

Lessons from the Field

Integration of basic dermatological care into primary health care services in Mali

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Objective To evaluate, in a developing country, the effect of a short training programme for general health care workers on the management of common skin diseases — a neglected component of primary health care in such regions.

Methods We provided a one-day training programme on the management of the skin diseases to 400 health care workers who worked in primary health care centres in the Bamako area. We evaluated their knowledge and practice before and after training.

Findings Before training, knowledge about skin diseases often was poor and practice inadequate. We found a marked improvement in both parameters after training. We analysed the registers of primary health care centres and found that the proportion of patients who presented with skin diseases who benefited from a clear diagnosis and appropriate treatment increased from 42% before the training to 81% after; this was associated with a 25% reduction in prescription costs. Improved levels of knowledge and practice persisted for up to 18 months after training.

Conclusions The training programme markedly improved the basic dermatological abilities of the health care workers targeted. Specific training may be a reasonable solution to a neglected component of primary health care in many developing countries.

Keywords Skin diseases/diagnosis/therapy; Dermatology/education; Primary health care; Health personnel/education; Nurses; Physicians; Health knowledge, attitudes, practice; Evaluation studies; Mali (*source: MeSH, NLM*).

Mots clés Dermatoses/diagnostic/thérapeutique; Dermatologie/enseignement; Soins santé primaire; Personnel sanitaire/enseignement; Infirmières et infirmiers; Médecin; Connaissance, attitude, pratique; Etude évaluation; Mali (*source: MeSH, INSERM*).

Palabras clave Dermatopatías/diagnóstico/terapia; Dermatología/educación; Atención primaria de salud; Personal de salud/educación; Enfermeras; Médicos; Conocimientos, actitudes y práctica sanitarias; Estudios de evaluación; Malí (*fuentes: DeCS, BIREME*).

Arabic

Bulletin of the World Health Organization 2005;83:935-941.

Voir page 940 le résumé en français. En la página 940 figura un resumen en español.

Introduction

Recently, awareness that certain common skin diseases are an underestimated health problem in developing countries has grown (1). Prevalence in the general population is high for disorders such as pyoderma, scabies or superficial mycoses, especially in children (2–6). Between 6% and 24% of the total number of visits to primary health care centres in this environment have been reported to be the result of skin disease (7–11), which makes this one of the most common organ-specific reasons for consultation. Expenditure on these disorders may be high (12–13), and this seems to be affected by the low level of skills relevant to the management of such disorders among most general health care workers (13–15). In addition, the desired

integration of leprosy services to the level of primary health care also would benefit from an improvement in the dermatological skills of such health care workers (16).

The problem of skin diseases has been ignored by most health authorities, however, and specific recommendations for rational control measures are lacking. This seems mainly to be determined by the perception of their generally benign nature, which means that these diseases elicit a lower level of concern compared with more serious disorders prevalent in these areas. Furthermore, adaptation of dermatology to the level of primary health care may seem a daunting challenge, with the eventual need for substantial investment. Finally, implementation of a programme on skin disease at the level of primary care probably is assumed to require disproportionate investment for the

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Ref. No. 05-022020

(Submitted: 17 March 2005 – Final revised version received: 19 July 2005 – Accepted: 20 July 2005)

severity of the problem, with the risk of diverting health initiatives from objectives with a higher priority.

Rather than remaining content with these views, a reasonable approach would be to adopt solutions proportionate to the severity of the problem — that is, to design procedures that are easy to implement but capable of producing a significant effect. The aim of this study was to evaluate the effect of a one-day training programme intended for general health care workers in primary health care centres on the basic management of common skin diseases in a sub-Saharan African country.

Methods

Setting

Mali is a Sahelian country with a gross national income per capita of US\$ 240 (17) and an adult literacy rate of 27%. At the peripheral level, the health system relies mainly on primary health care centres administered by the state or community (18), whose health care workers consist of mostly nurses who graduate after a course of 3–4 years and possibly doctors (predominantly based in cities) or midwives, or both.

