

*Review*

# Pharmacy and Society: How Effective Communication Can Strengthen the Role of Community Pharmacist

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**Abstract:** Ever since pharmacy has become a profession, pharmacist's role has been continuously subjected to changes due to specific influences from historical, socio-economic, political, and scientific context. Nowadays the classic perception of pharmaceutical profession in Community Pharmacy is facing worldwide extinction due to many factors. Modern services, such as online, mail-order, and telephone-order pharmacies are increasingly gaining ground thanks to their ability to facilitate customer demand. However, at the same time, they are endangering "face-to-face" contact, affecting the building of customer loyalty based on direct "human" interaction, and consequently reducing pharmacists to mere commercial figures. Communication is in fact emphasized as the essential element to build a solid and appropriate interpersonal relationship with the client, to make the consultancy process effective, and to strengthen pharmacist's professionalism in community pharmacy. The aim of this work is to analyze pharmacist's role in modern society by pinpointing the factors affecting pharmacy profession practice. Specific purpose will be improving both the academic training of future professionals and their capacity to approach public relations through a deepened study and practice of behavioral, communication, educational, and sociological methodologies and techniques that would allow the development of more effective communication skills useful for providing an efficient consultancy service.

**Keywords:** effective communication; community pharmacy; pharmacist's role; modern society; modern services; on-line pharmacy; pharmacy educational methodologies; communication skills improvement; pharmacist's professionalism; efficient consultancy service.

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## 1. Introduction

A great American historian of pharmacy, Giorgio A. Bender, defines the pharmacy as follows: "*Pharmacy, the profession of the art and science of preparing, preserving, compounding and dispensing medicines, indeed had a proud heritage – and unequalled record of service to humanity almost as old as the human race itself*" [1]. Over the centuries pharmacist's role in society has been continually subject to numerous changes: from the apothecaries in the ancient Arabic world, to the first druggists and chemists in the 17th and 18th century in England, to the profession as we know it today [2-4]. As perfectly enlightened by Roberts (1988): "*The pestle and mortar days of preparing medicines have been overtaken by pharmaceutical industrial technology which accurately and aseptically produces complex medicines, pills and ointments [...] The mixing role of the chemist has thus been eliminated*" [5].

The progress of scientific and technological knowledge, the socio-economic and political changes, the demographic growth and the development of National Health Systems, the birth of clinical pharmacy and pharmaceutical care, have all contributed to the establishment of a worldwide massive production industry and to the evolution of pharmaceutical profession which began to

expand into other sectors [1,3,4,6-9]. In fact, it is now possible to make distinctions among the sectors of community pharmacy, hospital pharmacy, pharmaceutical industry, regulatory control, drug management, and academic activity. The birth of these new sectors led the pharmacist' role within community pharmacy to suffer a real professional crisis [6]. In 1980 the British Health Minister, Dr Gerard Vaughan, argued that: "*One knew there was a future for hospital pharmacists, one knew there was a future for industrial pharmacists, but one was not sure that one knew the future for the general practice pharmacist*". Therefore, in order to strengthen their position on the market, all these changes have forced the profession in community pharmacy to reinvent itself. In this respect, in 1982 the National Pharmaceutical Association initiated a campaign, called 'Ask your Pharmacist' in which it was considered necessary to find solutions to extend the pharmacist' role [6].

The Nuffield Foundation in 1986 claimed that pharmacists should have been involved more actively in the patient care [10]. Legislation in 1990 established that pharmacist had to guarantee appropriate information about the use of drug, the therapy to be performed, and also had to provide clear, detailed, and easily understandable instructions to the client. Numerous organizations of community pharmacists in Europe (in particular the Federal Union of German Associations of Pharmacists, ABDA) began to evaluate pharmaceutical care as an additional service to the public, as a strategy and a useful resource for implementing the process of extending the pharmacist' role [9]. In March 1992 the British Department of Health together with the Royal Pharmaceutical Society of Great Britain (RPSGB) published the report "*Pharmaceutical Care: the future for Community Pharmacy*" in which they suggested the inclusion of new activities and services such as the management of prescribed medicines, the promotion of healthy lifestyles, and the creation of private premises for counseling [10].

With the aim of involving as many pharmacists as possible, in October 1995, the Royal Pharmaceutical Association of Great Britain presented an initiative called "*Pharmacy in a New Age*" (PIANA), that was mostly related to the consulting activity. More than 5,000 pharmacists joined the project, in which pharmacist was required to make sure that patient had a complete understanding of the prescription. In Europe, community pharmacies had extended their services by including monitoring patient compliance, communicating possible risks linked to the use of a specific medicine, and advising on the use of over-the counter drugs (OTC). The campaigns "*Ask Your Pharmacist*" and "*Pharmacy in a New Age*", had to a certain extent brought back to the original role of pharmacist, namely to dispense drugs and advice on the counter, so establishing a closer relationship with the client [6]. Recently, in England, health policy defined pharmacists working in community pharmacy as 'the first port of call' among the professionals in the health sector. They are always available, without needing an appointment, which is essential to receive medical advice. Furthermore, community pharmacy serves the public directly, it is easily and continuously accessible, working as intermediary between the doctor and the client-patient.

Since the pharmacist began to provide these services, he was given the opportunity to enhance his professionalism by self-assuming the great responsibility of providing appropriate advice to the client (decision-making power). With the aim of preventing, protecting and promoting the patient's health the pharmacist has to give clear and easily understandable information about the correct use of a drug and its possible contraindications, so that the patient get the maximum benefit from it (problem-solving professional) [6]. Despite all the attempts to strengthen the profession through a new vision more inclined to customer care, today the perception of pharmaceutical profession is increasingly at risk. It is mainly undermined by health policies, by the growing presence of drugs in supermarkets, by the increase in multiple-shop pharmacies and by the impact of IT on society. The growing use of on-line, mail-order and telephone-order pharmacies, has certainly facilitated the customers but has also deprived them of the physical encounter with professionals in pharmacy. Thus, by resorting to these means, personal communication between the pharmacist and the patient has been reduced or even disappeared [4,6,11,12]. The pharmacist in community pharmacy is thus penalized, his skills are considered obsolete (the so called "deskilling") and the public perceive him as a mere supplier of pre-packaged medicines (de-professionalization process) [6,10,12,13]. In fact, in order to face this downward path, the pharmacist must aim to establish a loyalty-based relationship

that leads him to strengthen his position and competitiveness on the market ("re-professionalization" process) [14,15].

The purpose of this work is to explain how to implement the re-professionalization process. Core of this process would be the reinforcement and improvement of the communication with the client.

As Cipolle and coll. state "*Care means communication. Quality care means quality communication*" [16]. Since one of the key roles of pharmacist in community pharmacy is focused on counseling, communication is essential in order to fulfill his primary ethical duty, namely to protect and improve the health of each individual patient. Communication is also indispensable for the client to receive in an interactive, direct, clear and detailed manner all the necessary information on the use of a given medicine, and to acquire the knowledge necessary to obtain the maximum benefit from the therapy to be performed. Communication is therefore the key element for building a solid interpersonal relationship with the client in order to build customer loyalty, to make consultancy process effective and to strengthen the future of pharmacist profession.

Given that the use of effective communication skills is considered essential to provide adequate assistance and advice to patients, the study and practical application of behavioral methods and communication techniques would permit to establish a productive dialogue with the patient and thus increase social relations with the public. Pharmacists must first and foremost understand the needs of each client by adapting the message to the recipient, taking into account any specific circumstances, as well as age, sex, culture and social background etc. In this regard the theories of Mead and Bower are described, followed by the Model of Behavioral Change (Stages of Change model), and by the studies of Ley and Llewellyn on the correlation between understanding, recall, satisfaction and adherence while building the interpersonal relationship with the client [14,17]. The importance of communication is further underlined through a 1997 research conducted by Dickson which identified and compared the consequences that would occur in the communication process when pharmacist is an unskilled or a skilled communicator [18]. Therefore, it is possible to implement methodologies and models able to educate the pharmacist in better communicating with the client. To achieve this goal, it is necessary that at University and post-University level new training plans are offered and applied in order both to enhance communication and interpersonal relationship with the client and to prevent the extinction of pharmacist profession within community pharmacy.

## 2. The modern pharmacy: the new roles of pharmacist in community pharmacy

Recently, in England, health policy defined community pharmacists as 'the first port of call' among the professionals in the health sector [6]. They are always available for the community without needing an appointment, which is essential to receive medical advice. The community pharmacies are located in various areas of the city, easily accessible to the public, they provide medicines with and without a prescription and give advices. Nowadays they are also places where the pharmacist performs services such as management of prescribed medicines, management of long-term conditions, management of common ailments, the veterinary practice, extemporaneous preparation and small-scale manufacture of medicine and promotion of healthy lifestyles [19,20]. The management of prescribed medicines involves pharmacist in the phases ranging from the process of preparing, dispensing and supplying medicine to giving advice. The dispensing process includes all the activities going from receiving the medical prescription to the withdrawal of medicine from patient. Every prescription is subjected to an initial screening by pharmacist, who holds the legal and professional responsibility for the drug to be delivered. The management of long-term conditions consists in making sure that patient makes proper use of the prescribed drug and obtains the maximum benefit from it. In some countries, pharmacist often provides home care services for the elderly or services in nursing homes [20]. The management of common ailments sees the pharmacist as a problem-solving professional, playing an important role in giving advice and information on the use of self-medication products. He has the responsibility of holding a considerable decision-making power over the patient health. In fact, if necessary, he advises the

client to contact another health professional, such as a doctor, to receive further advice. The veterinary practice involves the sale of drugs and medicated feed for animal use. The extemporaneous preparation and small-scale manufacture of medicine is a practice nowadays rarely performed by pharmacist in the practice of community pharmacy. The pharmacist takes care of preparing himself the medicine in an extemporary manner, adapting it to the specific needs of each person. The promotion of healthy lifestyles includes, in addition to encouraging healthy eating and physical activity, providing the customer with: services for the health of children and infants, vaccination and immunization, services for the promotion of sexual and oral hygiene, screening tests, promotion of cardiovascular health, blood pressure measurement, testing body fluids, cholesterol testing, emergency hormonal contraception (EHC), pregnancy testing, smoking cessation advice, diabetes guidance, agreement in the medicines intake, adoption of measures to avoid serious side effects and prevention of drug abuse [6,19-21].

