppies as young as 3 weeks be taught to target a potty area?
2. Does it kick-start potty training in the puppy raising home?
3. Is there an impact on the number of dogs released from the program for inappropriate relieving?



# Hypothesis

3. Is there an impact on the number of dogs released from the program for inappropriate relieving?

**HYPOTHESIS:** There is an impact of ERT on the rate of dogs released from the program for inappropriate relieving.

**PREDICTION:** Dogs exposed to ERT will be less likely to be released from the program for inappropriate relieving than dogs who did not.



# METHODS

Correlational review: Dogs receiving the ERT treatment compared to a historical control group

No ERT (control): 3022 dogs whelped between July 2012 – February 2016

ERT (treatment): 2334 dogs whelped between May 2016 – June 2019



# DEFINITION

Dogs Released for Inappropriate Relieving:

Any dog released from the guide dog program (either during puppy raising or formal training) as a result of urinating or defecating outside of offered relief opportunities without an identifiable medical cause.



# Percent ( $\pm$ SE) of Dogs Released for Inappropriate Relieving

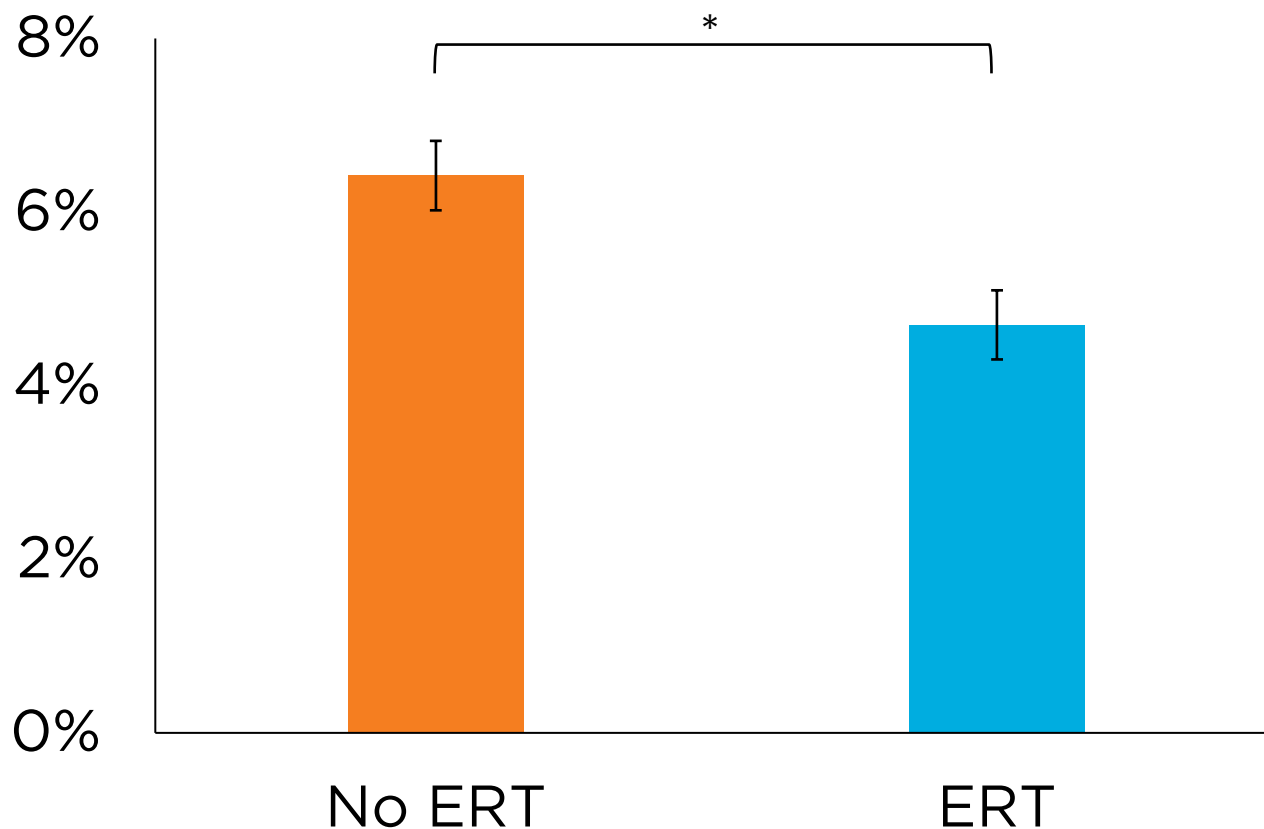


Figure 1. Bar graph comparing the percentage of dogs released from the guide dog training program due to inappropriate relieving in the No ERT control group (6.4%  $\pm$  .4) and the ERT group (4.7%  $\pm$  .4). Mann-Whitney Test  $p=.011$ .





