Are There Long-Term Effects of Production-Based Rearing on Pet Bird Behavior?

Michelle Curtis Velasco, DVM, Dipl. ABVP-Avian Practice

KEYWORDS

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INTRODUCTION

The pet industry has long been attuned to keeping a ready supply of animals for public purchase. In the years prior to 1970, the majority of larger psittacine birds available for sale to the public were imported animals that were caught as young adults or nestlings from nests. As concern for the effect of this type of trade on native populations became publicized and yet at the same time the demand for exotic birds in the pet industry continued to grow, many individuals and pet suppliers began to collect many of these imported species and to set up pairs in the hope that they could breed parrots and try to fill this need domestically. Some astute breeders noted that psittacines kept in large full flight aviaries did not always start breeding right away. Pairs moved into more confined, usually suspended, cages often produced more offspring. Early clutches were often ignored by pairs just beginning to reproduce and losses could be high. By removing eggs or nestlings early after hatching, pairs would often return to the nests and double and triple clutch in a single year. The harvested babies were then incubator raised and expediently fed via feeding tubes or syringes until they could be marketed directly to either the new pet owners or pet stores.

The premise that handfeeding these babies would make them more bonded to the new owner and result in a very tame, loving pet was promoted as a superior product. Many pet owners wanted to finish the handfeeding process themselves, thinking that this would result in a closer bond with their pet. Unfortunately, the transfer of an unweaned baby bird to an inexperienced owner to raise was frequently problematic. This system generally results in the production of larger numbers of offspring to the pet trade, but losses through the process were probably higher in terms of morbidity

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Fleming Island Pet Clinic, 4711 Highway 17, Building D, Fleming Island, FL 32003, USA
E-mail address: sunvet@bellsouth.net

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and mortality. Inexperienced owners often do not realize when a baby is developing problems, have poor feeding technique, and lack knowledge of proper husbandry. Ultimately, this may result in a poor experience, which results in unhappiness and one less pet owner as a client for the entire industry.

During the time of mass importation, the greatest threats to aviculture from a veterinary standpoint were infectious in nature. Large-scale aviaries set up elaborate hatcheries and nurseries and paid extremely close attention to biosecurity and hygiene to prevent the introduction of infectious disease. These nurseries were often well lit, with individuals strictly separated and monitored for growth and health. Feedings were specifically timed and efficient. Unfortunately, this setup is closely reminiscent of the images of Romanian orphanages, which, while successful in helping reduce the death of infants born to HIV-infected mothers who either died or abandoned them, also resulted in multitudes of behavioral abnormalities arising from a lack of physical contact early in life. The Bucharest Early Intervention Study starting in 2000 noted that not only did orphans raised institutionally versus in foster home show behavioral disease, they also had changes in their DNA (shortening of telomeres) that the researchers thought were linked to early childhood adversity. While unclear what this would mean for the children's long-term health, earlier studies indicated increased risk for cardiovascular disease and cancer and premature aging.[1]

In the next step of the process, well-meaning purchasers of baby psittacines would lavish attention on their new baby bird, expecting to be rewarded for their efforts with an intelligent, loving, well-adjusted avian pet. Unfortunately, as the increasing volumes of literature on avian behavior problems will attest, this plan has not been without a detrimental aspect. Studies indicate that the "behavior of altricial and social brain species—those whose young strongly rely on early social interactions and adult care—are strongly influenced by early developmental events. It is during this time that the brain is most plastic and receptive to environmental surroundings: what an infant perceives and receives effectively sculpts his/her developing neuroethology. The problems arise when there is a "mismatch" between what an individual expects ecologically and evolutionarily and what is experienced in the social and ecological context."[2(p387)]

Avian behavior problems, including many self-damaging issues, have become part of the daily workload of the avian veterinary practitioner (**Fig. 1**). Some of the earliest cases noted dealt with the tendency of certain species to pull out, damage, or destroy their own feathering, with the African grey parrot and various cockatoo species being highly represented. Unfortunately, treatment of the mature bird once the behaviors have been established is often unrewarding. By attempting to correct the early mismatch at the breeder and production level, possibly the incidence of behavioral problems in the well-bred pet bird can be lessened.

As in any industry, there will be those individuals whose only concern is the earning of a profit. Fortunately, in many aspects of the animal industry, there are also those who work at lower compensation just to be around the animals they love. These breeders began to work on providing a more natural early environment. Keeping clutches together longer when possible, using towels to mimic the reassuring feel of a parent wing on a nestling's back, gradual introduction to stimuli, and even allowing young fledglings the opportunity to experience flight prior to the first wing clipping are all tools that could be used to help prevent some of the confusion described here.[3,4]

There are significant differences in the sociobiology of the different large psittacine bird species commonly raised and kept as pets. It has been widely recognized that many domestically produced African grey parrots have actually been selectively bred