

# Contents

|   |       |
|---|-------|
| Statement of Author                         | I     |
| List of Tables                              | II    |
| List of Figures                             | II    |
| Abstract                                    | III   |
| 1. Introduction                             | 1-2   |
| 2. Material and Methods                     | 3-4   |
| 2.1 Study population                        |       |
| 2.2 Study period                            |       |
| 2.3 Study design                            |       |
| 2.4 Data collection                         |       |
| 2.5 Statistical analysis                    |       |
| 3. Result                                   | 5-12  |
| 3.1 General information of pet birds        |       |
| 3.2 Management practices followed by owners |       |
| 3.2.1 Purpose of rearing                    |       |
| 3.2.2 Breeding of pet birds                 |       |
| 3.2.3 Welfare of birds                      |       |
| 3.2.4 Feeding practices of birds            |       |
| 4. Discussion                               | 12-18 |
| 4.1 General information of pet birds        |       |
| 4.2 Management practices followed by owners |       |
| 4.2.1 Purpose of rearing                    |       |
| 4.2.2 Breeding of pet birds                 |       |
| 4.2.3 Welfare of birds                      |       |
| 4.2.4 Feeding practices of birds            |       |
| 5. Limitation                               | 19    |
| 6. Conclusion                               | 20    |
| 7. Reference                                | 21-22 |

|                     |    |
|---------------------|----|
| 8. Appendix         | 23 |
| Acknowledgement     | 24 |
| Biography of Author | 25 |

## Statement of Author

I, Asma Sadia Authoy, would like to strongly assure that I have performed all the works and furnished here in this report. The information has been collected from national and international journals, websites and other references. All references have been acknowledged duly. Therefore, I hold entire responsibility of collection, complication, preservation and publication of all data accumulation here in this report.

The Author

August, 2022.

## List of tables

**Table 1:** Frequency and percentage of different variables related to general information of pet birds (n=79).

**Table 2:** Frequency and percentage of different variables related to management practices followed by the pet owners (n=79).

**Table 3:** Frequency and percentage of different variables related *to* welfare of birds followed by the pet owners (n=79).

**Table 4:** Frequency and percentage of different variables related to feeding practices of pet birds followed by the pet owners (n=79).

## List of figures

**Fig.-1:** Geographical location of data collection site

**Fig.-2:** Data collection from owner

## Abstract

A thorough investigation into pet bird management procedures with respect to purpose, breeding, health care, welfare and feeding practices was conducted in Dhaka and the Chattogram Metropolitan area. This study was conducted from January 2022 to July 2022. To put the study into practice, a comprehensive questionnaire was created and information was gathered from 79 aviculturists. This study revealed that most owners were keeping their pet birds as a hobby (43%). According to this study, identifying the sex of birds was a significant issue for bird owners and this was very important for the breeding of birds. The majority of bird owners used physical appearance to define sex (38%). Sex identification by deoxyribonucleic acid (DNA) is a scientific process which was also used by some owners (30%). The majority of pet birds lived entirely in cages (94%). The only health management techniques used were vaccination (8%) and deworming (85%). Most bird owners practiced good hygiene to keep their birds healthy, most bird owners practiced good hygiene. 49% of the owners cleaned the cages on their own using detergent (35%), normal water (47%). So most of the owners used normal water for cleaning. Almost all the owners maintained proper feeding and watering for their birds. Most of the birds had good relationships with their owners but they were not fully tamed (65%). A lower number (35%) of birds were fully tamed by their owners. The management techniques were all acceptable to the birds in this survey. In this study, most of the owners said that they don't get enough help or proper guidance from professionals. So we should do more work in this sector.

**Key words:** Pet birds, Management, Breeding, Sex determination, Feeding practice, Rearing purpose.

# 1. Introduction

Birds (Aves) are feathered vertebrates having a beak, a rapid metabolic rate, a four-chambered heart, an air sac and the ability to produce hard-shelled eggs. Psittacine and passerine birds are chosen as pet birds in most nations. The parakeet, African grey parrot, Amazon parrot, macaw, conure, cockatoo, cockatiel, lory, lovebird, and budgerigar are all psittacine birds. (Samanta & Bandyopadhyay, 2017).

