Public Health Risk versus Community Resources: Implications for Behaviour Change

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Introduction

Public health educational campaigns, in common with many other training interventions, generally aim to change the recipients' behaviour in some way and are often based on the premise that by providing the target group with information, thereby increasing their knowledge and generally raising awareness, they will be persuaded to adopt new behaviours. However, the success of such programmes in promoting sustained behavioural change is often limited [1, 2]. This paper considers how the broader socio-economic and political context and available community resources interact with individual and community levels of knowledge and beliefs, and influence decision-making.

The paper draws on my own experiences of working on one component of a community awareness (CA) risk reduction programme in Laos. The CA programme aimed to contribute to the reduction of unexploded ordnance (UXO) related injuries and deaths through a multi-media educational campaign, sporting and awareness-raising activities for adolescents, and village visits by teams trained in participatory communication approaches and risk reduction behaviours. When I started working on the programme it had been operational for six years and had been successful in disseminating safety messages to a large number of people living in remote, UXO contaminated areas. Evaluations of the CA programme had been mainly process-based with scant attention being paid to impact. However, observation reports from programme staff and injury rates all seemed to suggest that the project was having little impact at the behavioural level.

This raised a number of questions. For example, was ignorance persisting despite our educational efforts? Had our target group failed to assimilate the relevant information despite our messages being repeated frequently? Were cultural concepts such as Karma and fate stopping people from adopting safer behaviours? Was the programme presenting messages in a way that failed to raise awareness adequately and effectively? Was the programme reaching the target group? Were the teaching materials appropriate? With these questions in mind, we designed and implemented a knowledge, attitude and practice (KAP) survey in three of the nine provinces in which we were operational.

In this study, which followed a fairly structured approach, we found that local people had a great deal of knowledge about UXO and were able to tell us of the risk reduction strategies promoted by the programme, however observation told us that in reality these safer behaviours were not being adopted. This paradox has also been observed elsewhere. In Latin America for example, most farmers are aware of the benefits of wearing protective clothing when applying agrochemicals, however many fail to take adequate precautions on a regular basis [3]. Another example is in Africa where, despite intensive educational campaigns, HIV transmission continues at an alarming rate [3, 4].

It was this apparent anomalous situation that led us to re-examine our assumption that the ignorance and cultural beliefs of the target group were underlying reasons for programme ineffectiveness in terms of promoting sustained behavioural change. In the survey, when asked about ways in which to avoid a UXO-related injury, behaviours generally echoed those advocated by the programme. Thus we felt that the messages were being understood and the teaching tools were effective, at least in the sense of passing on information.

We realised that our KAP study had in fact raised more questions than it had answered, and if we were to understand some of the factors underpinning unsafe practice we would have to do a more "in-depth" study.

It is the initial results of this study and some of the issues it highlighted that I would like to explore in the next part of this paper. I will then consider what I feel are some of the implications of our findings under the conference theme of culture, context and choice. Then, I will consider what we, as practitioners, can do.

Given the size and limitations of the study, I do not claim to make any generalisations. Instead I would like to highlight some of the issues that govern behaviour and suggest that behaviour is not simply a matter of personal choice, with the responsibility for change resting solely within the individual. I will consider how decision-making is influenced by a number of complex and interacting factors which include perceptions of risk, knowledge, past experiences, culture, community resources and the broader socio-economic and political context.

The study

The aim of the study was to try and gain an understanding of the UXO situation from the perspective of the people living with UXO on a daily basis. An amalgam of tools was used, drawn from participatory approaches such as RRA/PRA/PAR. Based on Green and Kreuter's [5] ecological model of health promotion and evaluation, and using focus groups and key informant interviews, we identified risk behaviours, for example, farming land with a hoe, deliberately handling UXO, and looking for sub-surface metal. We then looked at the factors that contributed to these behaviours and categorised these into three, that is: predisposing, enabling and reinforcing factors. Predisposing factors relate to those connected with knowledge, attitudes and beliefs. Enabling factors are those, which enable a situation to occur and reinforcing factors reward or punish the carrying out of the behaviour or the continuance of the situation.