Intervention

Our goal was to train every health care worker who worked at primary health care level in the Bamako area in the basic management of the most common skin diseases that they may encounter. After meetings with local health authorities and a review of available data from Mali (6, 11, 19), it was decided that these health care workers would benefit from training on pyoderma, scabies, tinea capitis, other superficial mycoses and contact dermatitis and on guidance on the referral of suspected cases of early leprosy.

Lessons from the field

We assumed that most health care workers in the area had not previously received specific training in the management of skin diseases (11). We wanted to increase their ability to diagnose and treat these patients, so we did a simple before-and-after study of the impact of training on every health care worker that we could reach. We developed an algorithm for the standardized management of common skin disorders in the area. The idea was that health care workers could improve their diagnostic accuracy by identifying key signs, and make more appropriate prescriptions by using an approved list of drugs available in generic formulations (20). We did a one-day training course that focused on assimilation of the algorithm and included demonstrations of examples of the main disorders through slides and patients. A poster of the algorithm and an illustrated booklet that summarized the main data were prepared for each student. In order to facilitate the supply of drugs, a list of the recommended drugs was transmitted to every pharmacy unit linked to the targeted centres.

Participants

Every health care worker in Bamako city and an adjacent rural district (Kangaba district) with a responsibility for issuing prescriptions at primary care level in the public or community health system was targeted. We obtained a complete list of suitable people who worked in the primary health care centres in that area (432 health care workers in 112 centres).

Evaluation

Calendar and general method

Initially, pre-training evaluations were compared with post-training tests performed from just after the training to seven months after the training to determine the optimum learning outcomes. Later, a “long-term evaluation” to assess the retention of skills among health care workers who remained in their posts was scheduled between 16 months and two years after training.

Knowledge

Just before and just after the training course, all health care workers were assessed with a slide presentation of typical cases of pyoderma, scabies, tinea capitis and hypochromic patches. The assessment of answers was standardized. Diagnosis was considered incorrect if the answer was wrong or unclear (for example, use of non-specific terms such as “dermatosis”). Treatment choice was considered correct if the drugs selected were adequate for the condition shown, independent of the suggested diagnosis. Eighteen months after training we assessed retention of skills in 100 health care workers who remained in their posts.

Practice

The evaluation focused on a peripheral district of Bamako city (the sixth district) in addition to the rural area (Kangaba district) — a zone of 340 000 inhabitants. This zone was selected to include comparable proportions of nurses and doctors, as care in Bamako’s more central districts is most often delivered by doctors. In 2000, the zone had 20 primary health care centres, with an activity of 500–13 000 visits per centre. We collected the consultation registers at these centres for four months (April to July) in the period before the training (2001) and in the two years after (2002 and 2003). In 2003, we only collected the registers of the 10 centres at which trained health care workers had remained in their posts.

The following data were recorded: total number of visits; number of visits that were a result of skin disease (we decided to not record cases registered as “abscess”, “chickenpox” or “measles” as “skin diseases”); and, for patients with a skin disease, their age and sex, the grade of health care worker who saw the patient, and the diagnosis, treatment, numbers of drugs used and proportion of generic drugs issued.

Practice indicators were defined as follows:

- Diagnoses: the terminology was divided into “clear diagnoses”, where the term used clearly defined any skin disorder, and “unclear diagnoses”, where non-specific terms (for example, “dermatosis”, “allergy”, “itch” or “eruption”) were used. Different terms used to describe the same entity were grouped together (e.g. “pyoderma” was the term reserved for all cases of superficial bacterial skin infection: “impetigo”, “folliculitis”, and so on).
- Treatments: appropriateness was judged when possible (i.e. when treatment was indicated and when there was a clear diagnosis) in a standardized way by the presumed efficacy of the active drugs prescribed for the diagnosis made (a predefined scheme established from current medical knowledge of the disorders considered was used). The proportion of patients with a clear diagnosis and an appropriate treatment was calculated. We defined “superfluous drugs” as those belonging to categories other than those recommended during training.

