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AN INVESTIGATION OF NON-PRESCRIPTION MEDICINE SUPPLY IN COMMUNITY PHARMACIES IN HANOI, VIETNAM

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Abstract

Supplying safe, appropriate and effective non-prescription medicines for customers in community pharmacies is a key role of pharmacists and pharmacy assistants in every country. However, in low and middle-income countries, including Vietnam, the quality of professional services from pharmacies is limited, unclear and has often been questioned. There is limited research about the real situation surrounding non-prescription medicine supply in community pharmacies in Vietnam. The factors that influence the supply of non-prescription medicines to customers and to what extent the service provision could be improved for the benefit of pharmacy customers needs to be explored. This study aimed to investigate non-prescription medicines supply in community pharmacies in Hanoi, Vietnam in order to provide scientific evidence about the situation.

A mixed method approach was used in this study to provide valuable insights into what occurs during pharmacy staff-customer transactions. Following ethical approval, fieldwork observations were undertaken in five community pharmacies over a five week period from March to May 2011, this was followed by 22 semi-structured interviews with eight pharmacists and 14 pharmacy assistants who had been observed. The interviews enabled participants to express their perceptions and experiences regarding the supply of non-prescription medicines to customers in community pharmacies. Survey research, using a structured questionnaire, was conducted with 505 pharmacy customers who were asked to evaluate the pharmacy service that they had just received. Results from the three sources were triangulated and validated by comparing, contrasting, complementing and confirming in order to provide a better understanding of non-prescription medicines supply and make recommendations for improving the service provision in community pharmacies in Vietnam.

The findings from this study indicate that factors influencing the supply of non-prescription medicines in community pharmacies include attitudes of pharmacy staff, their medical and pharmaceutical knowledge and their communication skills. The influence of the pharmacy

settings, customer factors such as customers' complex and diverse demands, the irrational use of medicines, using medicines following the suggestions of others, and tough customers were all factors that impacted on staff-customer transactions. Being conveniently located, the pharmacy offering reasonably priced medicines and being a large pharmacy with a good reputation were also considered important impacting on customer selection of community pharmacy.

The results of this research show that there are limitations in pharmacy service provision and there is a discrepancy between pharmacy staff perceptions and actual practice in terms of attitudes. Poor performance, in many situations, did not come from a lack of knowledge; rather it appeared to result from the negative attitudes of pharmacy staff. Such negative attitudes of pharmacy staff are likely to be related to their focus on just short-term profit rather than focusing on a balance between short-term and long-term benefits for both customers and pharmacies. Positive attitudes, taking greater responsibility, customer loyalty and long-term benefits were ignored. Poor performance of pharmacy staff, to some extent, was also affected by their education and training. Some educational organisations have commercialised their training activities and paid too much attention to the quantity of graduated students rather than the quality of their education and training.

This study has important implications for the improvement of the responsible supply of non-prescription medicines in community pharmacies in Vietnam including the identified needs for attitude interventions and training. New subjects should be added to the pharmacy students' curricula and training should be developed for pharmacy assistants in areas such as communication skills, customer psychology, selling skills and patient safety. For pharmacists and pharmacy assistants, gaining treatment experience from customers' feedback and keeping up to date with new information should be a continuous activity. Close co-operation between health authorities, policy makers and researchers needs to be developed in conducting further research and implementing appropriate policies, in order to improve the service provision in community pharmacies in Vietnam.

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PUBLICATIONS

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List of Terms and Abbreviations

ADRs	Adverse Drug Reactions
CPs	Community Pharmacies
GDP	Gross Domestic Product
GP	General Practitioner
NHS	National Health Service in England
NICE	National Institute for Health and Care Excellence
NPMs	Non-prescription Medicines
OTC	Over The Counter
PSA	Pharmaceutical Society of Australia
QCPP	Quality Care Pharmacy Program
QCPSC	Quality Care Pharmacy Support Centre
RPSGB	Royal Pharmaceutical Society of Great Britain
UK	United Kingdom
USD	United States Dollar
WHO	World Health Organisation

This thesis employed terminologies “pharmacist”, “pharmacy assistant” and “pharmacy staff” in the context of community pharmacy in Vietnam. Whilst the term “pharmacist” is clearly well-known, the term “pharmacy assistant” is defined in this thesis as a person who is working in a community pharmacy, selling non-prescription medicines, assisting pharmacy owners and pharmacists in performing pharmacy’s tasks. The term “pharmacy staff” includes both pharmacists and pharmacy assistants.

CHAPTER ONE: INTRODUCTION

1.1 Introducing the study

Supplying safe, appropriate and effective non-prescription medicines for customers in community pharmacies is a key role of pharmacy staff in every country [1, 2]. However, in low and middle-income countries, including Vietnam, the quality of professional services from pharmacies is limited, unclear and has often been questioned [3]. Smith (2009) suggested that further research in low and middle-income countries is required to identify the environmental, organisational, cultural or other contextual factors that may be pre-requisites for the success of any interventions, and how the quality of local pharmacy services can be improved [4]. In the United Kingdom, there has been a considerable amount of research exploring the supply of non-prescription medicines from community pharmacies [5-7]. Improving the supply of non-prescription medicines in community pharmacies has been considered and studied in many developed countries including United Kingdom [8-12], Australia [13-19], Germany [20, 21] and Spain [22]. In contrast, there is limited research about the supply of non-prescription medicines in community pharmacies in Vietnam. So, conducting research to investigate non-prescription medicines supply in community pharmacies in Vietnam is needed.

This chapter of my thesis provides an introduction to my research study, including the origins and development of my PhD as well as the structure of this thesis.

I have been involved in the area of community pharmacy for the last ten years as part of my role as a researcher and university lecturer in social pharmacy and pharmacy practice at Hanoi University of Pharmacy. Over this period of time, I have observed the changes within the pharmacy environment, and experienced some of the issues in pharmacy practice in community pharmacies in Vietnam. I am interested in the improvement of pharmacy practice and this raised a question in my mind as to what factors affect pharmacy service delivery and how we can improve the quality of pharmacy services in order to provide better care for customers. This ambition encouraged me to pursue my PhD degree in the United Kingdom and conduct a research project in the area of pharmacy practice in community pharmacies in Vietnam.

1.2 Structure of the thesis

This study is divided in to seven chapters. The current chapter (**CHAPTER 1**) describes the background of the study and presents the aims and objectives. **CHAPTER 2** reviews the literature on non-prescription medicine supply, including the health care system in Vietnam; the historical development and the role of community pharmacies in Vietnam; non-prescription medicine supply and an overview of quality of care; the supply of non-prescription medicines across the world; and the supply of medicines in community pharmacies in Vietnam.

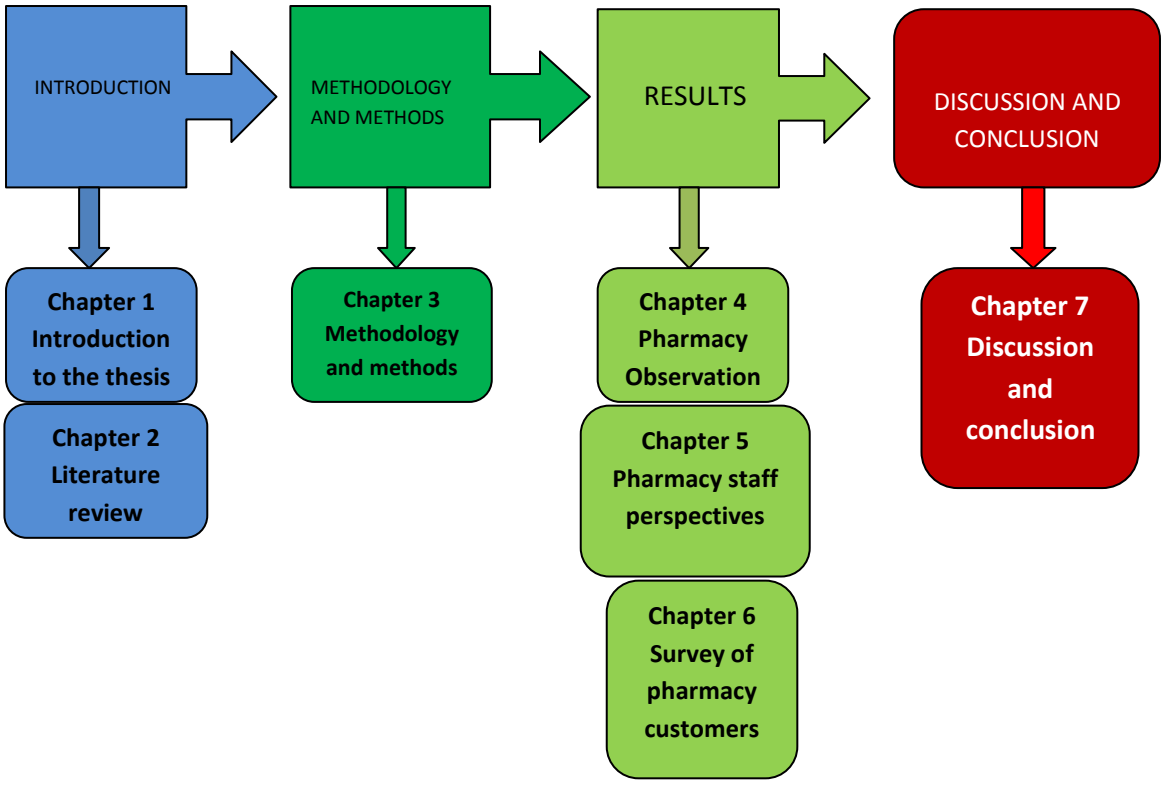

Figure 1- 1 Structure of the thesis

CHAPTER 3 describes the methodology underpinning this study. The choice of mixed methods is explained and issues of validity and reliability are discussed. The data collection process and methods of analysis are given in detail.

CHAPTER 4 describes the observation findings including the pharmacy settings and factors which impact on the supply of non-prescription medicines in community pharmacies.

CHAPTER 5 presents the pharmacists' and pharmacy assistants' perceptions of non-prescription medicine supply in community pharmacies, the factors affecting the transactions between pharmacy staff and customers and how the service can be improved.

CHAPTER 6 presents an analysis of pharmacy customer opinions and evaluation of pharmacy service provision in community pharmacies regarding the supply of non-prescription medicines. The findings are used to validate and confirm the results from observation and interview studies.

CHAPTER 7 discusses and integrates the results from observation (chapter 4), interview (chapter 5) and questionnaire studies (chapter 6). The findings are compared in order to validate and expand the results for the whole research project. Finally, the implications of the study are discussed and future research is recommended in order to improve non-prescription medicine supply in community pharmacies in Vietnam.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The purpose of this chapter is to review the literature relevant to the supply of non-prescription medicines in community pharmacies and provide the background for conducting a study to investigate the non-prescription medicine supply in community pharmacies in Vietnam.

This research project was conducted in community pharmacies in Hanoi, Vietnam and in the context of Vietnamese health care and pharmaceutical systems. A review of the literature about the health care system in Vietnam is presented and discussed in order to provide underpinning context for further understanding about the activities in community pharmacies and customers' reactions. The structure of the health care system in Vietnam is presented; the expenditure for health care and the health care financing as well as the insurance system are discussed. Furthermore, the historical development and the role of community pharmacies in Vietnam are presented in order to support the research.

In addition, this research project focuses on the supply of non-prescription medicines. So the fundamental information about non-prescription medicines such as definitions of non-prescription or over-the-counter (OTC) medicines, criteria to classify medicines as OTC and standards for the supply of non-prescription medicines are also presented. Finally, quality of care is discussed in the context of health care in community pharmacies.

2.2 The health care system in Vietnam

Vietnam is located in Southeast Asia and had a population of almost 88 million in 2011 [23], by population the third largest country in Southeast Asia and 13th largest in the world. From 2000 to 2008, its economy grew at an average annual rate of 7.5% [24] - one of the highest rates in Asia. Public spending on health in Vietnam has been increased in recent years and this figure stood at 7.2% of GDP in 2009 [25]. With the economic development and regard to the health sector, Vietnam has gained significant improvements in health care (the detailed information can be seen in Appendix one).

During the last two decades, Vietnam has obtained a large number of achievements in health care. Life expectancy has been increased from 55 years for women and 61 years for men in 1986 [26] to 76 years for women and 72 years for men in 2011 [23]. The rate of malnutrition in children under five years of age had fallen to 16.3 per cent, while the infant mortality rate was 0.1 per cent in 2011 [23]. Health insurance covered 68 per cent of the population in 2012 [27], twice the rate in 2001.

2.2.1 Structure of health care system in Vietnam

The health care administration in Vietnam is organised in a four-level system (Figure 2-1). According to 2010 statistics, Vietnam has 63 provinces/cities, 687 districts/precincts, and 11,035 communes. The top level is the Ministry of Health – the main national authority in the health sector – which formulates and executes health policy and programs in the country. At provincial level are 63 provincial health bureaus which follow Ministry of Health policies but are in fact parts of the provincial local government under the Provincial People's Committees. The primary level – or basic health network – includes district health centers, commune health stations and village health workers [28]. The country has 1,040

public hospitals with more than 128,000 beds, and 135 private hospitals [23]. Ninety-five percent of communes have health stations, with more than 95% having skilled birth attendance. Human resources for health is limited and imbalanced; there are 34.7 health workers per 10,000 people, among whom 6.5 are medical doctors, 1.2 are pharmacists, and 8 are nurses [29].

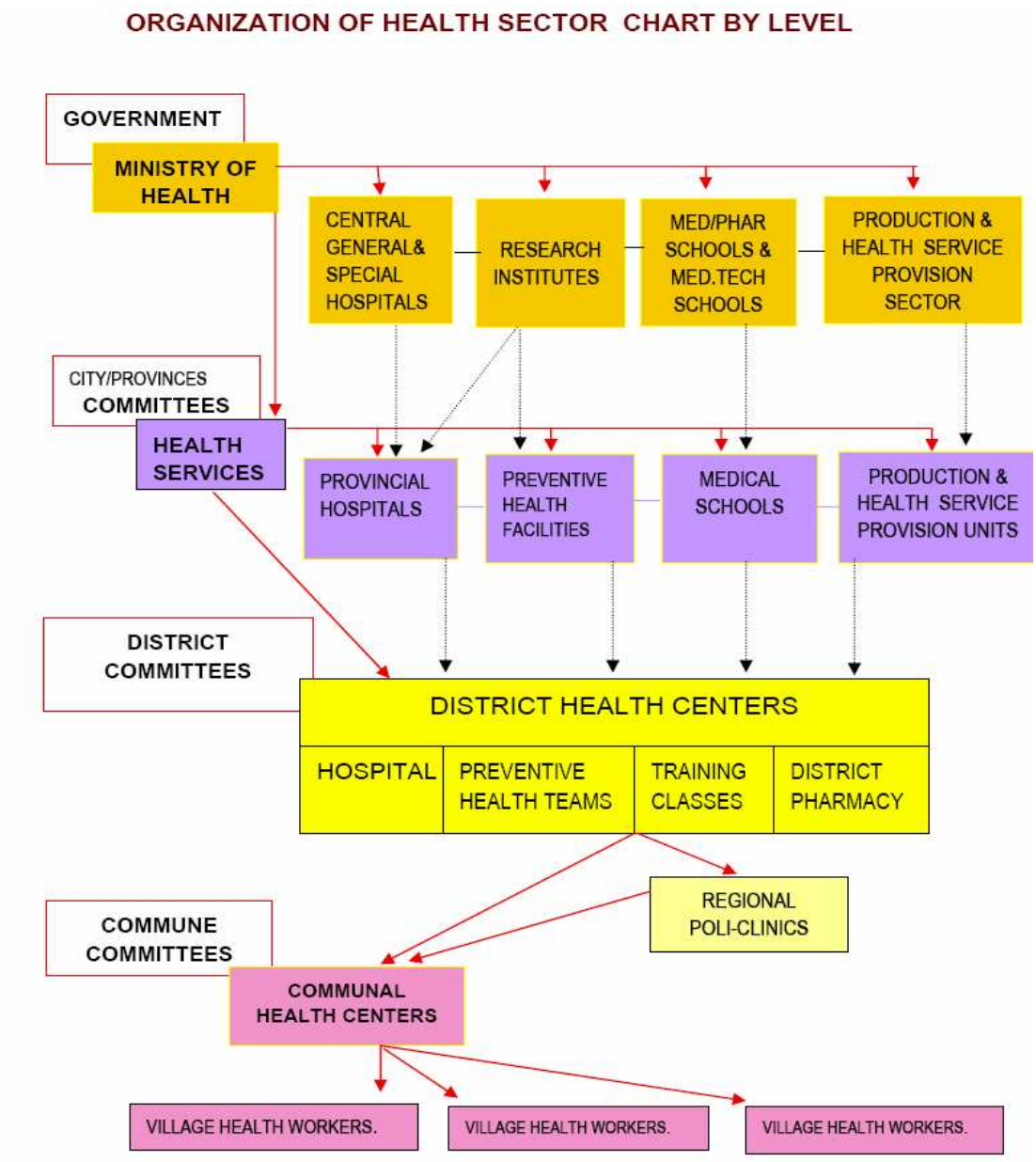

Figure 2- 1 Structure of health care system in Vietnam [23]

The health system in Vietnam is a mixed public-private provider system as a result of the economic reform in the late 1980s, in which the public system still plays a key role in health care, especially in prevention, research and training [30]. The Vietnamese healthcare system is dominated by public hospitals as they are heavily subsidised. Public hospitals in Vietnam receive their income from three main sources: the government, fee income received from patients and the health insurance agency. Financial resources from the state budget allocation and health insurance usually form 60-70% of public hospital revenue. In addition, public hospitals have long history and enjoy a good reputation with the public as having the best trained, experienced doctors in the country. In contrast, private hospitals in Vietnam have a short history. The oldest ones were established in 1997. Public perceptions about private hospitals are that they provide better caring services but do not have such good doctors as their public counterparts. There were 135 private hospitals from a total of 1184 hospitals in Vietnam in 2011. Private hospitals provided 4.2% and 5.1% of total hospital system's inpatients and outpatients in 2011, respectively [27]. Overall, there are around 200,000 health staff of all categories in Vietnam, including doctors, pharmacists, nurses, nurse aids, midwives and technicians [31]. The system delivered 205 million consultations, 116 million inpatient stays, and 32.8 millions outpatient appointments in 2010 [27].

Vietnam has also been developing a grassroots health network. This network decentralises care at three levels: hamlets/villages, the commune/ward/ town, and district. Until 2008, health staff were available in 100% of communes and wards, with access to doctors in 65% of communes, midwife or obstetric/paediatric doctor's assistant in 93% of communes and health workers in 87% of villages [32].

Like many developing countries, Vietnam has experienced a significant decrease in the proportion of communicable diseases in recent years, they accounted for 56% of all diseases in 1976, and this dropped to 52% in 1986 and further to 25% in 2008. In contrast, there has also been an increase in non-communicable, lifestyle-related diseases, injuries and accidents leading to escalating the health care costs [33]. There has been a significant reduction or eradication of some vaccine-preventable diseases such as polio, new-born tetanus, etc., whilst the leading causes of infectious mortality like tuberculosis and HIV/AIDS have rapidly increased [27], the number of people living with HIV in 2005 was 12 times that in 1995 [32]. In recent years, Vietnam has also experienced newly emerging infectious diseases such as severe acute respiratory syndrome (SARS), Japanese encephalitis and avian influenza (H5N1)[34]. Lifestyle changes due to increasing household income, coupled with an aging population are deemed responsible for the increasing burden of non-communicable diseases, injuries and accidents. The most common non-communicable diseases are found among older people include cardiovascular disease, diabetes and cancer whilst nutritional disorders, asthma and vision disorders are commonly seen among children [32, 34]. In 2010, transport accidents and hypertension were among the leading causes of non-communicable disease morbidity. Intra-cranial injuries with a rate of 2.82 per 100,000 people overtook communicable diseases as the most common cause of mortality [35].

2.2.2 Health care expenditure

Over the last two decades, Vietnam has witnessed high economic growth and improvements in the standard of living. The GDP per capita was 1064 USD in 2009 [28], with total expenditure on health care increasing significantly in the last decade from 25 USD per person in 2003 to 109 USD in 2012 and is predicted to continue to increase at a similar rate, see Figure 2-2 [25].

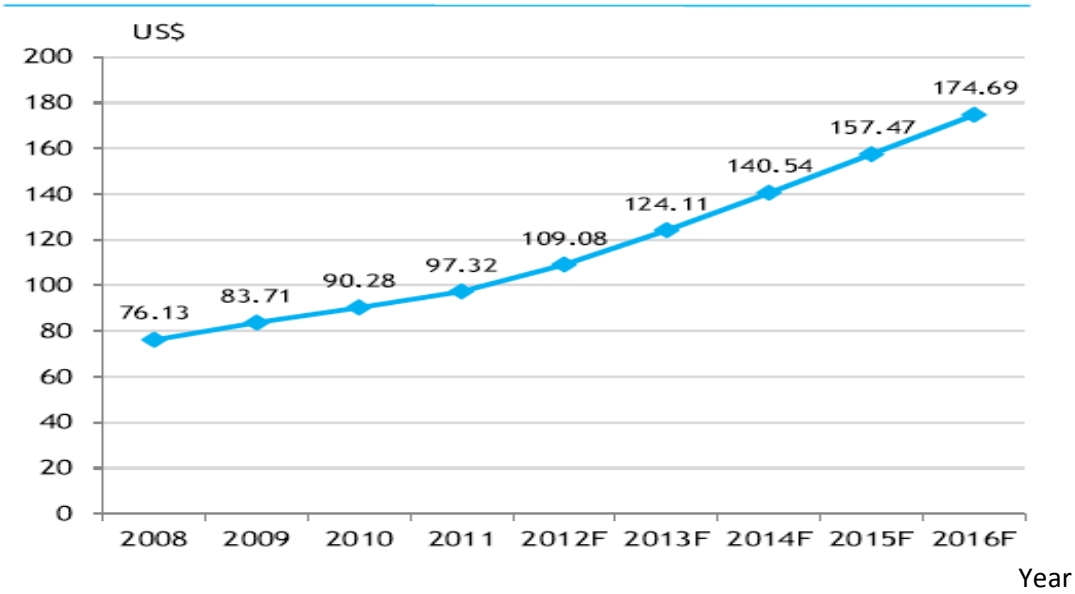

Figure 2- 2 National health expenditure per capita in Vietnam (2008 – 2016) [25]

F: this is predicted or forecast

Vietnam has a relatively high national health spending over GDP and it accounted for 7.3% of GDP in 2011. In terms of the total health care market, the size of Vietnamese healthcare market by the end of 2011 could be around of 9.3 billion USD [27]. Total health spending is also growing rapidly during the period 2006-2011, the annual growth rate of the Vietnamese health care market was 12% and it is expected to grow faster, around 15% annually in the next five years [27].

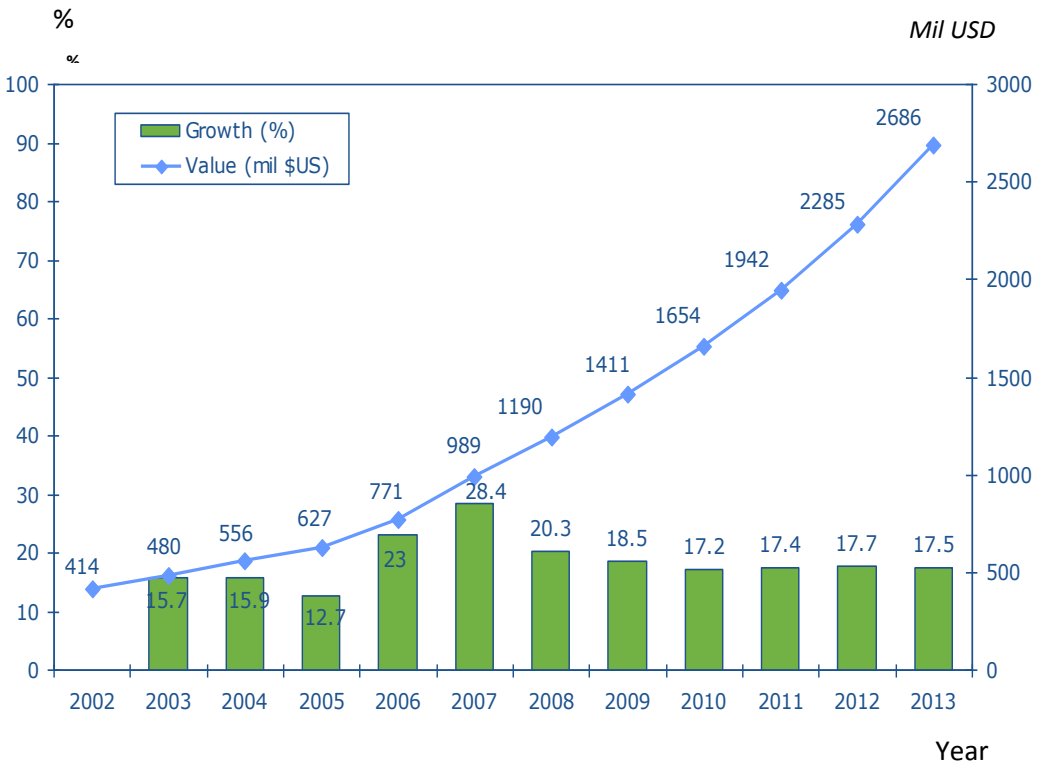

Figure 2- 3 Vietnamese pharmaceutical market value and growth rate (2002-2013)

Source: Ministry of health [36]

In the pharmaceutical market, the total drug purchases have increased dramatically over the last ten years. The total revenue of pharmaceutical market was nearly five hundred million USD in 2003 and had increase to over 2.2 billion USD by 2012, see Figure 2-3 [36]. Total medicine sales are the sum of revenues generated by domestic and foreign medicine products for both generic and branded medicines including all non-prescription medicines through hospitals and community pharmacies.

Medicine purchases per capita have also increased significantly over the last decade (see Figure 2-4).

Figure 2- 4 Drug purchases per capita in Vietnam (2000-2010)

Source: Ministry of health of Vietnam [36]

In terms of expenditure on medicines, the drug purchases per capita have increased dramatically during the last decade from less than 6 USD in 2000 to over 22 USD per capita in 2010 [36].

Overall, health care expenditure, both by government and individuals, in Vietnam has increased significantly during the last two decades as a result of economic growth, an aging population and lifestyle changes.

2.2.3 Health care financing and insurance system

The health financing system in Vietnam includes subsidised state health services and services based on payments from users. The emergence of a market economy, the epidemiological transition, the increase in household income and the overall direction of reforms in the health sector have resulted in a fundamental transformation of health finance in Vietnam [31, 37]. Due to the reforms during the implementation of the renovation policies in the late 1980s, health financing in Vietnam made a transition from a tax-based system to a system with multiple sources of financing. Vietnam's public funded health services have shifted to a mixed health financing system [38]. The major sources of financing are general government revenues, social health insurance funding and out-of-pocket payments by individuals. Other minor sources of funding are overseas development assistance and private health insurance. In recent years, social mobilisation of health activities has been stimulated by the government to mobilise all available resources in society. Social mobilisation is the promotion and facilitation of the extensive involvement of the people and entire society in the development of health [25].

