Risk communication: Identifying the importance of social context

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Risk communication: identifying the importance of social context¹

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Abstract

This editorial uses articles published in recent issues of *Health*, *Risk and Society* to critically review current approaches to risk communication. The effective communication of risk forms a key component of public health measures designed to improve the health of populations in countries such as the UK. These approaches assume that the recipients of the risk information are rational actors who will use the information to minimize their exposure to health hazards, and this will reduce the collective level of harm. However, a recent article in *Health*, *Risk and Society* indicated that individuals are not passive recipients of information and do not respond to risk information 'rationally'. Individuals actively engage in looking for and using information but may also make conscious decisions to avoid certain forms of information. Their response to information is shaped by social context, their own needs for personal security and the extent to which they trust the source of specific items of information. As a result, there is little evidence that risk communication based on the rational actor model shapes an understanding or behaviour in ways in which health-policy makers and public health experts want.

Keywords: risk communication, social context, public health

Introduction

In his recent editorial, Zinn (2005) identified two alternative and competing approaches to risk. In one approach, risk is treated as an objective phenomenon that, with suitable technology, can be assessed or measured, and then managed. This approach tends to underpin expert systems of risk analysis and management. In the other approach, risk is seen as a subjective phenomenon which is socially constructed and embedded within specific social situations and relationships. This approach is evident in lay perceptions of, and actions related to, risk. Health-policy makers and professionals recognize this difference in approaches and also see it as creating problems in the development of health policy and organization of health care. They see expert systems of assessing and managing risk grounded in sound scientific evidence as the most effective way of minimizing both individuals and collective harm. For example, in England, the government has identified avoidable morbidity and mortality as a major social problem and is committed to a public health strategy to minimize such harm (Department of Health 2004, Wanless 2004).

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Effective communication forms the basis of preventative medicine and health promotion, and involves the provision of information on health hazards enabling individuals to take actions or change behaviours reducing their exposure to such hazards which will reduce societal levels of harm (Bennett and Calman 1999). Information may be targeted at the general population, for example information on the harmful consequences of smoking or excess consumption of alcohol, at 'high-risk' or vulnerable groups such as intravenous drug users or young drug users, or at specific vulnerable individuals, e.g. advice on secondary stroke prevention for individuals who have survived a stroke.

The rational model of risk communication

There is a developing body of literature on the ways in which risk information can be effectively communicated (Gigenenzer 2003, Herxheimer 2005). However, much of this literature focuses on the nature of risk information and ways in which the communication of this information can be improved. It does not fully take into account the differences between expert and lay knowledge, and perceptions, of risk and therefore tends not to achieve the desired objective, a reduction of hazardous behaviours and of levels of harm.

Many of the difficulties in current approaches to risk communication and health promotion stem from assumptions about social action and human behaviour that are embedded within these approaches, especially the model of the individual as a rational actor who uses knowledge to reduce the possibility of undesired harmful outcomes. As Taylor-Gooby noted in his review of psychology literature and risk, approaches which emphasize the mental processes of the individual actor lend themselves to:

[t]he view that distinguishes between expertise and ignorance, and the concern with improving communication to rectify the latter by ensuring that lay models correspond more closely with those of experts (Taylor-Gooby 2004, p. 5).

This rational model can be found in a variety of areas (for communication about risks associated with the triple vaccination for measles, mumps and rubella, see Hobson-West 2003, and for risk communication with young drug users, Duff 2003). Communication grounded in the rational actor model emphasizes the role and position of experts such as doctors who have the ability to identify relevant risk knowledge. In the context of medical decision-making, this is knowledge about the probable consequences of different courses of action based on scientific research. The role of the expert is to make such knowledge available so that individuals and groups can use it to make rational choices.

When there is evidence that patients have *not* used risk knowledge effectively, the response of the professional tends to be to examine ways in which risk communication can be improved, such as improvements in presentation or mode of communication. When patients appear to be making irrational or harmful decisions, for example, continuing to smoke, choosing not to vaccinate a child against measles, mumps and rubella, or not complying with medication, the professional's response is to work harder to convey the risks.

This approach contains two flaws. One relates to the nature of risk knowledge, and the second to the nature of communication. Within the rational model, risk knowledge is treated as a relatively simple and straightforward matter—in other words, there is a single uncontested source of knowledge that is relatively easy to access. In reality, risk knowledge is often a complex matter. While such knowledge may be produced by scientific research, it can and often is contested. There may be a scientific consensus, for example, that eating beef or having your child vaccinated against measles, mumps and rubella is relatively safe,

but there are often alternative scientific views, sometimes represented by high-profile media 'mavericks' who emphasize the potential hazards (Reilly 1999).