# Dogs Released for Inappropriate Relieving

Breed by Treatment	No ERT	→	ERT
Labrador Retriever	155/2257 6.87%	→	90/1909 4.71%
Golden Retriever	22/384 5.73%	→	7/171 4.09%
Labrador x Golden Retriever cross	17/381 4.46%	→	15/254 5.91%
TOTAL	194/3022 6.42%	→	112/2334 4.80%



# Alternative Hypotheses (AH)

Can the lower rate of release in the ERT group be explained by...

1. Overall lower release rates?
2. More altered vs. intact dogs?
3. Giving more dogs with relieving concerns a chance in formal training?
4. Giving dogs longer in the program overall?



# AH1: Overall lower release rates

*“Was there an overall trend towards lower release rates that could explain the reduction in relieving releases?”*

No ERT Timeframe	ERT Timeframe
58.5% release (1769/3022)	61.0% release (1425/2334)

AH1 not supported. Difference identified between No ERT and ERT timeframes in overall rate of release is opposite to the pattern found in inappropriate relieving releases.



## AH2: More altered dogs

*“Given that hormones can drive some inappropriate relieving habits, were more dogs altered prior to release for inappropriate relieving during the ERT timeframe compared to the historical control?”*

No ERT Timeframe	ERT Timeframe
9% altered before release (18/194)	13% altered before release (15/112)

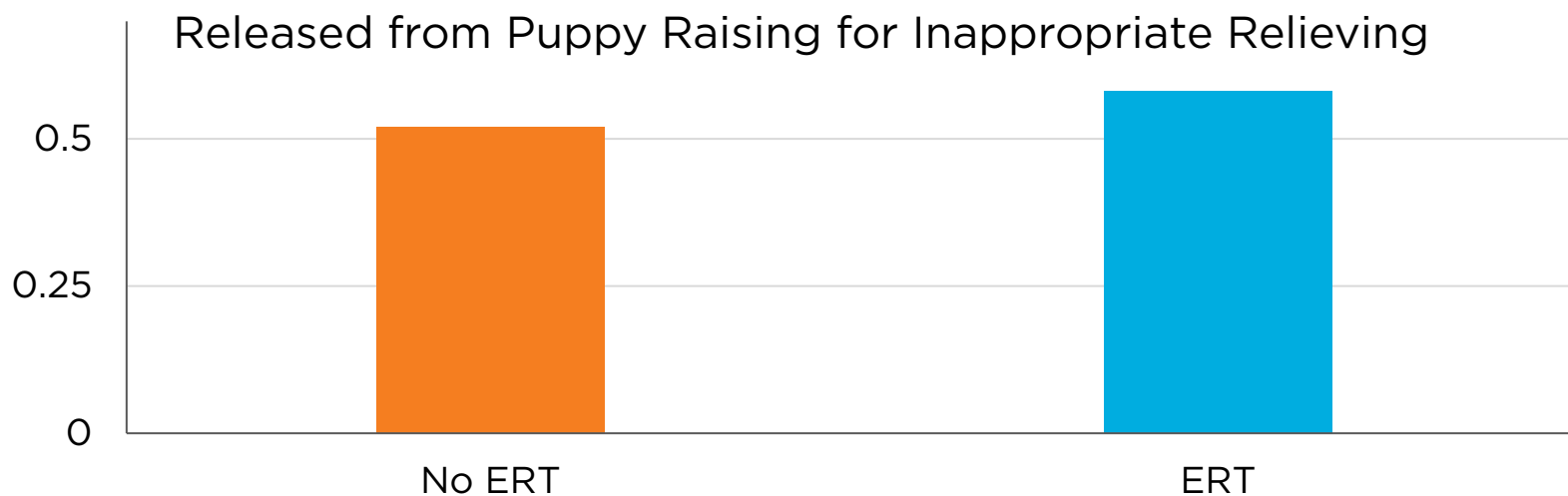
Difference between No ERT and ERT timeframes in proportion of dogs altered before release not significant ( $p=0.26$ ; non-parametric Mann-Whitney Test).

AH2 not supported.



# AH3: Fewer dogs released from Puppy Raising

*“Did a greater proportion of dogs who were ultimately released for Inappropriate Relieving receive the opportunity to attempt formal guide training during the ERT timeframe than the historical control?”*