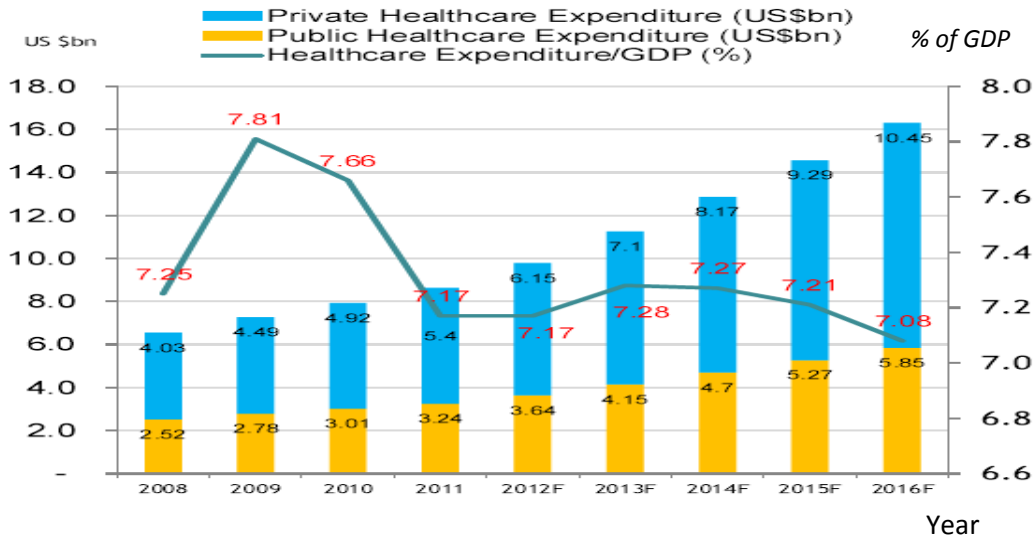

Figure 2- 5 Health expenditure in Vietnam (2008-16); private, public and as a % of GDP [25]

F: this is predicted or forecast

Government expenditure on health accounts for around one-third of total health expenditure in Vietnam, see Figure 2-5 [25]. In terms of private expenditure on health, out-of-pocket expenses are the major source of funding accounting for over ninety per cent of expenditure in 2009 [31]. Household spending on health can be divided into pay user fees (official and unofficial) in health facilities (30%) and medicines and medical consumables purchased (70%) [31].

Since 2006 the Government has purchased compulsory health insurance for the poor in accordance with Decree No. 63/2005/ND-CP [28]. Although public expenditure for health care has increased in recent years, it is still limited in what it can provide [34]. Expenditure from the health insurance fund for health care is very low, less than one-fifth of the total health care expenditure in 2008 [25]. Out-of-pocket expenses of patients remain the main source of the health care income in Vietnam [39, 40], and it was approximately 56% in 2007 [41, 42]. Although this proportion has declined in the recent years from 80% in 2000 to 52% in 2008 [43, 44], This is considered a high proportion in comparison with the UK where the out-of-pocket expenses accounted for 12% of total expenditure on health in 2005 [45].

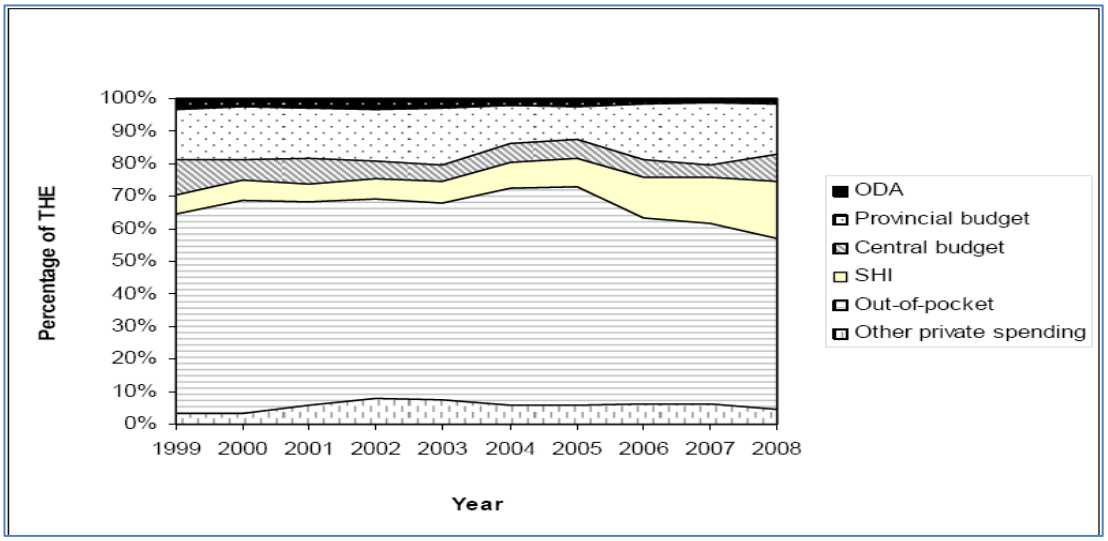

Figure 2- 6 Trends in health financing in Vietnam, 1999-2008 [25]

THE: total health expenditure; SHI: social health insuarance; ODA: Official development assistance

Health insurance system

In 1992, the Vietnam government launched a National Health Insurance programme. At the time, it comprised two schemes: one compulsory, for workers in the public sector, and the other voluntary [28]. The level of the premium for public-sector workers in the period 1992-2009 was 3% of their salary, of which employers contributed 2% and employees contributed 1%. The voluntary scheme was aimed at the rest of the population. During this period, a flat premium was applied to the private sector, without a government subsidy [28]. Since 2002, in order to mitigate the growing out-of-pocket health spending, the Government has allocated money to the Health Care Fund for the Poor, which buys health insurance cards for the poorest people and selected ethnic minorities [46, 47]. Those who do not qualify for the poor find but have a limited income (the near-poor) are also to be subsidised to the tune of 50 per cent of the voluntary health insurance premium [31, 34]. Consequently, the percentage of people with health insurance has increased from 39% in 2004 to 53% in 2008. Additionally the proportion who receive free health insurance has increased from 15% in 2004 to 21% in 2008 [31].

The Health Insurance Law came into effect on 1st July 2009, and requires all citizens to have health insurance by 2014 [27]. Contributions also increased at the same time with formal-sector workers payments increasing from 3% to 4.5% (of which employers contribute 3%, employees contribute 1.5%). The legislation also stipulated that the level of health insurance would be sufficient to cover at least 80% of costs for medicines and health care services [28]. Since 2008, under the Government has subsidised 100% of the premiums for the very poor and for children under six years of age, it continues to subsidise at least 50% of the premium for the "near-poor" and now subsidies at least 30% of premiums for school children, students and the rest of the informal sector. In 2012 it was estimated that the

proportion of Vietnamese people covered by health insurance was 68% [27]. However, the medicines eligible for public health insurance reimbursement are limited to a government list of medicines used in public health facilities [48].

Co-payment: In January 2010 a new health insuarance law introduced co-payments for Government health services at district, secondary and tertiary level as well as for medicines from the reimbursement list [48]. This co-payment applies to all insured people except high ranking police officers, meritorious people and children under six years of age. The level of co-payment varies from 5% for pensioners and some of the poorest people to, whilst 20% of co-payment applies to the remaining membership groups. Insured patients who bypass lower referral facilities have to pay a higher co-payment rate, depending on the level at which they access health care: it is 30% at district hospitals, 50% at provincial hospitals, and 70% at central hospitals [27, 28].

Out-of-pocket payments for medicines: Despite the social health insurance reimbursement for medicines, insured patients nevertheless have to buy many of their medicines in community pharmacies [43]. There are a number of reasons for this including: not all medicines are reimbursed; hospitals frequently have temporary shortages [48] and doctors may receive incentives from pharmaceutical companies to prescribe medicines that are not on the reimbursement list. This out-of-pocket expenditure on medicines undermines the public view of the risk-protection function of social health insurance [28, 49].

2.3 Community pharmacy in Vietnam

2.3.1 Historical development

In Vietnam, the first pharmacy opened as early as 1865 in Saigon (now called Ho Chi Minh City) by French colonists Lourdeau's pharmacy [50]. At that time, Vietnam was a French colony and all the pharmacies were run by colonials [50]. During last century, Vietnam has suffered a long period of war, which has led to limitations in the health care system. Consequently, community pharmacy services did not develop during that period. In the 1980s, the state played an important role in the health care system in Vietnam and state-owned pharmacies were the main source of medicines [51].

Since the introduction of the renovation policy in 1987, health care services have been liberalised, medical practitioners and pharmacists now have the right to open private hospitals and private pharmacies [52]. In the 1990's, the health sector in Vietnam transformed rapidly from a fully state run and financed health care system towards more private financing and delivery of health care [53]. This process introduced changes in public health facilities and have effectively transformed Vietnam's near universal, publicly funded and provided health service to a largely unregulated private-public mixed system [54]. As a result, alongside state pharmacies managed by state-owned companies, there have been an increasing number of private pharmacies opening. Economic reforms have changed the health care system during the last two decades and private pharmacies now provide the majority of medicines both non-prescription and prescription [55]. Private pharmacy plays an important part in the health care system in Vietnam and the government is attempting to steer the private sector in a direction where it can optimally contribute to the public health of the country [53]. By the end of 2010, there were 10,250 community pharmacies (CPs) across the country [56], similar to the number of CPs in England (10,691)[57].

2.3.2 The role of community pharmacies in Vietnam

In Vietnam, like many developing countries, pharmacies are often the first place people go for common health issues services [58]. In low and middle-income countries, such as Vietnam, pharmacies play an important role in supplying medicines as well as giving advice and counselling about medicines and health for pharmacy customers [1]. Olson, et al. explored the views of health professionals and consumers about the role of pharmacy personnel and the pharmacy service in Hanoi, Vietnam and found that sometimes the pharmacy staff might play a dual role as both doctor and pharmacist in their daily practice [59]. It means that pharmacists might have a dual role as they can prescribe prescription medicines for customers as a doctor and supply medicines as a pharmacist.

In Vietnam, community pharmacies play an important role in supplying medicines and providing health advice for the community. Each community pharmacy is required to be operated by a pharmacist. Community pharmacists provide both prescription and non-prescription medicines for customers. There is a legal requirement for the pharmacist to assess the appropriateness of the medicines, the dose and other cautions of medications. They can delegate other stages of preparation or counselling to pharmacy support staff. However, the pharmacist remains legally responsible for each medicine dispensed and supplied. Community pharmacists are aided by pharmacy support staff (pharmacy assistants) whose activities include the sale of non-prescription medicines as well as advising patients on self-limiting illnesses and basic healthy lifestyle. They may also be involved with the receipt of prescriptions and handing out of dispensed medicines.

2.4 The overview of non-prescription medicines

2.4.1 Definitions of non-prescription medicines

This research project focuses on non-prescription medicines in terms of the supply of these medicines in community pharmacies. The medicines are also referred to as over-the-counter (OTC) medicines; however the term non-prescription is used throughout this thesis for simplicity. Before starting a review of the literature, it is necessary to identify what non-prescription medicine means and explore existing standards for supplying of such medicines. There are several definitions of non-prescription medicines which related to either the legal situation or the type of medicines which can be supplied as illustrated by the US Food and Drug Administration (FDA) and WHO definitions below:

"A*n OTC is a pharmaceutical product, drug, or medicinal specialty whose dispensing or administration does not require medical authorization, and it can be used by the consumers under its own initiative and responsibility to prevent, relieve or to treat symptoms or mild diseases and that its use, in the form, conditions and authorized dosages are safe for the consumer",* World Health Organisation (WHO) [60].

"A*re medicines that may be sold directly to a consumer without a prescription from a health care professional, as compared to prescription drugs, which may only be sold to consumers possessing a valid prescription"*, US Food Drug Administration [61].

2.4.2 Criteria to classify drugs as non-prescription medicines

According to WHO [60], non-prescription medicines are those which fulfil the criteria for efficacy and safety as described in Box 2-1 below:

Box 2-1. Criteria to classify drugs as non-prescription medicines

Characteristics
Drugs which are effective and safe in order to be used in the prevention, relief of symptoms, or treatment of mild diseases, and are easy to identify; Drugs with broad safety range, in such a way that the voluntary or involuntary administration of dosage higher than those recommended, or where are not indicated, does not represent a serious danger for the health of the patient; Have a broad dosage margin, so it can be adapted at the age and weight of the patient; Drugs that does generate tolerance or dependency when are used and that are not susceptible of abuse; When it is used in accordance with the instructions do not mask serious diseases, nor delay the diagnosis and treatment of a condition that requires of medical care; Drugs of safe utilization in all the age groups of the population; Dosage forms usually of oral or topical route, of easy management and storage and that are not of IV or IM administration; Drugs whose active ingredient has been marketed under medical prescription at least 5-10 years, time during which has demonstrated a favourable index of safety and efficacy through the data of drug surveillance; The adverse reaction reports have not increased during the marketing period.

2.4.3 Standards for the supply of non-prescription medicines

Non-prescription medicines cover a wide range of medicines and conditions which can be treated. Despite the safety and efficacy requirements laid down by WHO (see previous section), these medicines need to be sold with care and consideration of the patients and their conditions. In 2009, the RPSGB issued standards for the supply of non-prescription medicines [62]. They not only consider the appropriateness of any supply but also the information and advice to patients together with the training requirements for pharmacy staff [Box 2-2]:

Box 2-2. RPSGB standards for the supply of non-prescription medicines

Standards
Procedures for sales of OTC medicines enable intervention and professional advice to be given whenever this can assist the safe and effective use of medicines. Pharmacy medicines must not be accessible to the public by self-selection. When a patient or their carer requests advice on treatment, sufficient information is obtained to enable an assessment to be made of whether self-care is appropriate, and to enable a suitable product(s) to be recommended. If a sale is not considered suitable, the reasons for this are explained to the patient and they are referred to another healthcare professional where appropriate. When an OTC medicine is supplied, sufficient advice to ensure the safe and effective use of the medicine is provided. You must take into account any other specific information such as safe storage, or short expiry dates that the patient may need to be counselled on. All staff involved in the sale or supplies of OTC medicines are trained or are

undertaking the training required for their duties, and are aware of situations where referral to the pharmacist or other registered healthcare professional may be necessary. Consideration must be given to the types of OTC medicines that may require the personal intervention of a pharmacist e.g. those that have recently become available without prescription, those that may be subject to abuse or misuse, or where the marketing authorisation for non-prescription use is restricted to certain conditions and circumstances.

All persons involved in the sale of OTC products are aware of the abuse potential of certain OTC medicines and other products. You must be alert to requests for large quantities and abnormally frequent requests and refuse to make a supply where there are reasonable grounds for suspecting misuse.

Particular care is exercised when supplying products for children, the elderly and other special groups or individuals, or where the product is for animal use.

Requests for certain medicines such as emergency hormonal contraception are handled sensitively and the patient's right to privacy and confidentiality is respected

Any information provided about OTC medicines is up to date, accurate and reliable

You keep up to date with developments regarding new products and policies for health promotion and are aware of local and major national and topical health promotion initiatives.

However, there have not existed the standards or guidance regarding the supply of non-prescription medicines in community pharmacies in Vietnam.

2.5 Quality and quality of care

2.5.1 Basis concepts in quality and quality of care

My research is focused on the supply of non-prescription medicines and the quality of pharmacy services provided for customers in community pharmacies. According to WHO [63, 64], there are many definitions of quality used both in relation to health care and health systems. Overviews of the most frequently applied definitions of quality of care are presented in the Table 2-3 below.

Table 2- 1 Definitions of quality of care

Author/Organization	*Definition*
Donabedian (1980)	Quality of care is the kind of care, which is expected to maximize an inclusive measure of patient welfare, after one has taken account of the balance of expected gains and losses that attend the process of care in all its parts.
IOM (1990)	Quality of care is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.
Department of Health (UK) (1997)	Quality of care is: • doing the right things (what); to the right people (to whom) • At the right time (when); and doing things right first time.
Council of Europe(1998)	Quality of care is the degree to which the treatment dispensed increases the patient's chances of achieving the desired results and diminishes the chances of undesirable results, having regard to the current state of knowledge.
WHO (2000)	Quality of care is the level of attainment of health systems' intrinsic goals for health improvement and responsiveness to legitimate expectations of the population.

Notes: IOM: Institute of Medicine; WHO: World Health Organization.

Donabedian [64] commented that quality of care related closely to patient welfare, whilst definition from Institute of Medicine (IOM) and the Council of Europe [65] focussed on increasing the likelihood of being desired health outcomes. Overall, the desired outcomes or patient welfare are considered as indicators of the quality of care from all of these definitions. In contrast, Department of Health (UK) describes the process to achieve quality of care including: doing the right things, to the right people, at the right time and doing things right first time. The WHO definition [64] focusses on health care systems rather than individual care. Many dimensions within these broad definitions have been examined in the health literature and these are discussed in the next section.

2.5.2 Dimensions of quality of care

The most frequently used dimensions in health care include: effectiveness, efficiency, access, safety, equity, appropriateness, timeliness, acceptability, patient responsiveness or patient-centeredness, satisfaction, health improvement and continuity of care. The dimensions of effectiveness and efficiency are included in all definitions of quality of care analysed here. The goal of using those dimensions is to maximise the output for a given input, or conversely to minimise the input for a given level of output [64]. Definitions of quality of care vary in the dimensions included and these are compared in Table 2-4 below.

Table 2- 2 Dimensions of quality of care [63, 64]

	Donabedian (1988)	*Maxwell (1992)*	*Department of Health (UK)(1997)*	*Council of Europe (1998)*	*IoM (2001)*	*JCAHO (2006)*
Effectiveness	X	X	X	X	X	X
Efficiency	X	X	X	X	X	X
Access	X	X	X	X		X
Safety	X		X	X	X	X
Equity	X	X	X		X	
Appropriateness	X	X	X	X		X
Timeliness			X		X	X
Acceptability		X		X		
Responsiveness		Respect Choice Information			Respect Patient-centred	
Satisfaction			X	X		
Health improvement	X		X			
Continuity					X	
Other		Technical competence relevance		Efficacy		Availability Prevention/early detection

Sources: Donabedian 1988; Maxwell 1992; Department of Health 1997; Council of Europe 1998; IOM 2001; JCAHO 2006.

Notes: IOM: Institute of Medicine: JCAHO: Joint Commission on Accreditation of Healthcare Organizations.

The WHO [63] also suggested that a health system should seek to make improvements in six dimensions of quality, which are described in Table 2-5 below. These dimensions are similar to those for patient care described in Table 2-4.

Table 2- 3 Dimensions of quality of care according to WHO [63]

Dimensions	Requirements
Effective	delivering health care that is adherent to an evidence base and results in improved health outcomes for individuals and communities, based on need;
Efficient	delivering health care in a manner which maximizes resource use and avoids waste;
Accessible	delivering health care that is timely, geographically reasonable, and provided in a setting where skills and resources are appropriate to medical need;
Acceptable/ Patient-centred	delivering health care which takes into account the preferences and aspirations of individual service users and the cultures of their communities;
Equitable	delivering health care which does not vary in quality because of personal characteristics such as gender, race, ethnicity, geographical location, or socioeconomic status;
Safe	Delivering health care which minimizes risks and harm to service users.

Similarly, the Health Foundation in the UK also referred to six dimensions of quality [65] including effectiveness, access, capacity, safety, patient-centeredness and equity.

These dimensions play an important role when designing criteria and indicators to evaluate the quality of any service including that provided by community pharmacies.

2.5.3 Assessing quality of care

Donabedian pioneered work in assessing quality of care by proposing that we can measure the quality of health care by evaluating its *structure, processes* and *outcomes* as adapted from the concept of input–process–output in industrial manufacturing. He argued that good structure increases the likelihood of good process, and good process increases the likelihood of good outcome [66]. Donabedian's approach to describing and evaluating the quality of care has been accepted widely and is possibly one of the very few points of consensus in the field of quality of care. A description of the dimensions of Donabedian's structure, process and outcome is given in Table 2-6.

Table 2- 4 Dimensions in the assessment of quality of care [66]

	Dimension of quality of care
Structure (Input)	How resources are allocated in terms of time, place and responsiveness to the needs of populations *(access)*
	Fairness in sharing costs and benefits *(equity)*
Process	How the resources are applied *(stewardship)*
	Use of time and resources *(efficiency)*
	Avoidance of waste *(economy)*
	Reduction of risk *(safety)*
	Evidence-based practice *(appropriateness)*
	Patient-focused care *(continuity)*
	Public/patient information *(choice, transparency, accountability)*
Outcome	Population health *(health improvement)*
	Clinical outcome *(effectiveness)*
	Meeting expectations of public and workforce *(cost–benefit)*

In the field of community pharmacy, one of the first studies assessing quality of care in the UK was conducted by Smith et al. who used generalizability theory as a method to assess the quality of health advice given by community pharmacists. This method used rating scales to assess nine characteristics of quality of advice/consultation and the results showed that less than half of consultations achieved satisfactory scores on a minimum of three-quarters of the criteria which were assessed [67].

Promoting high quality healthcare and uniformity of standards across England is a priority of Government policy [68]. The National Institute for Health and Care Excellence (NICE) has established national standards as part of the Government's strategy to ensure high quality services throughout the English health service [69]. Clinical governance has been defined as 'a framework through which NHS organisations are accountable for continuously improving the quality of their services and safeguarding high standards of care by creating an environment in which excellence in clinical care can flourish' [68, 69]. This has become an important focus for the development of procedures to ensure that Government objectives are met. It is also suggested that guidelines produced by NICE for evidence-based practice, drawing on systematic reviews of research and must also apply to pharmacy. It has been highlighted that the professional isolation of community pharmacists can be a hindrance to the development of co-ordinated services [68]. However, in line with other sectors of healthcare, measures to ensure high quality and more uniform standards should be adopted within pharmacy services and thus appropriate evaluation is important to ensure quality in the provision of such services [68].

The NHS has published two documents, 'High Quality Care for All' in 2008 [70] and 'Indicators for Quality Improvement' [71], to enable health professionals to evaluate and

improve the quality of care they deliver for patients. However, much of the documents and other programmes to improve the quality of health services are focussed on treatment in hospital and the activities of nurses [71]. These documents and programmes need to be adapted so they can be seen as relevant to community pharmacy services by taking account of their isolated nature and the level of services provided.

In Australia, from 1998, the Quality care pharmacy program (QCPP) was launched by the Pharmacy Guild of Australia and the Pharmaceutical Society of Australia (PSA) [72]. In 2005, a comprehensive review of the QCPP was conducted and the second edition launched in April 2006. QCPP has been recognised as a dynamic and innovative world-class quality assurance programme, becoming an important vehicle for improving services to customers. Subsequently, in April 2010, the Pharmacy Guild of Australia established '*Quality Care Pharmacy Standard – quality management system for pharmacies in Australia*' with the purpose of providing guidance on the design and implementation of quality management systems to support the provision of consistent, high quality standards of pharmacy health services designed to contribute to attainment of optimal health outcomes for all Australians [73]. However, there have not existed such standards or documents on improving the quality of service provision in community pharmacies in Vietnam.

2.6 Supply of non-prescription medicines around the world

This section discusses the supply of non-prescription medicines in community pharmacies in many countries including the appropriate supply of non-prescription medicines and factors influencing this.

Literature searches were conducted on Web of Science, PubMed, MEDLINE and Embase. In addition reference lists were searched from relevant papers. Keywords for the database searches included community pharmacy, non-prescription medicine supply, OTC medicine supply, pharmacy service, quality of pharmacy service, community pharmacy in Vietnam.

There is growing recognition of community pharmacists and their role in the treatment of minor illness and this has been combined with an increasing trend to self-medication with non-prescription medicines. For example, in the UK medicines are de-regulated from prescription only medicines to pharmacy medicines meaning that community pharmacists are expected to manage a wider range of conditions in addition to an increased role in public health and preventative services [74]. There is concern about how community pharmacists make decisions about which non-prescription medication to supply and the role of clinical evidence in making such decisions [75]. A patient-centred approach is increasingly recognized as an important component in the provision and evaluation of healthcare services [76]. Researchers also have to consider how to determine the relative importance of factors that influence decision making in the management of minor illness and how people trade between these factors [77].

2.6.1 Counselling for non-prescription medicines

Community pharmacy has long been advocated as an appropriate gateway for the supply of non-prescription medicines and health-related advice [18]. The advice and services provided by community pharmacies are viewed as having an increasingly important contribution to make as a primary health resource to populations [78]. There is evidence of variation in advice provided alongside sales of non-prescription medicines and variation in response to requests for advice about the treatment of minor ailments within community pharmacies in the UK [11]. Research has found the quality of advice-giving in community pharmacies is highly variable in practice [79].

Hassell et al. stated that advice-giving varies according to whether consultations concern prescription or non-prescription medicines, whilst pharmacists and pharmacy assistants concentrate on providing advice on the issue of safety of medicines [80]. Subsequently, studies on advice-giving were conducted to investigate factors which affect practice in community pharmacies. Hassell et al. explored advice-giving behaviour of staff in community pharmacies using non-participant observation of interactions between pharmacy users and staff in combination with interviews with pharmacists and patients. This excellent study combined two powerful qualitative research methodological approaches (observations and interviews) that enabled the exploration of actual behaviour in practice and gave fresh insights into the nature, sequence and process of pharmacy consultations for minor ailment advice [81]. Noyce also claimed that the management of community pharmacy services merits further attention based on his findings which indicated that up to 25% of pharmacies provide a variety of enhanced-level services, further evaluation of these services is needed [82]. Hassell and Noyce also found that the quality of advice given was important and there was a lack of shared understanding between consumer and the pharmacy profession about who needs advice and when and how it

should be given [79]. These studies indicated that advice-giving and pharmacy staff behaviour play important roles in pharmacy practice.

A systematic review of feedback from pharmacy users about their perceptions and experiences of community pharmacies services indicated that there is a need to consider privacy and confidentiality surrounding advice giving [83]. The authors also claimed that if community pharmacies are to be used to their full extent, then actions to extend the public's awareness and acceptance of the pharmacist's role in giving advice are crucial [83].

Watson et al. used human error theory as a framework to explore the supply of non-prescription medicines from community pharmacies including an assessment of which consultations for non-prescription medicines were compliant with the RPSGB guidelines. This is a good method because it focused on identifying causes of pharmacy staff error associated with the supply of NPMs from CPs and developing strategies to reduce their frequency as well as the consequences of their occurrence. Futhermore, this theory looks at the process that generates the error rather than the individual who commits the error. Their findings showed a large proportion of consultations were classified as violations either pharmacy staff are unaware of professional guidelines and thus do not follow them or they knowingly violate the guidelines due to unkown reasons [7].

