Health education in the Libyan Arab Jamahiriya: assessment of future needs

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التثقيف الصحي في الجماهيرية العربية الليبية: تقييم الاحتياجات المستقبلية

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الخلاصة: استهدفت هذه الدراسة تحديد القضايا الصحية ذات الأولوية، والفئات المستهدفة، ووسائط التثقيف في برامج التثقيف الصحي المستقبلية في الجماهيرية العربية الليبية. وتم في إطار هذه الدراسة توجيه استبيان إلى فئتَيْن: 60 من المسؤولين الصحيِّين، و300 من عامة الناس. وقد اتفقت آراء المشاركين في الدراسة على سبع قضايا صحية مشتركة، وإن اختلفوا في درجة أولوياتها. واعتبر المشاركون أن الأطفال والشباب هم أهم الفئات المستهدفة، وأن المدارس هي أنسب مكان للتثقيف. وأقرَّ الجمهور أن وسائل الإعلام الإذاعية وسيلة قيِّمة للتثقيف الصحي الموجه لعامة الناس. ويوصي الباحثون بالقيام باستشارة الفئات الرسمية والجماهيرية بصورة منهجية، باعتبارها شرطاً مسبقاً لمبادرات التثقيف الصحي.

ABSTRACT The aim of this study was to determine priority health issues, target groups and education media for future health education programmes in the Libyan Arab Jamahiriya. A questionnaire was addressed to 2 groups: health officials (n = 60) and the general public (n = 300). In their lists of health issues to focus on, 7 were the same although prioritization differed. Children and youth were considered the most important target groups and the school setting the most appropriate medium for them. Broadcast media were acknowledged as valuable for health education for the general public. We recommend systematic consultation across official and lay groups as a preliminary requisite for health education initiatives.

Éducation sanitaire en Jamahiriya arabe libyenne : évaluation des besoins futurs

RÉSUMÉ Le but de cette étude était de déterminer les questions de santé prioritaires, les groupes cibles et les moyens d'éducation pour les futurs programmes d'éducation sanitaire en Jamahiriya arabe libyenne. Un questionnaire a été adressé à 2 groupes : des responsables de la santé (n = 60) et le grand public (n = 300). Dans leurs listes de questions de santé à privilégier, 7 étaient similaires, même si l'ordre des priorités était différent. Les enfants et les jeunes étaient considérés comme les groupes cibles les plus importants et le cadre scolaire comme le vecteur qui leur était le plus adapté. Les médias étaient reconnus comme utiles pour l'éducation sanitaire du grand public. Nous recommandons une consultation systématique des groupes de responsables et de citoyens ordinaires en tant qu'étape préliminaire nécessaire pour les initiatives d'éducation sanitaire.

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Introduction

Health education is a cornerstone of primary health care (PHC) and an essential component of any strategy to promote the health of the community. In line with the *Declaration of Alma-Ata* [*1*], the *National strategy providing health for all and by all* acknowledges that health education is the most essential element in PHC [*2*]. The national plan for health education presents programme aims, objectives, methods and tools [*3*]. It also lists the implementing authorities concerned at both central and local levels. Planning, ongoing monitoring and evaluation are central; implementation is, however, local.

A variety of health education interventions within the scope of PHC and health promotion are conducted. Personal as well as impersonal approaches are employed. Mass media, including television, radio and newspapers are used and posters, leaflets and booklets are widely distributed. The school setting has been considered the most appropriate medium for communicating with children. Nevertheless, television has been acknowledged as the most effective medium for health education [*4*].

The national report, *Libya: human development report 1999*, showed that a major problem in the field of health services in the Libyan Arab Jamahiriya was poor planning techniques [*5*]. It stressed the need for scientifically based national planning. Planning health promotion interventions involves market research, assessment of community needs and determination of perceived priorities [*6*]. This works through concrete and effective community action in setting priorities, making decisions, planning strategies and implementing them to achieve better health [*7*]. Therefore, it is very important to involve people in determining population needs [*8*].