The fast transformation of Bangladesh's socio-economic and demographic fabric has resulted in a rise in the value of pet birds and animals in recent years. Pet bird breeding is an essential societal stress-reduction tool, as well as a new source of job and money for unemployed youngsters. As a result, there has been a surge in interest in this field. Pet birds have a number of distinguishing characteristics, such as appealing colors and the ability to become good companions, both of which have boosted their popularity (Lazenby, 1949).

Furthermore, there are over 400 different types of pet birds to pick from. Love birds, Budgerigars, Cockatoos, Macaws, Amazon parrots, Pigeons, Cockatiels, Finch, and the Parakeet are just a few of the options. Birds have been kept as pets since the dawn of time. The presence of birds throughout the history of lekythos paintings can be used to deduce the first records of birds held by the Greeks (Lazenby, 1949).

For different reasons, a large number of people have increasingly entered this market. However, there is a scarcity of information about bird owners' management strategies in terms of breeding, health care, welfare as well as the limits they encounter. Understanding these parameters would be helpful in developing and designing appropriate intervention strategies in this sector, which would go a long way toward ensuring a sustainable livelihood option for budding entrepreneurs while also adhering to minimum standards recommended for the welfare of these birds (Sreeshama et al. 2017).

Pet birds and poultry have many comparable fundamental requirements. This is especially true for basic illness prevention; disease security, and sanitation. However, pet birds have very diverse dietary and housing requirements, as well as specific demands and traits for reproduction (Mallison&Stunkard, 1984). In a healthcare environment, managing pet birds might be difficult. The capacity of birds to "hide" clinical symptoms of sickness until late in the disease process means that they frequently do not appear until they are far more unwell than their owners think (Hoppes, 2021).

Birds are therefore more difficult to evaluate as patients. Oxygen deprivation can happen during confinement, therapy, or diagnostic sampling since birds have a significantly greater metabolism than mammals. Owners must to be made aware of the dangers involved in handling and sampling as well as the necessity of a methodical process involving physical examination and diagnostic tests. While gathering the history and prior to doing the physical examination, it may be necessary to place seriously disabled birds in a heated oxygen incubator or cage (Hoppes, 2021)

However, there is a dearth of knowledge on the management strategies used by bird owners in relation to breeding, healthcare, welfare, and feeding, as well as the challenges they encounter. Understanding these factors would help in creating and designing appropriate strategies for intervention in this industry, which would go a long way in ensuring a sustainable livelihood option for aspiring business owners as well as maintaining the minimum standards recommended for the wellbeing of these birds (Sreeshma et al, 2017)

The current study investigated the subject of bird care in depth, including normal breeding procedures, correct health care, welfare concerns, bird sourcing used by pet bird owners. Based on the foregoing explanation, the current study was conducted with the goals of examining pet owners' breeding management, health care and welfare.

## 2. Materials and Methods

### 2.1. Study population

In this study, the study population was pet birds. The study was conducted on management of pet birds. A total of 79 aviculturists were selected for the study in which 50 from Dhaka and 29 from Chattogram.

### 2.2. Study period

The study period was from January 2022 to July 2022. Data was collected from Chattogram metropolitan area in between January 2022 to March 2022. In between April 2022 to July 2022 data was collected from Dhaka Metropolitan area.