An Australian study showed that standards of practice in relation to the supply of NPMs vary a great deal whilst some pharmacies provide quality services and advice, others do not [84]. There are emerging patterns that imply that pharmacy staff response may vary according to the medicine requested. It may be pharmacists and their staff prioritize medicines or behaviours that they consider relevant as part of a risk management approach [18]. A study using semi-structured interviews with 20 pharmacists in Australian CPs found

the importance of pharmacists' advice on NPMs in despite of some variability in opinions. The findings may inform the quality supply of NPMs, and these findings are of significance to countries operating or debating similar scheduling systems for NPMs in CPs [85].

An intervention study in Australia has also demonstrated the way in which community pharmacy encourages appropriate non-prescription medicine use and prevents harm through intervening at the point of supply. They showed that counselling in community pharmacies can prevent serious harm in using non-prescription medicines in some cases potentially saving lives [13]. Another Australian study measured the assessment and counselling provided with the supply of non-prescription asthma reliever medication – they found only four out of 38 pharmacy staff asked whether the simulated patient knew how to use the inhaler and counselling was provided to the simulated patients in only 24% of the visits [86]. This finding showed the limitation of pharmacy staff in terms of providing services for customers. A study by Maceskova evaluated the process of communication between pharmacists and patients during the supply in CPs in the Czech Republic found that around a quarter of patients were not given any information during the supply of medicines [87].

Overall, there are concerns regarding the ability of community pharmacy staff to ensure the safe, effective and evidence-based supply of non-prescription medicines [88] including whether or not patients are given appropriate advice when they purchase non-prescription medicines [89]. These studies, although of variable quality, show the role of quality of advice-giving in community pharmacies to ensure the safe and appropriate use of NPMs for patients. They also indicate that there is a need to further evaluate the quality of advice-giving in CPs in order to improve the quality of care.

2.6.2 Appropriate supply of non-prescription medicines

Safety was the first and most important factor considered by pharmacy staff when making decisions about medicine supply for customers [90, 91], whereas the patient, products and ethical considerations were considered less important [75]. With non-prescription medicines (NPMs), there is generally less health care professional input into the monitoring of treatment which can result in inappropriate expectations, demands and use of these medicines compared with medicines supplied on prescription [89]. A cross-sectional survey to estimate inappropriate use of NPMs in Scotland has shown evidence of inappropriate sales of non-prescription analgesics including use of multiple analgesics and potential drug-drug interactions [92]. This was a good study and likely to be generalizable because the sample comprised 2708 subjects randomly selected and the findings raise concerns about the inappropriate supply of NPMs in CPs and the need for improving pharmacovigilance of non-prescription medicines.

Although many non-prescription medications are effective, the misuse and abuse of these products can arise [93, 94]. The inappropriate supply of non-prescription medicines has many implications including misdiagnosis, delayed access to the correct treatment and adverse drug reactions [89]. The incidence of serious adverse events from NPMs has been recognised with one retrospective study in Northern Ireland to evaluate OTC medicine-related overdoses. The findings showed that one major concern associated with misuse/abuse of NPMs is the potential for over-dosage and 40% of all overdoses related to NPMs, of which a quarter were NPM only overdoses [95]. The groups of NPMs found to be most frequently abused were opioids, antihistamines and laxatives [96]. A survey of public opinions and perceptions of OTC medicines in Northern Ireland showed that almost one-third (32%) of customers reported buying NPMs at least once per month. The majority (86.4%) of respondents would always or often follow the directions on the product, however almost one-third of the participants reported having personally encountered cases

of NPM abuse. These findings indicate that pharmacists should be more aware of the potential for inappropriate NPM use and take steps to minimise this in their service provision [94].

Bond and Hannaford claim that whilst NPMs are perceived to be generally safe by some patients, problems have occasionally arisen with some products and there have also been concerns about some traditional herbal and homeopathic remedies [89]. Similarly, Bradley and Bond argue that increasing the range of drugs available without prescription increases the risk of interactions and adverse drug reactions; and also of self-treatment where people should have received medical advice. They also suggest that education for patients and better communication between general practitioners and community pharmacists is needed [97].

A study by Hughes et al. using ethnographic interviews and focus groups to investigate the knowledge of patients with regard to the side-effects of NPMs in Wales stated that patients generally had poor knowledge of the potential side-effects of their medication. However, they did have the ability to identify adverse drug reactions (ADRs) based on the timing or unexpected nature of the symptom [98]. This study highlights the responsibility of pharmacy staff when supplying NPMs in CPs in order to ensure safe and appropriate use of medicines for customers. In Malaysia, structured interviews with community pharmacists investigated community pharmacists' knowledge, attitudes and views about ADR reporting. They showed that many Malaysian patients are still perceived to be ill-informed about their medicines, an important determinant to the success of patient reporting. They also claimed that there was a need for further training about ADR and ADRs reporting for health professionals and education for patients [99].

In order to ensure the appropriate supply of medicines, many developed countries have established guidelines to help community pharmacists in their practice. The Royal Pharmaceutical Society of Great Britain has issued guidance of "*Prescription Only Medicines Reclassified to Pharmacy Only Medicines*". However, there is empirical evidence that the supply of NPMs is not always guideline compliant [100], with poor communication between pharmacy staff and customers being a major cause of non-compliance with guidelines [6].

In Northern Ireland has been a model designed to pilot a harm-minimisation intervention to identify and treat NPM abuse/misuse in 2004 in order to promote safe use of OTC medicines. Two pharmacists were recruited and trained to pilot the model. When dealing with patients, 18 were identitied as abusing/misusing OTC products and 14 of these clients were informed about inappropriate OTC use. This pilot showed some success in that some clients agreed to stop using the abused products and/or to try safer alternatives. This study represented as the first reported structured attempt by community pharmacists in the UK to address the abuse/misuse of OTC medication [101]. Further testing of this model was conducted in six community pharmacies in the Greater Belfast area. A total of 196 clients suspected of OTC abuse/misuse were identified during the six months study and 70 clients were informed of inappropriate OTC use (27 misuse and 43 abuse cases). However, success was achieved with only 12 misuse cases and two abuse cases, in that these clients agreed to stop using the product or to try a safer alternative. Although success was achieved, some difficulties were encountered in implementing the harm minimisation model such as clients were unwilling to be formally enrolled into the follow-up phase or they were still obtaining medicines from other pharmacies [102]. The above evidence shows that many critical activities were implemented in the UK in order to solve the problems of misuse/abuse and ADRs for patients when supplying medicines in general and NPMs in particular.

2.6.3 The supply of medicines in low and middle-income countries

Smith stated that in low and middle-income countries, there is a complex range of medicines outlets spanning the formal and informal health sectors, which employ different cadres of professional and non-professional, trained and untrained personnel. However, the quality of professional services from pharmacies is limited, unclear and has often been questioned [3]. Smith also suggested that further research in low and middle-income countries is required to identify the environmental, organisational, cultural or other contextual factors that may be pre-requisites for the success of any interventions, and how the quality of local pharmacy services can be improved [4].

Research conducted in Savannakhet, Laos, a neighbour country of Vietnam, to assess the quality of private pharmacy found a lack of information being given when medicines were sold, poor labelling, and the mixing of different medicines in the same packaging [103]. A study using simulated client methodology to examine the medications and advice that pharmacy staff recommend to customers in an urban area of India showed that most clients did not receive appropriate advice or medicines and there was a need for interventions to improve the quality of care [104].

The sales of antibiotics from community pharmacies without a prescription in those countries were common. A study using simulated client method to determine the percentage of pharmacies that sell antibiotics without a medical prescription in Brazil indicated that antibiotics are readily sold from 74% of pharmacies without a prescription or a clear indication [105]. A study using pseudo patients to assess over-the-counter antimicrobial dispensing by drug retailers in Kathmandu, Nepal indicated that there were many cases of the inappropriate supply of antibiotics and non-compliance with

requirement for a prescription. Questions asked by retailers and advice given revealed a lack of understanding of disease [106]. Similarly, a study using pseudo patients to characterise patterns in dispensing of antibiotics in Pratumthani, Thailand showed that appropriate supply of antibiotic therapy was in only 20% of pharmacies [107]. The situation of inappropriate supply of antibiotics in CPs in low and middle-income countries needs to be considered and improved in order to ensure the rational use. Inappropriate antibiotic dispensing and use were owing to commercial interests and lack of knowledge about the rational use [108].

In terms of service provision, studies on the quality of professional services from pharmacies in low and middle-income countries are limited. The results from a study using simulated client method and interviews with pharmacy staff in Gambia indicated that advice and treatment in the management of sexually transmitted diseases in urban pharmacies were seen as poor in most cases [109]. Moreover, pharmacy staff generally unable to diagnose accurately or offer appropriate treatment [110]. A study of counter attendants' knowledge and reported behaviour in Uganda showed that the supply of inappropriate medicines was found in the management of acute respiratory infections in drug shops and private pharmacies [111]. A study from Ethiopia indicated that the knowledge, attitude and practice of drug dispensers in pharmacies regarding emergency contraception was inadequate resulting in the limitation of service provision [112].

The studies, in low and middle-income countries, indicate that there are limitations in the supply of medicines in CPs regarding the service provision, knowledge, attitude and practice of pharmacy staff when serving customers' demands. More research and interventional solutions are needed in order to improve the competence of pharmacy staff.

2.7 Improving the supply of non-prescription medicines

There are many studies about the supply of NPMs carried out in developed countries such as in the UK, Australia and Germany using the simulated patient methodology to evaluate and improve the quality of consultations for OTC medicines. In addition to the benefits that were widely perceived and discussed in some studies below, there are some limitations of using this method such as the ability of the researcher to recall information post interaction without taping or videoing the transaction; or the fact that researchers are usually not real patients so they may not interact in the same way as a real patient with a particular disease or condition might.

Watson et al. commented that simulated patient visits with feedback are acceptable to UK pharmacists as a method of improving the quality of consultations for OTC medicines [8, 113]. However, this study also notes that while most OTC consultations, in terms of the communication skills of information gathering and advice provision, achieved an appropriate outcome, the methods by which these outcomes derived mostly failed to achieve minimum standard of practice. Therefore, although safe practice is being achieved, the quality of practice is suboptimal [8]. Non-participant observation of NPMs consultations and semi-structure interviews methods were used to assess the guideline compliance of pharmacy support staff on dealing with the supply of NPMs in community pharmacies in Scotland. The findings indicated that few consultations for NPMs in this study were fully guideline compliant and the reasons for non-compliance need further exploration [5].

A secondary analysis of results from a randomised controlled trial of educational intervention was conducted to investigate factors predicting evidence-based (guideline compliant) supply or non-supply of NPMs. Results showed that the nature and extent of information exchange between pharmacy staff and customers has a strong influence on the

guideline compliance supply of NPMs [6]. In addition, it was suggested that future interventions to promote the safe and effective use of NPMs should address the apparent deficit in communication between pharmacy staff in general, and medicine counter assistants in particular, which may reflect both pharmacy staff skills and customer expectations [6].

Watson et al. conducted research using theory-based communication skills training (the intervention comprised two 4-hour training sessions) for medicine counter assistants to improve consultations for NPMs. The findings stated that communication performance improved following training and there was increasing information exchange in associated with guideline-compliant supply of NPMs [10]. This interventional method could be implemented widely in order to improve the communication skills of pharmacy staff in CPs. Ward et al. commented on valid, reliable criteria for assessing the appropriateness of the management of common ailments and non-prescription drug therapy in community pharmacy in the UK. Results showed that the developed criteria will allow identification of dimensions of both appropriate and inappropriate advice provided in CPs and provide the basis for education and training the UK initiatives [12]. Noyce carried out research to describe the provision of patient services through CPs in the UK and to explore the research evidence and policy development for enhancing the contribution of CPs to primary health care and public health. The findings indicated that whilst major changes to the regulation of the pharmacy workforce are occurring, the management of community pharmacy services merits further attention because there is no work evaluating them [82].

Similarly, in Australia, many studies using pseudo-patients or simulated patients method have been conducted both to explore variation in pharmacy staff response to requests for

NPMs and to improve the quality of consultations for NPMs. Neto et al. introduced this method for improving advice provision in Australian pharmacies and showed that immediate feedback from pharmacy educators was effective in changing practice [84]. From 2002, the Quality Care Pharmacy Support Centre (QCPSC) has established and developed a system for monitoring quality standards in the provision of NPMs to consumers in the CPs in Australia [14]. This system is unique in two aspects. The first is the use of pseudo-patient methodology for the purpose of both assessment and quality improvement. The second unique aspect is the capturing of data based on assessments of behaviour in practice environments [14]. The data generated by such a system create a feedback mechanism for policy decision-making in the area of Quality use of medicines for NPMs, which is of critical importance to the health and safety of consumers.

A project was implemented to develop and test standards of practice for selling NPMs in CPs in Australia. In this study, pseudo-patron visits to participating pharmacies were used to measure the behaviour of community pharmacists and their staff in relation to these standards [15]. The findings demonstrated that the quality of service delivered by staff in community pharmacy in the management of requests involving NPMs was improved significantly [17], and the use of pseudo-patron visits, as a training tool along with immediate feedback, was considered as an acceptable and effective method of achieving changes in practice on dealing with NMPs [15]. The success of applying these above methods in Australian CPs could be considered and implemented for CPs in other countries around the world.

Another study to monitor quality standards in the provision of NPMs from Australian CPs (7785 visits to 4282 pharmacies) used a consumer-focused and risk management approach, using pseudo-patient methodology. It showed that repeated pseudo-patient visits with

feedback lead to consideable improvement in behaviour in the handling of NPMs. However, a range of factors need to be considered when measuring these behaviours such as scenario or medicine type, as they have considerable influence on performance [16]. Following the finding from the previous project, a quality improvement package in relation to the standards of practice for the provision of NPMs was implemented nationally in Australia [17]. The results indicated that Australian pharmacies are well-equipped to provide high quality service to consumers of these medicines. Moreover, the acceptability of national implementation of these standards of practice in Australia indicates that such an approach could be taken internationally [17].

Likewise, in Germany, the Australian pseudo customer method has been successfully used in German CPs and found that pseudo customer visits with performance feedback following the counselling process is feasible in daily practice and well accepted by the participants. This method was used to develop a successful training programme to enhance the quality of counselling during consultations for OTC medicines [21].

Pseudo patient methodology may provide a typical picture of advice provision. However, Smith[3] indicated that the success of this method depends on developing a realistic scenario and presentation of pseudo-patient in the pharmacy and the careful attention of researchers when recording details of interactions. Pseudo-patient methodology does not enable a comprehensive picture of the range of pharmacy services, continuity of care, or their place in supporting health in local communities. It also does not enable an exploration of possible explanations of why practice may be as it is, the perceptions and reasoning of pharmacy staff, or why knowledge is not conveyed into practice [3]. Therefore, those studies in which data are collected by more than one method e.g pseudo-patient and questionnaires and observations are often able to identify some wider contextual issues.

2.8 The supply of medicines in community pharmacies in Vietnam

In Vietnam, there have been a few studies conducted during the last decade related to community pharmacy and pharmacy practice. A study by Chalker et al., using simulated client methodology, was conducted to assess the pharmacy service provision in CPs in Hanoi. They found many problems relating to practice in CPs in Hanoi, advice and treatment delivered by pharmacy staff was seen as poor, no questions were asked in 55% of encounters and no advice was given in 61% of the transactions [114]. Studies have also highlighted a discrepancy between self-report of practice in questionnaires (knowledge and practice) and actual practice using simulated clients. Even though 74% of pharmacists and pharmacy staff know that they should not treat sexual transmitted disease patients in community pharmacies, 84% actually did [114]. A previous study also indicated that one-fifth (20%) of pharmacy staff stated that they would dispense antibiotics for management of childhood acute respiratory infections at pharmacies in Vietnam, but in practice, four-fifths (83%) of pharmacies dispensed antibiotics for this condition. In addition, in the questionnaire, over half (53%) of the pharmacy staff stated that they would ask the patient about difficulty of breathing, but in practice, questions related to difficulty of breathing were asked in less than 10% of the encounters [115].

A case study using interviews with pharmacy staff and clients plus observation of transactions in two pharmacies over a two-week period in Hanoi, showed that 90% medicines were supplied on request without a prescription and little, if any, advice from pharmacy staff about the medicines supplied [55]. Moreover, there exists an overuse of antibiotic medicines in Vietnamese patients. Purchasers visited the pharmacy when they felt or someone they are looking after needed antibiotics even when they had minor symptoms such as cough, sore throat, stomach upset or diarrhoea. Patients also decided

themselves which medicines to buy without any diagnoses [55, 116]. Another study examined the relationship between antimicrobial resistance in Streptococcus pneumonia and patterns of usage including over-the-counter medicines from pharmacies in both urban and rural districts of Vietnam. They found that both urban and rural pharmacies had high rates of dispensing inappropriate antimicrobial regimens [117]. The authors concluded that more regulation is needed particularly in relation to antibiotics.

Several papers have examined the quality of pharmacy services in developing countries including Vietnam in order to determine feasible solutions to improve the knowledge and practical skills of pharmacists and pharmacy staff [3, 4, 88]. According to Smith (2009), pharmacies in low and middle-income countries including Vietnam were found not to be contributing as effectively as they should to public health programmes and guidelines, or supporting individual clients to promote the rational use of medicines [3]. The results from Smith's study show the shortcomings in professional practice in terms of advice-giving and the supply of medicines from these pharmacies [3]. Surveys were conducted in 29 pharmacies in Hanoi to determine the knowledge and behaviour of pharmacy staff in dealing with cases of acute diarrhoea in children. The findings indicated that questions asked and advice given by pharmacy staff was seen as poor. Only half of pharmacy staff asked for information about the stool, age of the child and frequency of diarrhoea, whilst questions about medicines that had already been taken, feeding and health status were rarely asked [118]. The pharmacist is required by law to be present in pharmacy for medicine sales to take place but a recent study found the proportion of pharmacies in Vietnam where the pharmacist in charge was present during working hours to be only 24% [119]. This has considerable implication for the quality of pharmacy service provided.

One of the first multi-component intervention experiments in the pharmacy sector in Vietnam matched 34 pairs of private pharmacies in Hanoi [120]. Three interventions were applied sequentially to one of each pair of pharmacies: regulatory enforcement, education, and peer influence (pharmacists shared their experience with each other). Four tracer conditions were selected comprising uncomplicated acute respiratory infection, sexually transmitted disease, requesting the prescription-only medicine prednisolone, and a short course of cephalexin. The study found significant improvements in practice subsequent to the intervention [120, 121]. Another study assessed the effectiveness of a multi-component intervention on dispensing practices at pharmacies in Vietnam and Thailand and found that a multi-component intervention can change pharmacy staff behaviour, but that the effect depends on the context and method of implementation [121]. Pharmacy staff knowledge was also improved after intervention [122]. However, these above studies did not mention the issue of pharmacy staff attitudes and whether or not they were willing to change their behaviour following the intervention. In addition, the issue of sustainable improvement after intervention merits further attention and research.

However, these studies and interventions were not referring to non-prescription medicines and at the time that the research was conducted, there was no non-prescription list officially in Vietnam (the non-prescription or OTC medicines list of Vietnam was established in July, 2009 [123]). The evidence shows that there were many problems relating to the supply of medicines including the lack of questioning, advice giving and inappropriate prescription medications being supplied in CPs in Vietnam. There was no research being conducted in the area of NPM supply and solutions to improve the competence of pharmacy staff in giving advice and counselling of NPMs in Vietnam. It is necessary to have a study to investigate the supply of NPMs in community pharmacies in Vietnam.

2.9 Summary

The review of literature in this chapter discussed the supply of non-prescription medicines in community pharmacies. The counselling and advice-giving for non-prescription medicines in community pharmacies was described; the appropriate supply of non-prescription medicines were also discussed; and studies improving the supply of non-prescription medicines in community pharmacies also presented. Concerns have been raised about how community pharmacists and their staff make responsible and appropriate decisions about which over the counter medication and advice to supply to customers and the role of clinical evidence in making those decisions; how to minimise the misuse and abuse of using OTC medicines from customers. The responsible supply of non-prescription medicines in community pharmacies need to be improved for the benefit of patients.

Rationale for the study

The evidence from the literature shows that there were many problems relating to the supply of prescription medicines including questioning techniques, advice giving and choice of medication supplied in CPs in Vietnam. However, whilst many studies have been conducted in the area of prescription medicine supply in CPs, there is little evidence about the supply of NPMs from CPs in Vietnam. If patients and the public are to use NPMs safely and gain the maximum benefit from them, we need to understand the nature of current supply to then use this to make recommendation to improve the service provided by CPs. Therefore, I designed a study to investigate the supply of NPMs in CPs in Vietnam. By studying the supply of non-prescription medicines in community pharmacies in Vietnam, we will be able to develop a deeper understanding of factors that affect the services delivered and to what extent these can be improved for the benefit of patients.

2.10 Aims and objectives

This study aims to explore and investigate the supply of non-prescription medicines in community pharmacies in Hanoi, Vietnam. The study employs mixed methods including non-participant observations in community pharmacies and semi-structured interviews with pharmacists and pharmacy assistants in order to discover what happens during customer-staff interactions and to explore factors affecting service delivery, and a survey study using structured questionnaire with pharmacy customers to evaluate the service received. The aim and specific objectives of this study are:

Aim

The overall aim of this study is to investigate the supply of non-prescription medicines in community pharmacies in Hanoi, Vietnam.

Objectives

- To identify and examine factors that affect the supply of non-prescription medicines in community pharmacies in Hanoi, Vietnam using observation in pharmacies and interviews with pharmacists and pharmacy assistants.
- To evaluate the pharmacy service when non-prescription medicines are supplied using a structured questionnaire with pharmacy customers in community pharmacies in Hanoi, Vietnam.

CHAPTER THREE: METHODOLOGY AND METHODS

3.1 Introduction

This chapter describes the methodological approach adopted for this research and the sources of data used. This project investigated non-prescription medicine supply from community pharmacies in Hanoi, Vietnam. A detailed description of the research design and the methods of qualitative and quantitative data collection are given. The methods of data analysis used in the study are described. In this chapter, issues concerning the reliability and validity of data are also discussed.

3.2 Choice of methodology

This research project aimed to investigate non-prescription medicine supply in community pharmacies in Vietnam from both health professional and customer perspectives. A preliminary qualitative stage (such as observation or interviews) prior to a quantitative approach (such as survey research) is commonly used in health services research [124]. Health professional perspectives can be assessed using interviews with pharmacists and their staff. Whilst customer perspectives can be assessed using structured questionnaires.

In this study, the first qualitative phase was used to explore, generate and evaluate themes about the pharmacy service when non-prescription medicines were supplied using observations and face-to-face semi-structured interviews. Then, based on these themes, the second phase was to develop an instrument (structured questionnaire) and to survey pharmacy customers about their evaluation of service received from community pharmacies. The rationale for using both qualitative and quantitative data was that a useful

survey of pharmacy customers would best be developed only after a preliminary exploration of transactions between pharmacy staff and customers using a qualitative approach. Therefore, a mixed methods approach study was employed to investigate the supply of non-prescription medicines in terms of both knowledge and practical skills of pharmacists and pharmacy assistants in community pharmacies in Vietnam.

3.2.1 Mixed methods approaches

Mixed methods research is an approach to inquiry that combines both qualitative and quantitative research. It involves philosophical assumptions, the use of qualitative and quantitative approaches, and the combination of both approaches in a study. Thus, it is more than simply collecting and analysing both kinds of data; it also involves the use of both approaches in a research project so that the overall strength of a study is greater than either qualitative or quantitative [125]. The purpose of combining qualitative and quantitative in mixed methods research is to gain breadth of understanding or corroboration. In broad terms, mixed methods investigations represent research that involves collecting, analysing, and interpreting both qualitative and quantitative data in a single study or in a series of studies that look into the same underlying phenomenon [126].

The advantage of this approach is that it utilises the strengths of both qualitative and quantitative methods to study complex social and health science problems. It enables the researcher to simultaneously ask confirmatory and exploratory questions and therefore verify and generate theory in the same study. Moreover, mixed methods research provides better inferences and the opportunity for a greater assortment of divergent views [126]. In addition, more insight may be gained from the combination of both qualitative and quantitative research than either alone [127].

Creswell (2009) suggests a sequential exploratory strategy involving a first phase of qualitative data collection and analysis, followed by a second phase of quantitative data collection and analysis that builds on the results of the first qualitative phase can be employed as a mixed method of conducting social research projects. Sequential exploratory strategy has many advantages including the two-phase approach makes it easy to implement and straightforward to describe and report, and it is advantageous when a researcher is building a new instrument. The disadvantage of a sequential exploratory strategy is that it requires a substantial length of time to complete both data collection phases [127].

There has been debate about the relative merits of quantitative and qualitative strategies in researching society [128-130]. Quantitative methods allow statistical analysis that can be generalised across a population. They are able to measure "who, what and how many" questions and are important in identifying the prevalence, patterns, trends and correlates of the variables in a population whereas qualitative methods are exploratory, and inductive in nature and have that potential to answer "why and how" questions in the context of human behaviour [128, 131]. For example, we may want to investigate why people (health professionals and customers) behave in particular ways: what are their beliefs, concerns regarding their health, pharmacy services and use of medicines, and how do these affect what they do? [132].

Qualitative research is context-specific in that the researcher aims to collect and interpret data and to describe or explain phenomena in the light of situations and the circumstances in which they occur. It is commonly used to identify differences in research context and attempt to explain them in terms of context-specific factors [124]. In contrast, quantitative

research involves the collection of data within a predetermined and standardised framework, devised by the researcher. The advantage of this approach is that by standardising the framework and procedures for data collection and analysis, the quantitative researcher can anticipate reproducible findings and generalise to the wider population. However, its disadvantage is that although reproducible, quantitative methods may lack the flexibility required to provide an accurate reflection of the relevant issues in different settings [124].

It has been suggested that quantitative methods, such as a survey approach, are effective at measuring the extent and nature of social issues, but are often unsatisfactory for investigations of motivation, beliefs, values or reasoning [133]. Qualitative methods have the advantage where there is little pre-existing knowledge, when the issues are sensitive or complex and where the maximum opportunity to pursue an exploratory approach is desired. However, the disadvantage of qualitative methods is that they are not designed to be statistically representative, hence results cannot be generalised to the population [131].

Considering the advantages, disadvantages and perceived shortcomings of stand-alone methods presented above, a mixed methods approach has been employed for this research project with an aim to provide a more complete picture of non-prescription medicine supply in community pharmacies in Vietnam.

Over the last several decades, the concept of mixing qualitative and quantitative methods in a single study has stimulated much interest as well as debates [134, 135]. However, recent progress in the evolution of research methodologies, the advantages and contributions of the mixed methods as a separate methodology or design [125, 134, 136-

138] alongside the qualitative and quantitative approaches provides researchers with strong grounds for using this design in order to obtain an accurate representation of the reality being studied [125].