As the Royal Pharmaceutical Society of Great Britain (RPSGB) said, the promotion of healthy lifestyles is one of the central roles of modern pharmacist in community pharmacy [22]. A study conducted in England in this area has shown how the pharmacist's role is decisive and effective in treating customers suffering from obesity, providing them with weight loss' programs, along with targeted information and advice on how to perform a proper diet coupled with constant physical activity. Furthermore, pharmacists were incisive even in recommending immunization and vaccination because, in England, between 50 and 94% of those who received advice were receptive and followed the indications received.

Regarding programs for the emergency hormonal contraception in England, pharmacies have made them accessible without a prescription requirement since January 2001. Studies conducted in the USA, UK and Belgium have confirmed the importance of pharmacist in ensuring patients a rapid access to emergency contraceptives thanks to their location on the streets, which makes them easily accessible to everyone, and thanks to their long opening hours, often extended throughout the day [21,23].

Studies conducted in Canada and Brazil on the promotion of cardiovascular health and blood pressure measurement showed that elderly patients suffering from hypertension have benefited from this service offered by community pharmacy and therefore evidenced how useful the pharmacist' role for people's health is [21].

In recent years many community pharmacists are dealing with the disease-oriented pharmaceutical assistance, giving positive feedback. An Italian study of 2004 revealed the importance of providing a highly active antiretroviral therapy (HAART) to people with acquired immune deficiency syndrome (AIDS) as a pharmacy service. Despite this, in Italy, the pharmaceutical care has remained bound within the hospital sector and has not assumed the same meaning and the same function that it has instead embraced in the rest of Europe where it has become a widespread practice within community pharmacy.

Cooperation between community pharmacist associations in Europe and the World Health Organization (WHO) regional office has given rise to the EuroPharm Forum ([www.europharm.org](http://www.europharm.org)) which deals with the ideation and implementation of activities based on pharmaceutical care in the normal practice of the pharmacy community [9]. In Germany, 2003 saw the signature of a contract called 'The family pharmacy contract', between the owners of community pharmacies and the representatives of Germany's largest health insurance fund, through which pharmacists receive a remuneration for health services offered to customers, including counseling for people suffering from diseases such as diabetes, hypertension, and asthma. In this regard, in Germany, as well as in Switzerland and Austria, pharmacies offer all kinds of possible health services, by targeting a clientele of about 3,000-5,000 people [9]. In Portugal, since 1999, the Portuguese Pharmacist Association (ANF) has begun to develop a series of methodologies to include in the pharmaceutical practice of community pharmacy programs for the management of diseases, including advice-oriented pharmaceutical assistance. In fact, in Portugal and Germany, diabetes services have been made available to the client. In Spain, since 2005, new cognitive services have been included in the practice of community pharmacies and pharmacists are remunerated only for some of them. In

France and Belgium, pharmacies have a small size, they mostly sell para-pharmaceuticals and cosmetics and have between 2,000-2,500 customers. In Belgium, since 2005, the pharmaceutical care service for customer within community pharmacies has become a legal duty for pharmacists. In France, The French Ordre des Pharmaciens, since 2004, has been trying to stimulate pharmacists to include in their practice the management of the patient's drug therapy [9]. In the United Kingdom and Ireland, the pharmacies, similar to those in America and Australia, also deal with non-pharmaceutical products alongside the sale of pharmaceutical products and offer numerous services to around 3,500 people. In the Netherlands, pharmacies provide support for self-monitoring and controlling the regular blood glucose through appropriate blood sugar measuring instruments [9]. A French study revealed the need of patients to receive advice from pharmacist about hypertension and therefore emphasized the need for pharmacists in community pharmacies to continually update themselves and improve their communication skills in reporting their knowledge to the patient [9].

Although a series of initiatives and activities have been implemented to enhance the role of pharmacist in community pharmacy, there are still many factors that are undermining his professional status.

### **3. The concept of profession and the factors that are compromising the pharmacist's professional status in community pharmacy**

Despite all the attempts to strengthen the profession through a new vision more inclined to customer care, today the perception of pharmaceutical profession is increasingly at risk. It is mainly undermined by health policies, by the growing presence of drugs in supermarkets, by the increase in multiple-shop pharmacies and by the impact of IT on society. However, before discussing the factors that are compromising the future of pharmacist profession within community pharmacy, it is necessary to introduce and define the concept of profession [6].

Professionals have the task of serving the public and doing for society what it alone could not do [13]. As Hughes claims, a profession is the status that requires the possession of a legal license to exercise certain actions [24]. Furthermore, as Friedson [25] writes, a profession is self-regulated, that is, it establishes its own standards about the necessary education and training, the skills available for practicing the profession, the services it offers and the income it receives. To be considered a professional, an individual must acquire specialized knowledge in the chosen field and must therefore complete a long training path. In addition, a profession has almost always precise relationships with both the public and the state and is usually a lifetime job. Therefore, provided that a professional must act for the public interest, rather than for his personal one, a profession is also considered service-oriented, namely oriented towards services that are made available to people. In this sense, each profession is guaranteed and ensured the monopoly of practice by the State [6].

The pharmacist is a health professional who aims to provide the public with services that wish to protect the health of patient and ensure a correct, effective and rational use of drugs [19,26]. The performance of various activities in pharmacy is made possible by a specialized knowledge in science, which distance pharmacists from being simple 'traders'. They are subjected to a long educational path and training that makes them competent professionals in the pharmaceutical sector and able to prepare, deliver medicines, as well as provide advice. Furthermore, it must be remembered that the pharmacist profession is a service-oriented profession (namely oriented towards services available to the public) and is self-regulating with its own organizations and disciplinary bodies (among them the American Pharmacists Association, AphA, the Royal Pharmaceutical Society of Great Britain, RPSGB, the Federal Union of German Associations of Pharmacists, ABDA, and the Federazione degli Ordini dei farmacisti Italiani, FOFI) [6,26]. These organizations aim to direct, regulate and strengthen the profession of pharmacist in order to help all pharmacists to improve themselves in the practice of the profession, which implies knowing how to take care of patient and increase their knowledge, so that they can give useful and clear information on the use of medicines [13].

Pharmaceutical policy includes three areas: health care policy, public health policy, and industrial policy. Health policy regulates the budget available for healthcare and monitors the health costs in general and those relating to drugs. Public health policy, on the other hand, serves to guarantee the quality, safety and efficacy of drugs to the consumer. Industrial policy promotes a regulatory environment that is favorable to companies. It can therefore be said that the practice of pharmacy is considered both as an activity offering services aimed at the patient care and the promotion of public health, and as an activity that deals with the development of drugs, their distribution and dispensation. Therefore, people in charge of dictating the policy in the pharmaceutical sector have to work by taking into account the two different points of view on the figure of the pharmacist and on the pharmacy, which are in a certain sense in conflict with each other. The pharmaceutical sector is in fact seen on the one hand as a commercial enterprise that contributes to the economic good of the community but on the other hand is also seen as a service that gives an important contribution to the branch of health services. If politicians consider the pharmacy exclusively as a company they tend to regulate it like any other commercial enterprise, admitting that the best person in charge of its management should have excellent entrepreneurial skills, and thus framing the pharmacist as a trader. If, on the other hand, the policymakers define the pharmacy as a branch of the health sector that makes available to the client all those services able to provide health care for the public interest, they tend to legislate and regulate it by considering the pharmacists as professionals of the healthcare sector [13]. Policy can therefore be considered one of the factors that can endanger the future of the profession in community pharmacies and therefore compromise the pharmacist's professional status in the modern society [6,13].

Among the factors that are undermining the pharmacist professional status, there is also the process of drug liberalization which certainly led to a rise in terms of purchase and sale of OTC drugs, but it has also led patients, no longer forced to request a medical advice, to acquire greater autonomy in the choice and use of some drugs (self-medication) [6]. The media, as well as internet, have significantly contributed by providing several health information, therefore people began to work out by themselves the benefit-risk calculation about the intake of a specific drug. Consequently, the greatest risk is that most people may not have adequate information or could have wrong indications about the use of a certain medicine, with the probability of incurring serious side effects.

Hence, the primary ethical duty of pharmacist comes into play. In fact, beyond providing prescribed medicines and dispensing OTC drugs, he must first of all take care of patient's health, by safeguarding the interests of client and community. The pharmacist must ensure that patients have clear knowledge, by providing easily understandable information about the use of drug and its possible contraindications. In some cases, if necessary, he must also be able to recognize his limits, without endangering the patient's health by providing potentially harmful advice, and must therefore have the good sense to advise the client to contact another healthcare professional, such as the doctor, to receive further advice.

