Integrated management of childhood illness: field test of the WHO/UNICEF training course in Arusha, United Republic of Tanzania

WHO Division of Child Health and Development & WHO Regional Office for Africa

The 11-day training course on integrated management of childhood illness was field tested with three types of first-level facility health workers: medical assistants, rural medical aides, and MCH (maternal and child health) aides. The objective of the field test was to determine whether the materials were effective in preparing participants to manage correctly sick children and to suggest improvements in the course materials and teaching procedures. The course combined classroom work and daily inpatient and outpatient clinical sessions. Each participant individually examined 9–10 inpatients and managed more than 30 sick children as outpatients. Individual feedback from facilitators during clinical practice and module work, combined with data collection documenting the adequacy of the assessment, classification, treatment and counselling carried out by the participants, allowed an assessment of the participants' mastery of key clinical skills. Although some participants had difficulty in reading the modules in English, all three groups overall were able to assess, classify, and treat most sick children by the end of the course, and most of them were able to provide adequate counselling. Specific improvements were suggested and subsequently incorporated into the guidelines and training materials.

Introduction

At the invitation of the Tanzanian Ministry of Health, the WHO/UNICEF training course on the integrated management of childhood illness (IMCI) for health workers in developing countries was field tested in Arusha in February and March 1995. The field-test participants included the most peripheral first-level facility health workers since they are the workers who provide most of the primary care for sick children in the United Republic of Tanzania. The objectives of the field test were to determine the effectiveness of the course in preparing participants to correctly manage sick children, and to suggest improvements in the course materials and teaching procedures. The competence of the participants in correct case management was determined by assessing their performance using key clinical skills during clinical practice and whether they completed the exercises in the modules correctly. Participants' ability to assess, classify, and treat children and counsel their mothers during the clinical sessions, according to the IMCI case management process, is the most important indicator of their mastery of the skills taught in the course.

The course was designed to train health workers of various backgrounds to manage pneumonia, diarrhoeal diseases, malaria, measles, malnutrition, anaemia, and ear problems among children, and to provide key preventive interventions such as immunization during sick child visits, nutrition counselling, and breastfeeding support including the assessment and correction of breastfeeding technique. The 11-day course combines classroom work and clinical practice and is based on the integrated management of childhood illness (IMCI), guidelines of which have been summarized on four case management charts. The course uses seven training modules which include written exercises, group discussions, drills, role plays, and exercises based on photographs and video. Substantial clinical experience in assessment, classification, treatment, and counselling is gained over ten clinical sessions, every morning being spent in the clinic or hospital with patients. The participants learn to manage sick children, with supervision, in the outpatient clinic and to assess and classify hospitalized children under the guidance of a skilled clinical instructor. Facilitators provide individual feedback on exercises and during clinical practice.

Described below are the methods for the training and the field test, and assessment and analysis of health worker characteristics and performance.
An analysis of readability of the course materials, carried out after the field test, is also reported.

**Personnel and methods**

**Participants and facilitators**

The participants in the course were medical assistants, rural medical aides (RMA), and maternal and child health (MCH) aides from Arusha and two neighbouring districts. The medical assistants were senior health workers from health centres, hospital outpatient clinics, or hospital wards. The rural medical aides worked in peripheral dispensaries or were assigned to a health centre. MCH aides were responsible for immunizations, growth monitoring, and nutrition counselling, and provided clinical care for sick children only when assigned to a dispensary whenever the rural medical aide was temporarily absent.

There were two to three facilitators for each group of six participants, besides the course director, an inpatient clinical instructor, and one of the training consultants who had developed the course (participation as an observer). Each group had one facilitator fluent in Swahili. Seven (out of 10) facilitators had prior experience in facilitating clinical training courses in control of diarrhoeal diseases (CDD) or acute respiratory infections (ARI); all of them participated in 8 days of facilitator training for this course; the duration of facilitator training was subsequently increased to 2–3 weeks.

**Course training methods**

The participants in the course acquire their skills by repetition, while the facilitators observe them and give feedback. Except on the first day of the course, the mornings are spent in the clinic or hospital learning how to manage sick children until they can perform according to the standards established in the course.

Facilitators are trained for their role, during 2–3 weeks, by following a course and practising the training methods under the guidance of a course director and experienced facilitators. When they have learned the case management process and developed the required skills, they are asked to train new participants, with the course director giving them feedback on how well they facilitate. The facilitator methods are described in detail in facilitator guides for the module work and for the clinical sessions with inpatients and outpatients.