Many authors argue that, for some research projects, a mixed method approach makes more sense in terms of understanding multiple perspectives and dimensions [125, 126] and single methods may be inadequate to investigate multi-dimensional perspectives of a situations [125]. This type of inquiry includes combining inductive (or discovery of patterns) and deductive (testing of theories and hypotheses) thinking through linking data from a number of sources to investigate a situation [125, 136].

In a mixed methods study, the researcher has the opportunity to mix or combine quantitative and qualitative techniques, methods, approaches, concepts or language into a single study. Therefore, mixed methods can provide a better understanding of a situation than either approach alone [125] and enable research questions to be answered in greater depth [136].

In practice, mixed methods analysis involves the integration of statistical and thematic techniques plus a number of other strategies such as triangulation to validate the study [126]. Triangulation refers to the combinations and comparisons of multiple data sources, analysis procedures and research methods that occur at the end of a study [128]. This research project employed methodological triangulation as it refers to “the use of multiple methods to study a single problem” and data triangulation that involving “the use of a variety of data sources in a study” [139]. According to some authors [140, 141], triangulation of distinct methods provides greater opportunities for accurate inferences. In

the social science, triangulation has been used in two ways [142]. Firstly, the term has been used to imply that the aggregation of data from different sources can validate a particular truth, account or finding. Secondly, multiple methods can be used in order to gain a greater understanding of a particular phenomenon it can be seen from a number of different perspectives.

The limitations of existing theoretical approaches of studying health behaviour has led to the need for more focused and intensive research to account for the role the social context plays in explaining human behaviour [125, 143-145]. It has been recommended that researchers should collect multiple data using different strategies, approaches, and methods in such a way that the resulting mixture or the combination is likely to result in complementary strengths and non-overlapping weaknesses [140, 146]. Qualitative research is often exploratory in its objectives and is sometimes used to generate hypotheses while quantitative studies are designed to test them. Thus, quantitative and qualitative methods are frequently viewed as complementary [147]. It implies that the weaknesses of a quantitative or a qualitative method can be offset by including a qualitative and quantitative method that has its own strengths. Each approach has its own limitations or "imperfections", so the combination of methods helps to reduce the biases associated with each method and therefore improves our understanding of the research context [128].

Keeping all methodological debates in mind and considering elements, strengths and weaknesses of the qualitative and quantitative research, a "complementary triangulation design" [125] has therefore been chosen for this study given more fundamental importance to the research question that addressed. The research methods followed the research questions in a way that offers the best chance to obtain useful and realistic answers

through mixing of methods and data [125, 136, 145]. In this study, the mixed methods design has been used with an aim to obtain different but complementary data on the same topic to understand the research problem better [125, 148]. Specifically, the purpose of this triangulation was to combine two types of data collection, analysis and to complement the results from two different perspectives (health professional perspective and pharmacy customers' perspective), and to expand the qualitative and quantitative results in order to describe the real life situation [125].

However, to bring the differing strengths and non-overlapping weaknesses of the qualitative methods with those of the quantitative methods together, consideration was given to all of the relevant characteristics of the qualitative (induction, discovery, exploration, theory generation, the researcher as the primary "instrument" of data collection, and qualitative analysis) and the quantitative (deduction, confirmation, theory/hypothesis testing, explanation, prediction, standardized data collection, statistical analysis and generalisation) research. These issues are elaborated in this chapter later. Whilst choosing mixed methods, attention was also given to enhance the reliability and validity of the observation, interview and survey data.

In the figure below, the triangulation design of this research project is presented. Triangulation approach was used and multi methods and data sources that is qualitative (observations and interviews) and quantitative (survey) were combined in this single study in order to validate the entire findings regarding the supply of non-prescription medicines in community pharmacies in Vietnam. The results from three sources of data and analyses (observations, interviews and survey studies) were triangulated by comparing, contrasting,

confirming and complementing in order to provide strong conclusions and recommendations.

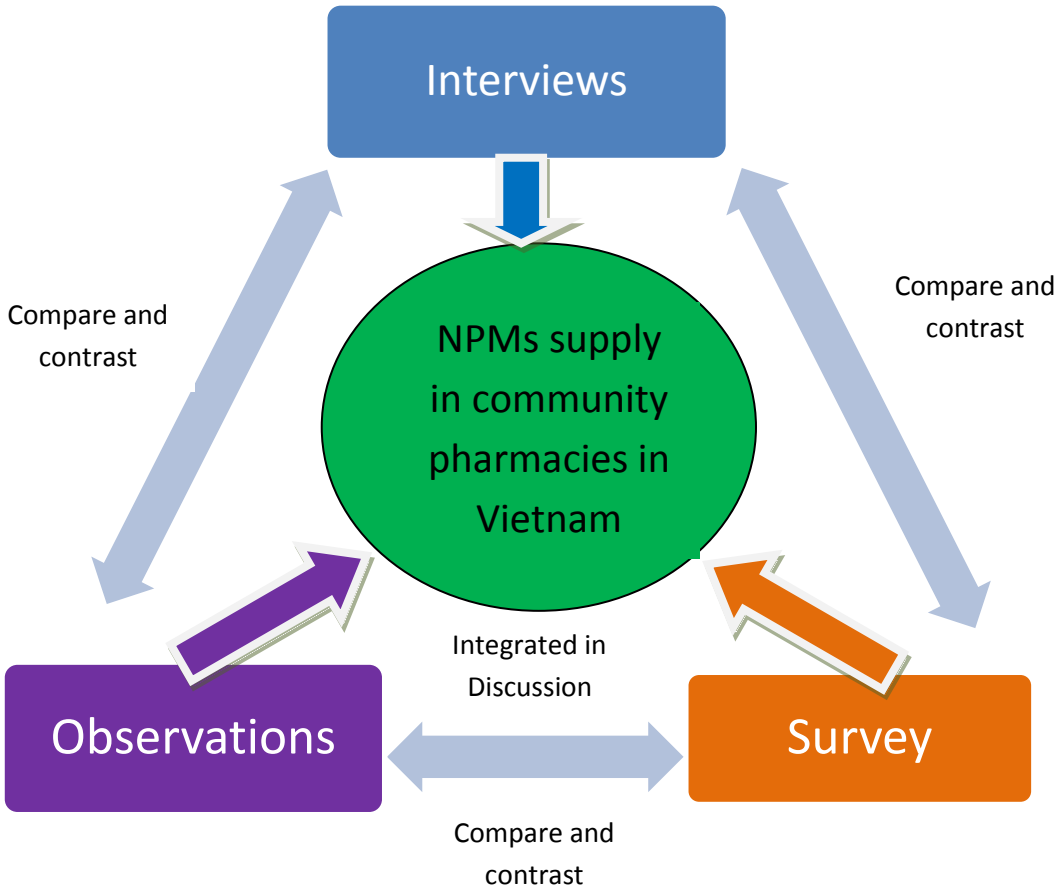

Figure 3- 1 Triangulation mixed methods explanation

In this part, I have described the rationale of choosing mixed methods for this research project. In the following section, I discuss the two qualitative research methods (observation and interview methods) and quantitative (survey) method that were adopted for this study.

3.2.2 Qualitative methods

Qualitative research is a means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem. The process of research involves emerging questions and procedures, data is typically collected in the participant's setting, data analysis inductively building from particular to general themes, and the researcher making interpretations of the meaning of the data [127].

Qualitative research is a naturalistic method of enquiry which means that its strength lies in investigating people in their typical social environment with minimal disruption to the setting [128, 131, 149]. In social science and health service research, qualitative methods are increasingly used on the basis of their ability to provide a deeper understanding of the rationales (why), the processes (how) and the contexts (where) shaping people's interactions with society and/or health care [149]. As observations and interviews were conducted, several issues emerged at each research site, and the observer used those problems or concerns to continually refocus their research questions [126]. Therefore, qualitative research has often been used to explore the social context of people's behaviour and to inform the design and development of the quantitative research instruments and/or methods. It can also be used in generating culturally-specific terminology or to explore a relatively unknown or unclear concept; to select the target population or information needs for a quantitative study; to evaluate the quality of a service; and finally to elaborate, explain, clarify or validate the results of quantitative situation research [125].

There are some typical characteristics of qualitative research. Natural setting is the first characteristic which qualitative researchers tend to collect data in the field at the site where participants experience the issue or problem under study. Researcher as key

instrument is the second characteristic. Qualitative researchers collect data themselves through examining documents, observing behaviour, or interviewing participants. Furthermore, multiple sources of data are typically gathered such as interviews, observations and documents, rather than relying on a single data source. When analysing the data, inductive data analysis is used. Qualitative researchers build their patterns, categories, and themes from the bottom up. This inductive process illustrates working back and forth between the themes and the database until the researchers have established a comprehensive set of themes [127].

In this study, qualitative methods were chosen because an in-depth understanding of the issues involved in the supply of non-prescription medicines in community pharmacies was needed. The qualitative data are therefore used here to explore and evaluate the contexts of specific behaviour (the transaction/communication between pharmacy staff and customers; social and cultural norms, beliefs, and attitudes), the range of interpretations and the meanings people attach to their behaviour, and the dominant discourses surrounding behaviour of interest that may help illustrate or add value to the quantitative findings. It is also used to inform the questionnaire design.

The following table (Table 3-1) summarises the strengths and weaknesses of different data collection methods used in qualitative research. The table focuses on only two qualitative methods (observations and interviews) that were used in this research project.

Table 3- 1 Qualitative data collection methods, options, advantages, and limitations

Qualitative data collection methods, options, advantages, and limitations[150-152]			
Data collection methods	**Options within Type**	**Advantages**	**Limitations**
Observations	• Complete participant-researcher conceals role • Observer as participant-role of researcher is known • Participant as observer-observation role secondary to participant role • Complete observer-researcher observes without participating	• Researcher has a first-hand experience with participant. • Researcher can record information as it occurs • Unusual aspects can be noticed during observation • Useful in exploring topics that may be uncomfortable for participants to discuss.	• Researcher may be seen as intrusive • Private information may be observed that researcher cannot report • Researcher may not have good observing skills • Certain participants may present special problems in gaining rapport
Interviews	• Face to face – one on one, in person interview • Telephone – researcher interviews by telephone • Focus group-researcher interviews participants in a group	• Useful when participants cannot be directly observed. • Participants can provide historical information. • Allows researcher control over the line of questioning	• Provides indirect information filtered through the views of interviewees. • Provides information in a designated place rather than the natural field setting. • Researcher's presence may bias responses. • Not all people are equally articulate and perceptive.

In a mixed methods context, qualitative methods may be used for exploratory, evaluative or explanatory research, which can be undertaken prior to, nested in, or carried out after the quantitative research [126].

The qualitative approach was also expected to complement and validate the quantitative data collected during this study. This approach allows the capture of perceptions and experiences of pharmacists and pharmacy assistants about the supply of non-prescription medicines (using interviews) and evaluating their performance when serving pharmacy customers purchasing non-prescription medicines (using observations) in community pharmacies in Vietnam. This will be integrated with quantitative results (survey) when triangulating and discussing the entire findings. As this study covered a wide range of information including pharmacy staff perceptions and experiences about the pharmacy service as well as the evaluation of their performance, both observational and interview methods were used as the qualitative research tools.

The purpose of the qualitative observation and interview studies employed in this research project was to explore, generate and evaluate themes about non-prescription medicines supply in terms of knowledge and practical skills demonstrated by pharmacists and pharmacy assistants in community pharmacies in Vietnam.

In this section, I have described the rationale for selecting a qualitative approach for this research project in general. In the following sections, I discuss the two qualitative research methods that were adopted for this study in detail: observations and interviews.

3.2.2.1 Observational methods

An observational study is a study in which a researcher simply observes behaviour in a systematic manner without influencing or interfering with the behaviour. Observational studies include those in which the researcher is present at the study site and for the duration of a study period observes and records details of specific behaviours, activities and/or events [124, 153]. This research project employed non-participant observation as the first method and combined this with semi-structured interviews and surveys.

Direct observation by a non-participant observer has the benefit that collected data are '*first hand*' rather than relying on individuals' reports of what they do [132], which may or may not be an accurate representation of those actions or incidents. It allows behaviour to be observed directly, unlike in survey research, which allows behaviour only to be inferred [128]. In survey research or in qualitative interviews, respondents frequently report their behaviour, but there are good reasons for thinking that such reports may not always be entirely accurate [128]. A strength of observational methods is that they provide data on phenomena (such as behaviour) in order to understand a phenomenon, rather than people's accounts of it, therefore observational methods are often cited as the '*gold standard*' of qualitative methods, given that they provide direct access to what people do [154] and (if necessary) hear what is going on [132]. Moreover, a strength of observation compared with interview methods is that observational methods allow the researcher to record the mundane and unremarkable (to participants) features of everyday life that interviewees might not feel were worth commenting on and the context within which they occur [154]. However, observation methods have some drawbacks including the time that they consume and the resources that are required [149]. In addition, participants' behaviour may change because they are aware of being observed [124, 153]. Other potential problems include the heavy reliance upon the researcher's interpretation of what

has been observed and the assumptions that the researcher brings; although this can be considered a strength given a skilled and insightful researcher [155].

In a quantitative observational study, the researcher observes and records activities and/or interactions to provide numeric frequencies of the different activities, often possibly with the intention of investigating relationships between them and generalising these findings to a wider population. The objective of the qualitative observational studies is to provide insights into the behaviours of groups of people and to consider these against the background of constraints, difficulties or facilitative aspects of their environment [124]. The value of qualitative observation is that it should be insightful, providing information that is sufficiently detailed to enable problems to be identified [124].

Observational studies can also be divided into participant and non-participant observation [124, 128]. Participant observation is the principal approach of anthropologists who live and participate as members of communities that they are researching for the duration of data collection, whilst non-participant observation studies are those in which the researcher records activities and behaviours of those under study in the capacity of an outside observer [124]. In participant observation studies, the researcher acts and interacts as a member of the group under study, whereas the non-participant observer endeavours to be as discreet as possible in order not to influence the behaviours of the people they are observing, and thus bias the study findings [124]. Non-participant observations in the pharmacy have been used to investigate pharmacist-customers interactions in order to better understand their transactions [156]. In a number of studies, data have been collected on audiotape. These studies included quantitative and qualitative research investigating aspects of interaction between pharmacy staff and their customers [157-160].

Non-participant observations has also been used to assess aspects of outcomes of pharmacy services [159, 160], to evaluate an intervention or the effect of a shop-front pharmacist on non-prescription medicine consultations [161].

The role of the researcher in observational studies can be overt or covert. Overt roles are those in which the researcher is open about their role, whereas covert roles involve the researcher being 'under cover' [154]. The main advantage of using a covert role is to reduce reactivity, because participants do not know the person conducting the study is a researcher. Therefore, they are less likely to adjust their behaviour because of the researcher's presence. However, the disadvantage of this role is that it does not provide participants with the opportunity for informed consent (whereby they can agree or disagree to participate on the basis of information supplied to them). It can also be taken to be a violation of privacy. Overt roles, on the others hand, whilst allowing consent and avoiding problems with privacy, have the disadvantage that they may result in changes in participants' behaviour because they are aware of being observed [128].

The Hawthorne effect

The Hawthorne effect typically arises from the participants' awareness that they are being studied which leads to changes in their behaviour, usually to show them in a better light. This leads to the participants responding to the conditions of the data collection process rather than the phenomena the researcher is intending to study [124, 162-164]. Observing the customer-staff interaction may have also altered what would have normally occurred.

Observation can be structured or unstructured. Structured observation is a technique in which the researcher employs explicitly formulated rules for the observation and recording of behaviour. The rules inform observers about what they should look for and how they should record behaviour. Participants are observed for a predetermined period of time using the same rules in what is usually referred to as an observation schedule [128]. The focus of structured observation is determined beforehand with a pre-specified procedure for what and when to observe, whilst unstructured observations are made without pre-determined categories or questions in mind [165]. Unstructured observation aims is to record in as much detail as possible the behaviour of participants with the aim of developing a narrative account of that behaviour [128]. The strengths of undertaking unstructured observation are that, there is no narrowing or restriction upon the observer's participation in the setting and it avoids the premature definition of variables which may deflect attention away from social processes which are important to the participants themselves [166].

The aim of this study was to investigate the supply of NPMs and to describe what happens when NPMs were supplied in CPs in Vietnam; therefore observations were used as the most appropriate methods that would enable collection of the required primary data. The intent of my observational approach was to explore and evaluate the themes that emerged from the transactions between pharmacy staff and customers when dealing with NPMs in CPs in Vietnam. Therefore, an observation approach was employed in this research project including overt, non-participant observation. I did the observations acting as the primary instrument for data collection and witness, seeking to understand what was happening personally and directly. The second research method that was used in this study was interviews with pharmacists, pharmacy assistants and this method of enquiry is discussed in the following section.

3.2.2.2 Interview methods

Interviews are a particular type of conversation, and are probably the most common source of qualitative data. In essence, an interview is a conversation that is directed, more or less, towards the researcher's particular needs for data [154]. Qualitative research interviews are used to discover what people think of the world they live in, to evaluate their experiences and to uncover why they behave the way they do [149]. Research interviews are used to gather information from individuals, in particular when considered responses are required, and the researcher wishes to have the opportunity to explore the contexts, rationale and details of the interviewees' responses [132]. Qualitative interviews are also social encounters between two or more persons leading to negotiation for the purpose of a 'focused interaction' and are one of the most common and powerful ways that we can understand people [167, 168]. They therefore offer the prospect of authentic insights into the participants' perspective [167].

Qualitative interviews have been used for a wide range of purposes in health and pharmacy practice research [124]. They have been used to explore various aspects of community pharmacy including how customers or patients have evaluated the services they have been offered [169, 170]. A strength of using qualitative interviews is that they have the potential to generate thorough insights into people's views or beliefs about a given subject [154]. The unanticipated within the qualitative interview may often be more useful in highlighting what people really think and really do than answers in a more formal survey situation. In unstructured or semi-structured interviews, there is a less rigid questioning framework and interviewees are encouraged to speak at length about issues or topics, and the interviewer is free to probe in more depths as issues arise [154].

There are limitations to using interviews, particularly when the interviews aim to assess the participants' behaviour. A commonly cited shortcoming of interviews is that they only provide access to what people *say* they do and not what they actually *do* [154]. Interviews should be viewed as a social interaction where the interviewees strive to present themselves as competent and responsible members of their community [171]. The participant may seek to provide answers, which can be considered as socially acceptable thoughts or behaviours and to reduce the extent to which their actions can be negatively judged by the researcher during the interview. They may seek to 'please' the researcher and show an interest in the research topic, which may not have existed prior to the interview. In a different context, the respondent may provide a different account of their thoughts or actions so consideration must be given to the purpose of giving explanation and influence of the context on that purpose [171]. Furthermore, interviews are artefacts in that rely upon the interviewer and interviewee to co-construct the experience. As a consequence, interviews do not offer a literal description of the respondent's reality. They do however provide a situated account that reflects each party's expectations and experiences [149, 167]. It is important to consider how the interview context may influence the participant's responses during analysis of interview data to ensure that bias is identified where possible.

The qualitative interviews have two main format: unstructured and semi-structured [132]. Semi-structured interviews follow an interview schedule, which comprises mainly open questions that enable the interviewers to explore more detail of issues raised by respondents [132]. According to Bryman, semi-structured interviews typically refer to a context in which the interviewer has a series of questions that are in the general form of an interview schedule but is able to vary the sequence of questions and ask further questions in response to what are seen as significant replies [128]. Unstructured interviews, sometimes it is referred to as in-depth or open-ended interviews follow an interview guide

that provides only a framework for the interview. The actual content of the interview is determined by the respondent's experiences, views, perceptions. They attempt to elicit the views and issues of greatest significance to the participant without imposing the researcher agenda that may limit the field of enquiry [164, 168].

The advantage of the semi-structured approach is that it allows flexibility within the interview while ensuring that each interview covers a range of core topics [124, 128, 168]. In a semi-structured interview, the researcher sets the agenda in terms of topics covered, but the interviewee's responses determine the kinds of information produced about those topics, and the relative importance of each of them [154].

I also wanted to know pharmacy staff perspectives and their experiences regarding the supply of NPMs in CPs and how the pharmacy service might be improved for the benefit of patients, therefore interviews were an appropriate method. For this study, semi-structured interviews were used because of the contribution this method can make in supporting the observational methods to explore themes. The purpose of the qualitative interviews employed in this research project was to explore and generate themes about the supply of NPMs in community pharmacies in Vietnam from the perspective of pharmacists and pharmacy staff. The combination of observation and interview methods is an effective method for penetrating and understanding participant's perspectives. Observational data have been recognised as a valuable means of checking the credibility of respondents' account at interview [131]. This combination of research methods can provide valuable insights into participants' perceived and perspectives of pharmacy services. The application of observations and interview techniques in this study aimed to develop a deeper understanding of the complexities surrounding the supply of NPMs in community pharmacies in Vietnam and to enhance the validity of the conclusions.

3.2.2.3 Qualitative data analysis

Qualitative data analysis involves coding the data, dividing the text into small units, assigning a label to each unit, and then grouping the codes into themes. The coding label can come from the exact words of the participants, phrases made up by the researcher, or concepts used in the social or human sciences. The core feature of qualitative data analysis is the coding process. Coding is the process of grouping evidence and labelling ideas so that they reflect increasingly broader perspectives. Evidence from a database is grouped into codes, and codes are grouped into broader themes. Themes then can be grouped into even larger dimensions or perspectives, related or compared [172].

Thematic analysis

Thematic analysis is a method for identifying, analysing and reporting patterns (themes) within qualitative data. It is most useful for capturing the complexities of meaning within a textual data set. Thematic analyses moves beyond counting explicit words or phrases and focuses on identifying and describing both implicit and explicit ideas within the data, that is, themes. Codes are then typically developed to represent the identified themes and applied or linked to raw data [173].

Thematic analysis can be used to analyse the interview and observation data using the constant comparison method, following the principles of grounded theory. Grounded theory is a set of inductive and iterative techniques designed to identify categories and concepts within text that are then linked into formal theoretical models [174, 175]. Grounded theory was described as a set of methods that "consist of systematic, flexible guidelines for collecting and analysing qualitative data to construct theories 'grounded' in

the data themselves" [176]. The process of conducting grounded theory is included four steps: (1) read verbatim transcripts, (2) identify possible themes, (3) compare and contrast themes, identifying structure among them, and (4) build theoretical models, constantly checking them against the data [177]. However, applied thematic analysis involves step 1 through 3 as well as a portion of step 4 [173]. A thematic analysis is a method for identifying, analysing and reporting qualitative data based on grounded theory, but it is not a full-grounded theory. In applied research, our output may or may not be a theoretical model (a distinction with grounded theory), but as with a grounded theory approach, we are greatly concerned with ensuring that our interpretations are supported by actual data [173].

Overall, the analysis of qualitative data in this thesis used thematic analysis based on these concepts of the grounded theory [176, 177] and followed the constant comparison approach [178], where the themes or concepts emerges from, and is grounded in the data, and it develops and evolves during the research process due to the interplay between the data collection and the analysis phases. The key to facilitating such these emerging themes is by means of the method termed the constant comparison approach, where the data collection and the analysis are considered as a cyclical process and attempts are made to compare data segments to each other as the researcher goes back and forth through the data [179]. As far as the method is concerned, the constant comparison technique shows high internal and external validities, as a result of the thorough analysis of the data from each participant, comparing the similarities and differences and the concepts having been generated from a reasonable number of participants. Generated text blocks associated with codes/themes were analysed for dimensions of attitude, perspective, and association with other codes/themes. Verbatim quotations were used to illustrate the range of responses expressed within or across the study.

3.2.3 Quantitative methods – questionnaires

A survey design provides a quantitative or numeric description of trends, attitudes or opinions of population by studying a sample of that population [127]. Thus, quantitative methods are employed to investigate frequencies of events that may involve calculation of summary statistics, to establish the proportion of a population who hold certain views or have had particular experiences [132]. Surveys designed to measure events, behaviour and attitudes of the population of interest are called descriptive surveys, as the information is collected from the population, and descriptive measures calculated. Respondents are generally asked to report on events, feelings and behaviours retrospectively, and thus surveys can be called retrospective. Cross-sectional surveys, carried out at one point in time, are a relatively cheap data collection method in terms of time and resources, as large numbers of people can be surveyed relatively quickly, compared to longitudinal studies in which a sample is followed up over a period of time [131].

Structured questionnaire interviews involve questioning respondents in a highly standardized manner; the precise sequence and wording of questions and the methods of recording answers are specified in advance on an interview questionnaire [133]. Survey data collected from a sample of sufficient size can be used to quantify predetermined characteristics of population, identify frequencies of events, establish the proportion of respondents who hold particular views, and describe association between variables; to enable generalisations to be made at a wider population [124]. It is important that the questionnaire used within the survey gathers relevant information effectively and efficiently, and that responses received are a reliable and valid reflection of the issues being measured. Questionnaires are developed by researchers to meet their study objectives, however they can use questions or instruments that have been previously validated [124].

Survey questionnaires should be acceptable and attractive to potential respondents by being reasonable in length and well-presented [124].

Surveys can be conducted by in-person interview, post or other self-completed questionnaire method. Post and telephone techniques have improved in recent years, and the internet is a relatively new option that is becoming increasingly used as a data collection method [180]. In-person and telephone surveys tend to achieve higher response rates than postal and internet surveys in general population samples, although this does depends on the area of study and the population being studied. The advantage of face-to-face interviews is that they allow more complex questions to be asked, and provide the interviewee and interviewer opportunities to clarify any misunderstandings [180]. During face-to-face contact, the researcher had the opportunity to explain the rationale and the format of the survey directly and there may be a motivating effect for the interview by providing full, clear definitions, probing ambiguous responses, or querying inconsistent answers. The disadvantages of face-to-face interviews are that they are time consuming. In addition, there are several limitations that need to be considered, including the issue of anonymity, unwillingness of respondents to reply honestly to certain questions and an inability to control behaviour which interviewers may introduce reporting bias [133, 181].

I also wanted to know what customers thought about their experiences and their evaluation of pharmacy service they had just received when being supplied with NPMs in CPs, so survey research was chosen as an appropriate method for data collection. Questionnaire is a quick and easy tool for customers to complete and a fast way of capturing their thought about the transaction. The survey in this research was conducted face-to-face with pharmacy customers using a questionnaire in order to obtain the

customers' evaluation of the supply of NPMs in CPs. This will help to maximise the data collected and minimise the limitation of missing data.

3.2.4 Validity and reliability

Achieving validity and reliability is a crucial aspect of any research project as they reflect the quality and the consistency of data that are obtained through the research project. An important component of all good research is to utilise procedures to ensure the validity of the data, results, and their interpretation. Validity differs in quantitative and qualitative research, but in both approaches it serves the purpose of checking on the quality of the data, the results, and the interpretation [172]. Researchers need to consider issues related to the quality of the data and there is need to explain to what extent research findings are supported by "convincing evidence" [171]. Although the terms reliability and validity traditionally have been associated with quantitative research, increasingly they are being seen as important concepts in qualitative research as well. Examining the data for reliability and validity assesses both the objectivity and reliability of the research. Validity relates to the honesty and genuineness of the research data, while reliability relates to the reproducibility and stability of the data [182].

