

## Community pharmacy and patient-oriented activities: the Dutch case

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### Abstract

This article reviews the implementation of patient education as a new task in Dutch Community pharmacy. A search of the literature, including 'grey' (not-scientific) literature was done to find indications for the implementation of patient education. The little data available show that patient education activities are not carried out as a routine task and are therefore not implemented, despite the development of interventions on educational and pharmacy practice level. In addition, barriers were found that relate to the organisation of patient education. More sound research is necessary on criteria for implementation, on the level and amount of communication with clients and on the experienced barriers for organising and practising patient education. The opportunities for designing an intervention on the organisational level should be assessed. © 2002 Elsevier Science Ireland Ltd. All rights reserved.

*Keywords:* Community pharmacy; Patient education; Medication surveillance; Drug therapy meetings

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### 1. Introduction

In Dutch community pharmacies two categories of personnel are employed: pharmacists and pharmacy technicians, the latter have a middle level professional education and are licensed to dispense prescription drugs under the supervision of a pharmacist. Both categories may be involved in patient counselling, but technicians are involved in the majority of the contacts [1]. Currently, the number of community pharmacies in The Netherlands is around 1571. The average staff is 1.55 pharmacists and 5.85 technicians in 1999 (converted to full-time equivalents). A community pharmacy in The Netherlands serves an average of 9000 customers [2]. The majority of over the counter (OTC) drugs—60%—is sold at drugstores [3].

This article reviews the implementation of patient education as a new task in Dutch community pharmacies. Implementation of patient education means that it is incorporated in the daily activities and the organisation of community pharmacies. This means that it is carried out in a structured way (not ad hoc). In this section, the implementation of

patient education, a rather new task for community pharmacies, is placed in a broader perspective to illustrate the process of change Dutch community pharmacies are going through. This perspective is the implementation of two other 'new' tasks. The three new tasks are medication surveillance, informing prescribing physicians and patient education. With these tasks, community pharmacy in The Netherlands is moving from a product-centred towards a patient centred model of practice, which is called pharmaceutical care. One of the possible explanations for the development of new tasks is the reduction of the compounding activities of community pharmacies to about 5.5% of all drugs dispensed [4].

#### 1.1. Medication surveillance

Medication surveillance includes control for the right dosage (not new), for interactions between drugs, for contra-indications (related to the personal situation and condition of the client) and for control of adherence to the prescribed drug regimen. It helps avoiding drug related morbidity and improving continuous monitoring of patients' drug use [5]. Currently, virtually every pharmacy in The Netherlands keeps electronic patient records that can be used for medication surveillance [5].

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### 1.2. Informing prescribing physicians

Informing prescribing physicians is done in a structural way through drug therapy meetings (FTO) between groups of physicians and pharmacists [6]. The goal of these meetings is to reach an agreement on rational prescribing of medication. These meetings emerged in the 1970s, and in 1992 an implementation project started, in which the physicians were reimbursed to stimulate them to participate. This project increased the rate of adoption of the drug therapy meetings [7]. In 1997, 90–95% of the pharmacists and general practitioners reported to take part in organised drug therapy meetings and more than 80% found these meetings significant [8]. These are indications that implementation has taken place in most of the pharmacies.

## 2. Methods

Donabedian stated that the structure and process of patient directed activities need to be optimised to facilitate implementation and outcomes on a patient level [9]. This indicates two kinds of important preconditions for implementation of the new tasks. Firstly, the structure of the pharmacy has to be supportive for the technicians to carry out the tasks. This means for instance that time and space are available and that the technicians are capable of carrying out the tasks.

Secondly, the processes through which tasks are carried out have to be well-described and implemented to guarantee that every staff member knows what to do.

Based on this we decided that indicators for the implementation of patient education could be found in

- reported patient education activities,
- policy, norms and guidelines for patient education,
- education on communication,
- patient education (research-)projects.