I will now look at each of these categories of contributing factors in turn. Firstly, predisposing factors. These relate mainly to knowledge, perceptions of risk, and attitudes towards the implementing agency.

Most farmers we talked to knew that some of their farming and household practices placed them at risk. However, they often deliberately engaged in risky behaviour in an attempt to protect others, especially women and children. The safer farming behaviours that we advocated were generally perceived to be impractical in the environment the farmers were working in and too time-consuming to be used on a regular basis. That is not to say that the safety behaviours were rejected outright; it was recognised that they had some value and, where feasible, farmers did try to implement them. It was just that they felt they could not practically follow them all the time, especially when working in familiar environments where the perceived risk was low. Furthermore, they had adapted some of their traditional farming practices in ways, which they felt, reduced the risk. It was also observed that in opening new land, farmers were much more cautious. However, they also knew that although some of their farming practices and behaviours were potentially dangerous, this was not always the case and they did not always result in injury or death. Vaughn has argued that in contexts such as this, where the environment is familiar and individuals have not yet experienced the negative consequences of their actions, the perception of risk is often reduced [6].

While it was generally acknowledged that digging below the surface in the search for metal was potentially dangerous, previous experience showed that it was not always dangerous. Similarly, although people knew that there was a risk attached to tampering with UXO it did not always result in injury or death. Given that scrap metal and explosives from UXO have a monetary value, when framed in economic terms and assessed against other criteria, such as available time and resources, the perceived risk or certainly the level of acceptable risk or "risk threshold", was further reduced. Thus, when compared with potential gains and losses, the decision to continue handling UXO or using less safe farming practices seemed reasonable.

Other predisposing factors included negative perceptions of the implementing agency and concerns such as food insecurity and inadequate supplies to clean water, which the villagers gave more priority to than UXO-related issues.

Enabling factors related mainly to food insecurity, increased cash needs, greater access to the scrap metal market as a result of improved roads, proposed NGO development activities, few alternative income-generation activities coupled with dwindling forest resources, raised expectations caused by development, the additional time needed to enact the safer behaviours, low reporting of UXO, educators providing poor role models and attitudes of local officials and inadequate clearance.

Food insecurity and increased cash needs were the main enabling factors. Most of the families we talked to only had sufficient rice for approximately six months of the year. Furthermore, improved road access has also brought an increase in hawkers, traders and video shows, which have contributed, to

an increase in demand for consumer goods. Insufficient rice coupled with increased cash needs places further financial pressure on families and with no micro-credit programme or interest-free loans available, war scrap becomes a cash crop, which enables families to supplement their income and may provide the necessary start-up cash for other economic enterprises.

Another enabling factor is some of the activities of other development agencies and the expectations created by development. This is complex, and factors which contribute to this were not explored in our study. However, anecdotal evidence and observation suggests that it relates to issues such as INGO and multi and bi-lateral agencies planning and community consultation processes, often a lack of considerations of other likely outcomes of projects apart from the planned ones, timelines, outputs and milestones and inadequate understanding of district and provincial government planning processes and UXO clearance operations and a slow UXO clearing process.

The extent and visibility of the scrap metal trade also suggests at least tacit government approval of the trade at the district level. It also suggests that at all levels there has been little diffusion or adoption of UXO risk reduction activities. Again, as we had located the reasons for a lack of adoption of safer behaviours primarily within the target communities, our study did not explore this and it is an area that needs further exploration.

Reinforcing factors included lack of legislation regarding the regulation of the scrap metal trade, local authorities' tacit complicity and participation in the scrap metal trade, few alternative income sources, no micro-credit or bank lending schemes to provide villagers with the initial start-up cash to participate in small commerce enterprise or income generation activities (removal of UXO from villages by clearance teams was often seen as removing a source of tangible income), cultural beliefs in karma and fatalism and traditional farming and household practices.