In general, the quality of obtained data depends on: careful preparation, selecting appropriate methods of investigation, piloting of instruments and careful data management and analysis. The strategies used for the validity check differs considerably in the qualitative and quantitative research, however in both approaches the key purpose is to check on the quality of the data and the results [125]. In mixed methods research, the term of validity refers to check on the quality of data through obtaining findings and making inferences that are credible, trustworthy, dependable, transferable and/or confirmable [183, 184].

The issue of validity in this study is addressed in a number of ways. The potential elements of the validity and reliability in the context of the quantitative and qualitative methods were addressed separately later in this section. However, a brief discussion was introduced here to present overall validity issues within mixed methods (triangulation design) contexts. To ensure that outcome of the research measured the intended objectives, the data collection methods and the analysis process were designed in accordance with the standard procedures of mixed methods research [125, 135, 185] and recommended procedures of the quantitative and qualitative methods were strictly followed [131, 133, 186]. A full description of these methods and procedures is presented in the methods sections.

The validity can also be achieved through examining the internal consistency of results and their consistency with the independent source of evidence [133]. Using technique like triangulation provides opportunity to substantiate results from one method with others, which enchased the overall validity of the data. The triangulation is typically a strategy for improving the validity and reliability of research or evaluation of findings and it tests the consistency of findings obtained through different instruments or methods. In this study, the triangulation of methods and data accounted for enriching the whole study process including the data analysis and discussion, where the findings from the qualitative interview and observation study were compared, contrasted and confirmed with the results from the survey quantitative study in order to validate the entire findings of research project. The process of triangulation through the study hopefully facilitated assessing the credibility of the research [125, 167].

3.2.4.1 Validity and reliability: qualitative perspectives

In qualitative research, there is more of a focus on validity than reliability to determine whether the account provided by the researcher and the participants is accurate, can be

trusted and is credible. Qualitative validity comes from the analysis procedures of the researcher, based on information collected while visiting with participants. Reliability plays a minor in qualitative research and relates primarily to the reliability of multiple coders on a team to reach agreement on codes for passages in text [172].

The validity in the qualitative research process involves taking systematic steps to ensure that collected data is an accurate representation of the phenomena being examined. However, the issue of the validity in qualitative research is not easy to evaluate as all qualitative inquiry carries an element of subjectivity; personal biases may come into play as well. It has been suggested that the reliability and the validity of the qualitative study can be achieved by enhancing the dependability or the credibility of the research method and data [167, 187]. Therefore, from the perspective of validity and reliability, it is important to ensure that study procedures are consistent and comparable to other research method, and that the findings can be verified and elaborated [155].

Validity can be substantiated by a number of techniques including triangulation use of contradictory evidence, respondent validation, and constant comparison [182]. Triangulation is using two or more methods to study the same phenomenon. Contradictory evidence, often known as deviant cases, must be sought out, examined, and accounted for in the analysis to ensure that researcher bias does not interfere with or alter their perception of the data and any insights offered. Respondent validation, which is allowing participants to read through the data and analyses and provide feedback on the researchers' interpretations of their responses, provides researchers with a method of checking for inconsistencies, challenges the researchers' assumptions, and provides them with an opportunity to re-analyse their data. The use of constant comparison means that

one piece of data (for example, an interview) is compared with previous data and not considered on its own, enabling researchers to treat the data as a whole rather than fragmenting it. Constant comparison also enables the researcher to identify emerging/unanticipated themes within the research project [182].

3.2.4.2 Validity and reliability: quantitative perspectives

In quantitative research, reliability means that scores received from participants are consistent and stable over time. The reliability of scores can be checked for internal consistency and test-retest comparisons while exploring the data [172]. The test-retest reliability of a scale is assessed by administering it to the same people on two different occasions, and calculating the correlation between two scores obtained. High test-retest correlations indicate a more reliable scale [188]. The reliability of scores needs to be established before assessments of their validity can be addressed.

The issue of validity in quantitative research is considered at two levels: the quality of scores from the instruments used and the quality of the conclusions that can be drawn from the results of the quantitative analysis. Quantitative validity means that the scores received from participants are meaningful indicators of the construct being measured [172]. The validity of scale refers to the degree to which it measures what it is supposed to measure. The main types of validity are content validity, criterion validity and construct validity. Researchers look for evidence of content validity (how judges assess whether the items or questions are representative of possible items), criterion-related validity (whether the scores relate to some external standard, such as scores on a similar instrument), or construct validity (whether they measure what they intend to measure) [188]. Research should be designed to reduce the threats to internal and external validity. Internal validity is

the extent to which the investigator can conclude that there is a cause and effect relationship among variables. External validity is the extent to which the investigator can conclude that the results apply to a larger population, which is usually of highest concern in survey design [172].

3.2.5 Data translation methods

This research project employs interview and observational data collected in the Vietnamese context. For data analysis, it was necessary to translate the collected information in to English as my degree is in English and neither of my supervisors can speak Vietnamese. Before carrying out this translation, it was necessary to consider both the method of translation and systems for checking the quality of the translation.

3.2.5.1 Types of translation

Translation is defined as the process of changing something from one state or form that is written or spoken language into another written or spoken language [189, 190]. It is also a process where "the meaning and expression in one language (source) is turned with the meaning of another (target)" [191]. Translation consists of studying the vocabulary, grammatical structure, communication, situation, and cultural context of the source language text, analysing it in order to determine its meaning, and then reconstructing this same meaning using the vocabulary and grammatical structure which are appropriate in the target language and its cultural context [189]. A language is a complex set of skewed relationships between meaning (semantics) and form (vocabulary and grammar). Each language has its own distinctive form for representing the meaning. Therefore, in translation, it is important to consider that the same meaning may have to be expressed in another language by a very different form to the original. To translate the form of one

language literally according to the corresponding form in another language would often change the meaning or at least result in a form, which is unnatural in the second language. So, meaning must have priority over form in translation [189] where we are seeking to understand the meaning of what has been said. In order to do effective translation, a researcher must discover the meaning of the source language and use target language forms, which express this meaning in a natural way.

It was necessary to clarify what type of translation would be suitable for this research project when translating data from source language (Vietnamese) in to target language (English). There are two main kinds of translation - form-based and meaning-based. Form-based translation attempts to follow the form of the source language, whereas meaning-based translation makes every effort to communicate the meaning of the source language text in the natural form of the target language [189].

Form-based translation may be useful for the study of the source language such as in studying the structure of the source text as in an interlinear translation, but it does not communicate the meaning of the source text. It is generally no more than a string of words intended to help someone read a text in its original language. It is unnatural and difficult to understand, and may even be quite meaningless, or give a wrong meaning in the target language. For example, the phrase is used to express that "a person, who is the speaker, possesses money": English use *I have money*; Japanese and Latin use forms which literally say *to me there is money*; Arabic and Russian say *with me there is money*; and Aguaruna and Turkish use forms which say *my money exists [189]*. However, form-based translation is of little help to speakers of the target language who are interested in the meaning of the source language text. A disadvantage of form-based translation is that it can sound like

nonsense and have little communication value. Applying form-based translation by choosing literal equivalents for the words, vocabularies, figures of speech result in unclear, unnatural, sometimes nonsensical translations. In some cases, the translator may adjust the translation enough to avoid real nonsense and wrong meanings, but the unnaturalness in the target language still remains [189].

Meaning-based translation uses the natural form of the target language, both in the grammatical construction and in the choice of vocabulary. A truly meaning-based translation does not necessarily sound like a translation. Rather, it sounds like it was written or spoken in the target language. For example, notice the following ways in which *a fever[189]* is referred to:

Greek: *The fever left him*

Aguaruna: *He cooled*

llocano: *The fever was no more in him*

The English translation of all three would be: *his fever went down*, or *his temperature returned to normal*.

The goal of meaning-based translation is to reproduce in the target language a text which communicates the same message as the source language original but using the natural grammatical and vocabulary choices of the target language [189]. Therefore, meaning-based translation is commonly used when translating across languages.

Beside some advantages presented above, meaning-based translation also had some disadvantages when choosing vocabulary and grammar for translation including possible mistakes, distortion of key messages, and greater risk of losing key information from sources [192].

From the literature presented above, this research project employed meaning-based translation as the main method for translating observation and interview data from Vietnamese (source language) into English (target language).

3.2.5.2 Ensuring the quality of translation

Khan and Manderson (1992) stated that "Maintaining accuracy when representing people's views and perspectives when using qualitative research approaches is important but challenging, particularly when the research project is conducted in one language and then analysed and synthesised in another" [193]. Therefore, the interpretation and understanding of meaning is fundamental in qualitative analysis as it often deals with the concept of "culture in making meaningful action" [194]. It is suggested that researchers in such meaning-making process need to engage with meaning and discourses to come up with accurate and valid translations [195].

It has been suggested that it is good practice in translation to employ at least two competent bilingual translators who might be familiar with the research, one to translate forward [196] and the other to translate back to the original language without having seen the original text [197]. Translation is time consuming and might be beyond the capabilities of student researchers with limited experience and funds. Therefore, some authors have suggested that a sample of transcripts should ideally be back-translated into the original language unless a problem emerges during this process [198].

Consequently, many authors have suggested some common stages involved in the process of translation [199-201]:

Table 3- 2 Common stages in the process of translation

	Common stages in the process of translation
1	Determination of the relevance or context,
2	Forward-translation of the research instruments,
3	Backward-translation,
4	Examination of the translated meaning in both source and target language,
5	Revisiting the whole process to get similar interpretations.

The World Health Organisation further recommended that in a research study with sufficient resources, a review panel comprising bilingual people, experts in the field of study, and members of the population being studied should be used to refine the translations as well as assess equivalence and congruence [202].

From this study, the purpose of translation is to achieve equivalence of meaning between the two languages. In order to ensure the quality of translation, it is necessary to recruit at least two bilingual people who translate the qualitative research texts. The first person translates observation and interview data from Vietnamese into English. Another bilingual person will back-translate the document from English to Vietnamese, and finally both versions will be compared to check accuracy and equivalence. Any discrepancies that have occurred during the process are then negotiated between the two bilingual translators [197].

3.3 Ethical considerations

In planning this study, I considered confidentiality and consent and how might best be achieved in my study. Confidentiality is the process of keeping the information obtained from an individual during a study private [203]. Participants in the interview study were invited for an interview in a private place such as consultation room in pharmacies or a café nearby. Each observation and interview participant was allocated an identification code, which was used on all documentation and transcripts relating to an individual participant. Data handling as part of this project were designed to minimise risks of raw data being available outside the research team. Data collected from observation and interview studies as well as completed survey questionnaires and consent forms were stored securely at the University in a locked drawer to which only my supervisors and I have access. Entered survey data in SPSS files, the field notes from observations and the recording of interview data were held in password-protected files on a personal computer at home and at university office. The copies of all the data were also held on two separated hard disks at the university office in locked drawers. All data, which might aid in the identification of the participants was removed before the analysis and will not be included in any report or publication.

The questionnaire to purchasers of OTC medicines was anonymous. Names and addresses of participants were not recorded during the face-to-face interview. However, some brief demographic details were recorded (age group, gender, educational level and occupations). Participants should be free to make a choice whether or not to take part in research and should have time to consider their decision. As part of this process they should be given sufficient information to enable them to make an informed choice about participant. In this study, it was decided it would be too disruptive to the pharmacy and their medicine sales to

obtain consent individually from each customer. Therefore, we adopted a system of presumed consent where posters were displayed in the pharmacies and customers given the opportunity to opt out of being observed. In the questionnaire study, people could choose to participate or not when asked to and could stop part way through if they changed their mind.

For the observation in the pharmacy, initially the owner/pharmacist agreed to participate in principle and each member of staff (pharmacist and pharmacy assistant) were given a participant information sheet (Appendix three) and the study explained to them. They then signed (or not) the consent form (Appendix four) at the researcher next visit. Following the observations, pharmacists and pharmacy assistants were invited to be interviewed and again supplied with information ahead of the interview date and signed on the day to give their consent. They should also be assured that they are free to opt out at any time should they change their mind [132]. In a qualitative research study, overcoming ethical conduct cannot be guaranteed simply by requiring all participants to sign a consent form. Rather, it has been recognised that the researcher should identify and minimise or eliminate any risks to participants [149].

Ethical approval

The study protocol of this project was reviewed and approved by the Vietnam Health Research Ethics Committee on 29 December 2010 (ref 658/HĐĐĐ). Approval letter for this study can be found in Appendix two.

3.4 Developing research tools

In order to achieve the research aims and objectives, three separate field instruments were developed for the observations, interviews and questionnaire survey. The process of developing these tools is described in this section.

The instruments were designed to support the data collection process enabling data to be collected appropriately and effectively. Initially, a literature review was conducted in areas considering definitions of quality of care and studies about the supply of non-prescription medicines in community pharmacies. The quality of care definitions from Department of Health of UK and WHO [63, 64] were used as sources to generate indicators for the observation sheet, interview schedule and structured questionnaire. Discussions with supervisors were helped to clarify and design data collection tools.

Quality of care has been defined as “do the right things; to the right people; at the right time and doing things right first” according to UK definition. For community pharmacy medicine sales, these criteria can be developed into indicators for both the observation and structured questionnaire such as “identify patients; identify diseases/symptoms”. In the observation, pharmacy staff were observed as asking or not about the person who would use the medicines. In the questionnaire pharmacy customers were asked to report whether or not they were asked about who the patient was in the transaction. Many other indicators were used in data instruments are presented in the sections below.

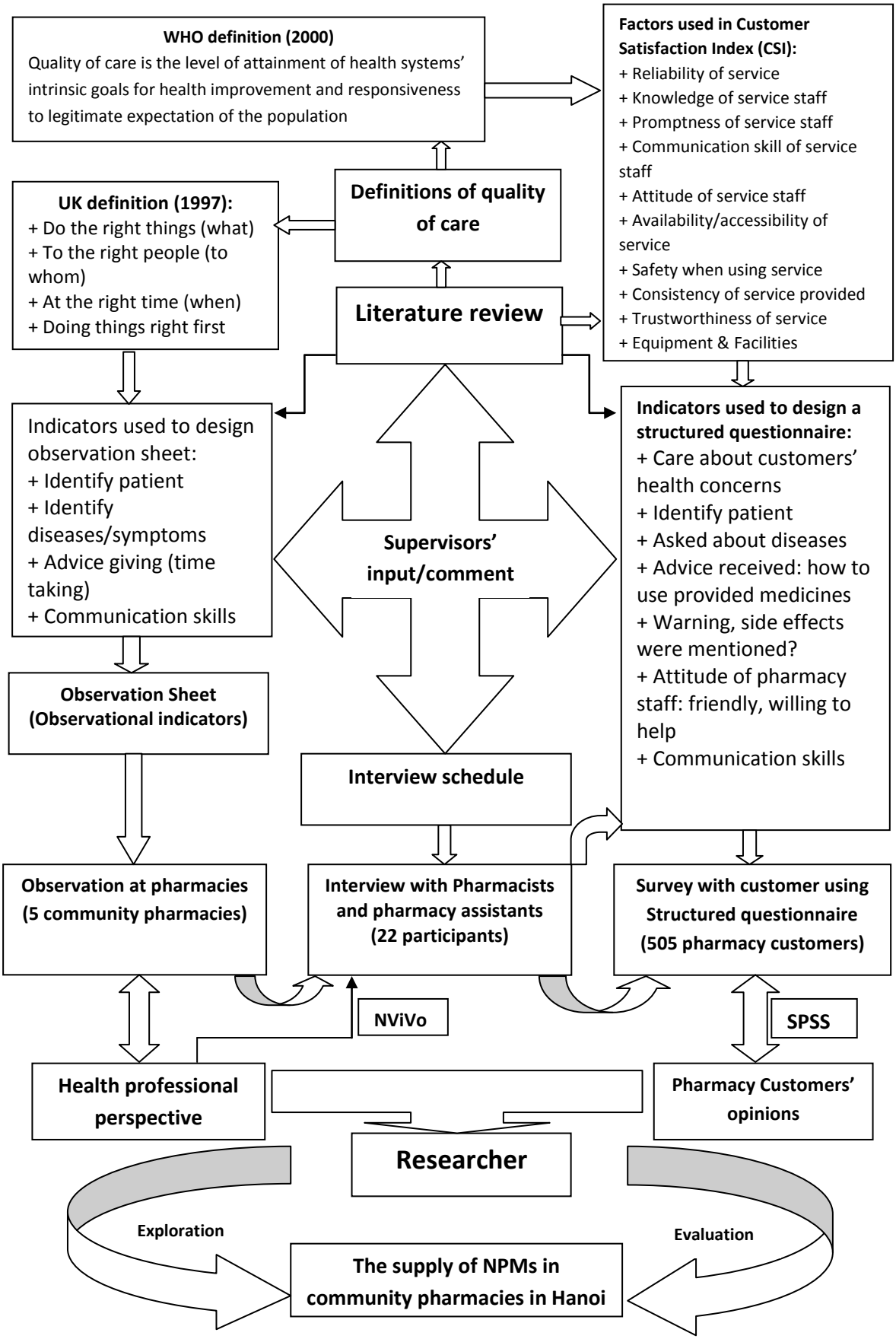

Figure 3- 2 Development of the research project

The WHO definition (2000) defined quality of care as "the level of attainment of health systems' intrinsic goals for health improvement and responsiveness to legitimate expectation of the population". This was developed into some indicators for pharmacy customers to evaluate staff performance using a structured questionnaire. These indicators included care about customers' health concerns; questions asked; advice given and attitude of pharmacy staff.

3.4.1 Observation instrument

Combining the criteria from these definitions, indicators for the observational study were generated. A copy of the final version of observation sheet can be seen in appendix five. The indicators in the observation sheet included:

- Clarify/identify patients (*to the right people; doing things right first time*)
- Seeking information about symptoms/conditions of patients (including how long and severity that symptoms have been present) (*Doing the right things*)
- Obtain patient's medication history and/or current medication treatment being used/ tried. (*Doing the right things*)
- Select medicines for patient's treatment. (*Doing the right things; to the right people*)
- Provide advice for the use of selected/recommended medicines. (*Doing the right things; to the right people; to legitimate expectation of the population*)
- Others counselling or advice provided (*Doing the right things; to legitimate expectation of the population*)
- Communication skills applied when communicating with pharmacy customers: Verbal, non-verbal, style (*Doing the right things; to legitimate expectation of the population*)

3.4.2 Interview schedule

These definitions and indicators were also employed in part of the design of the interview schedule. Open-ended questions were used for conducting interview research with pharmacists and pharmacy assistants including:

- Would you please tell me some of your experiences selling OTC medicines in community pharmacy?
- What happens when customers come to pharmacy and describe their symptoms/ conditions or ask for help?

  Explore pharmacy staff opinions of how they interact with pharmacy customers (*Doing the right things; to the right people*)

- What happens when customers come to your pharmacy with a direct request for a non-prescription medicine?

  Explore pharmacy staff opinions of how they interact with pharmacy customers who may know about medicine they request (*Doing the right things; to the right people*)

- What are the factors that affect to the quality of the pharmacy service delivered when supplying non-prescription medicines in your community pharmacy?

  Explore pharmacy staff opinions about factors affecting the quality of pharmacy services (*the level of attainment of health systems' intrinsic goals for health improvement and responsiveness to legitimate expectation of the population and doing the right things; to the right people; doing things right first time)*

- What do you think is the most important thing to consider when supplying non-prescription medicines? (*to the right people; doing things right first time*)
- What should pharmacists and pharmacy assistants do when supplying non-prescription medicines for patients in order to ensure a good quality service? (T*he*

level of attainment of health systems' intrinsic goals for health improvement and responsiveness to legitimate expectation of the population and doing the right things; to the right people; doing things right first time)

A copy of the final version of interview schedule can be seen in Appendix six.

3.4.3 Survey – structured questionnaire

For the structured questionnaire survey, a combination of the quality of care definitions from the UK and WHO and preliminary findings from the observations and interviews were employed to develop a questionnaire for pharmacy customers about the supply of non-prescription medicines in community pharmacies. The survey study was conducted to investigate pharmacy customer opinions of the service provided by pharmacy staff. In the first part consisted of ten statements related to expect questioning of pharmacy customers by pharmacy staff reporting the actual service received on that day. The second part of the questionnaire consisted of fourteen statements with five point Likert scales for customers to report their views about the pharmacy service provided. Occupational categories were based on the Vietnamese standard categories in 2011 [23].

Incorporating suggestions from my supervisors the final version of questionnaire was written in English and then translated into Vietnamese. In order to check the validity, and to ensure the clarity and the accuracy of the translated questionnaire, it was translated back to English by a bilingual pharmacist (who graduated from School of Pharmacy, University of Nottingham in 2010). The penultimate version of the questionnaire was piloted in pharmacy in Hanoi with ten customers. Adjustments were made after piloting the questionnaire and analysing preliminary data from interview and observation studies. A copy of the final version of questionnaire is included in Appendix seven.

3.5 The pilot study

The pilot study was carried out in January 2011. The main objective was to validate and modify the research instruments for both qualitative and quantitative components of the study.

The pilot study took place at one community pharmacy (excluded from five pharmacies in the main study) and involved observing one pharmacist and one pharmacy assistant for a week using an observation sheet for non-prescription medicine sales. The pharmacist and pharmacy assistant were then interviewed about the supply of non-prescription medicines in their pharmacy. The survey to customers was piloted with ten pharmacy customers using a structured questionnaire. On the basis of the feedback received from the pilot study, further modification of the data collection instruments were carried out to produce final revisions that were acceptable and comprehensible to the target participants.

The pilot study showed that most indicators used in the observation sheet were appropriate for observing and capturing the interaction between pharmacy staff and customers regarding the supply of non-prescription medicines. However, an indication of the customer request should be added to the observation sheet as many customers came to the community pharmacy with a specific request. In addition, numbers from 1 to 7 were allocated for each indicator to enable the information to be noted quickly (Appendix five).

The pilot interviews took about 60 minutes with the pharmacist and 45 minutes with a pharmacy assistant. The results indicated that for the interview schedule, the contents of open-ended questions were appropriate for exploring pharmacy staff perceptions regarding

the supply of non-prescription medicines. However, the sequencing of questions should be changed and the interviewer should be flexible during the interviews with participants depending on their responses. On the basis of this feedback, the interview schedule was modified and finalised (Appendix six).

Following the pilot, there were also some adjustments made to the questionnaire. The pilot questionnaire included a request for the number of non-prescription medicines purchased and their names. However, the pilot study indicated that it took a lot of time for customers to write down the name of medicines purchased meaning it took over ten minutes to with the length of the questionnaire so it seemed that ten minutes was the maximum time that could be allowed. So the question asking the name of purchased medicines was deleted from the questionnaire. Statements for pharmacy customers to evaluate the supply of non-prescription medicines were added with some double check questions that enabled the consistency of responses to be checked. Supervisors' suggestions were incorporated into the pilot results in order to finalise the questionnaire (Appendix seven).

3.6 Recruitment

Recruitment to this study had three phases; community pharmacies for the observation study along with pharmacists and pharmacy assistants for the interviews and pharmacy customers for survey study.

3.6.1 Selection of pharmacies to be observed

Hanoi Health Bureau/Authority supplied a list of community pharmacies and 12 pharmacies were randomly selected and approached. I visited in person to ask the pharmacies whether they were willing to participate. Five community pharmacies agreed to participate and were recruited for this study. They represent the five urban districts in Hanoi. Of the five pharmacies, two were large; two were medium and one was small pharmacy (according to the size and number of staff). All of five pharmacies were located in urban area of Hanoi, but they were different in terms of level of affluence. Two were located in wealthier districts, and the remaining three in poorer areas.

Permission for the study was initially sought from pharmacists or pharmacy owners. The information sheet was provided for pharmacy owners, pharmacists and pharmacy assistants one week prior to the commencement of the study. Pharmacist and pharmacy assistants were also provided with an assurance of anonymity and that a non-judgemental approach would be taken when observing their activities. At the second visit to the pharmacy further details of the study were explained if needed and consent was obtained from the pharmacists and pharmacy assistants prior to the start of the study.

3.6.2 Recruitment of participants for the interviews

Pharmacists and pharmacy assistants who participated in the observational study were also invited to participate in an interview about their perceptions of the supply of non-prescription medicines following the observations. Eight pharmacists and fourteen pharmacy assistants from the five pharmacies agreed. A participant information sheet was provided in advance to all volunteers and written consent was obtained on the day of the interview (Appendix three and four).

3.6.3 Recruitment of participants for the survey

For the questionnaire survey, 505 customers from the five community pharmacies completed a questionnaire from the total of 2,450 approached (20.6%). I waited outside the community pharmacies and approached pharmacy customers who had completed their transactions with pharmacy staff before inviting them to participate in the survey study. The permission from pharmacists or pharmacy owners was given for the researcher to conduct the survey research outside the pharmacies (which were observed).

The survey was conducted outside the community pharmacies within five minutes from the completion of transaction to enable customers to report the information correctly and avoid recall bias. Recall bias occurs where respondents remember only partial details of an experience – the longer clients have been out of the event, the greater likelihood they would not recall their experiences of the event correctly [204]. However, data were collected within five minutes from the completion of transaction, so the impact of recall biases was minimal. The number of participants recruited differed across the pharmacies due to the size and volume of customers in each pharmacy. Two hundred and forty participants were recruited from two large pharmacies; two hundred of respondents were recruited from two medium pharmacies and sixty were from the small pharmacy.

3.7 Data collection

This section describes the data collection for this study in detail. Observations of customer-staff transactions, all interviews with pharmacists and pharmacy assistants and survey with customers were conducted by researcher.

3.7.1 Observations in community pharmacies

Two days before the study began, pharmacies were requested to display study posters prominently within the relevant pharmacy areas to increase customer awareness of the study (Appendix nine).

The role of the researcher when collecting the data was considered. Careful consideration was given to constructing the role that I would eventually adopt in relation to the fieldwork setting, pharmacy staff and customers. As mentioned in section 3.2.2 and table 3.1, four roles of observer could be classified and adopted within the field which include the complete participant, participant as observer, observer as participant and the complete observer. I wanted to observe the transaction between the pharmacy staff and customers so the complete observer role was adopted. This aim was to minimise participation in the social activities of the pharmacy. However, the identity of researcher with a professional background as a pharmacist is a particular concern when performing research in this area as participants who are asked to take part in research about the use of medicines may feel they are being tested [163]. It was decided at the beginning that I would introduce myself to the pharmacist and pharmacy assistants as both a pharmacist and researcher and it was made clear from the outset that I would undertake no pharmacist or other pharmacy work activities. I would therefore be considered in this respect as an outsider or a 'professional stranger' who was detached from the work commitments of the group [205]. This, however, did not mean that I had no influence on the setting or participants and I did notice some behaviour, which I suspected, has a result of my presence in the pharmacy

referred to as 'Hawthorne effect'. To minimise the influence of the researcher on the behaviour of the participants, I spent time with participants explaining the study and reassuring them about the study. Applying that approach, I felt the impact was minimal.

