

Health education and formation: essential tools into the Echinococcosis/Hydatidosis prevention's programs

S. Masala¹, P. Parodi²

¹ Istituto Zooprofilattico Sperimentale della Sardegna, Sassari, Italy; ² Ministry of Health, General Direction of Veterinary Health and Nourishments, Roma, Italy.

Abstract. Health Education represents essential elements in the control and eradication campaigns of Echinococcosis/Hydatidosis. The basic elements and the applicatory principles and methodologies are examined. Moreover, the most appropriate intervention methodologies are defined through reference target. There is also a description of the experiences and the methodologies adopted in different Countries of the Mediterranean basin, where the disease is endemic.

Key words: health education, Echinococcosis/Hydatidosis, formation, communication.

Communication in the education activities to health

How to transfer a message that is not only included, but it has to bring a changement into the behaviour? This is the goal that each operator suggest to himself, he is appointed to realize activities of health education (HE).

Health education is an essential tool of the veterinary public health and it is critical for zoonosis prevention and control, including Echinococcosis/Hydatidosis (E/H). It has been defined as "an educational process which is turned to make the population responsible for itself and other people health's protection, both as individual and as groups".

It is a subject between education and health, also it is based on multidisciplinary activities, where medical sciences, formation and communication skills are requested. In this field, the communication concept fully goes over the restrictive value. This value actually identifies itself in the communication all the activities and resources which are in some way connected to the mass means of communication (radio, television, publishing, computer science, telematics) among the different social ambits.

Communication, as part of the educative process, assumes a largest value and it suggests, to be effective, the knowledge of the context and the needs of the target population. It really becomes effective when it modifies the view of reading the reality in the user, it modifying the meanings given until that moment. The first step to pursue this goal is that operators themselves, changing the way to relate to the user, considering him not just a target to attain the informations, but a co-actor with whom to share the language, the objectives, the resources and tools.

The main elements, which have to be taken into consideration to follow this model can be summerized in this way:

- to get in touch with the user to know his needs, characteristics, his belonging context and the possible environmental conditions;
- to know the factors which could affect the preventive behaviours of users;
- to acquire effective communication techniques from operators, so that the target population could actually became the real consignee of the all educational run.

As regard this last aspect, it is very important to underline that most frequent obstacle to the effective communication in health field is the socio-cultural distance between educator and user. It can represent an overwhelming difference which can thwart the HE best programs. In most of case, the sanitary educator owns a cultural formation which is considerably different from that owned by their listeners. What can seems clear to the speaker, sometimes it is not to the listener. Who suggests the message has to identify himself with the user's cultural world without never giving up the scientific precision of the informations, which have always to be truthful and complete.

This objective can be realized only following the habit of two interlocutors and so it requires a constant relationship based on trust with the socio-sanitary personnel on the territory. It does not have to be carried out in an occasional way and by means of changeable operators. Furthermore the user is not always in the cultural conditions to receiving educational messages (user limited receptivity) health problems, work, very difficult life contexts.

The methodology to be adopted to obtain an effective communication in the sanitary field, should meet the following rules:

- the content: it has to be well presented and it has to be supported by scientific informations;
- the message: it has to be clear and understandable and it has to obtain the recognition and interest by the consignee to join him.

In the past one assigned a special importance to the transferred message text and to the transfer modalities, while recently the attention has been

focused on the message effective utility to people who receive it. Infact, we have to bear in mind that the real message is not the delivered one, nor the transferred one, but it is the one included by the consignees. It is not very important to transfer many elements, but those have to be enough to stimulate a change in the behaviour.

The communication procedure has to reach all the interested groups, it has to identify the consignees and has to adapt the contents to the specific features of the single groups.

It is important to underline that the new information, presented in an original way are easier to remember, mainly if its will be recurrently repeated. The sight is the sense that more contributes to learning (about the 87%), followed by the hearing (7%) and by the other senses.

The source of communication: it has to be credible to support the mentioned thesis.

The trial evaluation: it always has to be foreseen and put into practice.

The result evaluation: it always has to be foreseen and put into practice to verify the real impact of the educational action on population.

According to what it has been described, it is possible to state that an effective communication in the HE campaigns does not have to point out only simple cognitive-behavioural information/prescription, but it has to assume a formative valence. This means to stimulate in the target people the reason of change, through a critic reading of reality through behaving on the deepest convictions and values. It also has to stimulate different levels of consciousness, especially it has to make them the protagonists of some improving processes that they want to prime.

Sanitary education: objectives and activities

HE general objectives are: disease prevention and state of health support. These are direct to provide the tools to let people being able to:

- define their problems and necessities;
- realize what they can do to solve these problems through their resources which are associated to an external support;
- decide which actions are more appropriate to promote the life style and welfare of the entire community.

Accordingly, the HE includes all the activities correlate to information, education and formation (general and professional formation), which must not be considered mutually exclusive. They usually tend to overlap and to have no connection between them:

The information is the knowledge transferred from the "expert" to the target group. Usually, this activity is used to call the problem attention before the beginning of the control problems. The community will take part to it actively.

The HE *sensu stricto* includes all those target groups which are not professional connected to the

specific problem (e.g. general audience and school's students). The final objective is a conscious and firm change of behaviours which can have negative effects on health.

The professional formation is directed to the people who should apply appropriate behaviours for the prevention of the specific problem during their activities (e.g. farmers, butchers).

Participation and methodologies

To achieve the control and the prevention of a disease it is necessary the participation of all the community not only as a support to the sanitary services, but also to define the main sanitary problems and to find human resources:

- voluntary participation in prevention and control's programs;
- declaration of community interest and definition of priority;
- interest in the definition of sanitary politics.