As testimony to the importance of what has just been said, Sir Gordon Willmer, Chairman of the Statutory Committee, writes in the Pharmaceutical Journal: "*This is an important duty, for one can hardly imagine anybody who could be more dangerous to the public than a pharmacist who is liable to make errors in dispensing what may be dangerous drugs*" [6]. The ethical duty of pharmacist to take care of patient's health has thus extended in parallel to the development of pharmacist's role within community pharmacy. This process has been facilitated in May 2006, in Italy, by the FOFI, which promoted an initiative proposed by the Italian Society of Pharmaceutical Sciences called the "Carta del Farmaco" (Drug Card). The purpose of this document is to re-establish a more correct consideration of drugs among the citizens and a more responsible use of them [27].

### 3.1. Monopoly of practice: non-exclusivity in the practice affects the future of the profession in community pharmacy

As far as the monopoly of practice is concerned, pharmacists actually hold a virtual monopoly in the process of dispensing medicines. In the United Kingdom, in fact, doctors, dentists and nurses

can in some cases distribute medicines to patients. As claimed by Denzin and Mettlin [28]: "[...] The major problem which prevents pharmacy from stepping across the line of marginality is its failure to gain control over the social object which justifies existence of its professional qualities in the first place".

The profession of pharmacist both in the practice of dispensation and in that of counseling does not hold a real monopoly. The pharmacist finds himself in competition with the 'well-known' doctors, with increasing market forces at the service of the customers who are usurping his role, and with other sources of information that characterize modern society, such as media and internet. The changes that have characterized and still characterize modern society have therefore changed the way pharmaceutical products are managed [13]. In recent years, the ever-increasing presence of drugs in non-pharmacy outlets, such as supermarkets, is putting at risk the exclusivity in the sale of medicines, once belonged to pharmacists, and it is also undermining the role of pharmacist.

As pointed out by Taylor [6], no supervision or consultancy of "experts" is needed when the medicines are sold in these shops, so people buy the drugs as if they are common commercial products, and this makes the contribution of pharmacist substantially superfluous in the sector. Furthermore, the increase in multiple and supermarket-based pharmacies has led to a standardization of pharmaceutical services dictated by company policies and has generated many implications in the profession of pharmacist.

A study examined the community pharmacy sector in some countries by taking into account restrictions on revenues, property and price. Differences were observed among the countries in terms of market structure and degree of competition in the market, which are largely determined by the regulations in force. In Canada and United States certain categories of OTC drugs can be sold outside pharmacies or without the presence of pharmacists. In Germany, only OTC drugs that are considered "harmless" like teas and vitamins can be dispensed outside a pharmacy, for example in supermarkets, but the staff must still receive some training. In France OTC drugs are sold only in pharmacies [29]. In Canada, Netherlands, Norway and United States, regarding the ownership of pharmacies, a pharmacist may own one or more pharmacies and even companies are allowed to own pharmacies. In France and Germany, the pharmacist has a monopoly on the distribution of drugs. In France the owner of the pharmacy can only be a pharmacist, each pharmacist can be the owner of a pharmacy and be a partner in four other pharmacies. In Germany, pharmacy owners must be only pharmacists, at the individual level or in companies, and they may own only one pharmacy with the possibility of opening up to three branches. In view of the restriction on the ownership of pharmacies in France and Germany, neither country has pharmacy chains. In Spain, the pharmacies are individual and must be owned by the pharmacist at least for 75%, so the pharmaceutical chain is not allowed in any way. In Norway, although pharmacy chains are permitted, no single chain can own or operate a group of pharmacies whose combined turnover exceeds 40% of the total turnover of all pharmacies that have been deprived of it on the market. In all other countries, pharmacy chains are an important part of the market and are significant competitive forces within the pharmaceutical market. An example of this is the United Kingdom where many people can own pharmacies and ownership is not bound to the presence of a responsible pharmacist working there. Furthermore, chains are also allowed. Differently, in Italy about 70% of pharmacies are managed individually, whereas the remaining 30% is managed by groups of pharmacists, who can own no more than four pharmacies all within the same province. Furthermore, in Italy the presence of the pharmacist is mandatory in the practice of dispensing the drug [29,30].

Taylor reports that an increasing number of pharmacies have chains and supermarkets as their owners (such as Asda, Safeway, Tesco, and Sainsbury), thus offering wider opening hours and a greater number of customer services [6]. Among these, also Superdrug, a drug store founded in 1964, is an example. It was acquired first in 1988 by Kingfisher Plc., then in 2001 by Kruidvat, and since 2003 it is now owned by A. S. Watson, part of CK Hutchison Holdings. Since 1992 the company had already introduced an area reserved for pharmacy in its stores and also introduced pharmacy into Internet world, creating an online pharmacy [4].

### 3.2. Internet pharmacy and mail-order pharmacy

The introduction of online community pharmacies, set up with the aim of providing more services to consumers, is endangering the future of the profession within the community pharmacies. A. S. Watson, part of CK Hutchison Holdings, which had already introduced a pharmacy area in its stores since 1992, also launched the pharmacy in the internet world by creating an online pharmacy [4]. Since January 1999, following the launch of Soma.com, online pharmacies have become popular and have grown exponentially in the following years, especially thanks to the interest of consumers because of the greater convenience and the discounted prices offered. In fact, other internet pharmacies have been created on the model of Soma.com, such as drugstore.com and PlanetRx.com. The online pharmacy has grown further in recent years and the major pharmaceutical chains felt the need to follow the IT trend in order to avoid loss of market shares. In fact, in 1999 Rite Aid acquired 40% of drugstore.com, and CVS purchased Soma.com (now CVS.com). Walgreens, the US largest drug supply chain by volume of prescriptions, responded immediately with its online pharmacy [12].

Online pharmacies operate similarly to the community pharmacies and differ from them mostly in terms of the method of requesting and receiving drugs. Thanks to online pharmacies people are gradually preferring to purchase drugs directly from their homes because it is more 'convenient' than going physically to a pharmacy. In addition, online pharmacies are available 24 hours a day, so patients can place their orders and submit their questions to the pharmacist at any time, although some questions require a waiting response of at least one day. In this regard there may be people who need urgent advice and the need to wait so long for an answer could cause them serious health problems. Furthermore, online consultations often consist of completing a questionnaire (usually with fees) that is then examined by a doctor, and then the pharmacist completes the prescription. This practice certainly poses a series of legal and ethical questions about whether such questionnaires involving "cyber-doctors" and then pharmacists will be able to establish a relationship with the patient. In this way, the most important objective of pharmacist's profession, that is to protect the health of the patient, would also be lost from sight. Therefore, if on the one hand buying drugs on IT from online pharmacies directly from home, without the need to contact the doctor or pharmacist, may turn out to be a convenient route, on the other hand the delivery often takes two weeks. In addition, the physical and verbal contact with the pharmacist, which is essential for obtaining an effective advice leading to the health of the individual, would be lost [11,12]. Despite this 'disadvantage' the on-line pharmacies allow certain types of clients to feel less intimidated in discussing personal matters, which they consider embarrassing or particularly delicate, by sending an email rather than talking directly to pharmacist in a pharmacy full of people. Most people therefore see their anonymity better guaranteed using the internet, although there is no real certainty as to how privacy is respected with e-mail messages. With a simple click of the mouse you can quickly forward a series of information to wrong people. Many pharmacists in community pharmacies, with the purpose of demonstrating to patients that they are professionals able to communicate with them effectively by taking appropriate measures to protect their privacy, have begun to reserve in their pharmacies an area dedicated to counseling [11,12].

In the United States, besides online pharmacies, mail-order and telephone-order pharmacies took root in the 1990s. The only essential difference is that online pharmacies are more easily accessible to the general public. Internet and mail order pharmacies have conquered the pharmaceutical market in America faster than in Europe because of the increased demand for drugs due to the higher population density. In 2000, a study by the Strategis Group found that 47% of American households had access to the internet and 53% of American adults used the internet. In Europe only in recent years the number of people who are beginning to buy drugs from these online pharmaceutical companies is growing. Regarding the way of providing their service to the public, online and mail-order pharmacies are subject to the laws of the country in which they are located. Electronic commerce often transcends all boundaries and obscures the lines of states [12].

Regarding online pharmacies, two recent studies have shown that it is not difficult to find sites (often foreign ones) that send drugs such as sildenafil without requiring a medical prescription. In

the United States, a survey involving 33 pharmacy websites reported that 88% of them were selling drugs only upon prescription, while the remaining 12% dispensed medicines without requiring a prescription or accepting the copy sent by fax or e-mail. In Mexico and Asia, the dispensation of many drugs can take place without a prescription (over the counter) and online pharmacies are authorized to sell such medicines. For this reason, this 'traffic' of medicines has in some cases turned out to be an alternative and easily accessible channel for all those who consume illegal drugs.

In 1998 the National Drug Strategy Household Survey revealed that 46% of Australians used illegal drugs, including, beyond marijuana, drugs such as diazepam, zolpidem, temazepam, and oxycodone. Such drugs that were previously available only upon medical prescription, are now available at some online pharmacies, such as those in Mexico and Thailand, in large quantities, at cheap prices and without requiring a medical prescription. In fact, research has revealed that there are online pharmacies that sell 100 zolpidem to US\$ 70.00 with a delivery cost of US\$ 5.50 [11]. The difficulty of various governments in regulating pharmacies that break the laws of one state while are in another one, has led to the formation of a coalition among some of the largest pharmacies on IT, such as PlanetRx.com, drugstore.com, and CVS.com. This union created Operation Safe Net, a network aimed at encouraging consumers to report fraudulent drug sites [12].