My background as a pharmacist will also have shaped what was observed and my interpretation of those observations. In order to try to understand how my background, the way in which data were gathered and analysed, I reflected on my personal impressions and feelings following each day observations, there were recorded in personal memos and discussed with my supervisors.

Field notes

Observations were taken place for one week at each pharmacy from 9 am to 5 pm, Monday to Fiday during a period between February and April 2011. The observations focussed on the pharmacy customer-staff interaction in the pharmacies regarding the supply of NPMs. I took observation notes during and immediately after observations of the customer-staff interaction. I immediately selected the next transaction that occurred after I had completed my notes on the previous one. So, the immediate next transactions could have been missed when I was taking notes. This may probably impact on the representativeness of data collection and this limitation will be discussed in section 7.2.6. I also tried to observe all the members of staff during the one week observation at each pharmacy. When capturing the observational data, I acted as a customer sitting or standing in the waiting area of pharmacies reading a promotion leaflet of medicines and avoided influencing the transaction as much as possible. The notes were intended to aid with contextualisation of the data and recorded behaviours of participants as they occurred. During the transaction itself, notes were made of any-non-verbal communication of interest, or that aided in interpretation of the interaction. All notes were recorded by the researcher using participant reference numbers to ensure confidentiality.

Practically, recording field notes without drawing attention to this activity is a common problem experienced by ethnographers [124, 205, 206]. Recording field notes was, as far as possible, done inconspicuously to avoid raising staff anxieties, self-consciousness or even threatening access arrangements. Field notes were recorded by pen and paper and occasionally through use of a personal digital recording device when appropriate. It was deemed unethical to audio-tape interactions without the prior consent of customers. Memo writing was a critical aspect of recording findings. Key words and phrases used by participants were recorded during fieldwork and a full account of the observations was written up and reflected upon as soon as practicable. In order to gain experience at recording data using non-participant observation, I attended George Green library and biology Café at the University of Nottingham and in the pilot study a community pharmacy in Hanoi and recorded notes of customer-staff transactions. This ensured that I was prepared to record the required information from the main study.

Data were recorded on interactions involving non-prescription medicines supply that included encounters between pharmacy staff and customers relating to: (1) requests for general medical and pharmaceutical advice, whether or not it resulted in the sale of non-prescription medicines; and (2) direct requests for a particular brand or type of non-prescription medicine by name. I did not include encounters related to prescriptions. I recorded the following aspects of the encounters: the gender and the approximate age of customers; the member(s) of staff involved in the interaction; the details of what the customer said and details of pharmacy staff responses to and questioning of customers.

Standards for the supply of NPMs issued by RPSGB in 2009 (section 2.4.3) were considered and used as the framework for measuring the service provision in CPs in this study because there have not existed such standards in Vietnam.

3.7.2 Pharmacist and pharmacy assistant interviews

After the observational fieldwork in a community pharmacy had been completed, pharmacists and pharmacy assistants were invited to take part in interviews to explore their perceptions of the supply of non-prescription medicines. These were semi-structured interviews conducted between March 2011 and June 2011. The interview schedule was developed and used to guide the interview process (Appendix six). Interviews took place at a time and location that was convenient to the participants, either the consultation room at the pharmacy or in a café nearby. Written consent was taken before the start of the interview and permission sought for the interview to be audio-recorded.

Interviews were recorded using a digital audio recorder. Following each interview, I made brief notes about the interview, including the way in which I felt it had gone, the attitude of the pharmacists and pharmacy assistants involved, and any other things of note related to the interview process. Following the interviews, the data were transcribed verbatim. Transcribed data were then translated into English, coded and analysed by me using a thematic analysis approach.

3.7.3 Survey with pharmacy customers

Pharmacy customers who agreed to participate in the survey did so outside the community pharmacy where they had just completed their transaction. Customers were free to choose to self-complete the questionnaire or be asked the questions by the researcher. All the questionnaires were checked immediately after completion so that any unanswered questions could be clarified and completed. The data were coded and entered into a prepared SPSS database. Data checking and cleaning are reported in appendix eight. The results showed the quality of data for further analysis.

3.8 Data translation

The data were collected in Vietnamese therefore it needed to be translated before analysis could take place. This research project used a Vietnamese pharmacist (Miss Lien) who obtained her pharmacist degree from School of Pharmacy, University of Nottingham in 2010 together with researcher as bilingual translators for translating collected data. I as a researcher translated observation and interview data from Vietnamese into English and Miss Lien translated all of the data back to Vietnamese. Then, two versions of Vietnamese data were compared to check accuracy and equivalence. Some discrepancies found were negotiated and adjusted between two languages by the two translators.

This research project also used a structured questionnaire for survey research with pharmacy customers and it was designed in English. Before commencing the research, it was translated into Vietnamese that enable customers to answer this questionnaire conveniently. In order to ensure the objective and quality of the translation, two bilingual translators (Miss Lien and myself) were employed to translate this questionnaire from English into Vietnamese separately. Then, two versions of translation in Vietnamese were compared and adjusted to ensure the accuracy and equivalence as well as ease of answering.

3.9 Data management and analysis

Data analysis in mixed methods research consists of analysing separately the qualitative data using qualitative methods and the quantitative data using quantitative methods. The analysis in this study was based on Creswell and Clark's (2011) "Exploratory Sequential Data Analysis Procedures" for the triangulation design [172]. Full accounts of all the observations were written up and all of the interviews with pharmacists and pharmacy staff were transcribed verbatim and translated into English. N-Vivo 10 was used as a tool for analysing, the storage and management of the data.

As far as the process is concerned, I interpreted the qualitative and quantitative data separately with thematic and statistical analysis, respectively and then integrated the findings by comparing, contrasting, complementing and confirming the results between qualitative and quantitative approaches. This involves coding, themes development, and interrelationship of themes for the qualitative data, and descriptive and inferential analysis for the quantitative data analysis (Table 3.3). I performed all these essential steps of data analysis using the appropriate software.

The two sources of qualitative and quantitative findings were then compared, complemented, and confirmed to develop a better picture of non-prescription medicine supply in community pharmacies in order to look at the similarities and the differences across levels of the analysis (e.g. to what extent do the survey results support the open-ended themes?). However, a detailed description about the process of the qualitative and quantitative data analysis is essential and they needed to be provided separately.

Table 3- 3 Qualitative and quantitative data analysis procedures for mixed methods studies

Qualitative Data Analysis Procedures	Procedures in Data Analysis	Quantitative Data Analysis Procedures
• Organising document and visual data (field notes, video files). • Translation and transcribing text from interviews. • Checking for accuracy of transcription. • Preparing data for manual analysis and with computer program.	Preparing the Data for Analysis	• Coded data by assigning numeric value. • Data entered using SPSS. • Data checking and cleaning were performed. • Recoded or computed new variables for computer analysis. • Established codebook.
• Reading through all forms data for familiarising. • Initial thoughts recorded through writing short memos. • A detailed qualitative code-list generated.	Exploring the data	• Data inspected visually. • Descriptive statistics (frequency run, the mean and standard deviations) generated for all major variables. • Normal trends and distribution were checked.
• Interview and observation data were coded and label assigned for each unit. • Thematic analysis • Codes were grouped into themes (or categories). • Themes were interrelated and abstracted to smaller set of themes. • NVivo 10 software was used to support the analyses.	Analysing the Data	• Data inspected visually. • Frequency table and the mean were produced. • Chi-square test was used to identify the association. • SPSS 19 software was used to support the analyses.
• Findings represented in discussions of themes. • Visual models, figures were generated and presented.	Representing the data analysis	• Key findings represented in the statement of results. • Results also provided in the form of tables and figures.
• Integrating the findings: Results were integrated in discussion chapter by comparing and contrasting and confirming the findings from qualitative and quantitative approaches.		
• Data validated using researcher and participant standards (e.g. triangulation, peer review). • The accuracy of the account was checked.	Validating the data	• Immediately checked the questionnaire in the field. • Data checking and cleaning performed.

Source: adopted from Creswell and Clark 2011, p. 205

3.9.1 Qualitative data analysis process

The qualitative research generated large amounts of textual data of transcripts and field notes that requires a systematic method of transforming data into meaningful elements or themes. Data was read carefully line by line, and then condensed and divided into more meaningful units that allowed in-depth analysis to take place. Whenever meaningful segments of text in a transcript were identified, a code or category name was assigned to signify that particular piece of data. This process continued until all the data was assigned a code and the emergent themes and concepts identified [207].

The principle of constant comparison was used as a framework for thematic analysis [125]. The process actually begins with repeated listening to the interviews and reading and re-reading the transcript texts and the observation notes. After becoming familiar with the content of texts, I did initial coding on an on-going basis during the transcription and recorded code along the transcript margin. I did coding in two separate phases. The first phase of coding independently carried out by me and one of my supervisors (Professor. Claire Anderson) checked the quality of my coding. In the second phase, the coding process was completed by transferring those codes into NVivo 10 software. Sections of data representing an idea, opinion or attitude were categorised as statements or words which were collected under different headings or 'codes' [208]. Codes were created as far as possible in terms of the categories and concepts of the research participants. As more information was added to the code, these were constantly compared to the original data source to ensure it was grounded in the data. However, these coding categories were changed and refined as the analysis proceeded. Regular meetings with supervisors provided multiple perspectives and interpretations. This enabled more credible identification of key concepts and themes.

Once the entire interview data and observation notes had been coded, the 'one sheet of paper' (OSOP) analysis was used to progress the analysis of the data [209]. This involved reading through each code category in turn and noting, on one piece of paper, all the issues that were raised by the coded extracts. Axial coding was used in order to further analyse the data. Axial coding has been described as putting the fractured data back together in new ways by "making connections between a category and its subcategory"[210]. This facilitated comparison of similar categories to find out 'what is going on in the data'[209]. This process involved making connections between categories and subcategories in order to create a more precise and complete explanation about the phenomena under the study. The OSOP method allowed negative evidence or deviant cases that did not fit into the emerging story to be identified. There were constant reflections throughout this whole process as well as conferring with supervisors, which enabled a critical appraisal of the findings. The analysis was enriched by going back to the literature to see where and how other research and theories fitted and how it could further inform the analysis and testing of findings.

3.9.2 Data management

Full accounts of all the observations were written up and all of the interviews with pharmacists and pharmacy assistants were transcribed verbatim and translated in to English. NVivo 10, a leading qualitative data analysis software programme, was used as a tool for the storage and management of the multiple forms of data sources. The advantages and disadvantages of using qualitative software packages were discussed [211]. The software assists researchers by providing better management of the data, saving time and offering greater flexibility. This electronic data analysis is considered as providing greater accuracy and greater transparency [212]. The software can provide faster and more

comprehensive methods of inquiry into the data, and much more efficient systems of collecting, sorting and reporting [213]. However, the programs do not do the analysis for the researcher. The researcher must still collect the data; decide what to code and how to name the categories. The software does, however, make the repetitive and mechanical tasks of data analysis easier; those traditional tasks of making concept cards, creating categories, segmenting, coding and duplicating [214]. Where lots of cutting and pasting using paper and coloured pens once took a lot of work, software removes many of these less pleasant areas of research. Computer assistance is merely a tool which facilitates more effective and efficient analysis [215].

3.9.3 Quantitative Data analysis

The survey data were coded and entered into SPSS (Statistical Package for Social Science) version 19.0 (SPSS Inc., Chicago). The statistical analyses were conducted after checking for the missing data (data checking and cleaning-Appendix eight) and the validity check (content validity of questionnaire was checked by my supervisors and through pilot study). The descriptive statistics (frequencies and percentages) were computed for all data. The cross-tabulation of outcome the variables and demographic variables were performed to determine if there were any associations between the variables. Chi-square tests of independence were conducted to assess any associations between customers' reports about pharmacy staff performance regarding the supply of non-prescription medicines and the demographics of customers (gender, age group and level of education). A *p*-value of less than 0.05 was considered statistically significant. The chi-square test for independence is used to determine whether two categorical variables are related. It compares the frequency of cases found in the various categories of one variable across the different categories of another variable [188].

3.10 Validity and reliability of the study

3.10.1 Validity and reliability of the qualitative studies

During the process of developing the interview schedule for semi-structured interviews, they were reviewed by the experienced researchers at the University of Nottingham (my supervisors). Additionally, before the interview commenced, an initial pilot study was conducted, which allowed to validate and clarify the contents and the sequence of the question routes. In terms of data collection, I conducted the interviews based on both the interview schedule and the responses of the participants. Follow-up questions were asked and questions paraphrased in order to clarify ambiguous answers or responses. Moreover, since I had many years of practical experience in the field of community pharmacies, making effective communication and rapport with the participants was relatively easy. Comparing findings with research from the literature and cross-checking scheme performed throughout the research further enhanced the reliability and the consistency of the findings.

3.10.2 Validity and reliability of the quantitative study

During the process of developing the questionnaire for survey study, they were reviewed by the experienced researchers at the University of Nottingham (my supervisors). Additionally, before the survey commenced, an initial pilot study was conducted, which allowed to validate and clarify the contents of the questionnaire. During the data collection process, questionnaire was checked immediately in the field and participants were reminded to respond to any unanswered questions in order to avoid missing data. Double check questions were also used to be able to assess the consistency of response within the questionnaire. In addition, data cleaning and checking (appendix 8) were performed carefully before conducting further analyses in order to ensure the quality of data.

3.11 Summary

This chapter has described and discussed the qualitative and quantitative methodology and methods used to investigate the non-prescription medicines supply in community pharmacies in Vietnam. Mixed methods and triangulation approach were employed as appropriate tools for exploring and investigating the diversity and complexities of pharmacy staff-customer interactions in community pharmacies regarding the supply of non-prescription medicines. The strengths and weaknesses as well as the advantages and disadvantages of qualitative and quantitative approaches were discussed to demonstrating the appropriate choice of using mixed methods for this research project. A combination of two powerful qualitative research methodological approaches (observations and interviews) alongside quantitative survey study was used in order to enhance the credibility of the findings. The fieldwork observations enabled a personal first-hand account of how the supply of non-prescription medicines were being performed and managed alongside the provision of other pharmacy services. The interviews with pharmacists and pharmacy assistants allowed them to share their experiences of non-prescription medicines supply in their own words, which permitted their views to be studied in more depth. The survey research, on the other hand, allowed the supply of non-prescription medicines in community pharmacies to be evaluated and reflected on objectively by pharmacy customers immediately following a consultation. The triangulation of direct observation with accounts provided by participants in the interviews and pharmacy customers' reports and evaluation in the survey study provided a powerful means of understanding the complexity of non-prescription medicines supply in community pharmacies in Vietnam. The process of instrument development, data collection, data management and the analysis in mixed methods were described and discussed in detail. Finally, the validity and reliability of this research project were discussed.

CHAPTER FOUR: PHARMACY OBSERVATIONS

4.1 Introduction

This chapter presents the findings from observations at five community pharmacies in Hanoi, Vietnam. Interactions between pharmacy staff and customers when supplying non-prescription medicines were observed. Data recorded included requests for general medical, symptomatic and pharmaceutical advice, whether or not this resulted in the sale of non-prescription medicines; and direct requests for a particular type of non-prescription medicines by name. The encounters where customers requested prescription medicines were not included. A description of five participating community pharmacies is presented in Table 4.1 below. For ease of describing the pharmacies in the results, the five pharmacies were categoried into small, medium or large as follows.

Table 4- 1 Description of participating pharmacies

	P 1	P 2	P 3	P 4	P 5
Size of pharmacy (approximate square metres of floor space)	120	30	60	35	20
Number of pharmacists	2	2	1	1	2
Number of assistants	14	5	9	4	2
Number of counters	6	3	5	2	1
Computers support for delivery activities	4 computers at OTC counters	One computer	No	No	No
Classification	Large	Medium	Large	Medium	Small

(Pharmacies were classified according to the size and a number of staff serving in pharmacies)

Large pharmacy: the number of staff is over 10 and the size is over 50 square meters.

Medium pharmacy: the number of staff is from 5 to 9 and the size is 30 to 50 meters.

Small pharmacy: the number of staff is from 2 to 4 and the size is less than 30 meters.

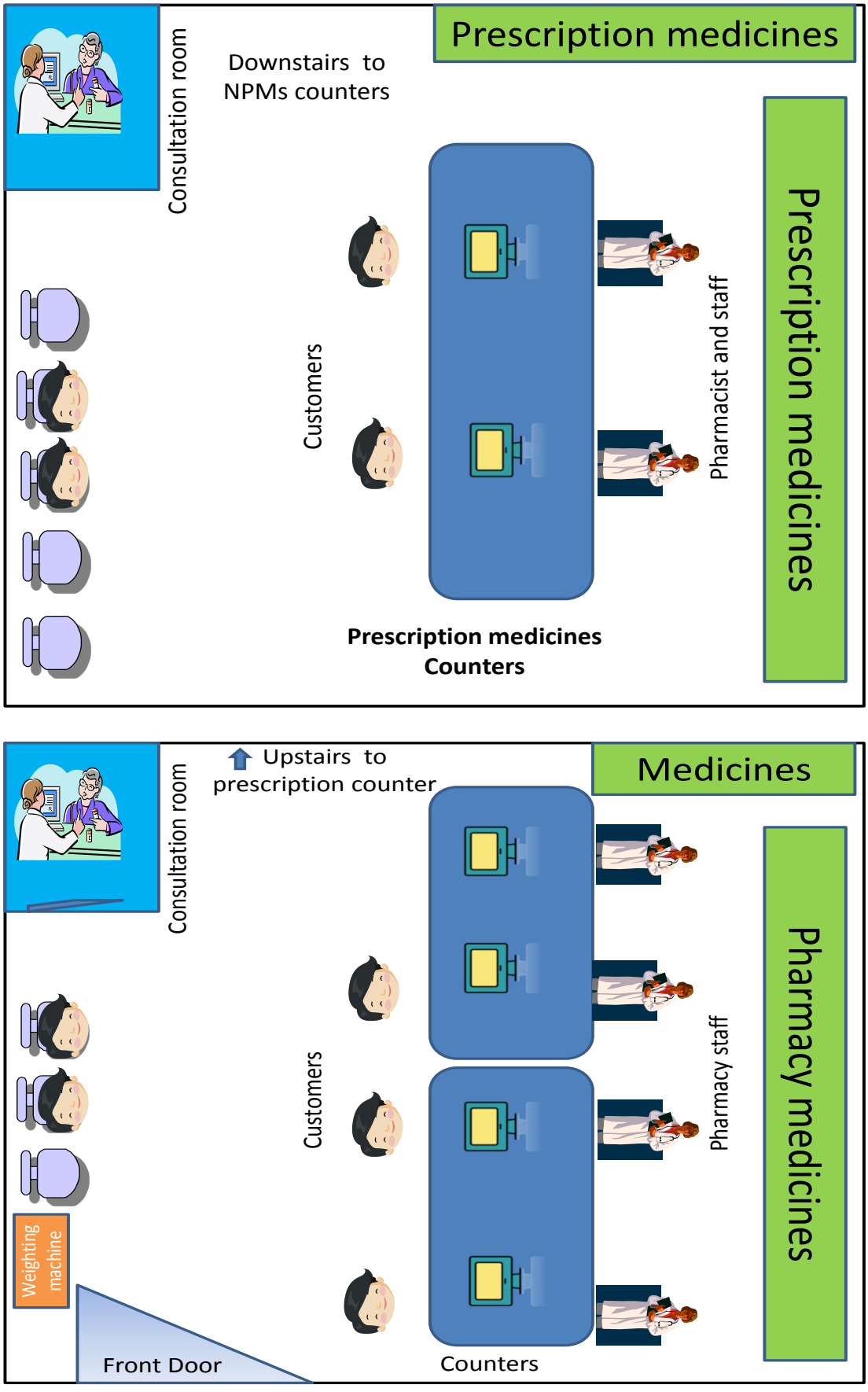

Figure 4-1 Pharmacy P 1 - floor layout

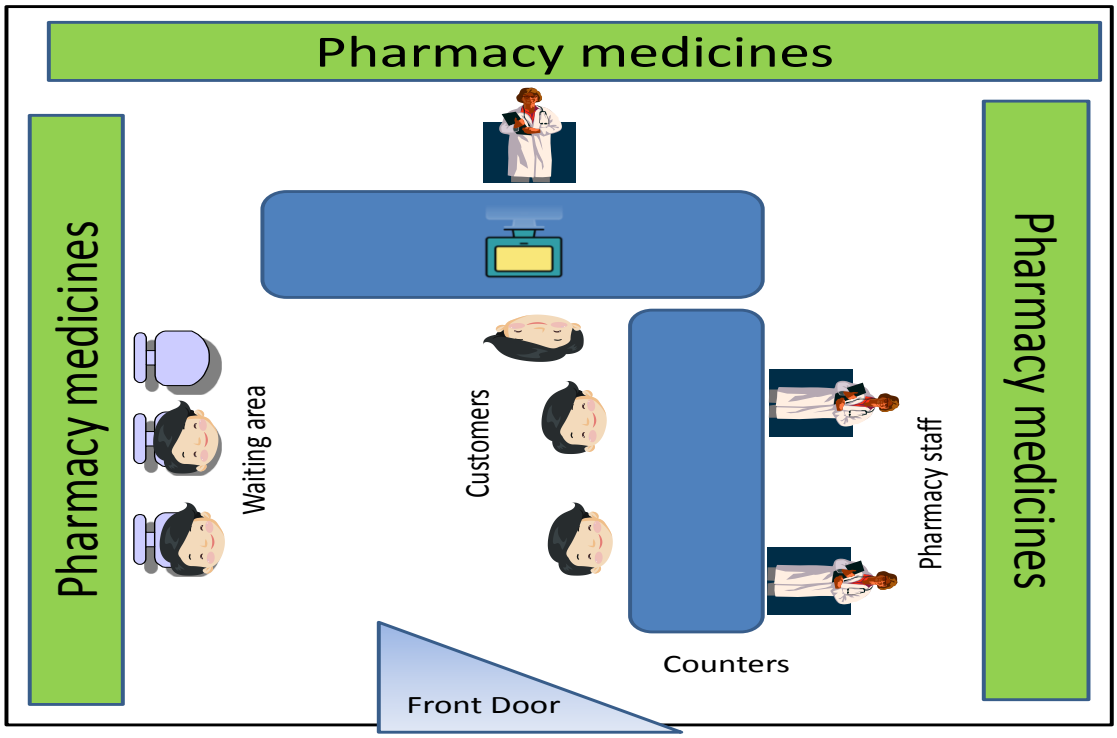

Figure 4-2 Pharmacy P 2 - floor layout

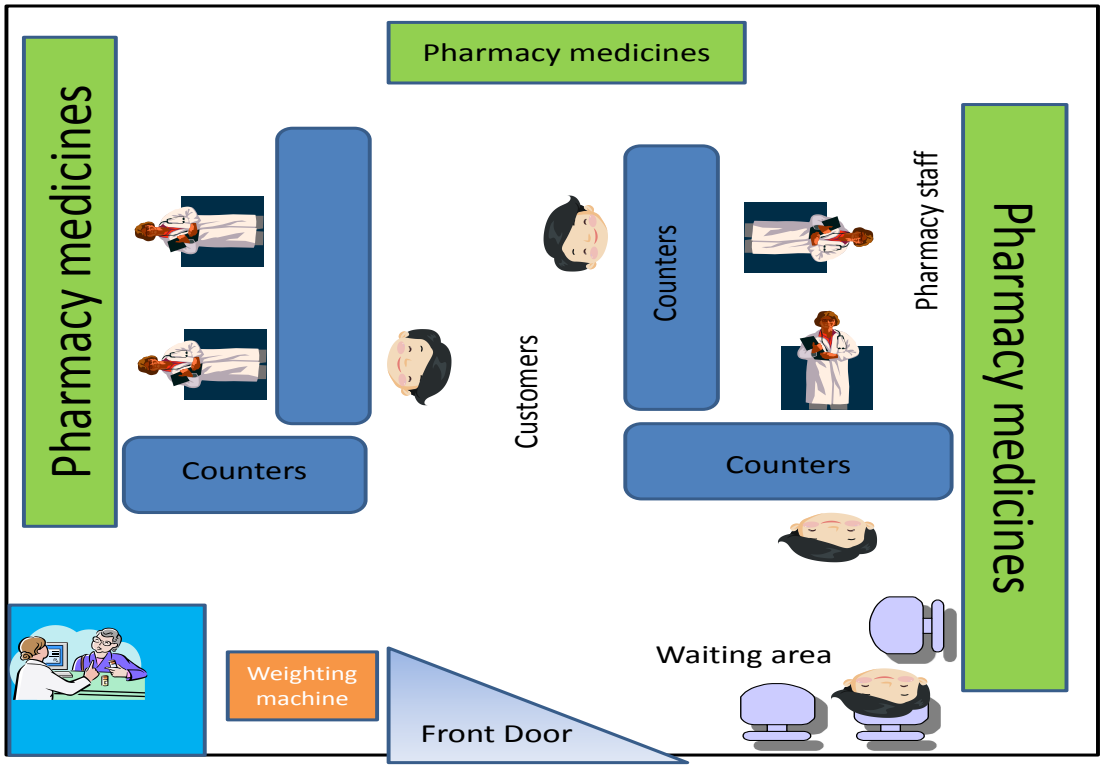

Figure 4-3 Pharmacy P 3 -floor layout

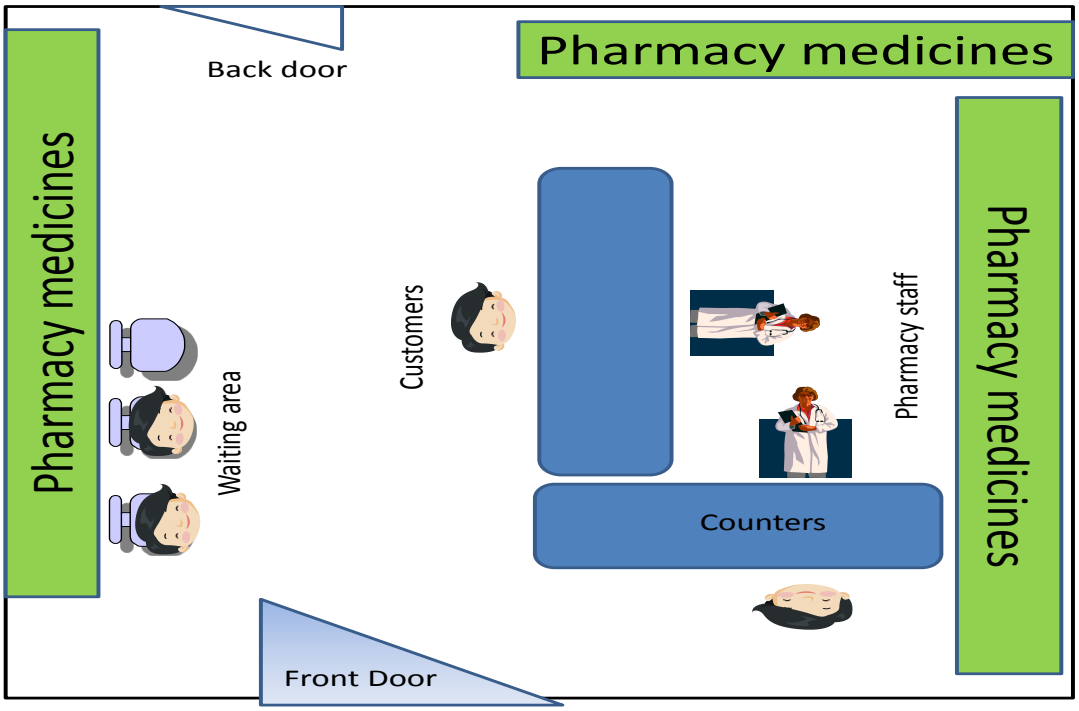

Figure 4-4 Pharmacy P 4 - floor layout

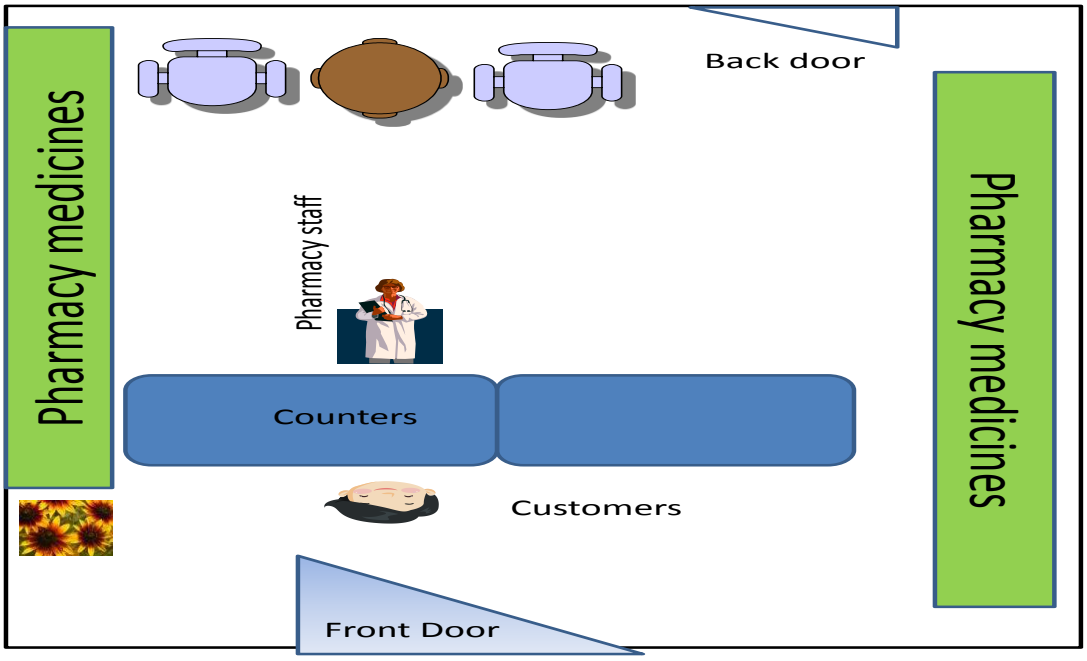

Figure 4-5 Pharmacy P 5 - floor layout

There are some diffirences of community pharmacies in Vietnam in comparison with community pharmacies in developed countries like the United Kingdom. The different features are presented in the table 4.2 below.