Thus, behavioural decisions were made based on a number of interlocking factors related to community resources and the broader context. These included cultural beliefs and practices, knowledge, perceived perception of risk, especially in a familiar environment, levels of adoption and commitment to UXO issues by government agencies, as demonstrated, for example, in the lack of regulation of the scrap trade and importantly the socio-economic and political context.

An example of how these various factors contribute to decision-making for a specific and risk behaviour is provided in Table 1 on the following page.

This raises a number of important challenges for health promotion programmes and facilitating behavioural change. These can be categorised under the themes of this conference, that is: *culture, context and choice.* It is to these issues that I now turn. Although in reality these themes are complex, interwoven and related, for ease of discussion, I will consider each one in turn.

Firstly, *culture.* The programme on which I worked was based on the basic premise that cultural practices and attitudes coupled with a lack of pertinent knowledge, resulted in unsafe practices. The supposition was, therefore, that by providing relevant knowledge in a culturally appropriate and sensitive way, individuals could be persuaded to adopt safer practices. Accordingly, in the planning and implementation of the programme, planners took into account socio-cultural factors relevant to the target groups. For example, cultural specific educational materials were designed and disseminated, local terminologies were incorporated in the educators' presentations, materials were pre-tested with representatives from the target communities, local conditions were taken into account and incorporated into educational drama and puppet skits, the project's community awareness teams' visits were co-ordinated with district and village leaders such as village heads and village development committees, meetings followed accepted village norms where possible, messages were provided in local languages as well as Lao, and indigenous people were included in the teams.

However, as previously mentioned, the emphasis of both the community education programme and the research that we conducted was on the main programme recipients, that is, the local communities. Causal factors for unsafe behaviour were therefore seen as being primarily located within individuals' and communities' cultural practices and beliefs. From the perspective of policy makers and programme planners and implementers, locating the problem within the cultural framework of individuals and communities can be comforting. It places the problem "out there", we may be able to propose and advise on solutions and raise funds to implement culturally sensitive programmes, but we are not part of the problem. Responsibility for behavioural change is placed solely with the programme beneficiaries. For bureaucrats and technical advisors the approach is, therefore, essentially non-threatening and does not challenge the status quo or our own positions of power. However, as stated previously, the problem is complex; reducing it to cultural beliefs and practices and gaps in knowledge divorces decision-making behaviours

Risk behaviour : Men and adolescent boys deliberately tamper with UXO by moving, burning in-situ or opening and dismantling UXO to sell

Predisposing factors	Enabling factors	Reinforcing factors
♦ A belief that they have the necessary skills and understand how to dismantle UXO ♦ A belief that some UXO, for example BLU3, are relatively easy and safe to dismantle ♦ A belief that big bombs are less dangerous than bombies ♦ Ex-soldiers have experience of dismantling UXO from the war ♦ People do not consider the risk that their behaviour poses to others ♦ UXO is seen as a cash crop ♦ A belief that burning smaller types of ordnance that villagers are not confident about dismantling removes the threat to their families and children	♦ Insufficient reporting of UXO ♦ Scrap metal and explosives from UXO can be traded to supplement income ♦ Few alternative income generation activities and dwindling forest resources ♦ Vietnamese and Lao traders will purchase bomb casing and explosive once dismantled ♦ The scrap metal trade is highly organised with middle men operating in the villages ♦ Good road access (dry season) linking	♦ No fines or sanctions imposed against people who dismantle UXO or trade in military ordnance ♦ Sanctioned by the village head ♦ Other villages in the area also participate in the scrap metal trade ♦ The price of scrap metal has increased significantly in the last two years ♦ UXO accidents through the opening of UXO cause the price to increase ♦ No micro-credit or bank lending schemes to provide villagers with the initial start-up cash to participate in small commerce enterprise or income generation activities ♦ Increase of consumer goods available in the village increasing cash needs ♦ Scrap metal can be exchanged for cash or consumer goods ♦ When UXO are reported to UXO LAO, they either destroy the bomb by "high order" explosion or remove the bomb after rendering it safe, thus removing a cash resource from the village ♦ Cultural beliefs in karma and fatalism

from the socio-economic and political realities in which they are made, and is unlikely to result in any sustainable change.