Treatment cost was evaluated on the basis of the cost of one delivery unit of each drug. Patients referred were traced.

Between 18 and 24 months after training, all 40 trained health care workers who were still in their posts in the more active centres (i.e. those with at least one dermatological case per day) within the same zone were observed during everyday consultations related to skin diseases by a dermatologist who checked diagnoses and treatments and interviewed the health care worker. All data were captured and analysed with Epi-Info software (version 6.04). χ^2 Distribution, Fisher's exact, and Kruskal-Wallis' H tests were used.

Results

In total, 400 health care workers were trained (397/431, i.e. 92% of those targeted; three more were newly posted to the evaluation area in early 2002). These comprised 87 doctors, 218 nurses and 95 midwives. They were trained during 22 single-day sessions that focused exclusively on the programme described. All midwives were women; other groups comprised 34% men and 66% women. Training costs were calculated at 25 000 Francs CFA per student (about €40).

Knowledge

Table 1 shows data recorded before and after training. Incorrect diagnoses were followed by inadequate treatment more often than correct diagnoses (odds ratio, 5.8; 95% confidence interval, 4.4 to 7.7; $P < 10^{-7}$). The frequency of inappropriate treatment did not differ when cases with a patently wrong diagnosis (inappropriate treatment in 255/364 of analysable files) were compared with those with an "unclear" diagnosis (109/169; $P = 0.2$). Although 179/389 (46%) of health care workers would have considered a possible diagnosis of leprosy when shown a suspicious hypochromic patch before training, 284/389 (73%) correctly considered this diagnosis just after training ($P < 10^{-7}$) and 77/100 (77%) in 2003.

Practice

The health care workers in the 20 centres within the zone targeted for practice evaluation consisted of 24 doctors and 45 nurses. One centre was excluded because the registers had not been completed correctly. Overall, 1341 files existed for patients who visited the centres for any skin disease in 2001 and 1351 in 2002; this represented 6.5% of the total visits. Sixty-seven percent of patients were younger than 15 years, and 65% had been seen by doctors and 35% by nurses. In 2003, the registers of the only 10 centres in which the health care workers initially trained had remained in post were collected, accounting for 670 visits.

Table 2 reports a selection of significant indicators of practice before, 4–7 months and 16–19 months after training. The appropriateness of treatment in cases in which a clear diagnosis was made was correct in 473/640 (74%) of analysable cases in 2001, 1038/1127 (92%) in 2002 ($P < 10^{-7}$) and 539/596 (90%) in 2003. Each of the following diagnostic categories received more appropriate treatment in 2002 than in 2001: pyoderma (appropriateness in 917/975 cases in 2002 vs 240/304 in 2001; $P < 10^{-7}$), dermatitis (12/18 vs 3/27; $P < 10^{-3}$) and scabies (14/14 vs 2/4; $P < 0.04$). In 2002, 243/311 (78%) of all antiseptics prescribed belonged to the classes recommended during the training compared with 79/209 (38%) in 2001 ($P < 10^{-7}$); similar changes were seen for oral antibiotics

Table 1. Comparison of knowledge of general health care workers for diagnosis and treatment of targeted skin disorders, before, just after and 18 months after training

Knowledge indicator	n	Pyoderma	Scabies	Tinea capitis
Correct diagnosis				
Before training	389	121 (31) ^a	167 (43)	311 (80)
Just after training	389	349 (90) ^b	344 (88) ^b	361 (93) ^c
18 months after training	100	87 (87) ^d	88 (88) ^e	99 (99) ^f
Correct treatment				
Before training	389	233 (60)	74 (19)	113 (29)
Just after training	389	307 (79) ^b	257 (66) ^b	222 (57) ^b
18 months after training	100	97 (97) ^g	74 (74) ^h	90 (90) ⁱ

^a Values in parentheses are percentages of health care workers tested who gave a correct answer.