Table 4- 2 Different features between CPs in Vietnam and CPs in the UK

	Features	Community pharmacies in Vietnam	Community pharmacies in the UK
1	Goods and services provided	Medicines only including prescription, NPMs and supplement products	Including medicines and other goods and services such as cosmetics, baby care and eye care etc…
2	Organisation	Independent pharmacy	Chain pharmacies and independent pharmacy
3	Managing activities	Both prescription and NPMs were served in the same counter in most CPs	Prescription and NPMs are sometimes served at separated counters
4	Size	Mostly around 20-30 m^2	Usually larger than those in Vietnam
5	Computer	Mostly have no computer and management software	Computers are used in every CP for dispensing prescription medicines

The five participating pharmacies were chosen to reflect the mixture of pharmacies in urban areas in Hanoi but they could not be representive of all CPs in Vietnam. There is less likely they can representative for all pharmacies across of Vietnam. This limitation will be discussed more detail in the limitation section (section 7.6) of this research project.

A total of 356 interactions between pharmacy staff and customers were observed across five community pharmacies during a period between February and April 2011. Observations took place for one week at each pharmacy from 9 am to 5 pm, Monday to Friday. Observation data were recorded in detailed field notes and an observation sheet completed during and immediately after the observation. I immediately selected the next transaction that occurred after I had completed my notes on the previous one. There were some interactions between pharmacy staff and customers that occurred simultaneously in the community pharmacies where I was unable to properly observe them. So, only transactions close to me that I could clearly observe were selected for observation and recording. The characteristics of the pharmacies are presented in Table 4.3 below:

Table 4- 3 Characteristics of the pharmacy sites (n=5) and number of interactions observed

Site	Type of pharmacy*	Location	Interactions observed (n=356)
P 1	Large pharmacy	Tay Ho district	82
P 2	Medium pharmacy	Hoan Kiem district	68
P 3	Large pharmacy	Ba Dinh district	75
P 4	Medium pharmacy	Tu Liem district	72
P 5	Small pharmacy	Dong Da district	59

A number of themes emerged from the data, including the influence of the pharmacy settings, customer factors, attitudes of pharmacy staff, knowledge and communication skills of pharmacy staff influence on the supply of non-prescription medicines in community pharmacies. The detailed themes and subthemes are presented in Figure 4.6 below.

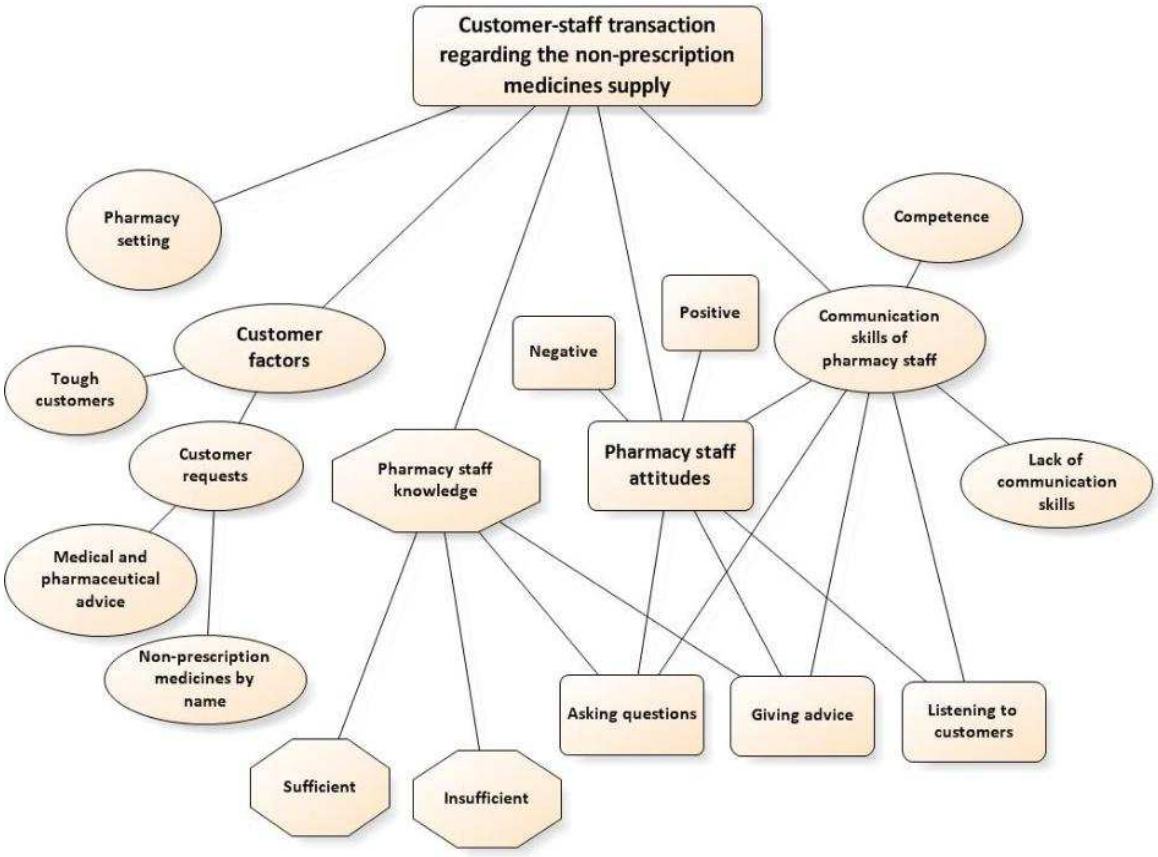

Figure 4-6 Themes from observation of customer-staff interactions about NPMs

4.2 Influence of pharmacy setting on customer-staff interactions

It was seen that the pharmacy setting has an influence on the interactions between pharmacy staff and customers at the medicine counter. The type of counters or areas where customers are served, the numbers of pharmacy staff serving customers and any additional facilities or equipment all appear to influence the interactions. These factors also appeared to have an impact on the customers' psychology and their attitudes towards community pharmacies as well as influencing the pharmacy staff response when meeting customer demands. The photos and video (DVD attached) presented below illustrate the settings in the five observed pharmacies.

Figure 4-7 Community pharmacy 1 (Large pharmacy), customer-staff interactions, computers, facilities and the layout of pharmacy

Only pharmacy P 1 has a dedicated separate area for non-prescription medicines. In the other pharmacies, both prescription and non-prescription medicines were provided within the same area. This affects the customer-staff interactions and is discussed in details below.

Figure 4-8 Community pharmacy 3 (large pharmacy)

In the two large community pharmacies (P 1 and P 3), there are three or four places available for pharmacy staff to serve customers. In community pharmacy one, there are four places with four computers to support pharmacy staff to check the medicines stock, prices and to produce a receipt for customers. In those community pharmacies, customers were served quickly without spending too much time waiting in a queue. Consequently, customers seemed to be more pleasant to staff compared with the other pharmacies where they needed to wait. Staff had plenty of time to communicate with customers without being constrained the pressure of a long queue of customers. As a result, customers were probably given sufficient time to complete their transactions and were provided with appropriate information for their treatment.

Each counter in those large pharmacies provides a relatively separate space for customers to talk about their health conditions and therefore discussions about their health conditions are not overheard by other customers waiting behind them in a queue. Conversations with pharmacy staff in those pharmacies seemed to be more open and comfortable. This might help to maximise the effectiveness of their interactions and transactions. Where there was more space, it appeared to have a positive influence on the transactions.

The use of computers and management software to support supply activities are likely to enable pharmacy customers to trust in pharmacy staff in terms of medicine price and pharmaceutical information provided. It seems to be that delivered information is checked and this ensured the accuracy before providing it for customers. From the five community pharmacies studied, only pharmacy one (P 1) and two (P 2) had computers and management software. Pharmacy two has only one computer supporting their delivery activities, whilst pharmacy one has four computers at the OTC counters. Receipts are printed and provided when completing a transaction, while in other pharmacies the costs of transactions are calculated by hand. Customers might doubt the accuracy of medicine price and their expenditure when calculated by hand, but they seem to believe in the receipt supported by computers.

Well-equipped and organised facilities and activities of community pharmacies also appeared to have an influence on customer psychology. In terms of culture, customers tend to believe in pharmacies furnished in modern and well-equipped facilities as well as being well organised. From observations, pharmacy one and three are equipped with modern equipment and well organised. Pharmacy staff in those pharmacies were wearing uniforms with identification badges that enable customers to know their professional status and be

aware of their competency. Pharmacy two was decorated in an old fashioned style. It created the feeling of experience for the pharmacy and may also build the customers trust in the pharmacy. It was seen that many customers having close, open and friendly conversations with pharmacy staff denoted that they seem to be loyal customers and have close relationship with pharmacy P2. In contrast, pharmacy four had a glass barrier separating pharmacy staff from customers. It appeared to create an unfriendly environment for customer-staff interaction (see video attached on the DVD). From the interaction between pharmacy staff and the male customer in pharmacy P4 in the video clip, the customer had to repeat his question again because the pharmacy staff could not hear the question clearly as the results of the glass barrier. The customer looked dissatisied and the transaction lasted for less than one minute. These settings are likely to influence pharmacy customers when communicating with staff in these pharmacies.

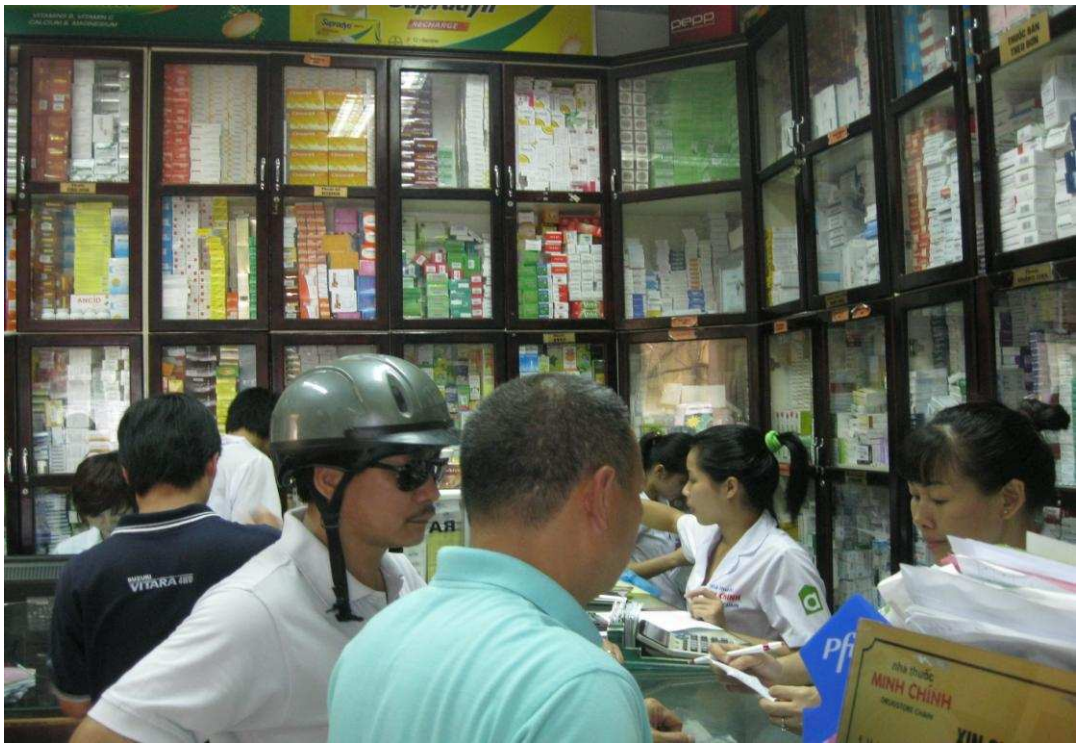

Figure 4-9 Community pharmacy 2 (medium pharmacy)

Figure 4-10 Community pharmacy 4 (medium pharmacy)

In the two medium sized pharmacies (P 2 and P 4), they had only two quite limited areas available for pharmacy staff to serve customers. Customers using those pharmacies had to wait their turn, especially when the pharmacies were busy. Pharmacy staff had to serve customers under pressure of other waiting customers and time constraints. They tended to deal with customers as quickly as possible in order to serve as many customers as they could. As a consequence, time spent on each customer was short and may lead to some limitations on the service and information provided for customers. Moreover, it could be seen that customers seem to be embarrassed and uncomfortable when talking about their health conditions in detail with a long queue customers waiting behind them and their conversations may probably be overheard.

Figure 4-11 Community pharmacy 5 (small pharmacy)

Community pharmacy five has only one space for serving customers. Customers using this pharmacy had to wait for their turn whenever there were more than two customers purchasing medicines. It could be seen that customers may probably be less pleasant if served like this. The conversation between pharmacy staff and customers can be heard by others waiting in the queue behind. So it could be seen that customers seemed to be embarrassed and uncomfortable when talking about their health conditions in detail, especially when the pharmacy was busy. In addition, pharmacy staff appeared to be forced to deal with customers as quickly as they could to enable them to serve as many customers as possible. As a result, the information provided in the conversations seemed to be limited in comparison with large pharmacies and this may affect the quality of transactions and the customers' expectations. The limitations of serving spaces in community pharmacies appear to have a negative influence on customer-staff interactions and service provided.

Only pharmacies P1 and P3 have a small private room for staff-customer consultation. The privacy of the spaces in the pharmacy is an important aspect impacting on staff-customers transactions. If the discussions between pharmacy staff and customers are taking place in a relatively separate or private space, it may be easier for pharmacy customers to talk about their health problems and for pharmacy staff to counsel customers without being afraid of their conversation being overheard by other customers. The development of an appropriately interactive area is an important factor influencing the transaction between pharmacy staff and customers in CPs. The finding from literature indicated that customers' embarrassment was perceived to be influenced by a lack of privacy in the consultation [216]. They wanted pharmacists to provide dispensing, advice on medications and private consultation areas [77]. The finding from Anderson's study indicated that there is a need to consider privacy and confidentiality surrounding advice giving for customers in community pharmacies [83]. Barber and Smith (1994) also indicated that privacy is an important aspect of quality of care. If pharmacists are to develop their advisory role, then discussions with clients about their problems with over the counter medicines must clearly take place in a private area [217].

The number of serving counters in the community pharmacies may have a positive influence on customers' satisfaction. More counters and more pharmacy staff serving customer helps to reduce the work-load and time constraints for pharmacy staff as well as saving customers' waiting time. Customers appeared to be more pleasant when being served quickly, without spending too much time waiting in the queue. Moreover, more time could also be invested for each transaction leading to sufficient information to be provided for customers. Furthermore, customers who are afraid of their health conditions being heard by others could be moved by being served quickly in relatively separate counters. In addition, being furnished with modern facilities and equipment also appear to have a significant impact on customer's trust in pharmacies and their transactions.

4.3 Customer factors impacting on the supply of NPMs

Customer demands and attitudes appear to have a significant influence on the transaction including responses of pharmacy staff. Customers come to pharmacies with two main types of requirements regarding the supply of non-prescription medicines. The first is a request for advice, which may or may not result in the sale of a non-prescription medicine or a referral customer to a doctor. Secondly customers may directly request a particular non-prescription medicine by name. It could be seen that customers' demands looked diverse and vary from one to another. So, the pharmacy services provided by pharmacy staff are considerably affected by customers' requests and characteristics that could be discussed in detail in the following sections.

4.3.1 Customer requests for general medical and pharmaceutical advice

Customers came to ask pharmacy staff for medical and pharmaceutical advice. The customers' health conditions and symptoms were described and they requested the pharmacy staffs' support in dealing with the condition or symptoms. The data supports this wider picture, across the five pharmacies studied: of the 356 interactions observed, around one-third followed this pattern. The extract below illustrates this type of transaction.

A female customer (40-45 year old)

Customer: I've got a skin rash, would you please sell medicines to me.

Staff: When did you get the symptom?

Customer: Yesterday evening.

Staff: What foods did you eat yesterday?

Customer: Seafood, I took shrimp and crab.

Staff: I think you may have an allergy, so you should use antihistamine medicine and Vitamin C. This is Claritin, the good one now.

Customer: How do I take it?

Staff: OK, I will write the instruction here for you (on the box). Be aware that you may feel drowsy, so don't drive a car or motor when using medicine.

Customer: Yes. Thank you.

(Pharmacy P 2, day 3)

It was a usual interaction when the customer came to pharmacy and described her symptoms and asked for symptomatic and pharmaceutical advice, the dialogue started with symptom aspects with pharmaceutical advice being sought for the customer's symptoms. Questions were asked by staff in order to identify when the symptoms occurred and their causes. Then the conversation shifted towards a retail terrain as the pharmacy staff recommended a specific branded product and then provided verbal and written instructions along with warnings about the side-effect of the medicines supplied.

In the following transaction, a customer requested medicine for treating her cough.

A female customer (35-40 year old)

Customer: I've got a cough, could you sell medicines to me.

Staff: How long have you had the cough?

Customer: 2 days

Staff: Is there any phlegm? Or is it just a dry cough?

Customer: I cough too much today, no phlegm. Dry cough, I think.

Staff: OK, here is Terpin codeine. This one is for dry cough. Take one tablet, three times a day. You will be better soon.

Customer: Thank you

(Pharmacy P 5, day 4)

The data suggest that, when customer asks for and receives advice from a pharmacy staff, the dialogue is characterised by a balanced and consensual dialogue in which both parties (pharmacy staff and customer) demonstrate an interest in and commitment to what the other is saying.

Customer requests have a significant influence on the pharmacy staff reactions and their decisions about the pharmacy service to be provided. Smith (1992) indicated that the extent and nature of advice given by the pharmacist will be influenced by the pharmacist's perceptions of the customer's expectations [157]. The following transaction is typical of customer requests for medical and pharmaceutical advice that affect pharmacy staff decisions.

> *A male customer (45-50 year old)*
>
> *Customer: Do you have herbal medicines to support my liver function? I drink a lot of wine and beer, so I am afraid of damaging my liver.*
>
> *Staff: You can use Boganic medicine from Traphaco pharmaceutical Company. (A herbal medicine)*
>
> *Customer: How does it help?*
>
> *Staff: It can help to release toxins from the liver.*
>
> *Customer: OK, I take it.*
>
> *Staff: You can use two tablets each time and three times daily. This should be used for one month.*
>
> *Customer: Thank you.*
>
> (Pharmacy 3, day 4)

This type of interaction reflected that customer request drove the pharmacy staff response to supply medicines to meeting the customer demand. The counselling of pharmacy staff moved towards satisfying the customer's needs. So customer request for medicines influenced the selection of medicine and the supply of pharmacy staff.

The customer requests and the information they provide regarding their symptoms are the fundamental clues for pharmacy staff to identify diseases and decide an appropriate medicine to supply.

A female customer (30-35 year old)

Customer: I am sneezing and have a runny nose from this morning, would you sell medicine to me?

Staff: Do you often get these symptoms?

Customer: Yes, quite often, especially when the weather is changing.

Staff: Have you tried any medicine?

Customer: Yes, I took paracetamol, but it had no effect.

Staff: OK. You've got seasonal allergic rhinitis or hay fever due to changing the weather. You should use this antihistamine (Claritin) and Coldi spray to clean your nose, twice daily. You'll be better soon.

Customer: Thank you

(Pharmacy 5, day 3)

A female customer (50-55 year old)

Customer: I've had a sore throat since yesterday afternoon, what medicine I can use?

Staff: You can use throat lozenge here is Dothrocine. Suck one lozenge slowly every 2-3 hours.

Customer: Thank you

(Pharmacy P 1, day 5)

Pharmacy staff relied on customer requests for medical and pharmaceutical advice and collected further information about their symptoms then considered which disease the customer was suffering from and what an appropriate medication might be. Then appropriate advice and other counselling were given along with medicines being sold. These are typical transactions which customer requests drove pharmacy staff response.

4.3.2 Customer requests for a particular type of non-prescription medicines

In the pharmacies observed, the majority of customers came to purchase a specific medicine product by name. This was the starting point for two-thirds (n=234, 66%) of the interactions. This was similar to the proportion from a study in the UK indicated that 67% (321/478) of the interactions requesting to purchase specific medicines product by name [218]. This was a more complex and challenging type of interaction for pharmacy staff, who needed to establish that the requested medicine is both safe and appropriate for the customer to use. However, the pharmacy staff responses to such requests will be affected by the way in which the requests are made. A qualitative study in Northern Ireland indicated that in relation to patient factors, it emerged that pharmacists were influenced by patient demand for a particular OTC product and wanted to meet patient expectations [75]. This section discusses the impact of customer requests on the transactions, whilst the influence of staff attitude on the interactions will be discussed later.

A female customer (50-55)

Customer: Can I have 2 boxes of Osla drop eye and one Natriclorid.

Staff: Who will use these medicines?

Customer: My husband's got dry eyes.

Staff: Does it look red?

Customer: No. He is just uncomfortable with dry condition.

Staff: Do you need anything else?

Customer: Yes. Do you have medicine for fungal nail infections?

Staff: Yes! Here is Nizoral cream for that condition.

Customer: How much for all?

Staff: 65000VND

Customer: Thank you

(Pharmacy 1, day 5)

This interaction illustrates customer demands driving the pharmacy staff reaction to requests for NPMs that were focused on supplying and satisfying customer needs. Where there is a direct request, staff have a responsibility to ensure that the medicine supplied is appropriate.

In the interactions where customers requested medicinal products by name, on over half of the occasions (n=132, 56%) pharmacy staff focused on the sale and business matters rather than focusing on customer health or concerns. This issue will be discussed further in the section 4.4.2 about the attitude of pharmacy staff. Below are examples where the pharmacy staff made no effort to check the medicine was appropriate or check the customer was happy with the medicine suggested.

A female customer (45-50 year old)

Customer: May I have Calcium and Mg-B6; I suffer from muscle cramps.

Staff: Here is your medicine.

Customer: How much?

Staff: 56.000VND

Customer: Thank you.

(Pharmacy 2, day 2)

A female customer (25-30 year old)

Customer: I could like to buy three boxes of Superkid, one box of Lactibio and one box of Fugacar.

Staff: Do you want anything else?

Customer: No, that's all.

Staff: Here are your medicines.

Customer: Thank you

(Pharmacy P 1, day 3)

Medicines were supplied on customer request without asking any questions and giving any advice. The interactions had a sales focus rather than any focus on the customer's health.

A female customer (55-60 year old)

Customer: Could you sell Rutin C to me. (A herbal medicine used to support the vein system)

Staff: Have you had it before?

Customer: Yes. I am using it.

Staff: How long have you been using this medicine?

Customer: Two months.

Staff: OK. Here is your medicine. Take 2 tablets, twice daily.

Customer: Thank you

(Pharmacy P 4, day 4)

A female customer (60-65 year old)

Staff: How can I help you?

Customer: Can I have one box of Nystatin and one Otilin please?

Staff: For Otilin, we have got just import product. Do you want?

Customer: Yes, alright.

Staff: Here are your medicines.

Customer: Thank you.

(Pharmacy P 1, day 5)

The lack of conversation between pharmacy staff and customers on their health condition and medicine use raises concerns about the responsibilities of pharmacy staff in community pharmacies. Customers may have used the medicine before, but pharmacy staff should still check their understanding about the medicine to ensure the safe and effective use of the medicine by customers.