A crucial element in achieving an effective health education programme is to develop an understanding of the perceptions, preferences and requirements of the target audience. This should ideally then influence the selection of message, medium and creative strategy.

This study was the first in the Libyan Arab Jamahiriya to determine priority health issues and to identify the groups of people (target groups) to whom future health education programmes should be addressed. It was also used as the basis for selecting the media most appropriate for each health issue and to each group.

Methods

During February–April 2004, an open-ended questionnaire was developed by the authors. It was given to 2 different groups of participants, health education/promotion officials (providers) and the general public (users). The first group included the members of the National Committee for Health Education, the members of the National Advisory Board for PHC, the members of the PHC central administration, the directors of departments of PHC and health education at the district level, the managers and experts of public health programmes and the undersecretaries of health in the Libyan Arab Jamahiriya over the past 35 years. The second group was a sample representative of the general public throughout the country, selected using a stratified simple random method of sampling [*9*].

The 2 groups were questioned about health issues that they thought were important and about which groups of people future health education programmes should address. Participants were asked to indicate which of the media should be employed for each issue and each group of people. In

addition, both groups were asked to report their recommendations and suggestions for future planning of health education programmes. A list of 30 health issues, 20 target groups and 40 education media were presented as examples for the participants.

The questionnaire was piloted to a representative sample of each target group, 10 individuals from the officials and 50 from the general public.

The authors personally handed over the questionnaire to 60 officials at both national and local levels.

Sample size for the general public group was calculated from the pilot study, according to the equation in Pearson and Turton [*10*]. We (the authors with the kind assistance of colleagues, friends and relatives) distributed 300 copies personally to members of the general public. Distribution was carried out at a variety of public places, such as hospitals, schools and offices and also at a number of private places, such as homes and private events. The proportion of urban and rural participants was consistent with the configuration of the Libyan population (85:15) in order to secure a stratified, simple random distribution [*11,12*]. Urban participants were targeted in Tripoli, Benghazi, Misurata and Zawia. Rural participants were reached in towns around Sebha, Gherian and Zliten. Equal participation of both sexes was considered as well. The questionnaire was answered anonymously and confidentiality was assured. Completed questionnaires were personally individually collected. Data were computed using *StatView* (Mac).

Results

Of the 60 targeted health officials, 52 (86.7%) completed and returned the questionnaires: 6 were females, 5 were former under-secretaries of health, 10 were members of the National Committee for Health Education, 8 were members of the National Advisory Board for PHC or members of the PHC central administration, 16 were managers or members of the public health central programmes, 9 were directors of health education or PHC at local district level, and 4 were national health promotion consultants or advisors. Twenty-one of the respondents had a doctoral degree or equivalent, 11 had a masters degree or equivalent, 13 had a bachelor degree or equivalent and 7 had an intermediate diploma. Of the 300 questionnaires distributed to the general public, 154 were completed and returned (response rate 51.3%). Demographic data are shown in Table 1.

The top 10 priority health issues indicated by each group are compared in Table 2. The table also shows the ranking given by each group. Both groups ranked personal hygiene, sanitation and environmental health high, 1 by the health officials and 2 by the general public. HIV/AIDS control

Table 1 **Demographic characteristics of participants from the general public (*n* = 154)**

Characteristic	No.	%
Sex		
Male	83	53.9
Female	71	46.1
Age (years)		
20	13	8.4
21–30	66	42.9
31–40	42	27.3
41+	33	21.4
Location		
Urban	117	76.0
Rural	37	24.0
Education level		
Primary school or lower	11	7.1
Secondary school or equivalent	56	36.4
University or higher	87	56.5

Table 2 **Comparison of priority health issues indicated by the health officials group and those indicated by the general public group**