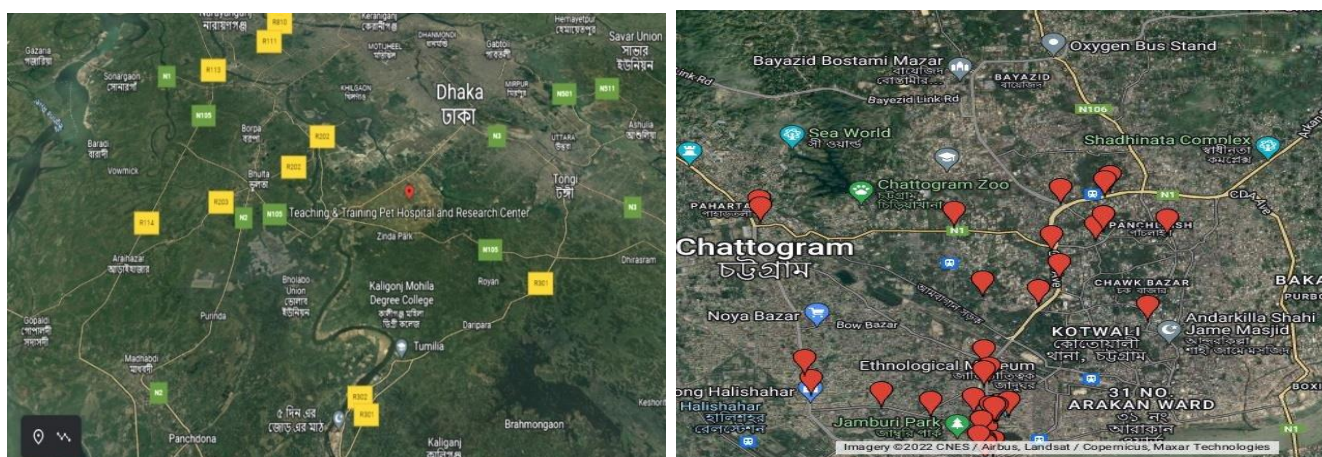


Fig.-1: Geographical location of data collection site

### 2.3. Study design

A pre-structured questionnaire was used for data collection. Data was collected from pet bird owners in their own premises by personal interview through face-to-face under Chattogram metropolitan area and Dhaka Metropolitan area, through the online Google



Forms or that were visited to the hospital for the purpose of regular checkup or for treatment purpose due to illness in S. A. Quadery Teaching Veterinary Hospital (SAQTVH) of Chattogram Veterinary and Animal Sciences University (CVASU) and Teaching and Training Pet Hospital and Research Center (TTPHRC), Dhaka under CVASU and also in Central Veterinary Hospital, Dhaka.

#### **2.4. Data collection**

The data were collected based on general information of pet bird including (breed, age, sex etc.) and management of pet birds of rearing, sex determination, source of pet bird, type of housing, time spent in cage, location of cage at home, cage cleaning things, source of water, deworming, vaccination, types of feed, interaction with pet owner, birds use for other activities etc. were collected during the study period.



Fig.-2: Data collection from owner

#### **2.5. Statistical analysis:**

To demonstrate frequency and percentage of management of pet birds, all complied data were imported in Microsoft Excel- 2013 and transferred to STATA 3.5.1 version for statistical analysis.

## 3. Result

### 3.1. General information of pet birds

In this study, general information of birds like breed, sex, age of pet bird and source of bird collection details were measured (Table-1). Here most rearing bird in this study was Budgerigar and the percentage was 18% and the less rearing bird was Eclectus, Rosella and Macaw. Maximum pet bird owner were kept their birds as pair (Frequency-69, Percentage-87%) some are kept as single male and female (Frequency-5) and the keeping of single male female ratio is 1:1. Here maximum birds were between 6 months to 2 years (Frequency-29, Percentage-37%) and the lowest frequency (7) was below 6 months, above 4 years aged birds' frequency was (28) which was second highest frequency of this conducted study. Most of the bird owner collect their birds from Breeder (42%), 41% owner collect birds from importer, some collect birds from market (13%) and the rest of the pet bird owners collect their birds from all the ways mentioned above.

**Table 1:** Frequency and percentage of different variables related to general information of pet birds (n=79).

| Variable           | Co-variable          | Frequency | Percentage (%) |
|--------------------|----------------------|-----------|----------------|
| Breed              | Budgerigar           | 14        | 18             |
|                    | Cockatiel            | 13        | 16             |
|                    | Conure               | 7         | 9              |
|                    | Eclectus             | 1         | 1              |
|                    | Finch                | 6         | 8              |
|                    | Lorikeet             | 10        | 13             |
|                    | Love bird            | 12        | 15             |
|                    | Macaw                | 1         | 1              |
|                    | Parrot               | 8         | 11             |
|                    | Ring neck            | 6         | 8              |
|                    | Rosella              | 1         | 1              |
| Bird Sex           | Female               | 5         | 6              |
|                    | Male                 | 5         | 6              |
|                    | Pair                 | 69        | 87             |
| Bird Age           | ≤6 Months            | 7         | 9              |
|                    | >6 Months – ≤2 Years | 29        | 37             |
|                    | >2 Years – ≤4 Years  | 15        | 19             |
|                    | Above 4 Years        | 28        | 35             |
| Source of pet bird | Breeder              | 33        | 42             |
|                    | Importer             | 32        | 41             |
|                    | Market               | 10        | 13             |
|                    | Importer, Breeder    | 1         | 1              |
|                    | Market, Breeder      | 3         | 4              |

