THE ETIOLOGY OF OTITIS MEDIA AMONG INUIT CHILDREN: AN ANTHROPOLOGICAL APPROACH [English Summary]

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UNDERSTANDING OTITIS MEDIA

This research was guided by two questions:

1. Why do Inuit children have acute otitis media (ear infection)?
2. How does AOM (acute otitis media) evolve toward COM (chronic otitis media) (which consists of a persistent running ear)?

My point of departure has been the medical vision of this problem. All clinical and epidemiological research on OM's etiology use the biomedical model. Even though theoretically this model is considered a system, it has been reduced to a closed binary model of causality (Figure 1; see p. 54). This explanatory model is nevertheless useful in the explanation of, for example, the etiology of infectious diseases, but it results in a paradox which actually prevents the attainment of anticipated results. This medical paradox, from an ecological perspective, is that even if medicine has always known that the pathology is the product of the interrelation between a person and his environment (in its largest meaning), this interrelation is not documented. In fact, in order to understand any health problem, this ecological approach requires four kinds of data (Figure 2; see p. 56):

1. data on environment
2. clinical data
3. epidemiological data
4. data on the social and cultural dimensions of behaviour

It is apparent that we have a complete absence of information on these socio-cultural components.

The methodological limits of the biomedical model are that:

1. Socio-cultural behaviours and the empirical knowledge cannot be taken in account.
2. The history of the population is not taken in account.
3. All the risk factors are treated on the same level.
4. The interrelations between the risk factors are ignored.

The first step is to uncover the missing data in the ecological system. I began with an analysis of the medical files of all children born since January 1, 1980: 101 children (53 boys, 48 girls). I will not present here the statistical results (you will find a few indications in my paper). I used the data along with a map of the settlements to indicate those families most affected, and those least affected by otitis media and other sickness. In this way, I obtained a first representation of otitis media, a statistical representation which is itself located completely outside of the system that produces the disease.

Otitis media was next approached in an anthropological way, (Figure 3; see p. 58), examining both the individual and the environment. Culture, a complex concept, must be seen as a system, related to and generating other systems. The behaviour and the cultural components cannot be reduced to the mere status of risk factors or a secondary variable in the production of otitis media.

The first system to be described is the cultural ecological system. I utilized the variable "keeping warm." This system includes: climate, physical adaptation to cold, cultural conceptions of cold and cultural adaptation to cold. In describing these elements, I compared sedentary Inuit society with nomadic Inuit society and then the Inuit culture with the Cree Indians culture. This representation gives information on the materiality of the pathology.

In summary, I found that:

i. Inuit people used to feel harmonized with the cold and capable of functioning in it, having a precise knowledge

of it and both a physical and a cultural adaptation to the cold. The ethnic comparison shows that conceptions are different, that physical and cultural adaptations are different, and that the output is different.

ii. This adaptive model questions the level of adaptation and the kind of adaptation to the sedentary society (eg. new material for clothes, houses, and of course behaviours such as keeping overclothes inside the house instead of outside).

According to the characteristics of a functioning system, we can formulate that:

a) according to wholeness: a modification in the organized equilibrium (climate, physical adaptation to cold, cultural adaptation to cold and cultural conception of cold) could produce an otitis media.

b) according to equifinality (same consequences can have different origin) and its corollary (different effects can have the same causes), the output could also be something other than otitis media.

c) according to the feedback, the elements of the system cannot be related in a summative or unilateral way, which means that the arrangement of factors producing otitis media could be different for different children.

Of course, with this kind of model, we cannot specifically state the cause or causes of otitis media. We can just give a complex answer which returns the concerned persons to themselves: what in the elaborated system, its objects, its attributes, its relations and its environment, produces an otitis media?

A SECOND LEVEL OF KNOWLEDGE OF OTITIS MEDIA

The following exercise consisted in understanding the relation of otitis media to its surrounding culture: this is the level of representation which returns not to the infection, but to something else. In this new exercise, otitis media is not only the product of the system but is also seen as a symptom of a well

functioning system. I chose to do the exercise by way of communication: intra-cultural communication and trans-cultural communication.

A. Intra-Cultural Communication

I have investigated the value of sound and hearing in Inuit culture in order to situate the place of the ear (I did this by utilizing mythology, linguistic and pictorial art production). It appears that the place of the ear is one of predilection. However, this ear seems neglected if we consider what happens to it. Is this true?

We will remember that the medical system among the Inuit does not reflect the population's characteristics, and that if Eurocanadians are well disposed they are rather poorly informed about the Inuit culture.

Figure 4 (see p. 62) introduces sickness as a transaction, firstly inside a culture (family, neighbor and so on), and then as an agent of transcultural communication, to determine the clinical system.