Health officials group (*n* = 52)				General public group (*n* = 154)			
Rank	Health issue	No.	%	Rank	Health issue	No.	%
1	Personal hygiene, sanitation & environmental health	29	55.8	1	Drug abuse control	98	63.6
2	Immunization	23	44.2	2	Personal hygiene, sanitation & environmental health	79	51.3
3	Healthy food & proper nutrition	20	38.5	3	HIV/AIDS control	55	35.7
4	Child health	19	36.5	3	Regular medical check-up	55	35.7
4	Maternal health	19	36.5	5	Healthy food & proper nutrition	49	31.8
6	HIV/AIDS control	17	32.7	6	Child health	48	31.2
6	Accident prevention	17	32.7	7	Safe use of medications	42	27.3
6	Child health during school age/school health	17	32.7	8	Sport & physical exercise	34	22.1
9	Breastfeeding	16	30.8	9	Immunization	32	20.8
10	Drug abuse control	14	26.9	10	Breastfeeding	30	19.5

received similar attention, ranked 6 by the officials and 3 by the general public. The top priority for the public was control of drug abuse; this was, however, ranked 10 by the health officials.

The top 2 suggested target groups and recommended education media for each health issue are shown in Table 3 for the health officials and Table 4 for the general public.

In the section of the questionnaire concerning future planning of health education programmes, 19.2% of the participating health officials recommended more moral and financial support for health education programmes, 19.2% suggested the need for training and specialization of health education personnel, 15.4% recommended the provision of all necessary facilities for health education programmes and 11.5% stressed the continuity of health education programmes. Of the general public responses, 11.0% recommended more emphasis on television and 8.4% suggested focusing on school health education.

Discussion

The demand for health care can often outstrip available resources and it is not easy to satisfy the competing priorities of different individuals and groups. Thus, each country has to make hard decisions about priorities. Our study was the first in the Libyan Arab Jamahiriya assessing future needs and planning health education programmes. It used a combination of top-down and bottom-up approaches, involving key people in public health services together with a representative sample of the general public.

This study represents a practical application of the *Ottawa charter for health promotion* [*7*] and the *Mexico framework*

Table 3 **Top ten priority health issues, main target groups and education media recommended by the health officials group (*n* = 52)**

Health issue & suggested target groups	No.	%	Recommended education medium	No.	%
Personal hygiene, sanitation & environmental health (n = 29; 55.8%)					
General public	19	65.5	Television	16	55.1
			Radio	13	44.8
Youth	12	41.4	Television	7	24.1
			Youth/sport clubs	6	20.7
Immunization (n = 23; 44.2%)					
Parents/patrons	11	47.8	Television	7	30.4
			Booklets/leaflets	6	26.1
Schoolchildren	11	47.8	Television & school curricula	8	34.8
Healthy food & proper nutrition (n = 20; 38.5%)					
All public groups	13	65.0	Television	12	60.0
			Radio	10	50.0
Schoolchildren/students	10	50.0	School curricula	7	35.0
			Teachers	4	20.0
Child health (n = 19; 36.5%)					
Parents/mothers	19	100	Television	18	94.7
			Radio	12	63.2
Schoolchildren	7	36.8	School curricula	4	21.1
			Television	3	15.8
Maternal health (n = 19; 36.5%)					
Female youth	9	47.4	Television & booklets/leaflets	5	26.3
Mothers	7	36.8	Television & radio	7	36.8
HIV/AIDS control (n = 17; 32.7%)					
Youth	14	82.4	Television	12	70.6
			Radio & youth/ sports clubs	9	52.9
Adult students	7	41.2	School curricula	7	41.2
			Television	6	35.3
All public groups	7	41.2	Television	7	41.2
			Radio	5	5.9
Accident prevention (n = 17; 32.7%)					
Youth	9	52.9	Television & lectures/seminars	5	29.4
All public groups	7	41.2	Television	5	29.4
			Radio	3	17.7

Table 3 **Top ten priority health issues, main target groups and education media recommended by the health officials group (*n* = 52) *(concluded)***