The participants' competence in the module exercises and in managing patients is assessed by the facilitators who observe and document their performance. These reports are a key element of the field test methodology, which is based on the premise that a good facilitator can judge and report on how well a participant is learning. The assessment of performance is an integral part of the teaching process.

The teaching methodology shows facilitators how they can determine whether the participants are mastering the case management process. This is accomplished through the following steps, which are laid out in detail in the guides for the course facilitator and for the course director:

- The facilitator determines whether the participants, during training, have completed their module exercises correctly, and assesses individually each one's performance in every exercise. The participants are asked to show the facilitator how they used the case management charts to obtain their answers. Any problems or mistakes in case management decisions are immediately remedied in the individual sessions.

- The facilitator, who personally examines every child, observes how the participants manage the child and determines whether they have acquired the key clinical skills. If such observation is not possible, the participant provides an oral summary of the process of case management to the facilitator immediately after finishing with the child. The facilitator checks the participant's assessment, classification, and treatment of the child, as well as the counselling given to the mother. If there are problems in the participant's performance, the examination is repeated with the participant. The provision of on-the-spot instruction is a key element in the training method.

- Each participant's performance is reviewed by the facilitator at daily meetings with the course director. This review includes a progress report on their accuracy (in assessing, classifying and treating the child and in counselling the mother), as well as ease and speed in case management.

**Additional assessment and documentation methods**

The assessment methods used in the field test were based on the training methodology described above, but were expanded to address and provide documentation on the process of training and the adequacy of the participants' competence in case management. Two forms were developed for this purpose: one to document work in the clinic, and the other to document performance in the exercises. A guiding principle in developing these methods was that they should not interfere with the process of training.
The following methods were used.

(1) **Standardized observation and recording form for clinical practice**

The facilitator examines the child and then records the following:
- The correct classification of the child, based on the facilitator’s assessment.
- Whether the participant’s assessment was correct. This is recorded separately for danger signs, clinical signs related to each main symptom, and nutritional and immunization status. For the assessment to be correct, the participant must ask all the required questions in taking the history, look for all the appropriate clinical signs using correct procedures, and come to a correct conclusion concerning the presence or absence of signs.
- Whether the participant’s classification was correct.
- Whether the correct treatments were identified. To be correct, all treatments must be listed on the recording form, inappropriate treatments should not be listed, and the follow-up visit closest in time is circled.
- Whether the observed treatments were correct. “Correct” was defined as both the correct dose and adequate teaching of the mother according to the steps on the chart.
- Whether the observed counselling was adequately performed. The facilitator judged whether the participant used clear language in counselling the mother, whether critical information was conveyed, whether checking questions were asked, and whether the mother was treated with respect by the participant.

In each clinical session, the forms were used to record the participants’ performance and skills in all areas where training was completed.

The assessment of performance in counselling the mother was a special challenge for several reasons. First, most counselling was carried out in Swahili and required translation for some facilitators. Second, most counselling skills are learned late in the course, and consequently opportunities for observation-based assessment during the clinical practice sessions are limited. Third, some clinical facilitators themselves had limited competence in counselling. Finally, the assessment criteria for counselling are more subjective, compared with other areas of performance. The additional training of facilitators to ensure reliable assessment in this area was difficult to carry out because of the other demands on facilitators during the course.

(2) **Record of performance on exercises**

Each participant’s performance on each exercise was recorded by the facilitator. These results were used to track progress throughout the course. In each cell of the record form, the facilitator “graded” the participant’s performance on a particular exercise, with an explanation of any problems. If the exercise was completed correctly but the understanding of the process was not good, this was also noted down.

(3) **Individual review of a participant’s progress at daily facilitator meetings**

At these meetings, attempts were made to solve problems and facilitate each participant’s learning.

(4) **Identification of improvements in course materials or teaching procedures**

While working with the materials, the facilitators and observers were able to suggest revisions to improve the clarity of the text in the modules, the video and photographs. They also identified changes in teaching procedures (classroom or clinic) to improve their effectiveness or efficiency.