Regarding mail-order pharmacies, in Canada, for example, they are authorized, and shipping is allowed for the provincial and national borders. In the United States, prescription-only medicines can be sent by e-mail only through the state lines and only if the pharmacy is authorized to dispense medicines to residents of that state. In Norway, mail-order distribution is allowed only in the geographic area relevant to the pharmacy. Online pharmacies are not allowed in France and distribution of drugs by post is only allowed if a patient is unable to go to a pharmacy. In Germany, although it has been tried to dispense drugs on the internet, this type of approach to distribution, as well as that of correspondence, received strong resistance from the pharmacists' association. In fact, although mail-order medicines would be allowed only for disabled patients or patients with serious health problems, there is no control over the patient's status check. In the Netherlands, mail-order and internet pharmacies are authorized to distribute medicines, anyway they have not acquired a significant share of the market yet [29].

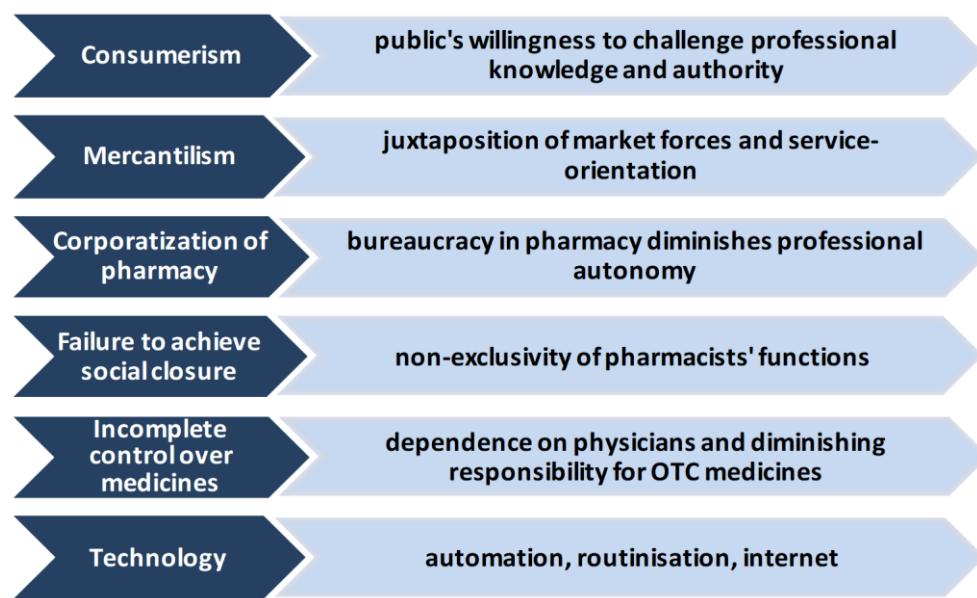
In North America telephone prescriptions and therefore the service of telephone-order pharmacies is common. Internet pharmacies and local pharmacies, independently of each other, are equipped with international and national mail-order service respectively [13]. They offer competitive prices for uninsured patients and provide the home delivery service for the disabled.

Some independent pharmacies have therefore recently actively integrated their services with the IT, using it as a tool for prescriptions and for marketing. 1998 saw the activation of a service, called the Internet Business Alliance (i-BA), which has connected more than 2,500 independent pharmacies, allowing them to sell healthcare products online. In the spring of 2000, the National Community Pharmacists Association created a site, CornerDrugstore.com, with 3500 independent pharmacies currently associated, with the aim of putting patients in communication with the pharmacy closest to their homes. The pharmacy in question offers the service of sending prescription by post or delivering it on the same day [12].

Considering what has been said up to now, it can be said that mail-order pharmacies and on-line pharmacies are services that a significant portion of the population can and wants to use. Through these new means of requesting the drug, the patient does not have to go to pharmacy and wait for prescription 'with the risk and the inconvenience of losing time', and the drug is directly delivered at home. However, this new trend is seen by many pharmacists and some patients as a threat to an effective health care. They consider internet and mail order pharmacies as impersonal and distant "factories of prescriptions", where an interpersonal relationship of trust between patients and pharmacists is impossible. The pharmacist suffers a loss in the 'face to face' dialogue with the client, a reduction of what is his professional role in community pharmacy and is penalized in his ability to make services to the public efficient [10,12,13].

In the light of what considered in this chapter, it is possible to identify and highlight the factors that are undermining the professional status of pharmacist. These factors are: consumerism, the

desire of people to challenge knowledge and professional authority; mercantilism, which sees the juxtaposition of market forces and service orientation; the process of corporatization of pharmacies, where the bureaucracy in pharmacy reduces the professional autonomy; failure to achieve social closure, namely the absence of legal exclusivity in the performance of specific functions such as the sale of certain drugs; incomplete control over medicines, due to the reliance on doctors and the reduction of responsibility for OTC drugs; and technology, that is automation, routinization, and internet [6] (Figure 1).



**Figure 1.** Factors undermining pharmacy's professional status.

The pharmacist's exposure to all these changes has been described as an example of "de-skilling". These factors are putting the profession at risk, so the skills of the pharmacist are considered obsolete and the public can perceive him as a mere supplier of pre-packaged medicines. The pharmacist in community pharmacy must therefore aim to reinforce and improve communication with the client in order to establish a loyalty relationship that leads him to maintain a monopoly in the practice of the profession. This process can be defined as re-professionalization [6].

#### 4. Re-professionalization process: consulting and communication

Considering what has been said in the previous chapters, the pharmacist has extended his role in community pharmacies by assuming responsibility for taking care of the patient's health (patient-centered care - PCC). The re-professionalization process requires pharmacists to deepen their knowledge and study by acquiring the skills necessary to strengthen their preparation and communication, and to establish a productive dialogue with patients and thus increase social relations with the public. They must focus on building an open exchange of information and on involving patients in the decision-making process related to the treatment, so that both sides could reach the desired objectives (customer-oriented approach) [6]. The importance of communication and therefore the use of effective communication skills is essential to provide adequate assistance and advice to patients. In this regard, the World Health Organization (WHO) in its 1997 report entitled *Preparing the Pharmacist of the Future: Curricular Development*, defined the pharmacist as a communicator [15]. The process of communication between pharmacist and patient performs the

main function of providing patients with clear information on drugs to ensure that they understand the treatment correctly, take drugs safely as well as appropriately, and achieve the desired result [14].

#### *4.1. Patient-centered care: the pharmacist's ability to recognize, understand and manage each patient specifically before providing appropriate advice*

Regarding the practice of patient-centered care, Mead and Bower defined five dimensions. The health professional must be able to: 1. Understand the patient's illness experience: social, psychological, and biomedical factors; 2. Perceive the experience of each patient as unique and conceive first of all the patient as a person; 3. Promote an as far as possible equitable relationship with all patients; 4. Create a 'therapeutic alliance' with patients in order to achieve the objectives of mutual interest; 5. Develop self-awareness of the personal effects on patients [14]. If we consider the pharmacist' role in the patient-centered care, he must focus on the patient before giving him advice about the appropriate use of the medication. There are phases that anticipate the patient counseling process, which requires the pharmacist to possess excellent behavioral and communicative skills. In this sense, if we want to apply the theories of Mead and Bower in the pharmacy field, the pharmacist must focus on the perception and interpretation of the patient, so to tailor for him the most appropriate advice (initial phase). At this stage the pharmacist must: perceive if the individual is subject to possible influences of family members, who usually offer their own interpretations and advice; perceive if there are potentially cultural differences in general and in the conceptualization of "health" and "illness"; perceive the patient's level of knowledge about the health problem that concerns him, since people differ greatly from each other in terms of the levels of knowledge in the medical and biological fields; interpret the psychological characteristics of the individual, including personal motivations and objectives [14]. In his relationship with the patient, therefore, the pharmacist must first understand who is in front of him. It must be said that once the relationship between patient and professional saw respectively an 'ignorant' person in the medical-scientific field, who had on the one hand no knowledge about diseases, health and treatments, and on the other hand a person who was instead well-informed and expert in these topics, whereas nowadays the relationship and therefore the dialogue between professional and patient has changed and, on the contrary, can be defined as a meeting between two expert people. The pharmacist must also take this factor into account when he communicates with the client in a pharmacy [31]. The deregulation of many drugs, the consequent increase in the patient's autonomy in the choice, purchase and use of drugs (self-medication), has led, in fact, the patient to assume increasingly growing responsibilities, compared to the past, that stimulated to inform himself about the illnesses he's affected by and the drugs he could use, often through the search for information on IT [6]. It is essential, however, that the pharmacist realizes that not all the patients have a certain culture in the medical-scientific field and that there are also partially ignorant people (20%) in the sector, who have an average education, or people completely without a school education (13-40%).

In the counseling process and while giving information on the use of drugs, it is often very complicated for the pharmacist to simplify the medical terminology using a language that is more confidential and accessible to the client [32]. The pharmacist, therefore, in order to better conduct the consultancy process and then implement an effective communication between the parties, must recognize the person in front of him and must be aware that there are passive customers, but also active customers [6].

In addition, often, the pharmacist must also deal with groups of people belonging to different ethnic groups in terms of culture, language, customs and religions, and must be able to communicate with them too. The pharmacist must be aware that there are some ethnic groups with certain eating habits that can be subject to a series of illnesses (for example, Asians are more prone to rickets and osteomalacia) [33]. The pharmacist must therefore inform himself about the restrictions dictated by some religions regarding the intake of specific products/food (Muslim religion) and certain traditions such as Ramadan. The pharmacist must know that, although perfectly integrated into society, there are some people from different parts of the world who may have problems

speaking and/or understanding the language of the host country. The pharmacist must therefore be able to overcome any kind of cultural barrier, providing in this case written material, translated into various languages, as an additional element to the package leaflet, to help the client to integrate and facilitate his understanding about the use of drugs. All these measures are therefore useful for implementing interpersonal relationships and the dialogue with the client [6]. Pharmacists, therefore, must firstly understand the needs of each client and adapt the message to the recipient, taking into account any specific circumstances, as well as age, sex, culture, and social background.