Searches were done by searching Medline, the International Pharmaceutical Abstracts (IPA), Psychlit and the Dutch database of grey (not scientific) literature (GLIN). Keywords included patient education/counselling, advice, education, policy, guidelines, pharmacist, pharmacy, technician, patient. In addition, the study guide for pharmacists in The Netherlands was used.

## 3. Implementation of patient education

### 3.1. Patient education activities

Patient education, in the perspective of community pharmacy, means the planned communication of pharmacy technicians with patient and clients. This includes teaching, counselling, guiding and working together with patients and clients to help them understand and manage the aspects of their medication use and showing them how to use their

medication. The goal is effective and efficient medication use and active participation of the client. A study that was done in 1992 on patient education activities in community pharmacies revealed that 77% of the Dutch pharmacists reported to give written drug information with the majority of delivered prescription drugs. Fifty-five percent of the pharmacists reported to give verbal information to more than 60% of patients with a newly-prescribed drug. In addition, 5% reported to provide verbal information to more than 60% of the patients with refills and 43% to more than 60% of the patients with OTC medication [10]. In 1997–1998, a quality check of the selfcare (OTC) advice in all pharmacies in The Netherlands was carried out. This was done by mystery shopping. Main findings were that 34% of the pharmacies guided the client in his/her choice for a specific OTC medicine, and 20% explained the working mechanism of the drug. Only 10% of the pharmacies asked whether other medication was used [11]. The Dutch Consumers' Council visited 74 of the 1500 pharmacies in The Netherlands with a similar question in 1999 and concluded that the pharmacies did not reach the criterium for good advice that they had set [12]. These data show that the advice giving on prescription and OTC medication is not implemented in most of the pharmacies.

In agreement with these findings, several reports reveal that the current level of patient education by pharmacists in The Netherlands does not satisfy patients and clients [13–15].

Several kinds of efforts, that are reported in the following sections, have been undertaken to increase the implementation of patient education in Dutch community pharmacies.

### 3.2. Laws, policy, norms and guidelines

Until 1975 providing the written drug information leaflets from the pharmaceutical industry was prohibited [16]. In 1993, the provision of patient package inserts became obligatory [17]. There is no obligation for pharmacists or pharmacy technicians to provide verbal patient education. With policy, norms and guidelines, the Royal Dutch organisation for the advancement of pharmacy (KNMP) aims more and more at pharmaceutical patient care since the 1990s. The KNMP serves as a supporting agency with respect to the implementation of patient education. Table 1 shows an overview of policy, norms and guidelines. In 1991, the policy plan 'The pharmacy is quality business' was published [18]. This was followed in 1993 by a communication plan for the community pharmacy [19], in which a mission statement for the community pharmacist was defined: 'The pharmacist is the expert in the field of drugs, promotes responsible drug use, advises clients about the right choices and safe drug use (prescription and OTC), advises in the purchase of medical aids'. To support the changes towards patient care in pharmacy practice, The KNMP launched the Scientific Institute of Dutch Pharmacists (WINAp) in 1996. WINAp plays an important role in

Table 1  
Instruments for the implementation of patient education

Instrument	Name (reference)	Year
Policy, norms, guidelines		
1. Policy plan KNMP*	The pharmacy is quality business [18]	1991
2. Communication plan KNMP*	Communication plan community pharmacy [19]	1993
3. Scientific Institute	WINAp (Scientific Institute for Dutch Pharmacists) [20]	1996
4. Quality norms	Dutch pharmacy norms [21]	1996
5. Quality monitor	Self care monitor [11]	1998
6. Quality norms	Self care guideline/standards for self care [22]	1999
Education		
7. Pharmacist's education	Communication courses in pharmacist's education; 80 student hours [24]	Since mid-1980s
	Communication courses in post-graduate education; amount varies [41]	
8. Technician's education	Communication in technician's curriculum [25]	
	Communication in post-graduate technician's courses [42]	1993

\* KNMP: The Royal Dutch Association for the advancement of pharmacy (the professional organisation of pharmacist).

the field of quality monitoring and works from a scientific basis [20].

