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Short communication

Patient education in the developing world—a discipline comes of age

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Abstract

Objective: To review evaluated studies of health education within health facilities in developing countries.
Method: Extensive searchers were carried out of electronic databases and other sources to identify published evaluations of heath education within health service settings in developing countries. Those reports providing evidence of impact were selected for further consideration and included in the review.
Results: Examples of successful practice are presented for a wide range of health topics that include family health, antenatal care, nutrition education, reduction of use of injections, improve adherence to regimes for antibiotics and other, prevention and control of parasitic and infectious diseases, reproductive health including AIDS and sexually transmitted diseases.
Conclusions: There are now many examples of effective patient education within the challenging situations found in the developing world.
Practice implications: Strategies adopted by successful patient education programmes are listed including initial needs research, training of staff in communication skills, cultural sensitivity, including family members, using lay volunteers, development of improved packaging for medicines, clear written instructions with simple (and pre-tested) pictorial advice, participatory learning methods, and patient self-help groups, mail reminders and reminder stickers, practical demonstrations and more effective use of waiting areas including use of video.

Keywords: Patient education; Health education; Health promotion; Developing countries; Africa; Asia; Latin America; Reproductive health; Family health; Adherence; Infectious diseases; Parasitic diseases; Tuberculosis; Diarrhea; Oral rehydration therapy; Malaria; Growth monitoring; Sexually transmitted diseases; AIDS; Family planning; Nutrition education

1. Introduction

Patient education in the developing world faces formidable challenges because of the shortages of trained staff, lack of accessible facilities, overcrowding and the need to address issues of poverty, low education and literacy levels and the existence of pluralist medical systems based on both western- and non-western medical systems. It was a need to establish the evidence base for health promotion in developing that led to the establishment of the Leeds Health Education Database project in 1998. In the process some 800 studies were reviewed and 400 were entered in the database which are listed in full on an internet web site (http://www.hubley.co.uk). This short review summarises the findings of section of this database covering health facility-based patient education.

2. Method

The Leeds Health Education Project, described in more detail elsewhere [1–3], involved extensive searches for reports on heath promotion interventions including advocacy for changes in health policies and health education directed at communities in the developing world. Criteria used for inclusion included the following: the report should be in the public domain – ideally a peer-reviewed journal, the health education component of the intervention should be adequately described, there should be valid evidence of direct impact on the community and not just health worker performance and the research design should be sufficiently strong to attribute any impact found to the intervention.

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3. Results

Reports identified in this review show that well planned communication programmes can be effective in communicating information to patients, e.g. at antenatal and child health clinics [4], to reduce their use of injections [5] improve adherence to regimes for antibiotics and other medicines [6–8] uptake of treatment of acute respiratory infections [9,10], malaria prophylaxis and treatment [11–14], uptake of mectizan to prevent onchocerciasis [15], promote uptake of green leafy vegetables to prevent vitamin A deficiency [16,17], encourage self-management of chronic conditions such as COPD [18] and diabetes [19,20], pre-surgical counselling to reduce anxiety [21] and improved infant feeding practices [22,23]. Evaluation of patient education programmes in Kenya and Gambia highlight the difficulties posed by counselling patients on sexual behaviour HIV/AIDS [24,25] – there are now good examples of effective patient education on HIV/AIDS and sexually transmitted diseases [6,26–31] and family planning [32–35].

The role of patient education in the promotion of breastfeeding in antenatal, postnatal and child health clinics is the largest category of health facility-based intervention within the database. A large number of studies now provide evidence that face-to-face education of mothers by health workers or breastfeeding counsellors in the antenatal and postnatal period can increase the level of exclusive breastfeeding [36–49]. The effectiveness of these programmes has been greatly enhanced by changes in the organization of services such as the promotion of 'baby friendly hospitals' [50] and the adoption of the International Code for Marketing of Breast-milk Substitutes which sets out guidelines limiting the advertising of infant formulas and their distribution within hospitals.

Alongside the successes described above patient education for some health topics have been notable failures – especially for tuberculosis, oral rehydration therapy and growth monitoring. In the case of tuberculosis the failure of patient education to support the adherence to tuberculosis treatment has led to the emergence of the directly observed treatment strategy (DOTS) regime which shifts the emphasis to a process of direct overseeing of adherence combined with drugs involving shorter treatment regimes. However, even within the framework of DOTS, the benefits of enhanced patient education have been established [51,52].

Despite the early enthusiasm for oral rehydration in 1980s, evaluations of the mixtures that community members have prepared after demonstrations highlighted the difficulty of education on the preparation of salt sugar solution and the dangers of improperly prepared mixtures, e.g. [53–57]. The use of salt and sugar ORS was abandoned by the end of the decade for an alternative strategy to promote the use of readily available home fluid at first sign of diarrhoea followed up by taking a child to a clinic for packaged ORS on signs of dehydration. While this approach has been criticized as an example of the further medicalization of health, e.g. by [58], the reality is that the abandonment of home made salt and sugar emerged out of a failure of patient education to communicate effectively the preparation of salt–sugar solutions.

Growth monitoring was promoted as one of the major elements of UNICEFs child survival strategy. Recording a child's weight gain enables one to recognize at a very early stage any faltering in growth before it develops into serious malnutrition. Unfortunately growth monitoring has failed to live up to its early promise for a number of reasons – most important of which has been an over-emphasis on the technology of weighing and the design of growth charts and failure to give sufficient attention to improving the capacity of health workers to use these charts to give appropriate advice to parents on the health of their children [59–61]. It is important to apply the lessons from successful interventions [62–65] and place effective communication at the centre of growth monitoring.

4. Discussion and conclusion

4.1. Discussion

Key ingredients for success have been the initial research on the problem – especially socio-cultural influences, the development of a planned programme of patient education, training of health workers in communication skills and cultural sensitivity, reorganization of clinics to improve the climate for patient education and involvement of other members of families such as partners [66]. Other measures adopted have the creative mobilisation of other cadres such as shopkeepers [67] and lay volunteers [14,39], the development of improved packaging for medicines, clear written instructions with simple (and pre-tested) pictorial advice [4,6], participatory learning methods [33] and patient self-help groups [52], mail reminders [68] and reminder stickers [69] to encourage follow-up, practical demonstrations [70] and more effective use of waiting areas [71] including use of video [72].

4.2. Conclusions

Patient education in the developing world is emerging as a mature discipline with a proven track record across the range of health issues.

4.3. Practice implications

This review provides evidence that well planned patient education that takes into account the needs of patients and applies appropriate communication methodologies can work. The challenge is to disseminate the lessons widely to improve the health of the disadvantaged and poor of the developing world.