The following step is the moment when the patient feels the need to request health care from the pharmacist (second phase). The process of interpersonal dialogue with the pharmacist can thus begin and at the end of it the patient is going to interpret what the pharmacist has reported to him. This interpretation is influenced by a series of psychological and social factors that affect the patient and that are unique for each person (third phase).

Pharmacists thus, once they have finished to 'analyze' the patient, start a professional assessment of the health problem concerning him, bestow advice and recommendations about his need or not of a pharmacological treatment, the drug's intake modalities and possible adverse effects. They can also stimulate the customer, when and if they consider it necessary, to request the consultation of a doctor [14].

In October 2008, FOFI in Italy, in order to support pharmacists in this new role focused on the CCP, promoted an on-line project called Farma FAD, which involved about 15,000 pharmacists in the first two months. This initiative aims to provide distance training courses for pharmacists, without involving any economic constraints, in the framework of the ECM (Continuing Medical Education) Program.

#### 4.2. Strategies on how to develop effective behavioral and communicative skills: Stages of Change Model

The task entrusted to pharmacist should not just consist in giving information but should be focused on interpreting the concepts presented by the client, on knowing his general situation and finding the right way to clarify to the patient all the aspects of the message which seems to have been accepted as incorrect or misunderstood [6].

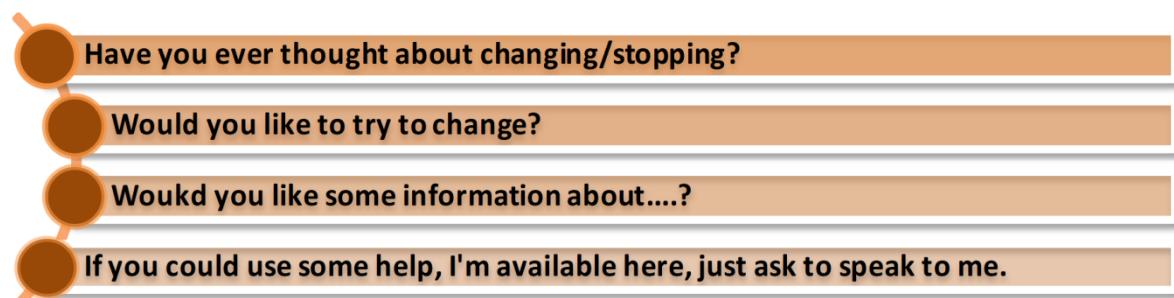
Pharmacists, when participating in health promotion campaigns, can adopt a consultancy model based on listening and comparison that can be divided into two levels. The first level sees the pharmacist as a passive subject, who is committed to show the customer the package leaflets, to give potential clarifications on some information contained in them and to respond to the requests made by the patient. The second level sees the pharmacist ready to provide information and advice in a proper and proactive way, using not only a verbal approach but also a written one, and working if necessary in collaboration with other health professionals or health agencies.

A potential support and help to pharmacist in the interaction with the client could be the use of a scheme called Stages of Change model. The Trans-theoretical Model (TTM) of behavioral change has drawn on various disciplines to develop this scheme, which has been tested in a wide range of behaviors. If the pharmacist in community pharmacy sector used this scheme and consequently changed his approach to the client, this could lead to an improvement in the process of promoting people's health.

In the Stages of Change model, we can distinguish a total of 5 scenarios. In the first one, called pre-contemplation, the patient is satisfied with his "*modus vivendi*" (way of life) and is not inclined to change. In this situation the pharmacist must simply listen and answer the questions. He can possibly try to persuade the person without creating expectations of success. In this stage the pharmacist can give information, but the person is responsible for taking his decision. In the second scenario, called contemplation, the patient reflects on the possibility of changing certain 'bad habits' but has not developed any plan to implement these changes yet. In this situation the role of the pharmacist consists in listening, answering questions, and giving useful information. In the third scenario, called preparation, the patient took the decision that he wants to change and feels ready for it. In this case the pharmacist can help the person to build a plan and set goals. In the fourth scenario, called action, the patient implemented his plan and therefore the change to be made. In this situation

the pharmacist takes a supportive approach encouraging the person to return to the pharmacy. In the fifth scenario, called maintenance, the patient is training to avoid a relapse in his previous 'bad habit'. In this case the pharmacist can continue to play his supporting role, encourage the person to undertake a discussion on potential problems that could lead to a relapse, and can also give a positive feedback [6].

Pharmacists therefore can use this model in practice, trying to use appropriate questions to check firstly what the stage reached by the person in front of him is. Subsequently he can tailor the appropriate advice on the client, provide him with the most accurate information, and give him possible further appropriate questions in the simplest possible way (Figure 2) [6].



**Figure 2.** Possible questions pharmacists might ask to establish the position of an individual in relation to the Stages of Change model of behavior [6].

Two RCTs (randomized controlled trials) were conducted in community pharmacies in Scotland and Northern Ireland to verify the results derived from the use of the Stages of Change model together with the NRT (Nicotine Replacement Therapy) in carrying out a campaign for the cigarette's smoking cessation. In both tests it was clear how indispensable and effective was the consulting intervention carried out by pharmacist in stimulating people to stop smoking. In community pharmacies, therefore, the role of pharmacist to promote healthier lifestyles is significant and essential, although people still perceive the pharmacist profession as an activity mainly related to the sale of drugs. In fact, a qualitative study of consumers conducted in Austria in 1996 showed that community pharmacies are mostly perceived as 'shops' with a commercial purpose, and that only 10% of consumers consider them able to provide reliable services in ensuring customers a daily health care, as well as useful information on health, illness, and particular pathologies [6].

#### 4.3. *The importance of communication: unskilled and skilled communicator*

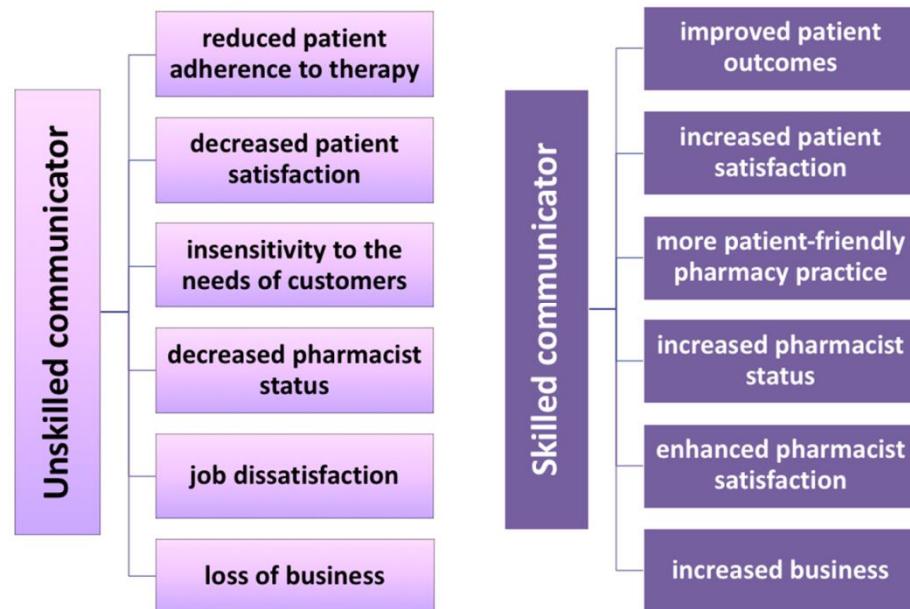
When patients start a drug treatment, they get the drug and try to follow the prescribed regimen. For many patients, taking medication can lead to an abuse caused by a misunderstanding of what is recommended, which involves unintentional deviations from the prescribed treatment regimen. In addition, people often have problems understanding clearly what is written and explained in the package leaflets, and in many cases, they forget the information and advice received from their doctors. Moreover, many people have a poor knowledge of medical terminology and therefore communication with doctors or pharmacists is not always productive because they fail to absorb in an appropriate, simple, and clear way concepts about the application of a specific therapy and the use of a particular medicament [6].

A 1986 research dealt with this problem. This work, carried out by Ascione and coll. [34], revealed deep intra- and inter-patient variations in 187 people with cardiovascular problems about the level of knowledge of three aspects of the drug to use in therapy. Most patients were primarily informed about the therapy's purpose, the effect of the drug and how to take it. Very few patients were informed about what to do in the event that they forgot to take a dose. A small minority was able to identify the most common side effects associated with the treatment [34].

A national research in the United Kingdom correlated patient satisfaction with the information received about a given drug, and the result pointed out that an average of 70% of people needed more information than they had been given. In this regard, Ley and Llewellyn [17], through a series of studies, explained how important is to build a link between understanding, recall, satisfaction, and adherence. Adherence refers to a more active involvement of the patient in the therapy, so that he is ready to collaborate with professionals in the health sector, such as doctors, pharmacists and nurses, in planning and implementing the treatment regimen [35].

The solution therefore consists of improving the ability to communicate with patients by reporting clear information to them, simplifying the medical language to make sure that they have correctly learned the instructions on how to use a drug.

