Handling can cause significant changes in the stress physiology and behaviour of captive animals which can negatively impact their health and welfare. For animals used in research, how scientists interact and handle animals is a factor that is often overlooked. Our research aims to determine the effects of gentle handling in reducing fear in laboratory rats undergoing repeated oral gavage procedure. We hypothesized that on the days that oral gavage occurred, more rats would perform behaviours that indicate they found the procedure aversive. The same two researchers handled 18 adult Sprague-Dawley rats over approximately 3 weeks. Socialization protocol lasted for 10 minutes per cage and consisted of introducing hands into cage and allowing rats to approach, talking to the rats, stroking their backs gently, and scooping into arms. The results demonstrated a beneficial effect of gentle handling: the proportion of rats that ran away from the hand when being scooped and that hid for most of the socialization period decreased 67% and 41% respectively after only four days of gentle handling. In contrast to our hypothesis, the rats did not show a reappearance of these fearful behaviours on the days oral gavage occurred. We conclude that early socialization is important for both the animals and their caretakers and can foster a positive relationship between the two. The implications of consistent gentle handling may allow for easier behavioural testing, better data collection, and overall improved animal welfare.

Themes:

Check (highlight) the most applicable theme according to the abstract.

| Innovation and Technology | Health and Wellness | Culture and Society | Sustainability and Conservation |

Comments: This is an important study to help understand the effects of handling on laboratory animals. The author does a good job at covering all aspects of the research. They can work more on being concise in their writing and making sure awkward sentences are not present. I have given some specific examples in the comments section of the abstract. This study is attempting to look at fear behaviours however the authors are using fear and stress interchangeably. I caution the author to only make conclusions based on the behaviours observed and not on the overall stress of the animal. You can try to reduce fear behaviours and thus overall stress, however your study was focused on fear behaviours. Good work!