

Policy for Controlling Dog Bites Vis-A-Vis Rabies in Srinagar, Kashmir

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Abstract

Dog bites and open garbage dumps became additional and apparent and are serious and sometimes underestimated public health dilemma in the Kashmir region. The aesthetic and psycho-sociological consequences of trauma caused by a dog bites repeatedly burden the standard of lifetime pertaining to the affected persons and their family. In Srinagar, the disease endurance is due to poverty and the rise of stray dog population.

Keywords: Policy; Dog bites; Rabies; Srinagar

Introduction

Dog bites and open garbage dumps became additional and apparent and are serious and sometimes underestimated public health dilemma in the Kashmir region. The aesthetic and psycho-sociological consequences of trauma caused by a dog bites repeatedly burden the standard of lifetime pertaining to the affected persons and their family. Srinagar cities conjointly turn out massive quantities of family wastes, and their transport to the gathering sites remains problematic. Therefore, it is additional seemingly to seek out these open garbage dumps (OGDs) close to residential homes because of the problem for the municipality vehicles to drive within and also the distance of homes to the gathering points. Quite 450 metric loads of refuse and garbage are generated per day in Srinagar town. The corporation is providing higher sanitation and is making an attempt to arrive at general public expectations.

A recently applied dog census has found 91,000 dog populations in town alone [1]. If we tend to compare this with the human population, it makes one dog for every twelve proletariats. The census information of dog population from alternative districts doesn't seem to be obtainable. However in a very stunning revelation on dog menace in the geographic region, a minimum of eighty persons has died of rabies within

the past five years whereas 80,000 dog bites are reported in the valley [2]. The hospital is running the sole anti-Rabies clinic that has finished its anti-Rabies stock in fourfold in ten months [3]. The valley had witnessed 26932 dog bites in 2017 out of that 9514 cases were from the urban area [4]. The dog bites were 80% from urban spaces and 20% from the agricultural area

Methods

Epidemiological pattern and occurrence of dog bites was collected from the secondary information. As all such cases are shouldered by the most reputed and super specialist hospital in the Valley, the information recorded for such cases were collected from this institute. Regarding perception of people interview schedule was formulated. As per Municipal Corporation, the city is divided into two divisions; four zones and 34 wards. To exploit the diversity of population response, all the four zones were considered for the present investigation. Further the major factors associated with increased dog population two sources i.e. primary and secondary sources had been utilized for identifying the likely factors responsible for increased dog population. These factors primarily incorporated garbage management, specific control measures for dog population by stakeholders and perception of people. Secondary source includes Srinagar Municipal Corporation, for collecting the relevant information

Results

The Majority victims were males. Most of them belonged to 30-40 year old group. The majority of the cases were reported in the same day. Utmost cases were bitten at evening and had also reported at the same time. The majority had bites on legs. Majority males had bites on face and females had bites on hands, arms and shoulders. Majority had category 3 bites. West zone had recorded the highest number of cases.

The summer season had also recorded the highest number of cases. Regarding knowledge of non-victimized people it was seen they were aware, but they lacked a complete perception of

rabies. The greater parts of respondents had heard of rabies and were aware of its spread through dog bites; however they lacked the information about the other animals transmitting rabies. This faction has enhanced communication and information regarding what is happening in their dwelling, counting dog bites as well. Bite was being mentioned by most of the respondents as a means of transmission but only some of the respondents mentioned scratches and licking as the method of transmission.

This could be due to lack of complete acuity of the disease rabies. In our community rabies is well-known as mad dog (halkaer houn) which is allied through aggression. Aggression was thus known by most of the respondents which is in stroke amid the verity that furious form of rabies is widespread in animals. Regarding about the treatment, the majority were aware that the hospital provides vaccines and the respondents didn't choose any traditional methods. Some respondents knew about the need of prompt washing of the wound by water and soap. Victims would seek medical attention, potentially due to fear of rabies. The good level of knowledge amongst the non-victims may be due to numerous reports of dog's bites in Srinagar plus they were more educated. In case of victimized people less had learned of rabies and its transmission showing that rabies information and education is necessary for Srinagar. The maximum menace of rabies is probable to fall on mainly the susceptible sectors of society, particularly poor members with slight or no proper education. Furthermore the attitude of the non-victimized and victimized people was positive. Regarding about the major factors associated with increased dog population the respondents, both (Common people and commercial establishment) believed that open garbage dumps are a public health barrier in the area and they commence to stray dog proliferation.

Even if the SMC is working meticulously in the field to guarantee incorporated and scientific solid waste management, yet the method needs proper segregation of waste. Till date around 2,000 sterilizations were conducted and also around 2,000 stray dogs were administered the anti-rabies vaccine however this is too less in comparison with the total population of dogs and still the ballot of dogs from the particular zones of Srinagar is deficient.

Policies

Instead of its preventive probability, rabies prevail a public health dilemma of extreme attention. The condition is alarming in Srinagar where canine rabies has been critically overlooked. In Srinagar, the disease endurance is due to poverty and the rise of stray dog population.