The research conducted by Dickson and coll. in 1996 [18] further underlined the importance of both the communication between the healthcare professional and the client, and the ways in which it must take place to obtain the maximum benefit from both parties. Five distinct results emerged from this study, in case the pharmacist turned out to be an unskilled communicator (Figure 3). These results are: 1. The patient does not understand or forgets the information he received (this can happen when: the patient is overloaded with a high amount of notions; in most cases patients do not have a significant medical knowledge, so the use of too complicated oral or written instructions compromises the comprehension of the message; the patients do not understand correctly the information received and are reluctant to raise clarifying questions); 2. The patient is dissatisfied with the advice, the information received and the ways of managing the dialogue (this can occur when: there are relational shortcomings such as the inability to create a visual contact or to establish an empathic dialogue; the information given by the pharmacist are not clear and he is not able to interact specifically with the patient; he does not spend enough time on the advice); 3. A loss of patient adherence to the prescribed therapy may occur; 4. The loss of adherence and patient satisfaction are often interrelated; 5. Inattention to the patient's psychological needs (it can occur when: the professional is insensitive to the patient's mood, opinions, needs, doubts and cannot tune to the non-verbal signals sent by the patient). Therefore, if the communication is not effective, there are several resulting consequences for the patient but also for the pharmacist, which would be: a greater concern among patients that would lead to a regression of the pharmacist's professional status, to job dissatisfaction, loss of customers and therefore loss of business [18]. On the contrary, if the pharmacist was a skilled communicator, communication with the patient would be more effective and the final result would be positive for both (Figure 3). Better results would be obtained for patients who would be more satisfied with the services received. In addition, customers would have a more positive view of pharmacy, since they would consider it as a practice open to their specific needs. As a result, the pharmacist would acquire greater personal satisfaction and self-esteem, would see an increase of the clientele, and obtain a commercial advantage to increase his business [18].



**Figure 3.** Consequences of the pharmacist as unskilled and skilled communicator.

#### 4.4. Communication skills in the practice of the community pharmacy

The Indian Health Service (IHS) developed a counseling model by which many pharmacists received a training in the communication process. This method consists in the use of open-ended questions and strategies aimed at obtaining feedback from the client (final verification) [32]. Prime questions to ask patients who are receiving a new prescription are, for example, "What did your doctor tell you the medication is for?", "How did the doctor tell you to take it?", or "What did the doctor tell you to expect". The second phase consists in a final verification or asking the patient for feedback, *e.g.* "Just to make sure that I didn't leave anything out, please tell me how you are going to take your medication?". Finally, it is essential a show and tell strategy when a patient is receiving a refill, using questions such as: "What do you take the medication for?", "How do you take it?", or "What kind of problems are you having?" [32].

A study highlighted eleven areas of key communication skills to pursue a clear and productive dialogue [36]. If the pharmacist developed such skills he would become an expert in communicating with the customer and would thus be able to win the loyalty of each client. They are: 1. *Opening*: greeting the patient possibly by name, possibly searching for it in the prescription ("Good morning, Mrs Grothues. How are you today?"), and use appropriate non-verbal techniques, such as smile and eye contact; 2. *Building the rapport*: preserving the confidentiality of the dialogue by implementing the conversation in an appropriate location, being helpful, being available/accessible, having good manners, showing involvement and sincere concern, offering reassurance, meeting the needs of the patient (among the questions commonly asked by patients there are "What is this medicine for?" or "Are there any side-effects?" or "How do I take it?"); 3. *Active listening*: showing empathy, showing oneself focused on the patient, not stereotyping the patient, being objective, encouraging the patient to give as many notions as possible about himself; 4. *Non-verbal communication*: using eye contact, paying attention to the body language, being close to the client through an open posture, using gestures, smiling, nodding and illustrating; 5. *Explaining*: giving motivated instructions and explanations with the aim of reassuring, providing clear information through a language that is less scientific and medical and as simplified as possible to ensure that the instructions are readily and easily implemented and understood; repeating and emphasizing the given information, using analogies or examples and accompanying the verbal message with a written or visual aid, if necessary, to facilitate the patient's comprehension; 6. *Questioning*: using open questions to involve the patient, asking if he is taking other drugs, asking questions about the presence of a possible symptomatology, making a real exploration of the situation by collecting meticulous details from the

patient and showing interest; 7. *Suggesting/Advising*: providing professional/personal opinions to direct the client towards a specific action/choice rather than another ("Have you tried food supplements? Sometimes they can help..." or "I would strongly recommend you..." or "You would be well advised to..."); 8. *Assertiveness*: the pharmacist politely expresses personal thoughts and feelings and strengthens his credibility by recommending to the patient, when it is necessary, to ask other health professionals for an advice ("You need to go and see your doctor"); 9. *Self-disclosure*: the pharmacist shares his personal experiences with the patient to reassure him ("I know what you're going through. When I tried to stop smoking, it was difficult at first...") or the pharmacist shows that he wants to be involved in the situation that afflicts the client ("I really am determined to help you stop smoking ..."); 10. *Persuading*: the pharmacist uses the power to stimulate the moral duty of each individual ("You have a duty to your lung, your health and your family, so you really must stop smoking"), or uses the tactic of raising concern and fear to push the patient to modify certain 'bad habits'; 11. *Closing*: being kind, summarizing the main points discussed during the patient consultation and making sure to receive positive feedback about it, creating a link for potential future interactions by stimulating the person to return to the pharmacy ("Take these tablets for a week and then come back and see me"), thanking and praising the client ("You were right to come and see me"), beginning the final phase of interaction by physically moving from the place where the counseling took place and finally using closing indicators to complete the conversation ("Ok bye, Mrs Grothues. Take care on that slippery path") [32,36].

#### 4.5. Health Literacy: Communication Training Program

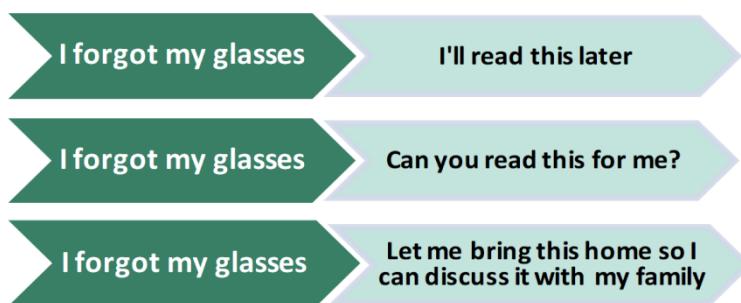
Health education and communication are fundamental elements in the context of health promotion. The efficient supply and appropriate use of health services by pharmacists in community pharmacies are considered important pieces in determining the patient's health status. The phase of health promotion is influenced by all those personal, social, and structural factors that can be modified through the application of specific strategies and models, with the aim of making health promotion effective and correct [37]. Among the strategies aimed at promoting and improving communication between pharmacist and patient there is a study carried out by Kripalani and Jacobson [38] at the Emory University of Atlanta. This study is part of a program, The Pharmacy Intervention for Limited Literacy (PILL), which dealt with defining the type of scientific language, the level of health literacy that people possess and the most suitable way in which this language must be used by pharmacists during patients' counseling. The term health literacy refers to those personal, cognitive, and social skills that determine the ability of individuals to obtain, understand and use basic health information and all services aimed at promoting and maintaining a good health [37,38].

If one wants to classify the types of literacy, Freebody and Luke [39] distinguish three of them. The first type is represented by basic functionalities sufficient for reading and writing, necessary to be able to face everyday situations. The second type is communicative/interactive literacy, that is, what are the most advanced cognitive and literacy skills that, together with social skills, allow a more active participation in daily activities. Finally, the third type is critical literacy, namely those more advanced cognitive abilities which, together with social skills, can be applied to analyze information critically [39]. Such classification allows indicating interactive and critical literacy as essential elements constituting health literacy in the context of practice in the community pharmacy. The pharmacist who has these two types of literacy (communicative-interactive) should not limit himself to read brochures and leaflets but should be able to provide advice aiming at improving people's access to information on their health as well as their ability to use them effectively [37].

A research by the National Assessment of Adult Literacy (NAAL) provided data on the level of health literacy among the American population. This survey found that 14% of Americans are below the basic level of health literacy, 21% have a basic level, 53% have an intermediate level and only 12% have an appropriate level of health knowledge. Considering that intermediate skills are necessary to understand what is reported on the label of a drug, about 36% of Americans therefore has levels of

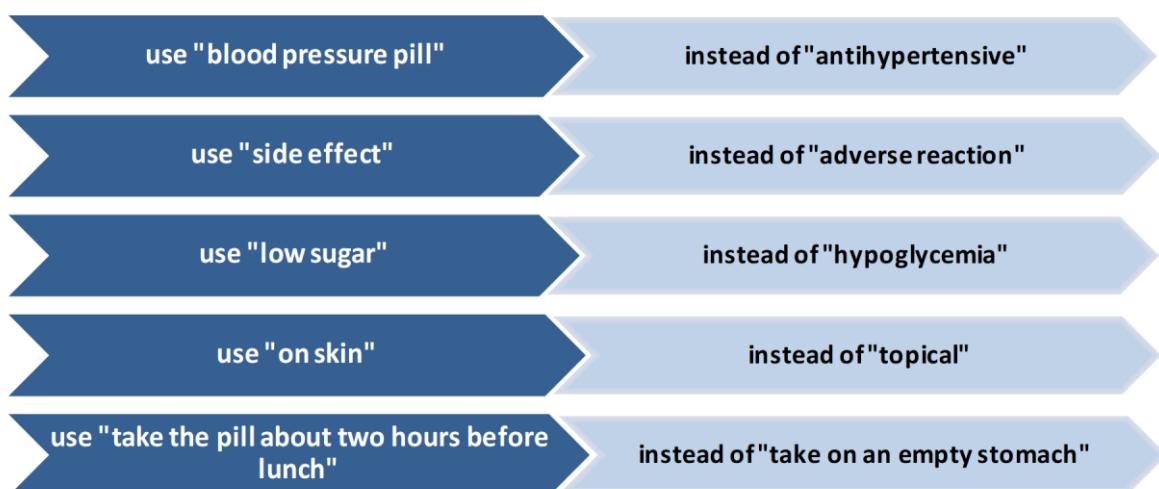
health literacy below those necessary for the correct and effective understanding of information related to the drug [38].

