

Commentary

Evaluating the performance of health promotion interventions

Health education has been recognized world over as an effective approach for achieving disease prevention and health promotion. Several information, education and communication (IEC) campaigns have been conducted in India. Large sections of population now use contraceptive methods, vaccines, deliver babies in health institutions, adhere to TB medicines, and follow safe sexual practices. Substantial declines in fertility and mortality have also occurred¹. But lot more remains to be done, especially in view of the emerging and re-emerging communicable diseases and the rising tide of non-communicable diseases.

The potential of health education for behaviour change needs to be harnessed. It has not yet received due policy attention and adequate budgetary allocations in India, despite the fact that Health Survey and Development Committee had devoted a full chapter to it in its report submitted to government of India in 1946². In the first Five Year Plan, on recommendation of the Planning Commission of India, Health Education Bureaus were established in the Centre and States. Later, the State Health Education Bureaus were integrated with the Directorates of Health Services³. In the absence of proper staff, equipment, and finances, these bureaus could not play a significant role in strengthening health education in India. Very few institutions/universities conduct professional courses on health education, and only a few studies have addressed the core issue of health education - why and how people change their behaviour?

In this issue Panda *et al*⁴ have argued that preventive care awareness campaign among women's self-help groups by a community health insurance programme, achieved better behaviours in selected rural communities of Uttar Pradesh and Bihar where healthcare indicators are quite low. Improvements in the 'practices' were reported for waterborne, airborne

and vector-borne diseases. In health education trials, the changes in awareness and practices are usually measured in pre- and post-design periods since having a control population for comparison is generally considered unethical. In such a situation, the total dependence on 'self-reported' practices as an outcome measure is problematic since social desirability bias may exaggerate the effects⁵. Hence, objective measures of outcomes should be considered such as observation of the practices or risk factors, disease or death rates.

Health education intervention trials are more complex in comparison to the clinical trials. Often, these need to be conducted at community level rather than at individual level especially when mass media is used. The health education campaigns may use radio, television, print or social media covering large populations. Comparatively longer lead time periods are often needed for sustainability of behaviour change to yield sufficient outcomes or impacts. Therefore, evaluation of health education interventions should consider logical framework by comprehensively measuring the inputs, processes, outputs, outcomes and impacts over a longer time horizon since in the absence of 'control' population, it is difficult to establish the cause and effect relationship⁶. Other analytical designs such as interrupted time series and propensity score matched analysis can add strength for attribution of causality to the observed association^{7,8}. Comparing health education interventions of variable intensity could also be of help for conducting dose-response analysis to understand the cause-effect relationship. A step-wedge design or phased implementation of intervention in various geographic units can also be justified, especially when limited resources are available in the beginning which are likely to increase over time⁹. To understand the processes of behaviour change, qualitative assessments should also be considered along with the quantitative assessment.

Programme evaluation in itself is a difficult endeavour, especially so when it involves evaluation of behaviour change. It requires not only conceptual understanding of the behaviour change principles, but the context also needs to be factored in while applying behaviour change models in various settings. It is equally important to state the behaviour change approach clearly while planning health promotion intervention. Earlier, behaviour change used to be viewed as a linear process starting with awareness, acquisition of knowledge, and then leading to changes in the attitudes and practices, finally culminating into reduction in risk factors, morbidity and mortality. Several theories of behaviour change have now established that social, cultural, political, and economic policies also play an important role in creating an enabling environment for behaviour change. Hence, health promoting policy changes are also required for health education to be successful¹⁰. Some of the preventive actions would require more support from the community to have desired impact, for example, vector control, water supply, sanitation, air quality, *etc.* than the others such as safe sex, and personal hygiene.

Community-based organisations such as women's self-help groups could engage with local policy makers, programme managers, and service providers to create enabling environments for encouraging the desired behaviour change. However, considering the current status of women, especially in north Indian rural settings where they have limited mobility, little say in decision making, and very little control over resources¹¹; their empowerment is needed so that they can play a significant role in health promotion. Policy changes at national and international levels are also required for disease prevention. Modern approaches have moved on from health education to health promotion wherein the behaviour change communication is targeted at policy makers as well as community members so that health promoting policies are implemented to create enabling environments in which adopting healthy behaviours becomes more affordable and easier choice for the people¹².

Legislation and regulations, cash incentives, demand side financing, and insurance plans have also been used as instruments for changing the behaviours of health providers and their clients with variable success. Health insurance has often been advocated as a panacea for addressing myriad problems which health systems are facing around the world today including the issues

related to disease prevention and health promotion. In developing countries, various types of insurance, especially the social insurance or community-based health insurance, have been advocated for financing the health services considering that tax-based resources are not enough. Many publicly financed health insurance schemes have been introduced in India such as *Rashtriya Swasthya Bima Yojana* (RSBY). Health insurance coverage has increased rapidly in the last decade. Now more than 300 million people have some kind of health insurance in India¹³.

Since the providers in a health insurance system are paid for every episode of curative care delivered, it introduces perverse incentive to supply more than desired levels of care, which ultimately drives up the cost of care¹⁴. As a result, overall health system becomes inefficient, as higher payments are to be paid for the same or even lower levels of health status. If insurance plans can play a role in prevention of disease and promotion of health, some of these shortcomings perhaps can be overcome. However, in view of the weak governance structures in India, insurance-based health system will not be able to address the health problems that are likely to be faced in future.

How are the health care providers paid? This is one of the financing instruments which can create incentives for insurance systems to invest in prevention and health promotion. By paying the health care providers using capitation method, providers can be driven to ensure that population under cover remains healthy. This can maximize their earnings. As a result, providers may engage in health promotion, risk reduction and early detection of disease through screening which is an efficient way of allotting scarce resources. This is evident in the United Kingdom's National Health Service, where primary care trusts are paid on capitation basis¹⁵. The health education campaign as reported by Panda *et al*⁴ in this issue also indicates that community-based health insurance (CBHI) can incorporate disease prevention and health promotion models. However, sustaining CBHI, especially in the absence of institutional support, is a challenging task¹⁶. Considering poor paying capacity of millions of poor people in India, the role of health insurance models in health promotion is likely to be limited.

In conclusion, the government should strengthen health promotion by allocating more resources to academic and research programmes which have focus

on health promotion. The role of all stakeholders should also be considered along with socio-economic factors while planning or evaluating health promotion interventions. Careful evaluation of health promotion interventions should be conducted before scaling up. The classical randomized control trial (RCT) design may not always be feasible for testing effectiveness of health promotion interventions, hence, alternate study designs which are robust and are easy to implement in developing country setting are needed. The infusion of social science research methodology could enrich health promotion science. Multi-level analysis can take into consideration the individual level and community contexts¹⁷.

Several low cost health promotion innovations which can be sustained by community-based local organisations need to be tested using robust scientific methods. Health promotion and education have been accorded a priority in the draft national health policy¹⁸. Health and wellness centres have been proposed at community level. Let us hope adequate resources are allocated to make these centres functional in near future.

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