## **3.2. Management practices followed by owners**

### **3.2.1. Purpose of rearing**

Here different types of purpose of rearing were observed (Table-2). In purpose of rearing, pet bird owner kept their bird or their purpose of rearing was hobby, business and breeding. Maximum pet bird owners kept their bird as their hobby (Frequency-34, Percentage-43%), some pet bird owner kept birds as hobby, business and breeding (Frequency-30, Percentage-38%). Some owner kept their bird solely for business or for breeding (Frequency-1, Percentage-1%) and both for breeding, business (Frequency-13, Percentage-16%).

### **3.2.2. Breeding of pet birds**

In breeding of pet birds, owners were used various sex determination methods (Table-2). Most of the owners (38%) identified sex by the physical appearance, some owners followed DNA sexing for identification of sex of their bird (Frequency-24, Percentage-30%) Some owners identified by their own experience (Frequency-15, Percentage-19%), some owners identified by both experience and physical appearance (Frequency-6, Percentage-8%), 6% owners followed all the techniques mentioned above.

In this study, 56% owners were used their birds for breeding both occasionally and regularly or intentional breeding and unintentional breeding. But the rest of the owners didn't use their birds for breeding (Table-2).

**Table 2:** Frequency and percentage of different variables related to management practices followed by the pet owners (n=79).

| Variable                   | Co-variable                                 | Frequency | Percentage (%) |
|----------------------------|---|-----------|----------------|
| Purpose of rearing         | Hobby                                       | 34        | 43             |
|                            | Business                                    | 1         | 1              |
|                            | Breeding                                    | 1         | 1              |
|                            | Breeding, Business                          | 13        | 16             |
|                            | Hobby, Business, Breeding                   | 30        | 38             |
| Sex determination          | Physical appearance                         | 29        | 38             |
|                            | Experience                                  | 15        | 19             |
|                            | DNA sexing                                  | 24        | 30             |
|                            | Experience, Physical appearance             | 6         | 8              |
|                            | Experience, DNA sexing, Physical appearance | 5         | 6              |
| Birds for breeding purpose | Yes   | 44        | 56             |
|                            | No  | 35        | 44             |

### 3.2.3. Welfare of birds

In welfare of pet birds, using of the preventive medication like deworming-vaccination, types of housing, time spent in cage, cage cleaning materials, location of cage, cage cleaner, birds used for other activities that were discussed (Table-3).

At the time of the study, almost all birds appeared to be healthy, active and free of any ailments. The majority of pet owners (85%) solely used de-worming as a kind of health

maintenance and 8% pet owners used vaccination as preventive measures for their birds. Almost 56% owners used their birds for exhibition or any bird fair (Table-3).

Almost 94% birds were kept in cage and 78% pet birds spent full time in the cage. 5% birds were kept open all the time and 18% birds spent 12hrs of their time spent in cage. The rest of the birds were kept in both ways (Table-3).

In this study, we have found that bird rearing cages were kept in specific room, special farm and balcony and bed room. Almost 25% bird owners were kept their bird in their bedroom and balcony. But maximum bird owner those who was taken bird as a business purpose they kept their bird in special farm (35%) and specified room (14%) (Table-3). Owners always tried to maintain the hygiene for their birds by using some preventive measures except vaccination and deworming and that was keeping the cage properly cleaned. Owners were cleaned the cages by using detergent, warm water, and normal water also. Most of the owners (47%) were used normal water for cleaning the cages. 35% owners were used detergent wash and then spray the disinfectant. Warm water was used by 16% bird owners (Table-3). Just 3% bird owner solely used disinfectant for the cage cleaning. Maximum owners (51%) took help of their maid for the cleaning of bird cages and 49% bird owners did this by their own (Table-3).