Before compared to just after training; ^b $P < 10^{-8}$, ^c $P < 10^{-6}$.

Just after training compared to 18 months after training; ^d $P = 0.4$, ^e $P = 0.9$,

^f $P < 0.02$, ^g $P < 10^{-4}$, ^h $P = 0.13$, ⁱ $P < 10^{-7}$.

(868/1113 (78%) vs 540/806 (67%); $P < 10^{-7}$) and topical antimycotics (102/143 (71%) vs 39/82 (48%), $P < 10^{-3}$). The results on these items did not alter significantly between 2002 and 2003. The main superfluous drugs prescribed were oral anti-H₁ antihistamines and anti-inflammatories. In 2002, 11 patients suspected of having leprosy were referred to the leprosy services (with a diagnosis of leprosy in five) compared with one in 2001 and none in 2003.

Variations were noticed according to the grade of health care worker (Table 3). Improvements in the proportion of cases with clear diagnosis and appropriate treatment between 2001 and 2002 was greater for nurses than for doctors ($P = 0.02$); the same was true for those with superfluous prescriptions ($P < 10^{-3}$). When patients' ages were stratified, improvement between 2001 and 2002 in the proportion of cases with a clear diagnosis and an appropriate treatment was more important in patients younger than 15 years than in older patients (<15 years, 331/772 in 2001 vs 754/873 in 2002; ≥ 15 years, 142/361 vs 284/400; χ^2 for interaction evaluation, 16.7; $P < 10^{-4}$).

Health care workers' observations during everyday practice (83 cases seen, i.e. two dermatological cases per health care worker) produced adequate diagnoses and treatments in 88% and 77% of cases, respectively. Most health care workers who were interviewed declared significant improvements in practice and regular use of the algorithm.

Discussion

After a single day of training, a marked improvement was seen in the management of skin diseases in primary health care centres, according to changes in defined indicators evaluated in samples of general health care workers.

Although knowledge was tested for every health care worker, we focused practice evaluation on an area that was not fully randomly selected, so that we could evaluate each main category of health care worker (especially nurses, who are a major resource at national level) with enough power. We did not consider that this was likely to bias the representative nature of that sample in other aspects. In considering the long-term evaluation, we are aware that health care workers

Table 2. Main indicators of practice of health care workers for skin diseases before training (2001), 4–7 months after training (2002) and 16–19 months after training (2003) using data from primary health care centres' registers

Practice indicator	Year				
	2001	2002	P value ^a	2003	P value ^b
Main diagnostic categories					
Unclear diagnosis	493 (36.8) ^c	146 (10.8)	<10 ⁻⁸	43 (6.4)	<10 ⁻⁸
Pyoderma	390 (29.1)	980 (72.5)		525 (78.4)	
"Sore"	238 (17.7)	47 (3.5)		9 (1.35)	
Mycosis (other than tinea capitis)	80 (6)	69 (5.1)		19 (2.8)	
Tinea capitis	11 (0.8)	11 (0.8)		4 (0.6)	
Dermatitis	32 (2.4)	22 (1.6)		7 (1)	
Scabies	8 (0.6)	16 (1.2)		5 (0.75)	
Other diagnosis categories	89 (6.6)	60 (4.5)		58 (8.7)	
Total	1341 (100)	1351 (100)		670 (100)	
Treatment indicators					
Cases with clear diagnosis and appropriate treatment	473/1133 (41.7)	1038/1273 (81.5)	<10 ⁻⁸	539/634 (85)	<10 ^{-8d}
Mean [SD] number of drugs prescribed ^{e,f}	1.96 [0.77]	1.87 [0.75]	<10 ⁻²	1.95 [0.75]	0.91
Mean [SD] percentage of generics ^{e,f}	79 [34]	87 [29]	<10 ⁻⁶	95 [17]	<10 ⁻⁶
Cases in whom unnecessary drugs were prescribed	524/1017 (52)	482/1268 (38)	<10 ⁻⁸	316/640 (49)	0.37
Mean [SD] cost by prescription (Francs CFA) ^{e,f,g}	2412 [1569]	1817 [1244]	<10 ⁻⁶	1597 [737]	<10 ^{-6d}
Reduction in cost by prescription from 2001 (%)		25		34	

^a Between 2001 and 2002.

