

Letter to the Editor

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Abstract

There are numerous challenges for pet owners in developing countries before, during, and after disasters, comprising poor communication between pet owners and veterinarians for periodic pet check-ups, lack of necessary equipment, lack of proper disaster evacuation training, and a proper shelter to be considered for pets during periods of disasters. In the present letter, a variety of measures and recommendations have been provided, which can be kept in mind throughout the entire disaster management cycle to prevent pet loss.

Dear Editor,

Disasters can cause great physical and financial damage to pet owners in developing countries.^{1–3} These effects lead to severe psychological side effects on individuals and families.⁴ With the tendency of families to keep pets in these countries, many challenges have arisen regarding how to manage these pets before, during, and after disasters.⁵ The major challenge is lack of legal basis for keeping pets. Other challenges relevant to the disasters comprise poor communication between pet owners and veterinarians for periodic pet check-ups, lack of necessary equipment including an emergency kit and a carrier for pet owners, lack of proper disaster evacuation training, and finally, a proper shelter to be considered for pets during times of disaster.^{6–8}

It can be said that many pet owners may not have a clear plan to mitigate the dangers and prepare for proper evacuation during disasters. Therefore, this issue may lead to loss of pets during disasters, which may lead to severe psychological problems for the pet owners.^{6–10} To overcome these challenges, the following measures are suggested to be taken (see [Table 1](#)):

To achieve proper preparation, because accidents and disasters do not always happen, the training scenario should be written based on the existing conditions, and pet owners should also practice the disaster preparedness scenario.

The following items are essential in scenario design. Depending on the frequency and circumstances of the events or hazards or disasters, check and practice the following items at regular intervals:

- 1 Examine the state of mental health, evaluating personality and behavioral disorders in pet owners (narcissistic and antisocial personality disorders do not qualify for keeping a pet in emergency situations).
- 2 Examine the documents and the health condition of the pets and the practice of managing the pets in the condition of illness or injury by defining an illness or injury scenario.
- 3 Investigate the effectiveness of communicating with pets in emergency situations and practicing it by simulating complex situations.
- 4 Practice carrying a pet in a cage or carrier in unusual, difficult, and stressful conditions and avoid the transfer of stress to the pet.
- 5 Examine storage facilities for keeping pets and update them and define the conditions of storage and access to storage facilities.
Set up a communication channel in virtual space to share experiences, feelings, and previous lessons learned.
- 6 Inform, educate, and train all family members and even neighbors when the pet's primary owner is unavailable.

Protecting pets in disasters can happen when a person has commitment, risk perception, and decisional balance. It happens when a person reaches self-liberation and is not only thinking

Table 1. Pet owner risk perception and mitigation measures

Step 1	Developing a contingency plan with an all-hazard perspective
Step 2	Managing rational and sincere communication between society, family, and pets
Step 3	Accepting responsibility among all family members when keeping a pet
Step 4	Education, training, and upskilling for everyone, emphasizing that they are responsible for their pets in times of disaster
Step 5	Increasing the skills and responsibility of rescue teams and pre-hospital emergency to save pets involved in disasters, especially in developing countries (preventing pet owners from PTSD)
Step 6	Always have at least two week's worth of food for your pets

about himself or herself; so pet owners should be examined for this during the psychological interview period.

A team composed of psychologists, veterinarians, and community health nurses can be effective in preparing pet owners to manage their pets in disasters. In such a way, psychologists can first examine the mental and psychological conditions and personalities of people who take care of pets with a psychological interview. During the interview, the stages of changing the behavior of these volunteers to take care of pets will be determined, whether they are in the inactive stages of changing the behavior (pre-contemplation, contemplation, preparation) and need training and increasing emotional arousal, in which case community health nurses should try for training through the cognitive processes of change, or if they are in the active stages of behavior change (action and maintenance) that need to be taught the behavioral processes of change by community health nurses. Sub-constructs of dramatic relief and environmental reevaluation from cognitive processes of change and self-liberation and helping relationships from behavioral processes of change are among the process of change options that community health nurses should consider in the field of education. Finally, the veterinarian can teach pet owners about animal behavior in normal conditions and agitation caused by disasters. All these educational activities based on the policies of different governments can be done through local or federal governments, provided that the management of pets in

disasters is included in the disaster management plan of that country.

The disaster management teams in each city should determine the following based on a pet management plan in disasters: 1) preparing logistics for the transportation of pets, 2) determining the appropriate shelter for pets that is the closest place to the shelter of their owners, and 3) pet food and veterinary visits for evacuated animals (pet owners must have three weeks of pet food on reserve). The microchipping of pets is very useful for evacuation during disasters and finding pet owners after disasters, which is done by veterinarians.

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