This survey also indicated the elderly, ethnic minorities, the poor and the homeless as groups of people with limited health literacy. Most individuals who fall into these categories are often able to mask their cognitive deficits in the field of health knowledge. The pharmacist can understand these situations thanks to some specific signals sent by the patient, such as certain phrases and/or questions such as those listed in the figure below [38] (Figure 4).



**Figure 4.** Possible excuses pharmacist may hear from patients as indicators of low health literacy [38].

However, the pharmacist is not always able to recognize these signals, and to recognize those people who have a low level of health literacy, so according to Kripalani and Jacobson [38], it would be more appropriate to adopt a simplified universal language for all without exception (Figure 5). In this sense it is suggested a scheme of strategies that the pharmacist could apply daily during the phase of interaction with the client that would allow him to greatly improve the communication. As Kripalani and Jacobson explains, this scheme would consist of 5 key points to follow. The first point is to give clarifications and explanations clearly in plain non-medical language, making a great effort in avoiding the use of medical jargon.



**Figure 5.** What could pharmacist say instead of... [38].

The second point is to focus on the message to provide and to recall it several times during the conversation. The third point is to use the 'teach back' tactic, also called 'show me' (retroactively instructing) to check if the patient has understood the message well. The pharmacist could ask the patient to repeat what he said during the consultation, instead of asking directly if he understood. The fourth point is to solicit the patient effectively with questions such as asking "what questions do you have to ask me?" instead of "do you have any questions?" or "questions?", as Kripalani and Jacobson suggest. The fifth point is to use support material, such as information written in a simple

and concise manner, together with the verbal ones, even better if accompanied by images and illustrations [38].

In the light of what was discussed in this chapter, it is possible to implement methodologies, schemes or models able to educate the pharmacist in communicating with the client in community pharmacy. To achieve this goal, it is necessary that students and new graduates in Pharmacy who wish to work in the community pharmacies are offered with new training plans in order to enhance communication and interpersonal relationship with the client in the practice of the profession.

## 5. The educational system and the future

Students and professionals in the pharmaceutical sector, from pharmacists working in pharmacies to those working for the state, agencies or associations, as well as the teachers in universities, have the important task of contributing to the planning and management of curricula in the academic field [20]. The degree program in Pharmacy is usually organized in a four-year course of study, as it is in America, at the end of which the student obtains the title of Doctor in Pharmacy. In other countries, an additional two-year path leading to PharmD's qualification is often required [9]. In most academic educational systems the Pharmacy degree program is traditionally divided into four thematic areas: pharmaceutics, pharmaceutical chemistry, pharmacognosy, and pharmacology. Subjects such as pharmaceutical sciences and national legislation relating to pharmacy complete the study path. The pharmaceutical sciences include the study of chemistry and physical properties of chemical substances, the pharmaceutical aspects of medicines, the action and uses of drugs medicines. As post-graduate courses, universities usually offer training and studies in pharmaceutical sciences for those wishing to undertake research [20].

### 5.1. Changes aimed at promoting and strengthening the pharmacist profession in community pharmacy

To keep university education up-to-date with the evolution of the profession, the curricula should be regularly monitored and updated by academic pharmacists, along with pharmacists who work practically in pharmacies or industries. Pharmacy training programs must help students to achieve the necessary skills that enable them to apply their acquired theoretical knowledge and skills in practice and problem solving. Firstly, the management study should be included in the study path with the aim of preparing the student to management of medications to supply and of a pharmacy [20].

Nowadays the greatest requirement regarding training in the Pharmacy sector concerns communication skills, which should be addressed in both university and post-university programs [40]. At the academic level, it would be helpful to introduce subjects associated with the pharmaceutical practice, such as behavioral sciences, new educational methodologies and techniques aimed both at improving written and oral communication towards the public, and to instruct on the most appropriate and productive way of educating the patient to health (behavioral sciences, communication, and educational techniques). More than one academic-level section should be implemented and added in order to give students the awareness and understanding of the profession as well as of its related social behaviors that influence the practice of pharmacy, for example by introducing courses focused on the study of interpersonal relationships [20].

The Accreditation Council for Pharmacy Education (ACPE) in the United States has set standards that new graduate pharmacists should possess in order to cover and fulfill their responsibility in communicating with patients. The US, therefore, as well as Australia, introduced a training course in social pharmacy, and the acquisition of communication skills has become a mandatory skill for the student in order to be qualified for the profession [15]. In Europe, in 2005 the European Council defined standards according to which all pharmacy graduates should have "adequate knowledge for the evaluation of scientific data on medicines in order to provide adequate information based on this knowledge" and must be able to provide "information and advice on medical products" [15]. In Denmark, for example, the study of social pharmacy is a compulsory

subject within the university curriculum. In Finland, the bachelor's Degree in pharmacy includes in its curriculum the study of how to set up communication, from counseling to patient education to health. This path also includes communication techniques (specifically to establish the interaction with the client) and the study of foreign languages [15,20].

In the process of counseling and of giving information on the use of drugs, it is often very complicated for the pharmacist to simplify the medical terminology into a language that is more confidential and accessible to the client. In order to guarantee students with the right skills to be able to conduct a clear and comprehensive dialogue with the patient, the tutors should include educational methods that stimulate the student to carefully reflect on the terms used and lead them to learn new terms that could be easier for the patient to understand. This should be followed by the integration of these terms into the practice of counseling sessions. Therefore, students should be given the opportunity not only to study theory at an academic level but also to learn how to put into practice the acquired communication skills. Students need a training to evolve into professionals with their own communication styles that could be then effective at the time of counseling and in all the other phases that characterize the dialogue between the pharmacist and the patient (listening, questioning, etc.). In a research carried out in Scotland more than half of the pharmacists considered that the achievement of further academic knowledge in order to be able to carry out the best practice in pharmacy must be a priority in view of the profession's future [22].

Considering what has just been said, it would be an added value for the study path in Pharmacy to include a training course based on a community advanced pharmacy practice experience. This project, called APPE, would therefore give students the opportunity to deepen their knowledge in order to perform optimally the additional services today offered in the pharmacies, together with the dispensation of the drug and advice. The APPE would also give the student the possibility of practically developing the communication skills studied at an academic level and being able to build an interpersonal relationship with the client [32]. In this regard, a study carried out in Scotland showed that pharmacists perceive to have educational shortcomings that constitute a barrier and limit their ability of providing effective services and a satisfactory advice to customers. 70% of them say that it is necessary to include training that educates pharmacists in being able to give the right advice on drug abuse, cessation of cigarette smoking, prevention of hepatitis/HIV, and 79.3% also emphasize issues related to chronic heart disease. In New Zealand, another study has shown that 80% of pharmacists have difficulties to provide alcohol screening and counseling [22]. As proof of what has just been said, data report that in Australia many patients claim that they have never received advice on how to prevent health problems (65.1%) or on the necessity of exercising and starting a diet (88.2%). In Sweden, many customers in pharmacies said they expected to receive more information and advice on the use of drugs (80.5%), some on general health topics such as diet (24%), others on smoking cessation (21%), and others on diseases and illnesses (20.5%) [22].

Considering what has just been said, universities should offer post-graduate training not only for those who want to take the path of research and industry, but also for those graduates who would like to work in the community pharmacies. In this way the new graduates would be allowed to achieve a specialization in the practice of the profession in the community pharmacy [20]. In Northern Ireland, with the aim of providing an education in the field of communication skills, a training divided into four sections was introduced as part of a systematic program of continuous training for pharmacists who work in the community pharmacies [40].

A further additional post-graduate course could instruct the graduate in a type of research different from the scientific one but based on surveys about drug use patterns, monitoring of adverse reactions, prescribing practices, the pharmacist's role in general, management of customers' data processing through computerized systems, health economics, legislation, and various aspects of the abuse and non-rational use of drugs. This type of research would be decisive in promoting the profession of pharmacist and the rational and correct use of drugs. In fact, thanks to this kind of post-graduate education, it could be possible to strengthen certain roles of pharmacist, such as knowing how to give correct information about medicines, including advice on pharmacokinetics, adverse reactions, and interactions regarding the use of a given drug [20].

Thanks to these changes in the educational field, the pharmacist would learn the right way to give information on medicines, he would practice advice and development of communication skills essential to ensure a professional future to pharmacist role in community pharmacy.

## 6. Conclusions

Nowadays the pharmacist's profession in the community pharmacy is not highly regarded since the commercial vision of the profession created for pharmacists the image of the shopkeeper and some pharmacists in some countries are no longer involved in dispensing, but only in providing the drug and advice [6]. Furthermore, the perception of the pharmaceutical profession in the community pharmacy is increasingly at risk especially because of the impact of the Internet on society, which is undermining the future of profession. The growing use of new services made available to the public, such as online, mail-order and telephone-order pharmacies, has deprived people of the physical encounter with the pharmacist in the pharmacy. Thus, by resorting to these means of artificial communication, personal communication between the pharmacist and the patient has been reduced or even disappeared.

Since one of the key roles of the pharmacist in the community pharmacy is focused on counseling, communication is essential for the pharmacist in order to fulfill his primary ethical duty, namely to protect and improve the health of each individual patient. Communication is also indispensable for the client in order to receive in an interactive, direct, clear, and detailed manner all the necessary information on the use of a given medicine, and to acquire the knowledge necessary to obtain the maximum benefit from the therapy to be performed. Communication is therefore the key and essential element in order to build a solid interpersonal relationship with the client in order to retain him, to make the consultancy process effective, and to strengthen the future of the pharmacist profession in the community pharmacy.