Here is found that 35% birds were tamed but most of the birds (65%) were not tamed. In this current study we have found that 78% owners didn't face any diseases to their birds in past 1 year but 22% bird owners complained that their birds had faced diseases in past 1 year (Table-3)

**Table 3:** Frequency and percentage of different variables related to welfare of birds followed by the pet owners (n=79).

| Variable                  | Co-variable                | Frequency | Percent |
|---------------------------|----------------------------|-----------|---------|
| Used for other activities | Yes                        | 45        | 56      |
|                           | No                         | 34        | 44      |
| Type of housing           | Cage                       | 74        | 94      |
|                           | Open                       | 4         | 5       |
|                           | Open and Cage              | 1         | 1       |
| Time spent in cage        | Always                     | 62        | 78      |
|                           | 12hrs                      | 14        | 18      |
|                           | Open                       | 3         | 4       |
| Location of cage at home  | Balcony                    | 20        | 25      |
|                           | Bed room                   | 20        | 25      |
|                           | Farm                       | 28        | 35      |
|                           | Specific room              | 11        | 14      |
| Cage cleaned by           | Own                        | 39        | 49      |
|                           | Maid                       | 40        | 51      |
| Cage cleaning things      | Detergent and disinfectant | 28        | 35      |
|                           | Warm water                 | 13        | 16      |
|                           | Normal water               | 37        | 47      |
|                           | Disinfectant               | 1         | 3       |
| Deworming                 | Yes                        | 67        | 85      |
|                           | No                         | 12        | 15      |
| Vaccination               | Yes                        | 6         | 8       |
|                           | No                         | 73        | 91      |
|                           | Tame                       | 28        | 35      |

|                                      |          |    |    |
|--------------------------------------|----------|----|----|
| Interaction with you                 | Not tame | 51 | 65 |
| Any disease affected in past 1 year? | Yes      | 17 | 22 |
|                                      | No       | 62 | 78 |

### 3.2.4. Feeding practices of bird

In the feeding practices of pet birds, types of feed, source of water were studied (Table-4). Different types of feeding protocols were followed by the owners for their pet birds. Maximum owners were maintained basic needs for their pet. Here most of the owner (43%) fed solely seed mix. 25% owners fed their birds seed mix, vegetables and egg food. 10% owners fed fruits also with vegetables and seed mix. For some birds (e.g.; Parrot, Lorikeet) had specific feed for them and for the parrot the feed was parrot mix (Table-4). Here we have found that maximum owners (44%) feed water to their birds from tube well. 42% owners used water purifier or filter as the source of water for birds. A very few owners (3%) used boiled water and the rest (11%) used tap water (Table-4).



**Table 4:** Frequency and percentage of different variables related to feeding practices of pet birds followed by the pet owners (n=79).

| Variable        | Co-variable                    | Frequency | Percent |
|-----------------|--------------------------------|-----------|---------|
| Types of feed   | Seed mix, Fruits, Vegetables   | 8         | 10      |
|                 | Seed mix                       | 34        | 43      |
|                 | Seed mix, Vegetables, Egg food | 20        | 25      |
|                 | Parrot mix, Nectar, Vegetables | 1         | 1       |
| Source of water | Boiled water                   | 2         | 3       |
|                 | Filter                         | 33        | 42      |
|                 | Tap water                      | 9         | 11      |
|                 | Tube well                      | 35        | 44      |

## 4. Discussion

According to widely used dictionaries, a pet is "any animal or bird that you keep at home for enjoyment, not for labor or sustenance." (Samanta & Bandyopadhyay, 2017) Modern bird owners are continuing a pet bird tradition that goes back at least 4,000 years to the ancient Egyptians, who are often credited with keeping the first pet birds. The ancient Chinese are known to have kept pheasants. From writings dating back almost 3,000 years, we know that both Persians and Indians kept parrots and other birds as pets, as did the ancient Greeks. Aristotle studied and wrote about his pet bird, Psittace. The name of Aristotle's bird is the root of the scientific name for all parrots, Psittacine. The Alexandrine parakeet is named for Alexander the Great; tradition has it that one of Alexander's generals granted him one of these birds as a gift following the invasion of northern India in 327 a.d. (Introduction to pet birds).