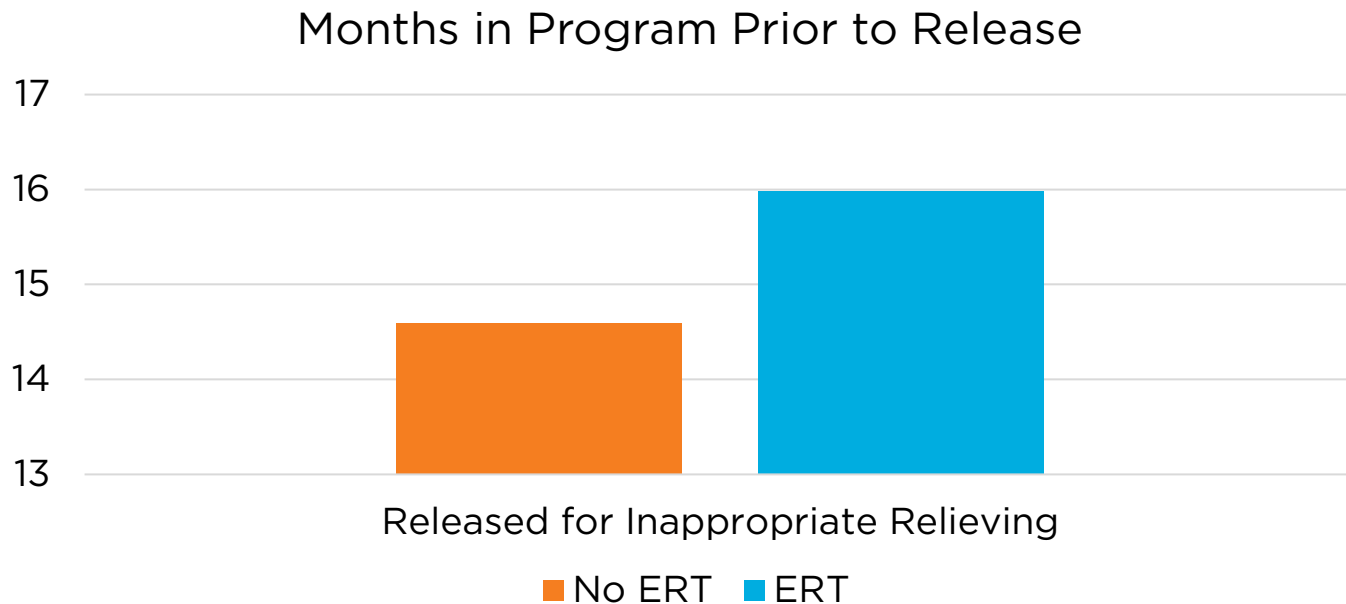


AH3 not supported. Difference identified between No ERT and ERT timeframes in rate of release from puppy raising for inappropriate relieving is opposite the pattern expected if AH3 could explain the findings.



# AH4: Longer in program overall

*“Did dogs with questionable relieving habits have extra time in the program prior to release during the ERT timeframe than the historical control?”*



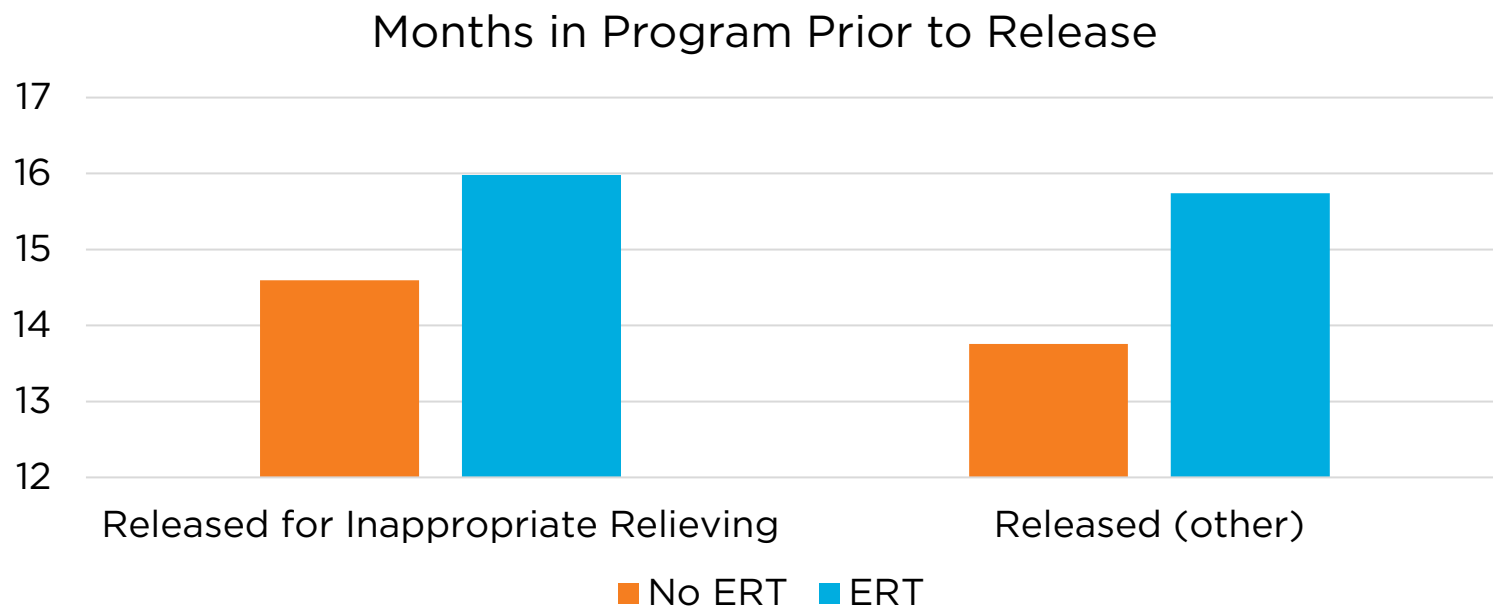
Does this support AH4? Dig deeper! Is this difference specific to dogs released for inappropriate relieving?





