

to this facility's noise level, the researchers wrote. While the building was constructed recently, "there were no obvious preventative measures in the design to reduce noise and, in fact, design may have had the opposite effect due to animal arrangement, the use of concrete block, and exposed metal roofing," the researchers wrote. In certain areas of the shelter, dogs could see the other dogs in the room as well as staff located at central work stations; this made for constant stimulation and may have encouraged frequent barking.

In addition, many of the building materials, with the exception of the suspended ceilings, did not allow for noise absorption. The authors note that an increasingly popular way to house shelter dogs is through the use of self-contained rooms instead of traditional kennels or runs. Such rooms can better contain and absorb noise and may also accommodate the group housing of dogs, which has been shown to decrease noise caused by animal vocalizations and to increase the time animals spend sleeping. The incorporation of communal play areas can also help with noise abatement, since mentally and physically exercised dogs are often quieter.

Given that the effects of noise are three-fold—having potentially negative effects on sheltered animals, shelter staff, and members of the public considering adoption—researchers concluded that noise abatement strategies should be incorporated into kennel design in order to reduce stress and improve animal welfare. "Because of its unpredictable and uncontrollable nature, the shelter is a stressful environment for a dog, and any stress-inducing stimuli that can be reduced or eliminated should be addressed if possible," the researchers wrote. "Without regulations regarding noise levels in animal shelters, noise may continue to be an overlooked variable and contribute to reduced overall welfare."

The morale of shelter staff is also likely to benefit when staff members don't have to compete with piercing background noise—and shelter visitors may find it easier to bond with a potential pet when their ears aren't being jackhammered. **AS**