### 4.1. General information of pet birds

In Japan, researchers found that having pets helped kids become more socially integrated and reduced extreme behavior such as hyperactivity and violence (Nakajima, 2017). According to a study conducted in East and West Germany, the term "domesticated" only applies to a small subset of birds, excluding domestic pigeons and poultry. The human-avian interaction will significantly affect the quality of this cohabitation. Only a few pet birds, such as budgerigars and cockatiels, parrots, and finches can be classified as domesticated aside from domestic pigeons and chickens (Burmeister et al, 2020). This present study revealed that most rearing bird was Budgerigar and the percentage was 18% then Cockatiel (16%) and then the most rearing bird found in this study was Love bird (15%) and the less rearing bird was Eclectus, Rosella and Macaw which is dissimilar to the study of Burmeister's study. Because in our country Budgerigars, Cockatiels and Love birds are the most popular bird breed for rearing. It happened because of their availability. Ring neck (8%), Parrot (11%), Conure (9%), Lorikeet (13%), Finch (8%) are also reared

by several owner and their frequency is not that much lower. Most of the bird owner keeps their bird as pairs (87%). Because it helps to make a breed to their birds and sometimes it helps birds to be healthy mentally and physically. A more active and varied behavioral repertoire was the effect of isosexual pair living. The paired parrot did not exhibit stereotypical behavior. Housing in pairs improves how fearful people react to unfamiliar objects. Pair living may considerably enhance the environment's quality and promote the welfare of young captive parrots (Meehan et al., 2003). Though 6% owner rear single male or female birds. This study revealed that most of the Bangladeshi owners collect their bird from Breeders (42%), Importers (41%) and local market (13%). Some owners collect from all of these mentioned sources. Almost all birds appeared to be healthy, active, and free of any diseases at the time of the survey.

## **4.2. Management practices followed by the pet owners**

### **4.2.1. Purpose of rearing**

The bond between an owner and a bird is just as complex as that between an owner and a dog or cat (Burmeister et al, 2020). Just like Zasloff said, "A dog is not a cat is not a bird," (Zasloff RL, 1996). In this study, a multidimensional scale to assess the bond between a bird owner and their pet was being developed. Here most of the owner rear their birds as hobby (43%). As the pet birds can make a bond with the owners which influence them to keep birds as hobby which is similar to Burmeister's study. Some owners keep birds for business and breeding (16%). Some owners' rear birds as all of these mentioned i.e. hobby, breeding, business (38%).

### **4.2.2. Breeding of pet birds**

In breeding of pet birds, sex determination is the principle manner. This current study revealed several types of methods of sex determination in Bangladesh. Sex determination is a very difficult task for owners. Most of the owners (38%) determine the sex of their birds by the physical appearances in Dhaka and Chattogram. Almost 30% owners follow the DNA sexing method which is very costly because DNA sexing for birds is not that much reliable in Bangladesh. So the owner who follows the DNA sexing for the sex

determination of bird, they make it done from abroad most of the time but nowadays, it is also happening in Bangladesh but not that much available still. A study conducted in India Thrissur district of Kerala observed that 40% of them were able to identify sex from personal experience but in this study found that 19% owners used their own experience to identify the sex which is different from them. In other instances, 17.14% of sex identifications were made using the DNA sexing approach, mostly in Hyderabad. 6% and 11%, respectively, recognized the sex based on the size of the bird. Few people were able to identify the birds' sex by the sound they made. Nearly 25.71 percent of people utilized practically all of the methods mentioned above to determine the sex of birds (Sreeshama et al. 2017).

In this study, 55.69% owners used their birds for breeding and 44.31% owners didn't use birds for breeding. But Sreeshama et al. found in Kerala almost all owners used birds for breeding purposes which is dissimilar to this study (Sreeshama et al. 2017).