The methods and information sources to meet this objective included the following:

- Systematic observation and documentation of how the course was carried out. This included the extent to which the course adhered to the methods defined in the facilitators’ guides, the time requirements for different sections of the course, attendance patterns, and logistical constraints. The representative from the training materials development group of ACT International (Atlanta, GA, USA) was responsible for coordinating the collection of this information.

- Facilitators’ reports were recorded and summarized at the daily facilitator meetings. These included their observations of any problems the participants encountered in completing the exercises, which were due to the materials.

- Written feedback from each facilitator at the end of each module showed if they had any comments or suggestions. In addition, separate facilitator meetings were held daily to provide an opportunity for technical explanation and suggestions about the course, to ensure that this information was recorded and yet did not interfere with conducting the course. The issues discussed and decisions made at these meetings (and at similar meetings during facilitator training) were recorded.

- Course evaluation questionnaires were completed by participants and facilitators at the end of the course.
Data analysis

All data on the participants’ performance in clinical practice sessions were entered and analyzed using Epi Info software. The data on the performance in exercises and the course evaluation questionnaires, as well as the descriptive information about the training, were summarized by ACT International.

Results

A total of 23 health workers took part in the training course: 8 medical assistants, 8 rural medical aides, and 7 MCH aides. Although all the participants were supposed to be able to speak and read English, there was wide variation in their ability to do so. Details about them are summarized in Table 1.

Inpatients and outpatients

One clinical instructor, who taught only at the hospital, identified suitable inpatients, assigned each participant to a patient, and then conducted the ward round. Each participant assessed and classified at least one inpatient during each session and presented his or her findings. Working in groups of six participants during the daily practice session, each one had a chance to assess or study the clinical signs in all six patients and in others who showed positive signs. In order not to be influenced by others in the group, the participants were asked to write down their individual assessments. The inpatient session required one hour per group; there were four such sessions in a day, which were timed so as not to interfere with routine ward procedures such as medication rounds. During the course, each participant individually examined 9 or 10 inpatients and was involved in the presentation and discussion of 36–40 others; they also observed individual clinical signs in additional inpatients.

One outpatient clinic setting was used for each group of six participants. Each participant was assigned one or more patients as time allowed, to practise the skills learned so far. Fewer patients were studied when case management included both treating the child and counselling the mother. Patients were scheduled to return on a Saturday or whenever the flow of patients was low. During the entire course, each participant examined from 30 to over 40 outpatients.

Module work

The MCH aides, who had the greatest difficulty in reading the module text and performing the written exercises, completed the first four modules (out of seven) and parts of the module on treatment; they had no significant problem with 40% of the exercises they completed (range, 19–50%). The rural medical aides completed five modules (leaving out the young infants and follow-up); they had no significant problem with 60% of the exercises (range, 52–79%) they completed. Only the medical assistants, who all read English well, completed all seven modules during the 11-day course; they had no significant problem with 82% of the exercises (range, 67–91%).

Difficulties in reading and doing the exercises in English slowed down the performance of both MCH aides.
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Table 2: Proportion of children correctly assessed and classified, by problem or main symptoms

<table>
<thead>
<tr>
<th>Problem or Main Symptoms</th>
<th>Proportion of correctly assessed cases</th>
<th>Proportion of correctly classified cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danger signs</td>
<td>406/421 (96)*</td>
<td>277/329 (84)*</td>
</tr>
<tr>
<td>Cough</td>
<td>296/327 (87)</td>
<td>144/169 (85)</td>
</tr>
<tr>
<td>Diarrhoea</td>
<td>146/167 (87)</td>
<td>107/123 (87)</td>
</tr>
<tr>
<td>Fever</td>
<td>269/281 (96)</td>
<td>251/271 (93)</td>
</tr>
<tr>
<td>Ear problems</td>
<td>12/13 (92)</td>
<td>13/13 (100)</td>
</tr>
<tr>
<td>Malnutrition/anaemia</td>
<td>336/369 (91)</td>
<td>310/341 (91)</td>
</tr>
<tr>
<td>Immunization status</td>
<td>230/236 (97)</td>
<td></td>
</tr>
<tr>
<td>Feeding problems</td>
<td>50/59 (95)</td>
<td>34/44 (77)</td>
</tr>
</tbody>
</table>

* Figures in parentheses are percentages.

Clinical performance

Participant performance was analysed for all the participants together and also by background, which permitted an examination of the differences between the three groups of health workers. These results indicate the performance during both the first and the second week of the course.