This Methodical outline helps to clarify how individual's information of rabies plus institutional factors resolve practices for dog control and impediment of rabies.

The SMC offers services for waste, dog population control and awareness.

About controlling access to resources (F2) lead to dog population control. Concerning the population scrutiny of dogs,

still SMC is deficient in precise population census in Srinagar. Likewise, ABC activities depend on the veterinary services (G1, G2 depend on D2). These actions should be executed by the Srinagar government, which take the plan to boost the number of veterinary hub all over. This verdict is facing some incongruity as there are numerous dogs in Srinagar.

Additionally, it shows that an individual's knowledge of rabies determines treatment-seeking actions conformity with PEP regimens and the outcomes for pretentious persons, in conditions of chance of death and costs incurred (**Figure 1**) E1 to produce outcomes J. In addition it is seen that organizational factors such as access to medical and veterinary services verify the coping policy of bite victims (**Figure 1**) D1 and D2 determine E, E1 which in turn depend on I. The bolder the bullet the bigger the expenses incurred but lesser chance of ensuing in rabies.

The suggestions part is having 3 domains

- Waste management (controlling access to resources)
- Public awareness (Education)
- Dog population control (Reproduction control, Recognition plus register neutered dog, Euthanasia)

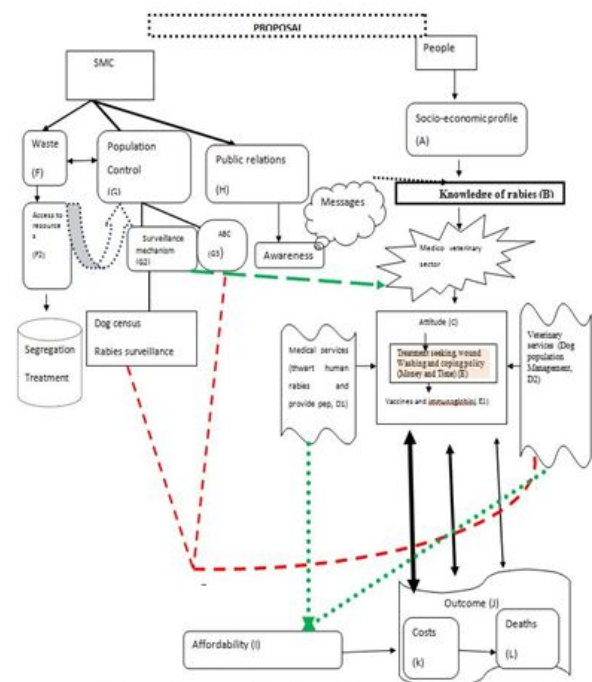


Figure 1: This methodical outline helps to clarify how individual's information of rabies plus institutional factors resolve practise for dog control and impediment of rabies

Waste management (Controlling access to resources)

Dogs may be driven to range in areas wherever entree to resources, so as food, is available. They may, hence, gather nearby waste and garbage dumpsites. This could accelerate disease transmission plus cause concern for the populace wherever roads are not cleaned. Consequently, entree to refuse

should be restricted to decrease the likelihood of dogs gathering throughout rubbish sites.

Control of the dog faction, that is, for instance to have the dogs on a strap or in a fenced area plus to control the chow assets of stray dogs is also suggested to decrease the stray dog population and thus the rabies incidence. Managing the municipal solid waste is a global challenge. In a region like Jammu and Kashmir, the task is further daring given the novel topography and eco-friendly sensibilities. If SMC can gather 30% of households who own some land available nearby their home to compost food, vegetables and fruit waste in the pantry gardens, we can lessen more than 150 metric tons of garbage in Srinagar town only. At an average, each house produces 1 kg of organic waste in Srinagar daily which can simply be treated inside our house but the government and even citizens are not serious about it. This entire method needs proper segregation of waste. Municipal authorities find all that a challenging job and that is the inference they want to lift everything in vehicles and carry it to someplace where they plan to treat it, but this is very challenging because all the conveyed waste is in a blended form. This is mere re-location of garbage moderately than scientific processing.

Public awareness (H) (Education)

Knowledge is a key element in dog population control programs. Obstacles affiliated with free-roaming dogs are all impacted by human conduct. There is a necessity to enhance awareness of rabies, especially on proper prevention plus control because prevailing levels of knowledge in Srinagar are not sufficient. Educational information should be incorporated in school curricula so that kids are made conscious of the hazards of rabies. National rabies education campaigns should discuss information gaps and enhance rabies control plus prevention practices. Health education by researchers, educators, and clinicians currently perform a critical role in increasing knowledge of rabies and it should be developed and sustained. More knowledge regarding how to deal with dog bites if they happen would additionally be of value to lessen injury. For instance, in addition to prevention, information can be rendered on how a victim should behave during a bite to lessen injury, stop the dogs, and ask help. Care should be paid to all bites from the suspect animal, as every animal endures from rabies, and burying or cremating the carcass of suspect rabid dog could cease transmission of rabies.