#### **4.2.3. Welfare of pet birds**

In terms of welfare, the things that are measured here are deworming and vaccination, housing types, cage cleaning, and time spent in cage, location of cage and birds usage for other activities. This study revealed that 85% owners follow deworming protocols. But vaccination protocols were followed by minimum owners (8%). In 2017, Sreeshama et al. found in Kerala was the majority of pet owners (91%) solely used de-worming as a health management strategy which is similar to this study. 17% of bird owners vaccinated their birds. There were no pet bird vaccines in the Indian market. Imported vaccinations were too costly and impractical. Nearly all of the owners knew about popular medications for treating practically all illnesses, and most of them were treating their birds in a timely manner (Sreeshama et al. 2017). Only a small percentage of bird owners (less than 10%) provide vitamins for their pet birds which is not provided by this study's bird owners so it is not similar to Sreeshama's study. It is not used in our country because of unavailability of proper vitamins and lacking of proper knowledge on this sector.

In our country every pet bird owner reported that mortality was more in rainy season. Most owners promptly treated sick birds when they appeared. But in this study we have found that most of the pet owners treat their birds by their own experience most of the time. Some owners followed other bird owner instructions. In 2017, Sreeshama's study it is stated that a very few owner take their birds to vet (Sreeshama et al. 2017).

The housing for birds complies with the norms for pet bird welfare (Zahoor et al., 2018). In our study, we have found that almost 94% birds were kept in cage and 78% pet birds spent full time in the cage. 5% birds were kept open all the time and 18% birds spent in cage 12hrs of their time. The rest of the birds were kept in both ways. In Sreeshama et al. 2017 found that the majority of pet birds nearly 85.7% spent their whole lives in cages which is almost similar to our findings (Sreeshama et al. 2017). Here the reason of this similarity is owner's need because people rear bird as their companion. For this companionship they try to keep their pet birds with them at the nearest place of them. In this current study we have found that almost 25% bird owners were kept bird in their bedroom and balcony because here owners shared that they take their bird as companion so they keep their birds even in their bedroom and balcony. Most of the time owners rear birds as their hobby and they rear a very minimum amount like 1 or 2 pairs, sometimes only single bird for the purpose to fulfill their hobby. Some aviculturist or pet bird owner who were rearing their birds not only as hobby but also for business and breeding, they keep their birds in a specified room (14%) or farm (35%). So in this study we have found that location of the cages are varied on the basis of their rearing purposes.

In this current study we have found that cage cleaning is major issues for the owners. Here we have found that maximum owners (51%) took help of their maid for the cleaning of bird cages and 49% bird owners did this by their own. Here those who had aviculture farm they took help of maid because they reared a huge amount of birds and their cleaning and maintenance was not possible to do without any help. Cages should be completely cleaned with soap and water, disinfected, and washed in fresh running water in between uses by various birds. To avoid aerosol buildup and cross-contamination of rooms, exhaust ventilation should be adequate (Smith, 2005). Here in our study we have seen similarities

with Smith's study. In this current study it is observed that owners always tried to maintain the hygiene for their birds by using some preventive measures except vaccination and deworming. Owners were cleaned the cages by using detergent, warm water, and normal water also. Most of the owners (47%) used normal water for cleaning the cages. 35% owners were used detergent wash and then spray the disinfectant. Warm water was used by 16% bird owners. Just 3% bird owner solely used disinfectant for the cage cleaning. They also mentioned that they washed the feeding bowls every day. May be for this reason, owners didn't face that much problems last 1 year. 78% owners didn't face any diseases to their birds in past 1 year but 22% bird owners complained that their birds had faced diseases in past 1 year. In here most of the owners said that they followed the preventive procedures for avoiding any kinds of problems. Maximum owners not believed but also followed that prevention is better than cure which is similar to the Smith's statements.

Almost 56% owners used their birds for exhibition or any bird fair. But in 2017 Sreeshama et al. observed in their study was nearly 28.6% of pet bird owners also utilize their pets for other purposes, such as exhibitions, circuses, bird shows, etc. which is almost half of our frequency (Sreeshama et al. 2017). These dissimilarities were happened because of the variation of the location.