Assessment of signs. Overall, the rate of correct assessment of signs was very high at 93% (range, 85–97%) (Table 2). The rate of correct assessment of feeding problems was the lowest, but only a few such cases could be assessed since they appeared late in the course. Cough and diarrhoea rates were lower than most symptoms and signs, but still showed 87% correct assessment in a large sample of cases. Danger signs and fever both showed 96% correct assessment. Ear problems and immunization status showed a consistently high percentage of correct assessment and classification.

When correct assessment was categorized by the degree of severity of the classification, the total across all symptoms showed only 81% correct in the severe group, compared with 91% in the other categories (Table 3). This trend varied by symptom; where there were only a few cases in the severe category, these percentages may be misleading. The most marked differences were seen with the assessment of severe pneumonia, which may be due to difficulties in recognizing chest indrawing. Only 76% of severe pneumonia cases were correctly assessed, compared to over 90% for moderate/low or no pneumonia.

Assessment by type of health worker showed 92% correct for MCH aides and rural medical aides, compared with 95% for medical assistants (Fig. 1). Trends varied by symptom but, in general, MCH aides had some difficulties in assessing cough and feeding problems (although the latter sample size was small), while rural medical aides had more problems with malnutrition/anaemia than the other participants. The medical assistants correctly assessed...
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Fig. 1. Number and percentage of sick children correctly assessed by the three categories of health workers, Arusha, 1995. Figures at the foot of each column are the number of cases.

<table>
<thead>
<tr>
<th>Danger signs</th>
<th>Cough</th>
<th>Diarrhoea</th>
<th>Fever</th>
<th>Malnutrition</th>
<th>Anaemia</th>
<th>Feeding problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>80</td>
<td>20</td>
<td>0</td>
<td>100</td>
<td>80</td>
<td>20</td>
</tr>
</tbody>
</table>

over 90% of cases for all symptoms, except for cough, where they performed less well than the rural medical aids. Fever was assessed equally well by all three groups. The correct assessment of danger signs was very high for all the groups.

Classification. The proportion of children correctly classified on the basis of the assessment of main symptoms, nutritional status, and feeding problems was 88% (range, 77–100%) (Table 2). When grouped by the degree of severity of the classification (severe, non-severe, none), the proportion of cases correctly classified was much lower for the severe group (64%) than the other categories (>90%) (Table 4). This was true for the three symptoms which had a substantial number of severe cases: pneumonia, fever, and malnutrition.

The proportion of cases correctly classified by type of health worker followed a different trend from assessment; MCH aides showed the highest rate (90%), rural medical aides the lowest (86%), and medical assistants were in between (88%) (Fig. 2). The performance by type of health worker varied according to the problem or the main symptom.

Counselling. There were very few cases providing information on counselling; overall, 86% of these cases were counselled correctly, but this varied by topic. The "use of clear language" and "respect for the mother" were both high at 95% and 94%, respectively, while the ability to convey "critical information" and to ask checking questions was lower (79% and 76%).

<table>
<thead>
<tr>
<th>Degree of severity of classification</th>
<th>Severe</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cough–pneumonia</td>
<td>50/83 (60)</td>
<td>103/112 (92)</td>
</tr>
<tr>
<td>Diarrhoea–dehydration</td>
<td>13/33</td>
<td>44/53 (83)</td>
</tr>
<tr>
<td>Diarrhoea–persistent</td>
<td>3/6 (50)</td>
<td>1/1 (100)</td>
</tr>
<tr>
<td>Diarrhoea–dysentery</td>
<td></td>
<td>11/12 (92)</td>
</tr>
<tr>
<td>Fever (malaria)</td>
<td>23/32 (72)</td>
<td>22/23 (95)</td>
</tr>
<tr>
<td>Ear problems (acute/chronic)</td>
<td>0/0 (0)</td>
<td>11/11 (100)</td>
</tr>
<tr>
<td>Malnutrition/anaemia</td>
<td>19/25 (76)</td>
<td>78/91 (86)</td>
</tr>
<tr>
<td>All symptoms problems</td>
<td>96/149 (64)</td>
<td>475/518 (92)</td>
</tr>
</tbody>
</table>

* Figures in parentheses are percentages.
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Fig. 2. Number and percentage of sick children correctly classified by the three categories of health workers, Arusha, 1995. Figures at the foot of each column are the number of cases.