Also in 1996, the Dutch Pharmacy Norms (NAN) were accepted by the profession. These norms are an elaboration on the community pharmacy level of the term 'responsible care'. That is care that is supplied effectively, efficiently and patient directed, and that is adjusted to the needs of the patient. The NAN's preface states that the norms relate to the processes that are needed to realise and demonstrate the good quality and continuity of all of the services provided by the pharmacy [21]. For the purpose of our research subject which is patient education, the focus is on the norms that relate to the communication with the patient. They are shown in the following table. Where 'pharmacist' is stated, one should read: 'the pharmacist and his/her technicians'.

#### Norms for pharmaceutical care [35]

1.0.0	The provision of advice and information to the patient
1.1.0	The pharmacist <sup>a</sup> places the interests of the patient at the centre of attention and respects his own responsibility
1.2.0	The pharmacist helps the client with making well-considered decisions with regard to the use of medication and health-related articles
1.3.0	The pharmacist helps the client with making well-considered decisions with regard to self-medication
1.4.0	The pharmacist offers clients sufficient opportunities for personal consultation
1.5.0	The pharmacist provides the client with written and verbal informations on the properties of drugs and health-related articles. The pharmacist gives advice about the correct and safe application of drugs and articles, as well as about other aspects that are of concern for the health and well-being of the client
1.6.0	The information and advice provided are correct, clear, unambiguous, topical and understandable for the client
1.7.0	The information and advice provided are adjusted to the wants and needs of the client with regard to nature, amount and way of provision
1.8.0	The client is treated in such way, that a correct understanding of and trust in the information given is warranted

<sup>a</sup> Where 'pharmacist' is stated, one should read: the pharmacist and his/her technicians.

To assure the quality of self-care advice, the guideline self-care guidance [22] was developed for Dutch community pharmacies. In addition, standards for self care were developed for 13 minor illnesses, to help pharmacists and technicians to give good advice [23]. Since 1998, the quality of OTC advice in all community pharmacies is evaluated

yearly by the professional organisation of pharmacists [11].

#### 3.3. Education of pharmacists and technicians

The education of pharmacists and technicians includes programs that are aimed at enhancing the implementation of patient education as well (Table 1). In the pharmacists' 6-year university curriculum, communication skills are taught in the 5th and 6th years, in total 80 student hours [24]. This is not very much, and probably not enough to build a pro-communicative attitude. In so-called registration courses, attention is also given to pharmaceutical care aspects. The Dutch professional organisation of pharmacists (KNMP) is responsible for these 1-day post-graduate courses. The

registration courses are more practice-oriented than the pre-graduation education. Technicians are receiving more and more training in communication skills in their professional education. It takes a 3-year pharmacy technician course to become a pharmacy technician. The emphasis of the technician-training is moving more and more from

Table 2  
Patient education projects

Reference	Focus	Setting	Evaluation methods used	Findings
Van Mil [28]	TOM: increase self management of moderate asthma with extra counselling	16 Dutch pharmacies (280 patients); 1995–1997	Intake, frequent patient–pharmacist contacts, 1/2 yearly consultations, intervention with regard to medication if necessary; installation of self-management program in co-operation with physician; regular inhaler instruction	Increased satisfaction with pharmaceutical care; increased use of peak-flow meter (to measure asthma management)
Van Mil [28]	OMA: increase management of chronic medication in the elderly	19 Dutch pharmacies (416 patients); 1995–1997	Intake, frequent patient–pharmacist contacts, 1/2 yearly consultations, intervention with regard to medication if necessary; house visits; efforts to decrease benzodiazepine use	Increased satisfaction with pharmaceutical care
Pharmacy weeks [29]	Specific patient group; every ‘week’ a different focus	Pilot in three Dutch pharmacies	Target group invited for counselling; extra advice	Satisfaction with extra attention
Cara Check [30]	Continuous pharmaceutical care for asthma patients	Greater part of the Dutch pharmacies	Extra communication, guidance and information and (inhaler) instruction to promote effective and efficient medication use	Satisfaction pharmacies and patients