^b Between 2001 and 2003.

^c Values in parentheses are percentages of recorded cases.

^d Non-significant difference between 2002 and 2003.

^e SD = standard deviation;

^f Evaluated from 1017 files in 2001, 1268 in 2002 and 640 in 2003.

^g €1 = 656 CFA franc.

who remained in their posts — who were the only workers whose study was relevant from the perspective of evaluating retention of learned skills — may have had a different profile of retention compared with those who left their posts.

The lack of data on evaluation of dermatological care at the primary health care level in the literature led us to develop a system on the basis of the recording of a list of standardized indicators, designed for different skill levels, whose evaluation was intended to provide a valid global picture. Evaluation of health care workers' knowledge — from diagnoses and treatments proposed by workers presented with typical cases — showed a striking improvement after training, even 18 months later. The register-based data provided more indirect information on practice, as diagnostic accuracy was not directly validated here, but the information gathered was still valuable if interpreted carefully. In particular, the following changes were noticeable. Strict conformity in the recorded changes to the training course indicated assimilation and routine use of recommendations whose validity had been established (20). The proportion of "unclear diagnoses" — the most common outcome of consultations before training and whose relevance to diagnostic inaccuracy was established during knowledge evaluation — dropped markedly after training. We interpret this as confirmation that confidence about and diagnostic ability for the targeted skin disorders improved. Evidence also showed that more appropriate treatments were prescribed when a well-defined diagnosis was made; the proportion of patients with a clear diagnosis and appropriate treatment should be considered a surrogate indicator of correct management — and this rose strikingly. Certain "clear diagnoses" might have been wrong and the subsequent choice of treatment might have been incorrect despite it being appropriate for the

diagnosis made, resulting in a biased estimate of the frequency of "correct management". Although the frequency of this bias before training is difficult to estimate, observations of health care workers after training by a dermatologist, who checked diagnoses and management during consultations, found similar rates of correct diagnosis and treatment to those estimated from registers, which indicates that overall correspondence was close. Other objective changes noted included the rationalization of prescriptions (use of a restricted drug list, use of more generic drugs and use of fewer unnecessary drugs) and an overall 25% reduction in the costs of prescriptions. Finally, we believe sufficient evidence shows a marked improvement in skin disease management after training.

The improvement seemed better for patients younger than 15 years, probably because of a more clearly defined profile of disorders (18, 21) — a point worth mentioning when the recognized vulnerability of children to skin diseases is considered (2, 5, 22). Discernible differences were also seen according to the health care workers' grade; improvement was comparatively greater for nurses than doctors, probably because they initially had a lower level of knowledge, but perhaps also because of greater adherence to the basic dermatological approach adopted. The importance of nurses in the Malian primary health care system makes this noteworthy.

We believe this is the first time that the positive impact of a public health strategy that focuses on skin diseases in a developing country has been established. The training of general health care workers in the care of skin disease has been identified as a key to tackling the problem (1, 23); however, the few previous attempts to do so were not evaluated in a systematic manner (23, 24) or proved disappointing. In Kenya, repeated training of itinerant community health care workers did not

Table 3. Changes in indicators of practice for different categories of health care worker for skin diseases between before (2001) and after (2002) training