When the proportion of cases correctly counselled was grouped by type of health worker, the major problems with counselling came from the rural medical aides (Fig. 3). Although their use of "clear language" was high (91%), and the mother was treated with respect in 85% of cases, their ability to use checking questions and convey critical information was quite low. Medical assistants scored 100% on all topics except for "critical information" (91%); the MCH aides were 90% or higher on all topics.

Fig. 3. Number and percentage of sick children whose mothers were correctly counselled by the three categories of health workers, Arusha, 1995. Figures at the foot of each column are the number of cases.

Treatment. The total proportion of cases where treatment was correctly identified was 77% and varied by the type of health worker. MCH aides and rural medical aides were similar at 74% and 73%, respectively; medical assistants had the markedly higher rate of 92%.

The proportion of cases actually given the correct treatment was 91% (Table 5). The treatments listed were not comprehensive but included all treatments delivered to at least 10% of cases; plan B has been included because of its importance, even
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Table 5: Proportion of treatments given correctly

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-trimoxazole</td>
<td>31/35 (89)*</td>
</tr>
<tr>
<td>Chloroquine</td>
<td>49/53 (92)</td>
</tr>
<tr>
<td>Paracetamol</td>
<td>16/16 (100)</td>
</tr>
<tr>
<td>Fluid Plan A</td>
<td>21/25 (84)</td>
</tr>
<tr>
<td>Fluid Plan B</td>
<td>2/3 (67)</td>
</tr>
<tr>
<td>Soothing remedy</td>
<td>27/29 (93)</td>
</tr>
<tr>
<td>Total</td>
<td>146/161 (91)</td>
</tr>
</tbody>
</table>

* Figures in parentheses are percentages

though its use was assessed in only three cases. Plan B involved the most steps and had the lowest proportion of correctly treated cases (67%). Plan A was the next lowest (84%), and paracetamol the highest (100%). Delivery of both plans A and B required counselling of the mother.

Results on correct treatment by severity of classification have not been presented because almost all severe cases were seen in an inpatient setting. The participants assessed and classified cases in this setting, but did not identify or provide treatment.

Young infants. There were only 15 sick infants, aged between 1 week and 2 months, who were seen among the clinical practice cases, all of whom were examined by medical assistants since the rural medical aides and MCH aides did not reach this part of the course. Although the sample size was small, all cases were both correctly assessed and classified. These cases included four with severe bacterial infection, nine with feeding problems, and one young infant with diarrhoea and severe dehydration. Since these young infants were already hospitalized, treatment was not carried out by the participants.

Readability analysis

Subsequent to the field test, computer software was used to analyse the grade level of the module text to investigate the problems the MCH aides and most rural medical aides had in reading the modules. Passages of 100 words each were selected from the field test modules and analysed using computerized readability analyses.

The purpose of assessing readability is to identify written material that matches the reader’s ability to read. Readability formulas can predict a level of reading difficulty based on factors such as the number of syllables per word, the number of words per sentence, and the percentage of unfamiliar words.

(2). The assumptions underlying these formulas are based on observations that: shorter sentences and words with fewer syllables are easier to read and understand; and development of reading ability involves a reader’s familiarity with certain words that occur with high frequency.

Two reliable and widely-used readability formulas are the Dale-Chall readability formula and the Fry readability formula. The Dale-Chall formula predicts the difficulty of a passage based on sentence length and the percentage of unfamiliar words (3). Reading level is expressed generally over two or more grade levels. The Fry formula is a reliable reference for use with other readability formulas. It predicts reading difficulty based only on the number of syllables per sentence. No comparison is made with words of high frequency to identify unfamiliar words.

The Dale-Chall formula allows for certain familiar words to be exempted from comparison, such as proper nouns and technical words, which may be difficult but with which the reader may be familiar. In applying the formula to these passages, the names of all classifications were exempted. Also exempted were the names of diseases commonly referred to throughout the course and with which the target audience is already familiar (diarrhoea, pneumonia, malaria, etc.). Certain difficult words, which occur with high frequency such as “immunization” and “intramuscular”, were exempted from later passages. It was assumed the participants might become familiar enough with the terms by the latter half of the course so that they could recognize and understand them in the written text.