technical to social (communication) skills. Communication is trained weekly through the whole curriculum, totalling at least 240 student hours. In the first year, the emphasis is on basic principles for verbal and non-verbal communication. In the second year a module ‘in conversation’ is taught and in the third year an integration of different subjects is taught in a so-called ‘practice course’ [25]. For both pharmacists and technicians, post-graduation courses are available on communication and drug knowledge. It is, however, not clear how many pharmacists and technicians attend these courses.

### 3.4. Patient education projects

From 1992 onwards, a number of studies on pharmaceutical care have started in The Netherlands [26–28]. Table 2 shows an overview of patient education projects. One of these studies is the therapeutic outcomes monitoring (TOM) project, that was designed to help people, especially those with chronic diseases (e.g. asthma, diabetes), become better managers of their conditions. The Dutch pharmacists in this project monitored the asthma patients’ drug therapy to assess progress and to identify and solve pharmacotherapeutic problems. Another project, the elderly medication analysis (OMA), was designed to help the elderly to manage their drug use [28]. Other projects, more specifically aimed at patient education include the so-called ‘pharmacy weeks’ in which a specific patient group receives special personal attention. Evaluation of the first of these ‘pharmacy weeks’ the ‘elderly week’ (1996) resulted in appreciation, among and outside the target group. It was considered a success [29]. After the elderly week, pharmacy weeks on other subjects, for instance asthma and high blood pressure, were organised by the professional organisation (KNMP) and are still carried out from time to time. Another project, based on the same principle is the CARA-CHECK, in which the greater part of the Dutch pharmacies participated [30]. In addition, another organisation (Zorgplan) provides project support with the goal of implementation of care for chronic patients [31]. A characteristic of most of these projects is that they focus on facilitating the pharmaceutical care and patient education for a specified subject or disease. The non-systematic evaluation of the CARA-CHECK and Zorgplan projects show enthusiastic pharmacies and patients, but whether these projects are implemented in the daily work-processes of the pharmacies that have taken part remains unclear [30,31].

## 4. Barriers for patient education

The previous sections show efforts that were done to increase the implementation of patient education. In this section, reported barriers for the implementation of patient education are described (Table 3).

Table 3  
Experienced barriers towards implementation of pharmaceutical care

Barriers
Abstract level of pharmacy norms
Lack of documentation of pharmaceutical care given
Lack of resources
Negative attitude of pharmacists/technicians
Lack of adequate education
Lack of skills
Non-supportive environment
Time pressure and heavy workload
Lack of reimbursement
Patient indifference
Information may decrease patient compliance
Lack of privacy

The Dutch Pharmacy Norms (NAN) that were described earlier could be facilitators for the structure and process of patient education, but are stated on an abstract level and not adjusted to individual pharmacies. Mobach observed that pharmacists are experiencing problems with formulating and using aims, norms and monitoring instruments for client-directed activities on the level of their own pharmacy [32]. A study that was done in 1994 revealed that the preconditions for implementation of patient-oriented activities were not optimised in at least 75% of all community pharmacies. Agreements on when and how to carry out tasks were hardly tested, time management was poor, as well as the number of staff meetings [33].

Evaluation of the TOM and OMA studies revealed that one important barrier for implementation was lack of documentation of the pharmaceutical care (patient education and counselling) that was given, despite a thorough training of the pharmacy staff before the start of the project. In addition, different kinds of barriers on the pharmacy and technician level were distinguished and categorised. The categories include lack of resources, problems with the attitude, problems with the education, lack of skills and problems with the environment (legal barriers, health care structure) [28].