Indicator	2001		2002	
	Nurses	Doctors	Nurses	Doctors
Proportion of cases with clear diagnosis and appropriate treatment	155/425 (36.5) ^a	318/708 (44.9) ^{a, b}	326/394 (82.7) ^a	712/879 (81) ^{a, c}
Proportion of prescriptions for unnecessary drugs	149/363 (41) ^a	375/654 (57) ^{a, d}	71/389 (18) ^a	411/879 (47) ^{a, e}
Mean [SD] percentage of generic drugs in prescriptions ^f	65 [40] (363) ^g	86 [28] (654) ^{d, g}	85 [32] (389) ^g	88 [27] (879) ^{g, h}
Mean [SD] cost by prescription (in Francs CFA ⁱ)	2804 [2004] (363) ^g	2195 [1213] (654) ^{b, g}	1899 [1622] (389) ^g	1780 [1034] (879) ^{g, j}
Reduction in prescription cost from 2001 (%)			32	19

^a Values in parentheses are percentages.

Comparison of nurses and doctors in 2001; ^b $P < 10^{-2}$, ^d $P < 10^{-6}$.

Comparison of nurses and doctors in 2002; ^c $P = 0.46$, ^e $P < 10^{-8}$,

^h $P = 0.37$, ^j $P < 10^{-3}$.

^f SD = standard deviation.

^g Values in bold are number of files analysed.

ⁱ €1 = 656 CFA franc.

produce a steady improvement in the success indicator chosen — i.e. the prevalence of targeted disorders (25). We attribute our positive results to several points:

- The chosen strategy — we targeted the quality of care in primary health care centres rather than prevalence in the general population.
- We integrated our actions in the Malian health system (18), in which general health care workers (who are the main providers of primary health care) are familiar with algorithmic approaches and generic drugs because they are promoted in other health fields and in which the surveillance system is based on registered data collection, which proved useful for our evaluation.
- We used a simplified approach to dermatology, which was derived from similar approaches to other health problems (26, 27), in which we defined a small group of priority diseases and used a specific flowchart adapted to the targeted care level (20), with the use of a range of visual aids to facilitate assimilation.
- Informal talks with health care workers and the high attendance at sessions suggested a high demand for training in skin diseases added to rapid and visible improvements in practice after training.

Several limitations of this programme should be noted. The benefits were modest or transient for certain items, such as the reduction in superfluous prescriptions — a lack of awareness of the extent of this issue when the programme was developed meant that this was considered only superficially during training. Although the programme's contribution to the integrated detection of leprosy cases was probable, it seemed transient. It might be interesting to include certain borderline disorders that were not considered here, such as chickenpox, in the training course. These points may be amenable to more in-depth training or repeated sessions, but this should be weighed against the risk of making the programme more cumbersome and difficult to implement.

Indeed, we suggest that one major feature of this programme was its brevity. That the observed changes were obtained after such a short training course is remarkable. Moreover, it is noticeable that the programme was tested under conditions that should be considered to be close to those expected in the field in many developing countries: no supervision or organized revision was performed after the initial, single training session, yet evaluations performed 18 months after training did not show deterioration of most skill indicators. The profiles of skin diseases and of the health system encountered in Mali, which may be considered representative of that in many developing countries, suggest that the observed effects would be reproducible, particularly when nurses play an important role in primary health care. Some of the defined evaluation indicators might be useful in routine supervision.

Conclusion

We believe that this study represents a significant contribution to improving the problem of common skin diseases in developing countries, as it establishes for the first time the impact, as well as the practicability, of a specific programme proportionate to the priority profile of the diseases targeted. It may represent a reasonable solution to a neglected component of primary health care in many developing countries, which, although not a top priority, would benefit from a more rational management than so far has been adopted. ■

Acknowledgements

This study was supported by a grant from the International Foundation for Dermatology. We thank the technical committee of the project, Professor Jean Revuz, Professor Ramon Ruiz-Maldonado and Professor Kristian Thestrup-Petersen, for their help in the development of the study protocol, and Christian Lienhardt for assistance in reviewing the manuscript.

Competing interests: none declared.

Résumé

Intégration des soins dermatologiques de base dans les prestations assurées par les services de soins de santé primaires maliens

Objectif Évaluer l'effet, dans un pays en développement, d'un programme de formation de courte durée destiné au personnel soignant non spécialisé et concernant la prise en charge des affections cutanées courantes, composante souvent négligée des soins de santé primaires dans ces régions.