The World Health Organization (WHO), in its 1996 document called "Good Pharmacy Practice", emphasized both the importance of education to better train pharmacist and the need for a continuous extension of pharmacist's role in order to strengthen its potential [41]. To revitalize the pharmacist' role in community pharmacy, emphasis should be given to optimize and improve the communication between pharmacist and client. This goal can only be achieved with the implementation of adequate changes in the academic field, particularly the teaching at the curricular level of communication as the essential discipline for carrying out the pharmaceutical practice in the pharmacy. This educational project could consist in learning a method that could then allow the pharmacist to use in his daily practice a simpler, more direct and clear language compared to the classical scientific terminology that usually characterizes the dialogue between professionals and public.

An educational model that would shape the pharmacist in the most suitable way for the future perspectives could initially envisage a degree course common to all students wishing to become pharmacists. During this training course which could consist in three or four years, the student could address a basic study of scientific, pharmacological, and technological subjects (such as chemistry, biology, pharmacology, and pharmaceutical technology) that would guarantee him a general, sufficient and appropriate knowledge of these disciplines, and a training with the aim of giving him the necessary skills. Subsequently, the student, after the completion of the state exams, would obtain the title of Doctor graduated in Pharmacy. After obtaining the degree in three or four years, depending on the sector that he intends to undertake in his future career, the student could then follow a specialization course lasting one or two years that would give him the qualification of Doctor in Pharmacy specialized in a specific field such as the clinical sector, research, community pharmacies and so on. For those who want to work in the community pharmacies, in order to qualify them for the job, the specialization path of one or two years could include the presence in the curricula of: economic subjects, which include the study of marketing and the acquisition of skills in the field of business and management of the various business-administrative activities that constitute an aspect of the profession; subjects that help the pharmacist to have a better

communication with the client, such as the ability to develop a sociological and psychological understanding of the individual in the practice of counseling and drugs' dispensation.

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## References

1. Zebroski, B. *A Brief History of Pharmacy: Humanity's Search for Wellness*; Taylor & Francis: 2015.
2. Kelly, W.N. *Pharmacy: What It Is and How It Works, First Edition*; Taylor & Francis: 2002.
3. Zellmer, W.A. *The conscience of a pharmacist essays on vision and leadership for a profession*; AS of Health-System: Bethesda, 2002.
4. Anderson, S. *Making Medicines: A Brief History of Pharmacy and Pharmaceuticals*; Pharmaceutical Press: 2005.
5. Roberts, D. Dispensing by the community pharmacist: an unstoppable decline? *J R Coll Gen Pract* **1988**, *38*, 563-564.
6. Taylor, K.M.G.; Harding, G. *Pharmacy Practice*; Taylor & Francis: 2001.
7. Kremers, E.; Urdang, G.; Sonnedecker, G. *Kremers and Urdang's History of pharmacy*; Lippincott: 1976.
8. Perri, A. *Family Business and Technological Innovation Empirical Insights from the Italian Pharmaceutical Industry*; Springer International Publishing : Imprint: Palgrave Macmillan: Cham, 2017.
9. van Mil, J.F.; Schulz, M. A review of pharmaceutical care in community pharmacy in Europe. *Harvard Health Policy Review* **2006**, *7*, 155-168.
10. Savage, I. The changing face of pharmacy practice — evidence from 20 years of work sampling studies. *International Journal of Pharmacy Practice* **1999**, *7*, 209-219, doi:10.1111/j.2042-7174.1999.tb00972.x.
11. St George, B.N.; Emmanuel, J.R.; Middleton, K.L. Overseas-based online pharmacies: a source of supply for illicit drug users? *The Medical journal of Australia* **2004**, *180*, 118-119.
12. Gallagher, J.C.; Colaizzi, J.L. Issues in Internet pharmacy practice. *Ann Pharmacother* **2000**, *34*, 1483-1485.
13. Traulsen, J.M.; Almarsdottir, A.B. Pharmaceutical policy and the pharmacy profession. *Pharm World Sci* **2005**, *27*, 359-363.
14. Mead, N.; Bower, P. Patient-centredness: a conceptual framework and review of the empirical literature. *Social science & medicine (1982)* **2000**, *51*, 1087-1110.
15. Wallman, A.; Vaudan, C.; Sporrong, S.K. Communications training in pharmacy education, 1995-2010. *Am J Pharm Educ* **2013**, *77*, 36.
16. Cipolle, R.J.; Strand, L.M.; Morley, P.C. *Pharmaceutical Care Practice*; McGraw-Hill, Health Professions Division: 1998.
17. Ley, P.; Llewelyn, S. Improving patients' understanding, recall, satisfaction and compliance. In *Health Psychology: Process and applications*, Broome, A., Llewelyn, S., Eds. Springer US: Boston, MA, 1995; 10.1007/978-1-4899-3226-6\_5pp. 75-98.
18. Dickson, D.; Hargie, O.; Morrow, N.C. *Communication skills training for health professionals*, 2nd ed ed.; Chapman and Hall: London ; New York, 1996.
19. Anderson, S. The state of the world's pharmacy: a portrait of the pharmacy profession. *J Interprof Care* **2002**, *16*, 391-404.
20. WHO/Action Programme on Essential Drugs, a.U.o.P. *The Role of the Pharmacist in the Health Care System: Report of a Consultative Group*; 13-16 December 1988, 1994.

21. Agomo, C.O. The role of community pharmacists in public health: a scoping review of the literature. *Journal of Pharmaceutical Health Services Research* **2012**, *3*, 25–33, doi:10.1111/j.1759-8893.2011.00074.x.
22. Eades, C.E.; Ferguson, J.S.; O'Carroll, R.E. Public health in community pharmacy: a systematic review of pharmacist and consumer views. *BMC Public Health* **2011**, *11*, 582.
23. Weiss, M.C.; Booth, A.; Jones, B.; Ramjeet, S.; Wong, E. Use of simulated patients to assess the clinical and communication skills of community pharmacists. *Pharm World Sci* **2010**, *32*, 353–361.
24. Hughes, E.C. Education for a Profession. *The Library Quarterly* **1961**, *31*, 336–343, doi:10.1086/618926.
25. Freidson, E. *Profession of medicine: a study of the sociology of applied knowledge*; Dodd, Mead & Co.: New York, 1970; pp. 409.
26. Moullin, J.C.; Sabater-Hernandez, D.; Fernandez-Llimos, F.; Benrimoj, S.I. Defining professional pharmacy services in community pharmacy. *Res Social Adm Pharm* **2013**, *9*, 989–995.
27. SISF. Available online: [https://www.sisf.it/upload/SISF\\_cartadelfarmaco.pdf](https://www.sisf.it/upload/SISF_cartadelfarmaco.pdf) (accessed on 7/11/2019).
28. Denzin, N.K.; Mettlin, C.J. Incomplete professionalization: the case of pharmacy. *Social Forces* **1968**, *46*, 375–381.
29. Mossialos, E.; Mrazek, M.F. The regulation of pharmacies in six countries: report prepared for the Office of Fair Trading. **2003**.
30. EYU, F. *Le farmacie in Italia: prospettive e opportunità nel futuro contesto normativo*; Italy, 2016; p 66.
31. Tuckett, D.A.; Boulton, M.; Olson, C. A new approach to the measurement of patients' understanding of what they are told in medical consultations. *J Health Soc Behav* **1985**, *26*, 27–38.
32. McDonough, R.P.; Bennett, M.S. Improving communication skills of pharmacy students through effective precepting. *Am J Pharm Educ* **2006**, *70*, 58.
33. Lowe, N.M.; Bhojani, I. Special considerations for vitamin D in the south Asian population in the UK. *Ther Adv Musculoskelet Dis* **2017**, *9*, 137–144, doi:10.1177/1759720X17704430.
34. Ascione, F.J.; Kirscht, J.P.; Shimp, L.A. An assessment of different components of patient medication knowledge. *Med Care* **1986**, *24*, 1018–1028.
35. Myers, L.B.; Midence, K. Concepts and issues in adherence. In *Adherence to treatment in medical conditions*, Harwood Academic Publishers: Amsterdam, Netherlands, 1998; pp. 1–24.
36. Hargie, O.D.; Morrow, N.C.; Woodman, C. Pharmacists' evaluation of key communication skills in practice. *Patient Educ Couns* **2000**, *39*, 61–70.
37. Nutbeam, D. Health literacy as a public health goal: a challenge for contemporary health education and communication strategies into the 21st century. *Health Prom. Int.* **2000**, *15*, 259–267, doi:10.1093/heapro/15.3.259.
38. Kripalani, S.; Jacobson, K. Strategies To Improve Communication Between Pharmacy Staff and Patients: Training Program for Pharmacy Staff. Available online: <https://www.ahrq.gov/health-literacy/pharmhealthlit/pharmlit/pharmtrain.html> (accessed on 7/11/2019).
39. Freebody, P.; Luke, A. Literacies programs: Debates and demands in cultural context. *Prospect: An Australian Journal of TESOL* **1990**, *5*, 7–16.
40. Morrow, N.C.; Hargie, O.D.W. Communication as a Focus in the Continuing Education of Pharmacists. *Studies in Higher Education* **1986**, *11*, 279–288, doi:10.1080/03075079.1986.10721165.
41. WHO. *Good Pharmacy Practice in Community and Hospital Pharmacy Settings*; 1996.