# AH4: Longer in program overall

*“Did dogs with questionable relieving habits have extra time in the program prior to release during the ERT timeframe than the historical control?”*

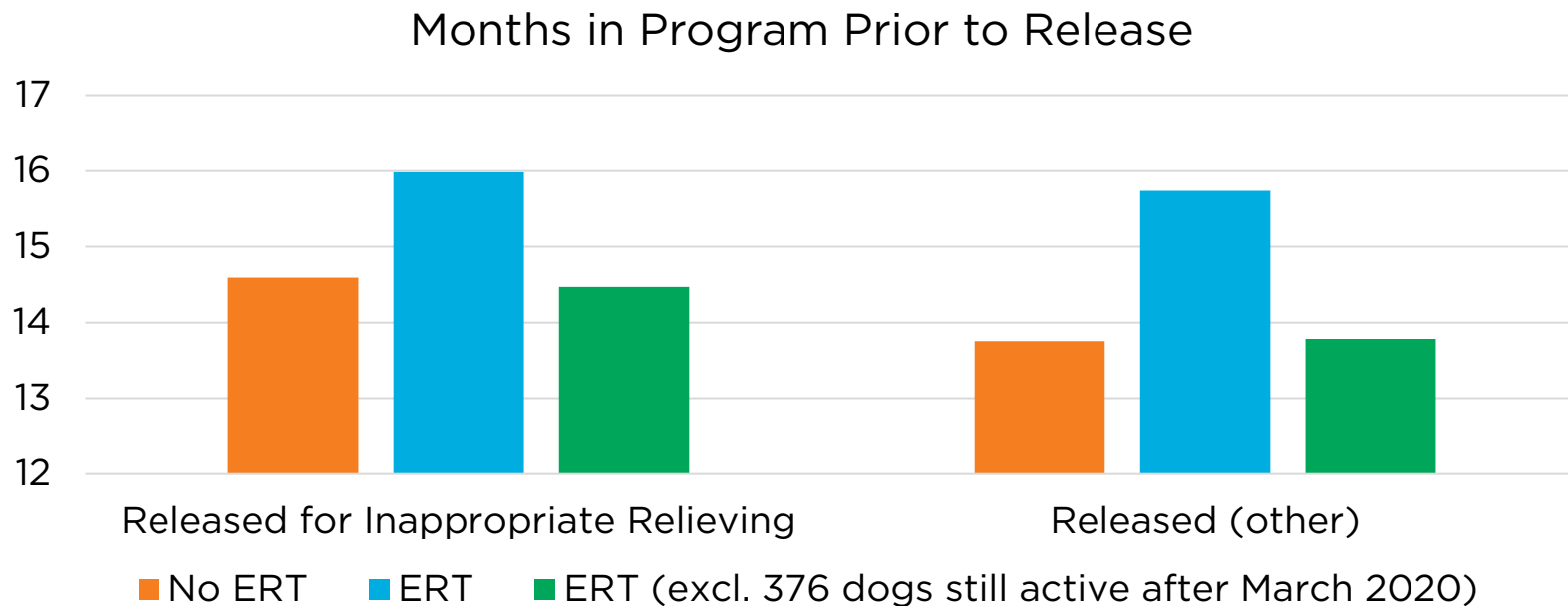


Pattern holds for dogs released for other reasons. Could the overall increase be an impact of pandemic shelter-in-place restrictions that paused recall, training, and client classes?



# AH4: Longer in program overall

*“Did dogs with questionable relieving habits have extra time in the program prior to release during the ERT timeframe than the historical control?”*



AH4 not supported. When excluding dogs whose length of time in the program was impacted by pandemic restrictions, no difference between ERT timeframe and historical control in length of time in program prior to release.



## SUMMARY

Our analysis found evidence in support of the prediction that dogs exposed to the Early Relieving Training (ERT) Program were less likely to be released from the program for inappropriate relieving than dogs who did not receive ERT. Four alternative hypotheses were explored and rejected.





# Questions?