Méthodes Les organisateurs ont dispensé un programme de formation d'une journée sur la prise en charge des affections cutanées à 400 soignants, travaillant dans des centres de soins de santé primaires de la région de Bamako. Les connaissances et les pratiques de ces soignants ont été évaluées avant et après la formation.

Résultats Avant de recevoir cette formation, les soignants présentaient des connaissances insuffisantes sur les affections cutanées et des pratiques inadéquates. À l'issue du programme, une amélioration marquée de ces deux paramètres a été constatée.

L'analyse des registres des centres de soins de santé primaires a permis d'observer que la proportion de patients atteints d'affections cutanées ayant bénéficié d'un diagnostic clair et d'un traitement approprié était passée de 42 % avant la formation à 81 % après celle-ci. Cette évolution s'est accompagnée d'une baisse de 25 % du coût des prescriptions. L'amélioration des connaissances et des pratiques s'est maintenue sur une période allant jusqu'à 18 mois après la formation.

Conclusion Le programme de formation a notablement amélioré les capacités de base en dermatologie du personnel soignant visé. Une formation spécifique de ce type peut donc constituer une solution raisonnable pour répondre aux insuffisances de cette composante des soins de santé primaires dans de nombreux pays en développement.

Resumen

Integración de la atención dermatológica básica en los servicios de atención primaria en Malí

Objetivo Evaluar en un país en desarrollo el efecto de un breve programa de capacitación dirigido a los agentes de atención de salud general acerca del tratamiento de enfermedades cutáneas comunes, aspecto éste descuidado en la atención primaria en esas regiones.

Métodos Impartimos un programa de formación de un día sobre el tratamiento de las enfermedades cutáneas a 400 agentes de salud que trabajaban en centros de atención primaria de la zona de Bamako, y evaluamos sus conocimientos teóricos y prácticos antes y después del adiestramiento.

Resultados Antes de la capacitación, los conocimientos sobre las enfermedades cutáneas eran a menudo deficientes, y las prácticas inadecuadas, pero después de la capacitación detectamos

una mejora marcada de esas dos variables. Analizamos los registros de los centros de atención primaria y hallamos que la proporción de pacientes que acudieron con enfermedades cutáneas y obtuvieron un diagnóstico y un tratamiento acertados aumentó de un 42% antes de la capacitación a un 81% después de la misma; ello se asoció a una reducción del 25% de los costos de prescripción. La mejora de los conocimientos y prácticas persistió durante 18 meses después de la capacitación.

Conclusión El programa de formación mejoró notablemente los conocimientos básicos de dermatología de los agentes de salud destinatarios. La capacitación ad hoc puede constituir una solución razonable para este componente descuidado de la atención primaria en muchos países en desarrollo.