It is important to obtain the participation of several interested groups, such as:

- medical and veterinary services;
- sanitary committees and basic sanitary personnel;
- religious communities;
- child and adult schools;
- police or military unities.

The HE is an important component of every E/I control program and it should not be directed only to the application of specific measures, but also to a largest acquisition of personal responsibilities and of the whole community. It should be included in the programs after defining the main objectives: target groups, available resources and possible limited elements, the evaluation system, etc. The schematic methodology used in HE consists of four points:

- knowledge (problems and solutions' analysis);
- programming (definition of appropriate solutions);
- operation (activity and adoption of suitable behaviour);
- evaluation (impact evaluation and intervention results).

Sanitary education impact in the Echinococcosis/Hydatidosis control

HE is a basic component in the E/H control. Its meaning has already been underlined in the "OMS overseeing guide line, echinococcosis/hydatidosis prevention and control", published in 1984, and recently (2001), in the "People and animal echinococcosis WHO/OIE manual: a public sanitary problem from a global level".

The HE is important because an effective control is based on an active cooperation of different groups of the population, as sanitary and veterinary personnel, dogs owners, breeders, shepherds, butchers, slaughterhouse personnel and personnel which is responsible for the carcass and infected parts' destruction. The HE should also include occasional workers who do not know very much about local sanitary

problems. An E/H control program from a national or local level needs of decisions and politics obligations. The real epidemiological and socio-economic impact of the disease should be clearly illustrated to the community before starting a control program. There are different options to control the E/H. The E/H plays a dominant role in the horizontal approach to the control. This approach can be used in different circumstances:

- if the E/H control is based on changing procedure in the breeding and in the slaughterhouse and/or in the social situation when it interferes with the biological cycle of *Echinococcus granulosus* in the endemic areas;
- if a E/H control program, when the activities are based on individual components (e.g. canine population control and feeding sources, supervision and destruction of infected viscera, etc.) and there is the need to coordinate the different components.

Health educational role in the different stages of the control program

In the phase of planning and during the program initial stages, the HE can be useful to assure the public support to convince public administrators about the importance of the problem.

During the attack phase, it is very important that HE keeps on with leaning the different measures of control which had been adopted. For example, as regard to the prevention of feeding dogs with raw viscera, HE should change people habit and behaviour removing infected viscera, feeding dogs in a correct way. This objective is very important, but it requires a huge obligation. When the reduction of the canine population and of the mass anthelmintic treatments is applied, HE should be advised to guarantee the cooperation of dogs owners. This could be possible through our cooperation for a periodical parasitological exam of dogs and also for the pharmacological treatment of infected animals.

Cultural and religious traditions are very important to support control programs, such as customs tied to poverty and protein scarcity in the diet.

During the consolidation and maintenance phases of the program, it could be necessary to introduce specific laws to eliminate the residual infection and to restrict the activity of those people who usually do not respect control measures. In this case, educational programs should guarantee the application of the law.

Examples of sanitary education in different control programs

Italy

Veterinary services belong to Sanitary Administration. HE is a part of the institutional tasks since 1978, when it has been included in the National Sanitary Service. Since then, a remarkable experi-

ence on the topic has piled up. It also includes the pilot scheme for E/H control in Abruzzo of the first eighties. An other E/H important control program started in Sardinia in collaboration with the Sardinian Experimental Institute for Zooprophyllaxis. This program was based on the experience acquired from other countries and adapted to the island particular conditions. It included the following phases:

- (a) sanitary education;
- (b) canine population control;
- (c) slaughter overseeing.

HE has been considered as a supporting activity to other activities, and it was followed by an effective participation of the population to modify those incorrect behaviours which are tied to the relation man-animal and to the domiciliary slaughters. Mass media were used to spread messages which were easy to be understood. Radio, television, newspapers and brochures were used to pass messages to the population and to specific groups, such as breeders, butchers, hunters, etc.

Operators were educated through the constant veterinary presence and advices on the place of work and during proper meetings.

In order to stimulate a higher breeder responsibility, notable efforts were indispensable as regard the correct elimination of infected viscera of animals slaughtered at home, the notification of stray dogs, the canine population control and other adopted measures.

Sanitary education programs were especially directed to schools to spread the information from school to family and were strengthened by clear concepts. The task was to prevent incorrect children behaviours (to feed dogs with infectious viscera). Teaching aids were adapted to schoolchildren of different ages. To the youngest ones it was prepared an easy to be remembered poster where relationships children-environment with suggestions on the main hygienic measures were drawn. Another poster was produced for primary and secondary schools where the biological life cycle of *E. granulosus*, the way of infection transmission and the control and prevention measures were illustrated. Moreover, team games were used to furnish the opportunity of learning through simulation ("a game to understand").

Spain

In the region of Castilla and León, the E/H campaign was based on a continuous interprofessional collaboration concerning the sanitary personnel and other professionalisms. A large collaboration was assured through public administrators involvement, parents of children at risk, people directly stroked by losses due to E/H, people who have been operated of E/H or people who were waiting for a surgical operation. HE was directed to different groups of the population, such as butchers and slaughterhouse operators, shepherds and breeders, sanitary personnel, authorities, teachers and general public. The activities were planned by territorial personnel.

The program evaluation was based on the evaluation of the level of knowledge acquired by each group through the dispensing of questionnaires both to the grocer and shepherds-breeders and to general public and school attendance.

Cyprus

An HE innovative method was used in Cyprus by going house to house and talking about topics regarding E/H control with families, and especially with mothers. Information were given on the infection gravity, on the control program and on the precaution adopted to prevent the infection. Others methods were also used, such as domiciliary visits for breeders and educational activities in schools. Information opportunities were also offered during agricultural fairs, school shows and other public events.

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