In addition, in several studies [34,35] was found that pharmacy staff are experiencing problems like time pressure and heavy workload, that hinder them in their communication with clients. Internationally, similar barriers were reported including time constraints, lack of reimbursement, lack of training, patient indifference, information may decrease patient compliance and lack of privacy [36–39]. Most of the barriers are related to the organisation of patient education, pharmaceutical care and health promotion activities.

Per prescription, the pharmacy receives a fixed fee regardless of the price or the quantity of the drug concerned. This fee is not in line with the actual costs of pharmacy practice. Pharmacies are not able to cover the deficit by rebates from the pharmaceutical industry and wholesalers. This is a barrier for the implementation of patient education activities [2].

## 5. Conclusion and discussion

The conclusions from this overview of the Dutch situation are that medication surveillance and guidance are implemented, as almost all Dutch pharmacists report to use a medication surveillance system. Drug therapy meetings appear to be implemented as well, because 90–95% of the pharmacists and general practitioners report to take part in these meetings. It is concluded that, in the majority of the Dutch community pharmacies, the implementation of patient education activities as a routine task is not realised. This conclusion is based on different kinds of information. Firstly, the reported percentage of client–staff contacts in which verbal communication related to prescription and OTC medication takes place is around or under 50%. Secondly, client/patient organisations are not satisfied with the achieved level of patient education in Dutch community pharmacies.

The importance that can be attached to these conclusions is influenced by the strength of the evidence. In general, there are few published studies on the implementation of patient education activities and the two other new tasks of community pharmacies in The Netherlands. But the change towards more patient-oriented activities in community pharmacies is not only taking place in The Netherlands, so the question rises whether research from other countries is applicable to the Dutch situation. However, health care systems and pharmacy practice are different throughout the world [28,40]. This makes it difficult to compare results of studies and interventions from different countries and practically impossible to translate conclusions from abroad to the Dutch situation.

## 6. Discussion

Most of the data in this article are self reported: using medication surveillance programs, taking part in drug therapy meetings and providing written and verbal information to patients. Other data were generated by mystery shopping and therefore concern only one case study, a participatory observation of OTC advice, per pharmacy. A third way of evaluating patient education projects was by evaluating patients' satisfaction with the offered extra services, without a pre-intervention evaluation. It would have been better if a (quasi) experimental design had been applied to evaluate interventions. This indicates that conclusions from this evaluation of the Dutch situation with regard to the three 'new' tasks have to be drawn very cautiously. This also indicates that more sound research on the implementation of medication surveillance and guidance, drug therapy meetings and patient education activities is necessary to strengthen or refute the conclusions in this article. As it was not clear how exactly implementation of patient directed activities could be assessed, research and consensus about indicators for the implementation of these activities

are necessary. Then the implementation of these activities can and should be assessed by using systematic research designs.

In addition, it is very difficult to find explanations for the level of implementation of these activities, because no research with this purpose was published. The role and importance of barriers with regard to finding explanations has not been assessed either. Based on the kind of barriers that were found, explanations for the level of implementation could be problems in the structure and processes of patient directed activities.

### 6.1. Practice implications

It was concluded that patient education activities are not implemented in Dutch community pharmacies, despite a number of interventions, ranging from policy, guidelines and 'patient education projects' to undergraduate and post-graduate training in communication. The reported barriers indicate that the focus of interventions should be on the organisation, the structure and process of patient education in pharmacies. The management of patient education should be taken care of before patient directed activities are introduced. This approach has not been studied yet. As pharmacists and pharmacy technicians have different backgrounds and different tasks in community pharmacy, differences between these two groups with regard to the barriers should be assessed as well. Pharmacists, who have a university degree, play a minor role in the communication with patients. Most of the communication is carried out by technicians. Research could be carried out to assess the possibilities of involving more pharmacists in the counselling process.

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