Health issue & suggested target groups	No.	%	Recommended education medium	No.	%
School health/child health during school age (n = 17; 32.7%)					
Schoolchildren	16	94.1	School curricula	11	64.7
			Television	8	47.1
Teachers	12	70.6	Lectures/seminars	11	64.7
			Television & booklets/leaflets	4	23.5
Breastfeeding (n = 16; 30.8%)					
Mothers/pregnant women	13	76.5	Television	9	56.3
			Health professionals	6	37.5
Female youth	6	35.3	School curricula	4	25.0
			Television	2	12.5
Drug abuse control (n = 14; 26.9%)					
Teenagers/youth	12	85.7	Television	10	71.4
			Lecture/seminars	8	57.1
Students	8	57.1	School curricula	5	35.7
			Television	3	21.4

for countrywide plans of action for health promotion [*6*], calling for community participation in health services planning.

In the present study, the essential components of PHC [*1,2*] that need general public awareness and behaviour change were indicated in the list of priority issues by the health officials. Specifying these issues as priorities for future health education programmes is largely dependent on the awareness of the officials (drawn from their training and experience). International and national epidemiological data play an important role in influencing opinions. This represents a response to the demographic, social and epidemiological situation in the Libyan Arab Jamahiriya as well as life-style practices.

Overall, the general public agreed with the health officials, selecting 7 identical health issues in the list of 10 priority issues. However, 3 issues chosen by the officials, accident prevention, maternal health and child health during school age/school health were not listed in the top 10 of the general public.

Both groups suggested that health education programmes in some areas should be targeted to all public groups. At the same time, it was recommended that these programmes be addressed to specific concerned groups; examples include communicating with youth regarding personal hygiene, sanitation and environmental health, and focusing on HIV/AIDS control to youth and students. McGuire's analysis of effective communication and persuasion methods suggested that messages that are more closely suited to the values and attitudes of those to whom they are directed will be

Table 4 **Top ten priority health issues, main target groups and education media recommended by the general public (*n* = 154)**

Health issue & suggested target groups	No.	%	Recommended education media	No.	%
Drug abuse control (*n *= 98; 63.6%)					
Teenagers/youth/students	96	98.0	Television	62	63.3
			Youth/sport clubs	50	51.0
Schoolchildren	58	59.2	School curricula	40	40.8
			Television	23	23.5
Personal hygiene, sanitation & environmental health (*n *= 79; 51.3%)					
Children	55	69.2	School curricula	37	46.8
			Teachers	23	29.1
Youth	42	53.2	Youth/sport clubs	24	30.4
			Television	16	20.3
HIV/AIDS control (*n *= 55; 35.7%)					
Youth	51	92.7	Television	32	58.2
			Youth/sport clubs	23	41.8
Children	28	50.9	School curricula	14	25.5
			Television	13	23.6
Regular medical check-up (*n *= 55; 35.7%)					
Children/students	49	89.1	Television	23	41.8
			School curricula	12	21.8
Youth	29	52.7	Youth/sport clubs	17	30.9
			Television	13	23.6
Healthy food & proper nutrition (*n *= 49; 31.8%)					
Schoolchildren	32	65.3	School curricula	26	53.1
			Television	14	28.6
Mothers/housewives	21	42.7	Television	16	32.7
			Radio	11	22.5
Child health (*n *= 48; 31.2%)					
Mothers	34	70.8	Television	23	47.9
			Radio	15	31.3
Schoolchildren	28	58.3	School curricula	17	35.4
			Teachers	11	22.9
Safe use of medications (*n *= 42; 27.3%)					
Patients with chronic diseases	18	42.9	Television	12	28.6
			Health professionals	9	21.4
Children	16	38.1	School curricula	10	23.8
			School activities, teachers & television	6	14.3

Table 4 **Top ten priority health issues, main target groups and education media recommended by the general public (*n* = 154) *(concluded)***