Arabic

References

1. Skin disease and public health medicine. *Lancet* 1991;337:1008-9.
2. Belcher DW, Afoakwa SN, Osei-Tutu E, Wurapa FK, Osei L. Endemic pyoderma in Ghana: a survey in rural villages. *Trans R Soc Trop Med Hyg* 1977; 71:204-9.
3. Bechelli LM, Haddad N, Pimenta WJP, Pagnano PMG, Melchior E, Fregnan RC, et al. Epidemiological survey of skin diseases in schoolchildren living in the Purus valley (Acre State, Amazonia, Brazil). *Dermatologica* 1981;163:78-93.
4. Porter MJ, Mack RW, Chaudhary MA. Pediatric skin disease in Pakistan. *Int J Dermatol* 1984;23:613-6.
5. Harris M, Nako D, Hopkins T, Powell DM, Kenny C, Carroll C, et al. Skin infections in Tana, Vanuatu in 1989. *P N G Med J* 1992;35:137-43.
6. Mahé A, Prual A, Konaté M, Bobin P. Skin diseases of children in Mali: a public health problem. *Trans R Soc Trop Med Hyg* 1995;89:467-70.
7. Badame AJ. Incidence of skin diseases in rural Jamaica. *Int J Dermatol* 1988; 27:109-11.
8. Kapil U, Sood AK. Morbidity pattern in children below three years attending a rural health centre in Haryana. *Indian Pediatr* 1989;26:550-2.
9. Einterz EM, Bates ME. Infant disease pattern in northern Cameroon. *Trans R Soc Trop Med Hyg* 1993;87:418-20.
10. Suleman M. Patterns of health-care utilization and morbidity in a rural community near Lahore, Pakistan. *Ann Trop Med Parasitol* 1996;90:79-85.
11. Mahé A, Thiam N'Diaye H, Bobin P. The proportion of medical consultations motivated by skin diseases in the health centers of Bamako (Republic of Mali). *Int J Dermatol* 1997;36:185-6.
12. Verma BL, Srivastava RN. Measurement of the personal cost of illness due to some major water-related diseases in an Indian rural population. *Int J Epidemiol* 1990;19:169-76.
13. Hay RJ, Estrada Castanon R, Alarcon Hernandez H, Chavez Lopez G, Lopez Fuentes LF, Parades Solis S, et al. Wastage of family income on skin disease in Mexico. *BMJ* 1994;309:848.
14. Figueroa JJ, Fuller LC, Abraha A, Hay RJ. Dermatology in southwestern Ethiopia: rationale for a community approach. *Int J Dermatol* 1998;37:752-8.
15. Heukelbach J, van Haeff E, Rump B, Wilcke T, Moura RC, Feldmeier H. Parasitic skin diseases: health care-seeking in a slum in north-east Brazil. *Trop Med Int Health* 2003;8:368-73.
16. Saunderson PR, Ross WF. Training for integration. *Lepr Rev* 2002;73:130-7.
17. The World Bank Group. *GenderStats*. Washington (DC): World Bank; 2004. Available at: <http://devdata.worldbank.org> (last accessed 5 September 2005).
18. Balique H. Perspectives nouvelles de l'action sanitaire en Afrique de l'Ouest: l'exemple du Mali. [New perspectives of health policies in Western Africa: the case of Mali]. *Santé Publique* 1993;5:3-9.
19. Mahé A, Cissé IA, Faye O, Thiam N'Diaye H, Niamba P. Skin diseases in Bamako (Mali). *Int J Dermatol* 1998;37:673-6.
20. Mahé A, Faye O, Thiam N'Diaye HT, Ly F, Konaré HD, Kéita S, et al. Definition of an algorithm for the management of common skin diseases at primary health care level in sub-Saharan Africa. *Trans R Soc Trop Med Hyg* 2005; 99:39-47.
21. Failmezger TC. A clinical survey of skin diseases in selected Latin American countries. *Int J Dermatol* 1978;17:583-91.
22. Taplin D, Porcelain SL, Meinking TL, Athey RL, Chen JA, Castillero PM, Sanchez R. Community control of scabies: a model based on use of permethrin cream. *Lancet* 1991;337:1016-8.
23. Kopf AW. International foundation for dermatology. A challenge to meet the dermatologic needs of developing countries. *Dermatol Clin* 1993;11:311-4.
24. Hay R, Andersson N, Estrada R. Mexico: community dermatology in Guerrero. *Lancet* 1991;337:906-7.
25. Schmeller W, Dzikus A. Skin diseases in children in rural Kenya: long-term results of a dermatology project within the primary health care system. *Br J Dermatol* 2001;144:118-24.
26. World Health Organization. Guidelines for the management of sexually transmitted infections. Geneva: World Health Organization; 2001. WHO document WHO/RHR/01.10.
27. World Health Organization. Improving child health. Integrated management of childhood illnesses: the integrated approach. Geneva: World Health Organization; 1997. WHO document WHO/CHD/97.12.