In emphasising the role of culture, there is also a danger of stereotyping individuals and communities. Culture is not a fixed entity composed of uniform beliefs and practices but a dynamic concept influenced by social, political and economic realities and within any group there is likely to be myriad sub-cultures. Furthermore, in a development context, previously remote communities are likely to come into contact with, and be influenced by, other cultures and practices. Indeed, as discussed previously, local communities did adapt farming practices to take into account the realities of farming contaminated land. Thus on their own, culture and ethnicity are inadequate frameworks for explaining behaviour. Framing health promotion programmes in terms of culture and knowledge therefore, ignores the broader social and economic inequities that influence decision-making, potentially perpetuating the notion that responsibility for change lies within the individual, and may cast the development professional in the role of expert and benevolent benefactor.

Unfortunately, I do not think that this over-emphasis on culture and knowledge is particularly unusual in health education activities. In Africa, for example, causal factors in the rapid spread of HIV are often framed within a cultural context. In my more recent work with resettled refugees in Australia and mental health and health promotion programmes, the emphasis again seems to be on developing culturally appropriate materials and services. Scant attention is given to the broader issues which influence health and well-being such as racialism, unemployment, food insecurity and inadequate accommodation.

Furthermore, in the project described, while the culture of the target communities was emphasised, scant attention was given to the bureaucratic culture of the innovating agencies or other development agencies working in contaminated areas. Nor was any research undertaken to try to understand which factors would facilitate or hinder institutional adoption and diffusion of the proposed innovations. Unfortunately, this does not seem to be uncommon: Packard and Brown [7], for example, note that medical anthropologists have generally spent more effort looking at patients rather than practitioners. Yet, as was shown earlier, the culture and practices of government and non-government agencies were also contributing to non-adoption of the prescribed safety behaviours. Barriers to change may be found not only in the target communities but also in the innovating agencies.

To sum up, although knowledge is a prerequisite to change and the importance of local culture should not be underestimated, any discussion of culture also needs to take into account the culture of innovating agencies and other key stakeholders. Furthermore, culture and knowledge should not be over-emphasised at the expense of other contextual factors and community resources which also influence behaviour. It is to these broader contextual factors that I now turn.

As previously stated, behavioural decisions cannot be divorced from the cultural, social, economic and political *context* in which they are made. In the project that I worked on, by emphasising culture and knowledge, limited attention was given to the broader socio-economic and political context in which the programme was being implemented.

For example, development activities and improved road infrastructure are leading rural communities to reorganise themselves around a cash economy and consumerism. People are beginning to buy household goods, clothing and tools, creating an increased need for cash. This need also comes at a time when development activities are disrupting the ecosystem and forest resources are dwindling. In rural Laos, this increased cash need, coupled with few income generating opportunities, is pushing many people to deliberately put themselves at risk of sustaining a UXO related injury.

This is compounded by the apparent complicity of local officials in the scrap metal trade, a lack of regulating legislation and an emphasis on vertical programmes rather than a co-ordinated approach, which tries to integrate development activities, and provides rural people with sustainable alternative income generation activities.

This brings me to the concept of *choice*. The project aimed to be participatory and the term participation is frequently referred to in the development doctrine. However, participation is a term which is difficult to define. White [8], for example, identified ten uses of the term participatory and Pretty [9] seven different types of participation.