The cultural conception of sickness (illness to disease) is a transaction between the physical body, the social body and the cosmology of a population. To pass from a sign to a symptom, or simply to perceive a sign and to take account of it, this sign must go through many screens: those of the culture, then those of the transcultural communication, and finally those of the clinical knowledge.

I have explored the popular Inuit comprehension of OM, how the mother deals with it, and I have also explored parts of their popular medical system. I do not want to say that Inuit do not consider the physical signs, for it would not be true, but that the physical signs do not have the same importance nor the same value as among Eurocanadians. Because we do not share the same conceptual models, the interpretation of sickness is also different because it is a component of the culture, and it is absolutely necessary to understand the population's point of view. It is the dynamic process inside the family, between families, and with the

nursing station which manages the sickness that we must consider. Grondin's (1988) research confirms and emphasizes that the population is not totally dependent on the health care system, and that their knowledge comes from their health culture and their experience.

B. Transcultural and Clinical Systems of Communication

According to Kleinman (1978), the key to transcultural communication in the context of the delivery of health care is the recognition of the popular medical system. Sickness requires an effort of communication for which the keys are in the metaphor (What are the symbols behind the symptoms?). Three such symbols were used with success in this research:

1. Integration/disintegration axis, which deals with the macrosocial community of Kuujjuarapik and with the whole Inuit modern society (the adjustment and adaptation to modern society as exemplified by the referendum last fall, the state and the conditions of the exercise of justice, the economic dynamism and to some extent, the help seeking behaviour in health and the way the medical care system is used).
2. Competence/dependence axis, which is related to the feeling of possession and control of what is going on in the community.
3. Openness/closedness axis: reactions to such concepts as identity, change, etc.

These three dimensions are the heart of the symbolic message in this trans-cultural communication, and this message is the otitis media. Such understanding comes from the following reasoning: in a society with oral traditions, the word is important, all goes through the word or its antithesis the silence. The output of the transcultural communication given by the analysis of the spatial organization of the nursing station, of the process of clinical communication, of the Native typology of sickness and the place of otitis media in it, and of the professional understanding of the Inuit sick role is at the frontier

of the intra-cultural communication and the clinical and transcultural communication process. The message given by the health professional is "You have health problems. We have the key to solve them. We are willing to help you but you do not have anything to tell us."

THE OTITIS MEDIA "PROBLEM": IT IS ITS OWN SOLUTION

Reality has been analyzed at different levels:

1. The epidemiological or statistical level indicated the distribution of otitis media. This level cannot reveal its system of production. It is not its goal to do this, but it does give indications for the analysis of other levels.
2. A systemic approach explored the reality in another level and showed in the cultural ecological system that otitis media occurs when the equilibrium in the quatuor (climate/physical adaptation to cold/conception of cold/cultural adaptation) is upset.
3. If the ecological system could give a first answer we would have access to another level of the reality, the level of communication between human beings. If one does not take cultural concepts into account, medical practice does not distinguish itself from veterinary medicine (i.e. it does not go beyond an ecological understanding of the health problem).

Figure 5 (see p. 66) illustrates that the common output of the ecological system is an interacting "other" system, called here the "communication system" (with three components: intracultural, clinical and transcultural). The common output of all those interacting systems is otitis media.

By their attitude, their behaviour and their literal words the health professionals' message to the Inuit population is, "We are the answer to all your health problems." This message is dazzling; too much light produces blindness, as too much noise brings deafness. In the end, this system blames the victim. This kind of system functions so well that the victim bears the blame and guilt. This unilateral solution presented by the professional

system essentially consists of ignoring the popular health system: it is the problem of the otitis media. The message sent by the population through the infection is: "Lend us an ear (listen to us) and we will have less of it."

Is there a solution to this problem? Of course, to try to solve problems originating from a reality where social and cultural interactions are predominant is complex. Fortunately, we can derive insight from the research of Watzlawick et al. (1972), who suggest reframing when confronted with a paradoxical situation; from Kleinman (1978), who suggests negotiating; and from Checkland (1981), who suggests deliberation. The only possible solution essentially is the same strategy. In summary, it consists not only in listening (i.e., consulting) but also in considering the popular health system: popular knowledge as a powerful system interacting with the other systems producing health or sickness. Essentially, the methodology consists in developing as many models as there are health agents, and corresponding to the different points of view. When these models are presented to the different health agents, they come into conflict with their own reality. This situation generates a tension toward a kind of training that has not been planned. This type of training tends toward making a decision of change. In becoming more conscious of the frame of reference, the possibility exists to change all the practices which are incoherent with the new reframing that we just made. It is those concerned with the choice of the change who must realize the new framing process and act accordingly.

REFERENCES

[see French version, pp. 68-70]