#### **4.2.4. Feeding practices of bird**

Owners make the feeding protocols by their own and sometimes they take help from other pet owners or Google. Most of the time they make the ration for their birds by their own assumption and experiences. Different types of feeding protocols were followed by the owners for their pet birds. Maximum owners maintain basic needs for their pet. Here most of the owner (43%) fed solely seed mix. 25% owners fed their birds' seed mix, vegetables and egg food. Here this egg food is given during the winter season which keeps the bird warm. It is not stated empirically. But Bangladeshi owners believe in this theory. Some owners feed egg foods during breeding season of their birds and it is seen that when birds are molting, nesting, or under stress, egg meal gives them a protein boost (Omlet). 10%

owners fed fruits also with vegetables and seed mix. For some birds (e.g.; Parrot, Lorikeet) had specific feed for them and for the parrot the feed was parrot mix. Here we have found that maximum owners (44%) feed water to their birds from tube well. 42% owners used water purifier or filter as the source of water for birds. A very few owners (3%) used boiled water and the rest (11%) used tap water. Lorikeet is a different types of bird and its' feeding behavior is fully different from others because they are nectar feeders naturally. In the wild they feed on the nectar of native flowers such as bottlebrush and grevilleas (Spider flower). But the pet bird owners feed their lorikeet the commercially available nectar which is found in several Bangladeshi market and also in Bangladeshi online market.

Finally, as stated above, pet birds could be one kind of social stress reliever materials for human. We should provide them their habitat where they can stay in a proper way. If we rear them in cage, we should make the cages on the basis of their age, population and their temperament. The completed study will provide an overview on breeding, feeding, health care and welfare practices of pet birds.

## 5. Limitations

In this study, there have some limitations too. The study was only covered the pet birds management of in Dhaka and Chattogram Metropolitan area, small number of sample size were recorded whereas large sized population would provide a more specified result for better conclusion and the time was limited too which were barrier for showing the entire situation of our country.



## 6. Conclusion

With Bangladesh's fast urbanization rearing of pet birds is an essential social stress-reduction strategy and also gives young people who are unemployed a new source of income. Consequently, interest in this area has increased significantly. In this survey we have found that the majority of owners kept their pet birds as a hobby. In our study, determining the sex of birds is a substantial problem for bird owners, it is particularly crucial for breeding birds. The majority of bird owners defined sex based on their own experiences. Some owners employ the scientific method of deoxyribonucleic acid (DNA) sex identification. Most pet birds are kept exclusively in cages. The sole methods of health management adopted were vaccination and deworming. The common ailments of the birds were swiftly treated by the owners. However, the majority of owners practice good cleanliness to keep their birds healthy. Almost all of the owners make sure that their birds are properly fed and hydrated. Although the majority of the birds get along well with their owners, they are not completely domesticated. Fewer birds are entirely domesticated with their owners. The birds in this survey accepted all of the management strategies.

Finally, as stated above, pet birds could be one kind of social stress reliever materials for human. We should provide them their habitat where they can stay in a proper way. If we rear them in cage, we should make the cages on the basis of their age, population and their temperament. The completed study will provide an overview on breeding, feeding, health care and welfare practices of pet birds.

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## Appendix

| Questionnaire                   |
|---------------------------------|
| Name                            |
| Contact                         |
| Address                         |
| Age                             |
| Breed                           |
| Sex                             |
| B.W.                            |
| Purpose of rearing              |
| Sources of bird                 |
| Time spent in cage              |
| Location of cage at home        |
| Source of water/day             |
| Types of feed                   |
| Birds used for other activities |
| Types of feed                   |
| Cages are cleaned by            |
| Cage cleaning materials         |
| Deworming(Yes/No)               |
| Vaccination(Yes/No)             |
| Method of sex determination     |

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## Biography

This is Asma Sadia Authoy, the 1st child of A. B. M. Showkat Iqbal Shaheen and Nusrat Shamim Mithil, doing her graduation in Doctor of Veterinary Medicine (DVM) at Chattogram Veterinary and Animal Sciences University under the Faculty of Veterinary Medicine. She passed the Secondary School Certificate Examination (SSC) in 2013 from Feni Govt. Girls High School and the Higher Secondary Certificate Examination (HSC) in 2015 from Bhola Fazilatunnesa Govt. Women College. Currently, she is doing her yearlong internship. She has a great interest in wildlife and pet animal. She is very interested in further research on this area. She already had worked on a project on the basis of antimicrobial resistance. She has a great interest on research.