Education can enhance knowledge, impact perception and improve people's opinions towards dogs where conflict exists. It can likewise convey social and economic privileges as people learn about the disease, dog bite bar, and dog behavior.

The majority respondents showed low rank of information regarding key aspect of rabies, its control and bar, which must be addressed by Awareness-raising campaigns. The lack of critical knowledge regarding rabies assuredly appears in additional deaths. In order to improve the information gaps highlighted in this study, there is a need for a national rabies control program highlighting preventative practices, particularly simple messages that discuss important information gaps alike "every animal endure from rabies", "bury or burn carcasses of dead rabid

mammals", "instantly wash your wound with water plus soap and seek PEP following a bite from a rabid animal". This knowledge could be directed through media, community gatherings and professionals' including community health workers, teachers, livestock officers, and clinicians. A unified control method including environmental sanitation through the advancement of solid waste management to evade the proliferation of OGDs is hence essential. Therefore, awareness education should be organized, targeting people who are regularly accountable for the conveyor of garbage to dumps; that is, they are more likely to engage stray dogs scavenging for food nearby dumps

Dog population control program (G)

A variety of elements (listed below) should be thoroughly thought for a thriving control program. Implementation of elements may demand to be prioritized according to the availability of resources (economic, rational, scientific, etc).

Populations and stakeholders should be involved and asked during the program. They should likewise be included in making recommendations to enhance the invasion. Obstacles and omissions should be seen as chances to enhance the program.

Components of an effective program

- Reproduction control
- Recognition plus register (Neutered dog)
- Euthanasia

Reproduction control

Reproduction control has long been viewed as a method to overcome the dog population. Implementation regarding mass dog sterilization should hence utilize location-specific stray population norms plus local views towards dogs. Sterilization may, though, be practiced on a case-by-case the base to deal with problematic behavior. That could be aggression through the mating period or the ability for particular dogs to roam. Although, sterilization does not forever hinder those behaviors. It may additionally approach welfare issues, such as the dumping plus killing of outcast dogs. There exist several ways of controlling reproduction, yet the surgical sterilization of female and male dogs are currently the common reliable choice. Surgical sterilizations should forever be carried out by a qualified veterinarian. High-grade aseptic procedures plus pain management during and following the method are necessities to assure dog welfare.

Conjecture

Female must be neutered

Males should not be castrated in Srinagar, partly for cost/benefit reasons but partially due to the thought, they will turn out to be less territorial plus more effortlessly displaced by intact dogs migrating into the vicinity. Still, it is probable that

additional factors, such as potency of human-dog relationship, might have a greater sway on dog ecology than testosterone.

Full OVH

Ligation of uterine tubes would be a hasty practice however the bitch would persist to cycle, with the allied annoyance aspect of groups of dogs.

Identification and registration (Neutered dog)

Identification including enrollment remains a vital tool. There are many different identification methods available. It is important to select the method that suits the local situation about practicality and cost.

Euthanasia

In the case of serious illness, injury or behavioral dilemmas with no chance of improving, euthanasia may be specified as an element of a program by the government. Following the laws of euthanasia as part of the program is vital. It is intended to be utilized only if no distinct choices are accessible and as such, those guidelines will assist to decide if ending a life is justified and when it is not.

Conclusion

About all those diseases that attack human's rabies is an example of the best known. Its inimitable infamy is bizarre when assessed on its influence medially, on the human society particularly poor due to lack of discernment. The lack of complete perception might decipher into higher mortality linked to rabies. There is a need for sensitization of people so that their information can be improved and their optimistic attitude could be translated into apt practices for prevention/control of rabies. It is vital to note that merely looking at the dog bite incidents does not openly imitate the peril of death caused by rabies. Even as conditions such as dog human ratios as well as the number of bite incidents are significant, aspects such as socioeconomic status along with the convenience of getting treatment subsequent a dog bite are possibly most applicable when estimating peril of deaths caused by dog bites. Moreover OGDs

are a public health obstacle in the Srinagar area and they commence to stray dogs proliferation. The easy availability of food rendered by the scraps in the garbage not only enhances fertility in dogs, but scavenging makes dogs more prone to attack people. Dogs that get free food from the garbage dropped behind by bakeshops, abattoirs don't see people as providers of food and are major likely to attack them. The over-population of dogs is therefore produced and supported by the profusion of assets humans endow with, so that it is, in sagacity, a 'man-made' dilemma. Till date only around 2,000 sterilizations were conducted and also around 2,000 stray dogs were administered the anti-rabies vaccine, however this is too less in comparison with the total population of dogs and still the ballot of dogs from the particular zones of Srinagar is deficient.

If our administration and everybody unified jointly, stray dogs will no longer be a problem. I moreover believe that this plan can be victorious in the outlook. All of people will obtain and have cleaner, vigorous and pleasant city surroundings. Let stray dogs no longer go astray.

Conflict of Interest

None

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