The results of the readability analysis showed some paragraphs equivalent to English grade 10-12. This level is considered a challenge even to native speakers for presenting written technical material. Word analyses also revealed that many different words were used for the same concept. The English of the modules has subsequently been simplified and fewer words are used more consistently throughout the text.

Discussion

Overall, our results show that the participants were able to assess, classify and treat most sick children correctly by the end of the course, and that most were able to provide adequate counselling to the mother. While the performance data in the field test included many exercises or clinical tasks that were not performed correctly by the participants, this was an expected part of the training. The teaching methods required that each participant should perform each skill and complete each exercise with individual
supervision, which allowed many opportunities for identification and correction of mistakes.

The results clearly varied by group. Facility with English, a higher level of study skills, and longer previous training were obvious advantages. Participants with these advantages could learn more easily from reading, perform better in the exercises, and proceed more quickly through the course. Less advantaged participants needed further oral explanations in addition to reading, more repetition, and more time. The most important measure of skills and knowledge acquisition was their performance in the clinic.

The course was effective in training medical assistants to assess, classify and treat sick children, and counsel their mothers, using the training methods laid out in the facilitator guide. They were able to read the modules without difficulty and completed the whole course in the given time. The rural medical aides and MCH aides experienced considerable difficulty in reading the modules in English and in doing the written exercises. Very active facilitation was required, using methods not described in the facilitator guides, to make up for the difficulty in learning about case management from the modules. However, with this more active facilitation, both groups were able to benefit and performed adequately in the clinic, although the counselling skills of the rural medical aides remained weak. The MCH aides did well in counseling and in their interactions with mothers. Counseling was already a regular part of their work and most of them had received some person-to-person communication training related to family planning.

Improvements in the course material suggested by the field test included some reduction of the technical content and simplification of the English and some guidelines. This required compromises in order to simplify the chart and make it usable by all grades of first-level health facility workers. The standard definitions of skin pinch, palmar pallor, visible severe wasting, and sunken eyes were improved and more drills for practice were incorporated into the module sessions.

The results of the readability analysis also contributed to simplification of the modules. A study of difficult words from all the modules throughout the course identified the key words, with agreement about their consistent use. New guidelines for writers and reviewers during revision focused on steps such as writing shorter, simpler sentences and using key words consistently. A comparison of the field-test modules with the revised modules showed a decrease of nearly 2 grade levels in each module.

Simplification of the charts and the module text and their translation into a language which the participants use commonly will make the course more effective and less burdensome. Some of the prob-

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lems experienced by the rural medical aides and MCH aides, for example, could be remedied by translation into Swahili, with facilitation by Swahili speakers. The revised course could be made available for in-service training of literate first-level outpatient health workers; we are confident that doctors, medical assistants, and clinical nurses will benefit.

Résumé

Prise en charge intégrée des maladies de l'enfant: essai sur le terrain du cours de formation OMS/UNICEF à Arusha (République-Unie de Tanzanie)

Le cours de formation de 11 jours sur la prise en charge intégrée des maladies de l'enfant a été testé sur le terrain avec des agents de santé relevant de trois catégories de centres de santé de premier niveau: assistants médicaux, aides médicaux ruraux et aides de santé maternelle et infantile (SMI). L'objectif de cet essai était de déterminer si les documents permettent effectivement de préparer les participants à prendre correctement en charge l'enfant malade, et de proposer des améliorations des documents de cours et des méthodes d'enseignement. Le cours combinait des sessions théoriques et des sessions cliniques quotidiennement avec des patients hospitalisés et ambulatoires. Chacun des participants a examiné individuellement 9 à 10 patients hospitalisés, et pris en charge plus de 30 enfants malades dans le cadre de la consultation externe. La maîtrise des compétences cliniques capitales par les participants a été évaluée grâce aux informations fournies en retour par les animateurs pendant la pratique clinique et le travail sur les modules, associées aux données documentant la qualité de l'évaluation, de la classification, du traitement et du conseil réalisés par les participants. Si certains participants avaient des difficultés de lecture des modules rédigés en anglais, les trois groupes étaient cependant dans l'ensemble capables à la fin du cours d'évaluer, de classer et de traiter la plupart des enfants malades, et la majorité d'entre eux pouvaient fournir un conseil approprié. Certaines améliorations ont été proposées, puis introduites dans les recommandations et les documents de formation.

References


3. Readability analysis software. Big Springs, TX, Gameco Industries (author and year not specified).