

Imresp1(A(mrord ons pae)-tric)-0s to 46%)rgumenons nursesgumenRAR,t to 61%).(orl -0.7(to a-sJ310t58sJ5e0t56ta480t56ta03>-57<sJ 4tae10t470t03>-56.9<ta35>17.9<ta37>1 non-consenting human subjects or were carried out in a setting other than a study environment, they would be deemed unethical. Second, the term "animal" in AR only applies to sentient animals, or those that are able to feel pain. Most people agree [1-4] that at the very least, this includes mammals and birds. Finally, AR is a moral concern because it causes animals to su er during experiments, including con nement [which causes boredom, loneliness, and frustration], fear [from handling], pain [from blood collection, and diseases that are caused], and early death. Is AR, in general, morally acceptable if it entails substantially injuring animals in any way? ere are several common categories of justi cations for AR. e rst are what we refer to as "bene ts arguments": AR considerably bene ts humans, AR is

Methods using a questionnaire

ese are the arguments that sparked the rst growth of AR and its governmental control. ird are what we refer to as "human exceptionalism arguments": people must sacri ce NHAs in their lifeboat in order to save other humans, or humans have more developed capacities than NHAs, or humans are a special species, or humans may enter into contracts. It's interesting to note that the rst two sorts of arguments really depend on the third type; for instance, a case must be made for why people cannot be used in the same way as animals in order to justify utilising them [as necessary] for human bene ts or as property. ere are responses to each of these arguments

that have been discussed in philosophical literature. However, the discussion over the validity of these justi cations and refutations is

suggested there were other research techniques that did not include using animals, as well as suggestions that more work should be put into creating such techniques. A majority (52-69%) also found the counterarguments convincing, which claim that "if enormous human advantages justify using animals in medical research, this should likewise justify employing humans in the same medical study".

f. General inquiries

If "research that results in harm to animals should be promoted in order to attain human advantages," was the question we posed at the start and again at the end of the survey. Nurses and RTs responded "yes" in 31/72~(43% of the time) in the beginning and 19/59~(32%) at the conclusion [p = 0.20]. Finally, when asked about what makes using vulnerable people in trials wrong, nurses/RTs provided the following response: ese vulnerable humans are capable of feeling pleasure, joy, happiness, sadness, grief, and su ering, according to 12/59~(20%); 20/59~(34%); we care about them; and 22/59~(37%); they are nevertheless vulnerable to physical and psychological injury when used in experiments.

g. Comparing the opinions of pediatricians, nurses, and RT

In regards to how the subgroups responded to any of the three kinds of arguments and counterarguments, no statistically signicant dierences were discovered. Nurses/RTs were less inclined to favour AR at the start and end of the survey (p = 0.036 and p = 0.009, respectively).

e answers to the nal question, which asked participants to explain why it is wrong to utilise vulnerable people in research, did not di er statistically signi cantly.

Conclusion

e results of this poll have four primary conclusions. First, 62% of paediatricians and 43% of nurses/RTs endorse AR. Second, "bene ts arguments" were typically believed to be su cient to support AR; however, most were not as persuaded when presented with counterarguments suggesting that there may be alternative research methods available. Finally, 'characteristics of NHAs arguments',

such as that NHA may not be sentient or are simply property, did not convince nearly all respondents. Fourth, a signi cant portion of respondents did not agree with the main justi cations put forth for "human exceptionalism," i.e., those that argue the same bene ts do not