Risk knowledge cannot actually be used directly by patients to inform their decision-making. Scientific research as in epidemiology generates knowledge about the probability of harmful events occurring within *populations*. Individual patients need information on their own *personal* risks. Expert assessments of risk tend to focus on the knowable and measurable components of risk, that is, the extent to which future events are the same as, and predictable by, the knowledge of past events. Such assessments by definition exclude uncertainty—those aspects that cannot be assessed and measured. Given the speed of social and technological change, it is not clear that the past is an effective guide to the future. As such, there is an increasing awareness of the uncertainty of risk assessment, for example, in relationship to new diseases such as HIV/AIDS or new technologies such as mobile phones or genetically modified foods.

Standard approaches to risk communication, whether targeted at groups or individuals, do not appear to be very effective. For example, Ruston and Clayton (2002) have shown the ways in which women disregard information and conceptually distance themselves from the risk of coronary heart disease—this applies even to those admitted to hospital with the disease. Coleman (2002) has documented the failure of strategies that focus on providing information about the risks of teenage pregnancy to have any marked effect.

Understanding communication from the user's perspective

Within the rational model of risk communication, the emphasis is on the flow of knowledge from the knowledgeable doctor to the uninformed patient. However, communication is a two-way process, and increasingly there is awareness of the active role of patients and the public. Articles in this and recent issues of *Health*, *Risk and Society* provide an important insight into the ways in which different individuals and groups access and make use of risk information.

Individuals are not passive: they actively seek information on risks from many different sources, especially when they are aware that they are facing a crucial decision. While they can use traditional sources such as friends and relatives, if they have the skills and resources, they can, through media such as the Internet, access highly sophisticated risk knowledge. For example, via the Cochrane Collaboration website (www.cochrane.org), they can find the latest evidence-based assessments of medical treatments and technologies, or via the Dr Foster website (www.drfoster.co.uk), they can find the risks associated with different treatment facilities in the UK. Individuals can access a variety of different sources, so they can clearly compare and evaluate the information provided by each. For example, in this issue Carrier *et al.* (2005) point out that public health messages about Hepatitis C targeted at injecting-drug users assume that drug users adopt a homogeneous vision of Hepatitis C and of its risk; they show that drug users can and do access public health messages; but they set the alongside other sources of data and other visions of Hepatitis C. Some drug users make a conscious decision not to access information on Hepatitis C.

As Taylor-Gooby (2004) noted, trust is central to risk communication. Individuals give particular credibility to sources that they know, which may include family and friends but also medical advisers with whom they have developed a relationship. They are particularly concerned about the trustworthiness of particular sources. As Frewer and Miles (2003) argued, in their discussion of communication about food risks, individuals can use their personal experience to evaluate the trustworthiness of personal sources, such as a particular relative or doctor, and they often use contextual information to judge the trustworthiness of

impersonal sources. Information provided by a source that has an identifiable commercial interest, such as a company marketing a food product, will be considered less trustworthy than a source without such an interest, such as an expert committee of scientists. For example, Wall *et al.* argue that the public have an overall positive perception of the Health and Safety Executive based primarily on their perception of its altruistic role (Wall *et al.* 2004, p. 140).

Individuals actively interpret risk information. In this issue, Thirlaway and Hegg (2005) analyse the ways in which women responded to an article in a UK national newspaper identifying a health risk, namely that 'drinking a single glass of wine a day increases a woman's chance of developing breast cancer by 6%'. Women's responses are difficult to explain in terms of a rational actor model, as their main response is emotional, the information creates personal anxiety, and the women use a variety of means to dissipate this anxiety. Most of these strategies do not involve changing behaviour, i.e. drinking habits. For example, some of the women in Thirlaway and Hegg's study use a strategy which is also used by injecting drug users in Carrier *et al.* (2005) study, they use the surfeit of risk stories in the media to support their scepticism of expert opinion and justify their distrust of such opinion.

While there is increasing recognition of the complexity of risk communication and the importance of recognizing that the ways in which individuals respond to risk information depends on social context, it is also important to recognize that the ways in which experts, health professionals seek and respond to risk information is also influenced by social context. In this issue, French (2005) examines the ways in which nurses used and made sense of research evidence on risk. She notes that most of the risk reasoning which she observed did manifest a form of rationality, but in some circumstances, different modes of reasoning were evident, and this related to levels of certainty and responsibility. The nurses in her study found risk unacceptable

... if it is unpredictable, avoidable, if the nurse causes the damage, if they are held responsible without authority, or if there is no support system for dealing with the consequences. These unarticulated rules for risk management, responsibility and control are therefore powerful mediators in the uptake and interpretation of research. (French 2005, p. xx)

Conclusion

Individuals are not passive recipients of information and do not respond to risk information 'rationally'. Individuals actively engage in looking for and using information, but may also make conscious decisions to avoid certain forms of information. Their response to information is shaped by social context, their own needs for personal security and the extent to which they trust the source of specific items of information. As a result, there is little evidence that risk communication based on the rational actor model shapes an understanding or behaviour in ways in which health-policy makers and public health experts want.

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