Health issue & suggested target groups	No.	%	Recommended education media	No.	%
Sport & physical exercise (*n *= 34; 22.1%)					
Youth	26	76.5	Youth/sport clubs	20	58.8
			Television	10	29.4
Schoolchildren	15	44.1	School activities	8	23.5
			Television & children's clubs	6	17.7
Immunization (*n *= 32; 20.8%)					
Schoolchildren	19	59.4	School curricula	13	40.6
			Television	10	31.3
Children under 6 years	17	53.1	Television & nursery schools	8	25.0
Breastfeeding (*n *= 30; 19.5%)					
Mothers	25	83.3	Television	24	80.0
			Radio	21	70.0
Visitors to health services	8	26.7	Health professionals	7	23.3
			Lectures/seminars	3	10.0

more effective than other types of messages [*13*].

Different terms were chosen by both groups to indicate that the young generation is the essential target group regarding certain health issues. It has been recommended that health education in the Libyan Arab Jamahiriya be strengthened as early in life as possible, targeting children and youth. This is probably to reduce individual exposure to self-imposed risks. This represents an orientation of health education planning on the basis of the "at-risk groups" approach. The high proportion of children and youth within the Libyan population (78.3%) [*12*] largely supports the viewpoint of participants of both groups in focusing on the young generation as a major target group. Moreover, youth can be considered a crucial impact group within the community, and they can be targeted in order to bring about individual and societal change towards better health. Other important groups that were suggested include parents, guardians and foster parents, mothers, patients with chronic diseases and teachers. This demonstrates that the study participants put emphasis on targeting the new generation both directly and indirectly.

Both groups recommended broadcast mass media as the most important to be employed in future health education. Television was usually perceived as more potent than radio. In previous studies by the same authors, television was considered by the Libyan health officials and general public as the leading medium for mediating health education [*4,14*]. The extensive health education programmes disseminated through the Libyan television channels are perceived as contributing to these findings. Nevertheless, the relatively recent wide ac-

cess of Libyans to the various international satellite channels casts doubt on the efficacy of future health education through the national television channels.

Preference for print media for health education varied according to the health issue and the target audience. The relatively high literacy rate (82.3%) in the Libyan Arab Jamahiriya [*12*] supports the choice of print media as a source of health education. Booklets and leaflets were previously ranked by the Libyan general public as the lowest among the media employed to raise health knowledge or to promote healthy practices, newspapers and magazines were given a higher rank [*4*]. Nevertheless, officials have previously underestimated the efficacy of print media [*14*].

To target children, teenagers or youth, the school setting was perceived as the most appropriate medium for communication. The school enrolment rate in the Libyan Arab Jamahiriya [*5*] supports the use of the school setting in health education. The school setting was previously considered by the general public an effective environment for health knowledge and behaviour change [*4*]. Schools are widely seen as having a key role in health education, whether the desired outcomes are changing behaviours or the personal and social skills associated with empowerment [*15*].

To reach most of the suggested groups, a recommended combination of education media emerged, particularly to target the young generation. The use of a combination of the school setting and television was perceived to be useful. A selected combination of communication channels tends to have a synergistic effect: it is mutually reinforcing, and can carry different types of information. Television spreads information rapidly and at low cost. On the other hand, the opportunity of 2-way interaction and obtaining feedback gives face-to-face communication a powerful advantage.

Our study revealed that the assessments of officials differed from those of the general public. These findings suggest the need for a systematic consultation across professional and lay groups as a requisite for statutory health education/promotion initiatives. Involving people in determining their own needs should result in increased effectiveness and efficiency. The results also suggest the need for reorientation of health promotion programmes in the Libyan Arab Jamahiriya, and the role of health education within these programmes, according to future priorities. It proposes reorganizing the use of different health education media in future planning, placing an emphasis on television techniques. Together with the introduction of a reliable database, this may facilitate proper planning and future evidence-based practices.

Acknowledgements

The authors thank the health officials and the general public who answered and returned the questionnaires. Special thanks go to colleagues, friends and relatives for their kind assistance in distributing the questionnaires.

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