I would argue, however, that the extent to which meaningful participation occurs and community input is sought, particularly in the original conceptualisation of a programme, is often questionable. While feasibility studies might be done and needs identified, community input is often only sought once a project has already been decided upon. Thus while the notion of community participation sounds attractive, and is often found in the discourse of development, in reality, meaningful participation may be limited.

Meaningful participation also implies giving communities choice. It means that people in positions of power have to be willing to surrender their power in favour of democracy. It means that in giving choice to the people we aim to help, we run the risk of being marginalized ourselves or even exiled from the decision-making process. This can be uncomfortable and also raises a number of questions. In this instance, what would the policy makers, programme planners and the donor and implementing agencies have done if, for example, in the course of a participatory planning process, the target communities, had said that they did not want the proposed programme? Or if the target communities suggested strategies that were incompatible with those the various implementing agencies had in mind? Furthermore, funding is often earmarked for specific activities, so what, for example, could have been done if the communities had said for instance, "we don't want this project but we do need a project which will address some of our other concerns? Or if they had said, "to enable us to put into effect the strategies that you are suggesting, we need alternative income generation activities or micro-credit facilities?

In summary, I have suggested that the beliefs, attitudes and cultures of individuals are not necessarily the main impediment to change and safer practices. Focussing primarily on information dissemination, albeit in a culturally sensitive way, suggests that all individuals have the ability to enact safer behaviours. However, as my experience in Laos shows, behavioural decisions are made in a complex milieu of interlocking cultural, social, political and economic factors. A broad social view of behaviour brings into relief the political, economic and cultural barriers to change, which need to be considered when designing programmes that aim to promote behavioural change.

This brings me to the final part of my discussion. What can we as practitioners do? I think we have two main responsibilities. One is based on our personal interactions with individuals and communities. We need to ensure that our own practice is ethical and participatory, respects the culture, values and needs of the communities with whom we work, tries to understand the broader context in which the programme is being implemented, and seeks to facilitate change in a way that is both meaningful and sustainable. Our second responsibility, I feel, is to advocate for change in the structures of development bureaucracies and to advocate for greater equity in decision-making and access to resources. While I do not have any definitive strategies on how to do this, I have some suggestions and hope that in the discussion that follows we can add to these.

Firstly, I think that in the needs assessment phase we need to identify not only individual and community needs and the socio-cultural context in which the programme is to be implemented, but also we need to look at factors which need to be in place to enable people to enact safer behaviours if they choose to do so. In the case of UXO, for example, if not tampering with UXO removes a cash income, we may need to put in place opportunities for other, safer cash generation activities.

Secondly, as practitioners we need to engage in meaningful and respectful relationships with target communities. We need to ensure that we listen to community needs, allow ownership over decisions and facilitate the presentation of new concepts in a manner that is appropriate. As individuals, we also need to engage as much as possible with decision-makers and/or consultants who act as advisors to funding bodies and create spaces to ensure that the voices of the marginalized are heard. We can also advocate for more flexible funding allocation structures, which allow implementing agencies to respond in a more flexible manner, to the real needs of the community.

Thirdly, I think that we need to put in place strategies for continually evaluating the programme once it is in progress. In my view, this evaluation needs to go beyond process evaluation, which although useful, may mask programme ineffectiveness. On-going evaluation should also include checking the relevancy of the programme's objectives, looking for indications of change towards the target behaviours and evaluating the responsiveness of the programme to the environmental conditions and in relation to the available community resources as well as monitoring changes in the broader socio-economic and political context.

Fourthly, we should document what we observe as accurately as possible and when we know a programme is not working, we need to say so, examine the reasons why and try to identify factors that would enable change.

I think we also need to advocate for research into the culture of development bureaucracies in order to try and find ways of making donor organisations more responsive to community needs. By publishing papers and attending conferences such as this we can also raise awareness of some of these issues and advocate for change.

Finally, I think we need to be activists. We need to take an activist stance in research, advocate for greater equality and access to resources.

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