Customer attitude and staff behaviour

Not all customers welcomed the pharmacy staff questioning, they did not want to be questioned or given any explanation and some customers may regard this as intrusive. In some cases, pharmacy staff just supplied the medicine, whether they had made a rational request or not in response to an impatient or aggressive customer.

> *A male customer (50-55 year old)*
>
> *Customer: Could you sell 3 boxes of this traditional medicine 'Phong te thap' to me. (This herbal medicine is used to support joint regression)*
>
> *Staff: Why do you want to use it? This traditional medicine is used to support a chronic joint condition. If it is an acute disease, you should go to see the doctor to get intensive treatment first and use this medicine later. How is your condition now?*
>
> *Customer: Don't explain, sell the medicine to me.*
>
> *Staff: OK, if you want. Here is your medicine.*
>
> (Pharmacy P 4, day 3)

The customer decided by himself which medicine to use and requested the pharmacy staff to supply that medicine. However, when the staff attempted to ascertain why the customer was buying it, the customer did not allow the dialogue to develop. The staff sought to negotiate by telling the customer why she wanted to know the information, which might potentially have justified the delivery of advice. The staff suggested that the customer should go to see their doctor for further diagnosis and have an appropriate medicine prescribed. The customer showed signs of resisting the questions and dialogue in his abrupt reply to her advice 'Don't explain sell the medicine to me'. The comment cut off the staff's motivation for giving the advice. So the customer's attitude had a significant influence on the response of pharmacy staff.

Customer as expert in their medicine taking

Many customers who purchase non-prescription medicines consider themselves to be skilled users of medicines and see the counselling of pharmacy staff to be unnecessary. They decide what medicines they can use and are not interested in the advice of pharmacy staff.

A female customer (25-30 year old)

Customer: I would like to buy calcium.

Staff: Are you pregnant?

Customer: Yes, I am.

Staff: Are you using any supplement or vitamin?

Customer: I am using Procare.

Staff: Oh, there is calcium in Procare, so you do not need to supplement with more calcium.

Customer: But, I want to buy it. Please supply me.

Staff: OK! Here is calcium corbbie. 48.000 VND for a box.

Customer: Thank you.

(Pharmacy 3, day 2)

Pharmacy staff although they may supply medicine in such case appeared to do so reluctantly. The conversation started with questions about customers' health condition and medicine used. The pharmacy staff pointed out the irrational and unnecessary use of medicine because customer's on-going supplement has already had sufficient calcium. However, the customer decided by herself and tried to convince the pharmacy staff to supply the medicine for her and that affected the pharmacy staff decision of supply.

4.3.3 Influence of others on customer demands

When customers requested a particular brand or type of non-prescription medicines, their beliefs based on friends' suggestions appeared to influence the pharmacy staff decision and counselling provided. The following transaction illustrates this one such occasion:

> *A male customer (>60 year old), (*Customer looks wealthy and overweight*)*
>
> *Customer: I want to buy "Phuc linh" medicine. (*A traditional medicine helps with weight loss*).*
>
> *Staff: Do you have any problems with heart disease, high blood pressure or diabetes?*
>
> *Customer: Yes, I have high blood pressure and diabetes.*
>
> *Staff: Oh, you should not use this medicine with your conditions. There may be some side-effects and drug interactions. It would be better to adjust your diet rather than using this medicine.*
>
> *Customer: But I still want to use that medicine, my friend said it is a good medicine for my condition, please sell it to me.*
>
> *Staff: Are you sure? Do you still want to buy it?*
>
> *Customer: Yes. Sell it to me now.*
>
> *Staff: OK. Here is your medicine. Is there anything else?*
>
> *Customer: No*
>
> (Pharmacy 1, day 4)

Despite a clear contraindication and concerns about drug interactions, the staff continued with the sale when the customer insisted they wanted the product. The transaction reflected that, the customer believed in his friend's advice and this influenced his decision to buy the medicine. It was a struggle for the pharmacy staff to deal with this situation.

4.3.4 Other situations that influence transactions

When dealing with customer requests, pharmacy staff, particularly younger ones, sometimes appeared uncomfortable dealing with sensitive situations. The following case describes a young man customer purchasing emergency contraception medicine:

> *A male customer (18-22 year old)*
>
> *Customer: Could you sell emergency contraception medicine to me.*
>
> *Staff: Here you are!*
>
> *Customer: What can we do if she vomits after taking the medicine?*
>
> *Staff: Have to take another dose.*
>
> *Customer: Thanks*
>
> (Pharmacy P 1 day 3)

> *This is a sensitive case when a young man was purchasing emergency contraceptive medicine. Pharmacy staff P 1.6 dealing with this situation was a young and still single staff; she looked shy and uncomfortable while advising this young man customer. The dialogue between the staff and customer was limited as no questions were asked and no advice was given. The young staff looked shy and only responded when being asked.*
>
> (My notes, Pharmacy P 1 day 3)

This type of customer-staff interaction was a sensitive case and this affected to pharmacy staff response, especially young staff when serving customer demands.

Customers sometimes know what they want but may not remember the name of medicine so they described the colour of the medicine to pharmacy staff that was able to help the customer identify the correct medicine.

A male customer (40-45 year old)

Customer: I want to purchase a medicine which is capsule and one part is green and another is white colour. (He didn't remember the name of medicine and tried to describe about the colour of medicine)

Staff: Don't you remember the name? I will select some that are green and white for you to choose.

Customer: Oh, that one. It is right. I take it

Staff: Here you are.

Customer: Thank you.

(Pharmacy P5, day 2)

In this case, the staff although finding the medicine the customer wanted, she did not then check the medicine was appropriate for them. There was no question asked about customer health condition and symptoms. The customer safety might not be considered and medicine was supplied on customer request in a business-like manner.

4.4 Pharmacy staff attitudes and NPM transactions

Pharmacy staff attitudes towards customers influence their transactions for minor ailments. In this section, I have considered whether the behaviour of pharmacy staff was appropriate relating to the medicine supply. Instances of responsible and irresponsible supply of medicines were seen in the transactions observed.

4.4.1 Responsible medicine supply

When dealing with customers requesting for medical and pharmaceutical advice or a particular type of medicine by name, the positive attitudes of pharmacy staff towards customers significantly influences the customer-staff interactions and the success of the transactions. The extracted cases below illustrate this viewpoint:

A female customer (45-50 y)

Customer: I want to buy three boxes of "Kim tien thao". (A traditional medicine used to treat kidney stones)

Staff: Have you been diagnosed? How big is the stone and where is it?

Customer: Yes. I had a scan. It is 0.5 cm.

Staff: OK. It is not too big; you can use this medicine and drink more water. You should have it checked for any reduction every one to three months. This form of medicine is sugar coated. Do you have diabetes?

Customer: No

Staff: OK. The doses are three pills, three times daily after meals and remember to drink more water. You will be better after few months.

Customer: Yes, I know.

(Pharmacy P 4, day 2)

Positive satff attitudes and responsible supply took place when they asked appropriate questions and showed an open, friendly and caring attitude towards the customer. The interaction reflected that a positive attitude drove the pharmacy staff to take greater responsibility and care when dealing with customer demands and this appeared to result in customer satisfaction. The following transaction illustrates more about this viewpoint.

A female customer (35-40 year old)

Staff: Hi. How can I help you?

Customer: I want to buy a multivitamin for my mum, she is 86. What is the best quality product now?

Staff: Does she have any chronic diseases?

Customer: Oh, yes, diabetes and high blood pressure

Staff: How about her eating?

Customer: She has difficulty eating, diarrhoea and depression.

Staff: Here is a multivitamin liquid from the US and it is easy to use for old people who have difficulty in swallowing. She can take 5ml twice daily.

Customer: OK I'll take it.

(Pharmacy P 1, day 3)

The positive attitude and responsible supply of pharmacy staff lead to an open and friendly interaction with customer as performed in the transaction above. Consequently, customer-staff agreement about the medicine recommended and customer satisfaction could be obtained easily. This resulted in building the trust that customers place in pharmacy and customer loyalty. The great benefit of having a positive attitude and taking greater responsibility for customers' health and wellbeing is that pharmacy could gain both short term and long-term benefit as a result of their performance.

4.4.2 Irresponsible medicine supply

Lack of communication skills or confidence and irresponsible attitudes of pharmacy staff appear to have considerable influence on the whole transaction. Poor attitudes of pharmacy staff influenced customers to react with anger as illustrated by the case below:

A male customer (70-75 year old)

Customer: I suffer from kidney stones. Are there any herbal medicines for my disease?

Staff P 1.5: Here is a traditional medicine for kidney stones and instruction leaflet; you can read.

Customer: I don't read. I need your counselling. (Customer became angry and scolded staff P 1.5)

Staff (P 1.3 replaced P 1.5 and dealt with the difficulty): We really sorry, she is an apprentice. How can I help you?

Customer: I got kidney stones and need some herbal medicines.

Staff: Ok. How big is the stone?

Customer: It is 0.4 cm

Staff: Ok. It is not too big, don't worry. You can use some traditional medicines that have good effect for kidney stone such as "Kim tien thao" and "Bai thach". Please drink more water when using medicines.

Customer: I will take these medicines.

Staff: You will be better after using these medicines. I write the instructions here for your use (on boxes).

Customer: OK. Thank you for your advice.

(Pharmacy 1 day 4)

Although the second staff member calmed the situation and helped the customer, she still wrote the instructions on the box rather than tell him despite his outburst being related to his not being able to read. This reflected the irresponsible supply of medicines by staff.

For some transactions, the staff did not ask any questions about the medicines being sold and the interaction was treated as any other retail sale. In over half of the transactions (n=132, 56%) pharmacy staff did not focus on customer health and concerns, but treated it as a business transaction. Time spent on such transactions was limited. A study conducted by Smith indicated that pharmacist styles of questioning behaviour and the fact that their advice is focused around the supply of products rather than a discussion of symptoms may result in many lost opportunities for health promotion [157]. The following two transactions illustrate the issue.

A male customer (50-55 year old)

Customer: Can I have a tube of Salonpas gel please?

Staff: Here you are. 22.000VND

Customer: Thank you

(Pharmacy P 1, day 5)

A female customer (25-30 year old)

Customer: Could you sell 4 boxes of Fugacar to me? (It is used to treat worms)

Staff: We have only got chocolate flavour. Do you want it?

Customer: OK. I'll take it.

Staff: Here you are. 48.000VND

Customer: Thank you

(Pharmacy P 3, day 2)

No questions were asked about who will use the medicine, why they wanted to purchase that medicine and the customer health condition, plus no advice was given about how to use the medicine. The interactions were simply retail encounters and involved no concern about the customer's health problem. Customers may have used the medicine before, but pharmacy staff should still check their understanding about the medicine to ensure the safe and effective use of the medicine by customers.

4.4.3 GP referrals

In a few transactions the pharmacy staff decided they could not recommend a medicine and the patient should see their general practitioner. Customers were not keen to comply with the suggestion, but in most cases the patients took the staff advice. The extracts below illustrate this.

> *A female customer (25-30 year old)*
>
> *Customer: My daughter has got a cough. What medicines I can use?*
>
> *Staff: How old is she? What are the symptoms?*
>
> *Customer: She is 20 months and got cough with phlegm.*
>
> *Staff: You should take her to see a doctor. She needs to be checked and have a prescription.*
>
> *Customer: Are there any medicines that I can use for her? I don't want to go to hospital.*
>
> *Staff: I think it could be better for her to see a doctor. She is young and needs to be checked carefully.*
>
> *Customer: Yes! I will go (to see doctor)*
>
> (Pharmacy P1 day 1)

Here the pharmacy staff demonstrated their concern for the patient's well-being rather than any consideration for the profit of the pharmacy. The pharmacy staff responsibly responded by suggesting the customer go to a doctor. Actually, medication could be provided for pharmacy's turnover and profit, but positive and ethical approaches encourage pharmacy staff taking in to account the safety and rational use of medicine for patient.

A female customer (60-65 year old)

Customer: I want to purchase a box of Korean Ginseng.

Staff: Do you have any problems related to high blood pressure?

Customer: Yes, I am using high blood pressure medicine.

Staff: I don't think you can use it now. You should consult the doctor first if you still want to use.

Customer: OK. I will ask my doctor.

(Pharmacy P 3, day 3)

A male customer (60-65 year old)

Customer: Would you please sell Zinnat (antibiotic) and Vitamin 3B to me.

Staff: Why do you want to use Zinnat? Have you ever used that before?

Customer: I have earache and fever; I think I have ear inflammation or infection.

Staff: You should go to see doctor for a diagnosis first, and then consider the use of medicine later.

Customer: Last year, I suffered the same symptom and used that medicine.

Staff: It is better for you to see doctor and have diagnosis. Then decide the appropriate medicine to use. It will be safer.

Customer: OK. I will go to doctor now.

(Pharmacy 4, day 3)

In the second case, a less responsible staff member might have sold the medicine but they were able to persuade the customer that their safety was the priority. Customers were referred to GPs as a result of the responsible performance of pharmacy staff; otherwise medicines may probably be sold for their profit.

4.5 Pharmacy staff knowledge and non-prescription medicine supply

When dealing with minor ailments and supplying non-prescription medicines for customers, it is essential for pharmacy staff to have sufficient knowledge in terms of identifying diseases and choosing appropriate medicines for customers' treatment. It was difficult to evaluate the knowledge of pharmacy staff by observing their performance through the transactions as their responses were affected by many factors. Sometimes, poor performance did not mean a lack of knowledge and it may be related to a negative attitude of pharmacy staff. The knowledge of pharmacy staff was assessed subjectively by reflecting upon their performance and response to customer requests.

4.5.1 Pharmacy staff demonstrating good knowledge

Knowledge was seen in the ability of pharmacy staff to identify conditions and to select appropriate medicines for customers' treatment. The following transactions illustrate the situations where pharmacy staff demonstrated their knowledge to meet with customers' needs.

A female customer (25-30 year old)

Customer: Something is wrong with my teeth after delivery, what medicine can I use?

Staff: How do you feel?

Customer: It is not as strong as in the past and I get pain sometimes.

Staff: It may be a symptom of calcium deficiency after delivery, so you should use a calcium supplement. We have Calcinol and it is the best one now. You should use it in the morning to maximise the absorption.

Customer: OK, I will take it (Pharmacy P 2, day 2)

In another transaction, the staff identified a medicine previously needed and then found out about the patient's condition before suggesting an appropriate treatment.

A lady (60-65 year old) took an empty blister of medicine to staff.

Customer: I have a cough, can I use this medicine?

Staff: Let have look. It is an antibiotic. It is not necessary to use this medicine if you haven't got an infection. What are your symptoms? Is it a dry cough or cough with phlegm?

Customer: Uh. I think I got dry cough. What medicine I can use?

Staff: OK! You should try terpin codeine first. It is for dry cough. If it is OK, that will be fine. Otherwise, I will suggest another medicine for you.

Customer: How can I use this?

Staff: Take 6 tablets three times a day. 15.000 VND

Customer: Thank you.

(Pharmacy 5, day 1)

A female customer (20-25 year old)

Customer: I want to buy Procare. (She is a pregnant customer)

Staff: Are you taking anything at the moment?

Customer: No.

Staff: OK. You should use this medicine in the morning in order to maximise the absorption.

Customer: Thank you

(Pharmacy 2, day 1)

Identifying the right disease and choosing the correct medicines for customers' treatment requires knowledgeable and responsible pharmacy staff. The interactions showed that questions were asked in order to identify the patient's symptoms before offering an appropriate medicine and advice. These transactions demonstrated that pharmacy staff had sufficient knowledge to deal with those situations.

Consideration should be taken into account not only of the medicine to treat a customer's condition but also their safety and it requires staff to be knowledgeable. The transaction below illustrates where pharmacy staff considered the customer's safety before supplying a medicine.

A female customer (55-60 year old)

Staff: Hi. How can I help you?

Customer: My leg, I have got rheumatic pains, what medicines I can use?

Staff: Can I have look? When did you get the symptoms?

Customer: Yesterday

Staff: Do you have any problem with stomach ache?

Customer: No

Staff: OK. You can use Aspirin 1000 mg for this condition, twice daily after meals.

Customer: Thank you.

(Pharmacy P 3, day 2)

In another case with the same disease, the pharmacy staff showed that she was knowledgeable when selecting a safer medicine for a customer.

A male customer (45-50 year old)

Customer: I've got rheumatic pains. Would you sell medicine to me?

Staff: Do you have stomach ache?

Customer: Yes, I am.

Staff: OK. You should use Mobic. This is COX2 analgesic medicine with minimal affect to stomach. It will be safer.

Customer: Thank you

(Pharmacy P 3, day 4)

The pharmacy staff knowledge was reflected by their pharmaceutical knowledge of medicine selection and their risk assessment of customer's safety.

4.5.2 Pharmacy staff demonstrating a lack of knowledge

Inexperienced staff were seen to struggle with consultations and in dealing with the public. This was seen to be a mixture of a lack of confidence and a lack of knowledge and sometimes resulted in a transaction where a medicine was supplied immediately following a customer request without identifying the symptoms and possible cause of disease.

A female customer (35-40 year old)

Customer: My husband got diarrhoea several times from this morning. Please sell medicines to me.

Staff: This is Imodium, take two tablets, twice a day.

Customer: Thank you

(Pharmacy P 5, day 4)

A female customer (60-65 year old)

Customer: Hi. I am feeling ill. I've got headache and fever, what medicine I can use?

Staff: Paracetamol, here is medicine.

Customer: Does this help?

Staff: Yes.

Customer: OK

(Pharmacy P 1, day 4)

The above interactions reflected that there seemed to be a lack of knowledge and that the pharmacy staff were irresponsible when dealing with the situation. Questions should be asked to identify the disease before recommending a suitable treatment.

4.6 Communication skills and supply of non-prescription medicines

Communication skills have a significant influence on customer-staff interactions. When communicating with customers, both verbal and non-verbal communication is important. As the observer, it was difficult to view both the customer and staff faces and thus harder to evaluate non-verbal communication in this situation. The communication skills of pharmacy staff in this section are mainly based on assessment of verbal communication between pharmacy staff and customers. The transaction below illustrated where the staff member considers the customer but also assess their needs in a friendly way

A pregnant woman (25-30 year old)

Staff: Hi. How can I help you?

Customer: I want to buy Procare and osopan (calcium)

Staff: How many weeks pregnant are you?

Customer: 20 weeks.

Staff: Is it your first baby?

Customer: The second.

Staff: Is it like the first pregnancy?

Customer: No, it is different. This time is a girl

Staff: Nice, congratulations. She may look beautiful like you. Here are your medicines.

Customer: Thank you

(Pharmacy P 1, day 3)

When discussing with customers, pharmacy staff should have the ability to encourage customers to talk about their health condition as well as sharing emotions and feelings. The consultation should involve a two way exchange which ensures the staff collects sufficient information about the patient to advise them and that the customer leaves the pharmacy having told their story and with appropriate recommendations for their care including how to use medicines supplied.

Asking questions and giving advice

When communicating with pharmacy customers requesting a medicine or advice, the first step is finding out about the customer's health condition and medical history. Questions help to identify customers' conditions and if a medicine has been requested whether or not it is appropriate.

A male customer (60-65 year old)

Customer: I would like to buy this medicine. (He showed staff a blister of Telfast – fexofenadine)

Staff: Why do you want to use that medicine? Do you have a cough or an allergy?

Customer: No. I have a cold and a headache. My neighbour suggested I use this medicine.

Staff: This is an antihistamine medicine and it is used for dry cough and hay fever or allergy. It is not necessary to use if you do not have those conditions.

Customer: What medicine can I use now?

Staff: Here is Panadol. You can use it for your condition. Please take one tablet, three times daily.

Customer: Thank you

(Pharmacy P 1, day 3)

When faced with customer requests, pharmacy staff should have the ability to ask appropriate questions that enable them to collect sufficient information for their treatment decision. Questions should include both open and close questions and focus on identifying the person who will use medicines, the patient's symptoms and health condition as well as medical history and allergies to medicines. Information collected by asking questions will support pharmacy staff to identify the disease and choose appropriate medicines for the customer.

When a medicine is supplied to a customer, staff should not only provide instructions on using the medicine but also other advice about the condition or lifestyle-advice should be considered. This means the customer can maximise the benefits of the medicine and minimise any unwanted effects.

A male customer (60-65 year old)

Staff: How can I help you?

Customer: Please sell the Rocket medicine to me.

Staff: Have you ever used that medicine?

Customer: Yes, I have

Staff: OK. If you have the side-effect of diarrhoea, please stop using it. It may happen because of the Ginseng ingredient. Please avoid fish and shrimp while taking this medicine.

Customer: Yes, thank you.

(Pharmacy P 3, day 1)

A female customer (55-60 year old)

Customer: I would like 2 boxes of Figura please. (A traditional medicine helps with weight loss).

Staff: How weigh are you?

Customer: 87 kg.

Staff: You should adjust your food intake with more healthy food and doing more exercise. This is only supplement medicine.

Customer: Yes, thank you

(Pharmacy P 1, day 2)

Poor communication skills

Whilst good communication skills enhance the transaction process, poor communication skills can do the opposite. This was manifested in consultations where there appeared to be no concern for the customer and/or no attempt to ensure they were supplied with an appropriate medicine. Poor communication skills significantly influenced the interaction and the relationship between pharmacy staff and customers. The extracted cases below illustrate the viewpoint.

A female customer (25-30 year old)

Customer: Can I have 7 boxes of kid-eye please?

Staff: Here is your medicine. 105.000VND

Customer: Thank you.

(Pharmacy P 1, day 5)

A male customer (35-40 year old)

Customer: Can I have one box of Decontractyl, one box of Salonship and one blister of Panadol.

Staff: Do you want Panadol or Panadol extra?

Customer: Panadol extra please.

Staff: Here you are.

Customer: Thank you

(Pharmacy P 4, day 1)

A male customer (>70 year old)

Customer: I would like 2 blisters of Voltaren and 3 blisters of Aspirin.

Staff: Here you are. 58.000 VND.

Customer: Thank you.

(Pharmacy 2, day 3)

For those customers who requested general medical and pharmaceutical advice for their minor conditions, nearly one third (32%, 40/122) obtained medicines without being asked any questions or being given any advice as illustrated by the quotes below.

A male customer (25-30 year old)

Customer: I have a sore throat from this morning, please sell medicine to me.

Staff: Here are Strepsils for that condition. Take 4-6 tablets a day.

Customer: Thank you.

(Pharmacy P 5, day 2)

A female customer (50-55 year old)

Customer: My nose was stuffed from yesterday afternoon, what medicine I can use?

Staff: You can use this one (Flixonate), take three to four times a day.

Customer: Thank you.

(Pharmacy P 2, day 1)

A male customer (30-35 year old)

Customer: I got fungal nail infection, please sell medicine to me.

Staff: OK. Here is Nizoral cream. 15.000 VND

Customer: Thank you

(Pharmacy P 4, day 3)

These customers presented the staff with an opportunity to ask for further details about their condition. However, in actual practice, customers were still often faced with the situation of obtaining medicines without receiving any questions and advice. How can pharmacy staff identify the disease correctly and whether customers' requests for medicines were appropriate or not without asking questions and communicating with customers properly. How can pharmacy customers use medications safely and effectively without receiving sufficient information from pharmacy staff? What communication skills

did they perform during their transaction? Those transactions were not complicated in terms of medical and pharmaceutical knowledge. However, the communication skills and attitudes of pharmacy staff when dealing with situations need to be questioned.

4.7 Summary

The pharmacy settings, customer factors, pharmacy staff attitudes, their knowledge and communication skills all have an influence on transactions. In around one-thirds of transactions customers presented their symptoms or requested advice and the remainder were direct requests for medicines.

Customers' diverse and complex demands significantly influenced pharmacy staff responses as well as the outcome of the transaction whether these are a request for advice or for a particular medicine. Customer views and those of their friends also influenced the transactions in that they appeared to value advice of friends over the pharmacy staff advice. Another major influence was the attitude of pharmacy staff – whether that was one that was patient-focussed and concerned for patient health or business focussed with no apparent concern for the customer.

Pharmacy staff knowledge, their communication skills and level of confidence also influenced consultations where those were lacking they either would tend not to question or give advice and merely sell a medicine in response to a request. This sometimes occurred even where patients presented with a symptom and they were given a medicine without any further discussion.

CHAPTER FIVE: PHARMACY STAFF PERSPECTIVES

5.1 Introduction

This chapter presents the findings from interviews with eight pharmacists and 14 pharmacy assistants. They were interviewed about their perspectives concerning the supply of non-prescription medicines in community pharmacies in Vietnam. The exploration focused on the transactions between pharmacy staff (pharmacists and pharmacy assistants) and pharmacy customers, and any counselling that was provided to those customers. A number of themes emerged from the data, including the role of community pharmacies in Vietnam, attitudes and ethical issues, knowledge of pharmacy staff, communication skills and customer factors (Figure 5.1). A summary of the demographic characteristics of participants is shown in Table 5.1.

Table 5- 1 Demographic characteristics of interview participants (n=22)

Code number		Role	Gender	Age (years)	Time in current position (years)	Years qualified
P 1	**P 1.1**	Pharmacist	Female	50-59	20-25	20-25
	P 1.2	Pharmacist	Female	26-29	1-5	1-5
	P 1.3	Phar assistant	Female	30-39	5-10	5-10
	P 1.4	Phar assistant	Female	26-29	5-10	5-10
	P 1.5	Phar assistant	Female	26-29	1-5	1-5
	P 1.6	Phar assistant	Female	20-25	1-5	1-5
P 2	**P 2.1**	Pharmacist	Male	40-49	15-20	15-20
	P 2.2	Pharmacist	Female	60-69	20-25	20-25
	P 2.3	Phar assistant	Female	40-49	10-15	10-15
	P 2.4	Phar assistant	Female	26-29	1-5	1-5
P 3	**P 3.1**	Pharmacist	Female	40-49	15-20	15-20
	P 3.2	Phar assistant	Female	30-39	10-15	10-15
	P 3.3	Phar assistant	Male	30-39	10-15	10-15
	P 3.4	Phar assistant	Female	30-39	5-10	5-10
P 4	**P 4.1**	Pharmacist	Female	40-49	15-20	15-20
	P 4.2	Phar assistant	Female	30-39	10-15	10-15
	P 4.3	Phar assistant	Female	26-29	1-5	1-5
	P 4.4	Phar assistant	Female	26-29	1-5	1-5
P 5	**P 5.1**	Pharmacist	Female	30-39	10-15	10-15
	P 5.2	Pharmacist	Female	50-59	20-25	20-25
	P 5.3	Phar assistant	Male	50-59	15-20	15-20
	P 5.4	Phar assistant	Female	26-29	1-5	1-5

Phar. Assistant: Pharmacy assistant who have two years training and qualified

At the beginning of the interview, all pharmacists and pharmacy assistants were asked their opinion regarding their experience of selling non-prescription medicines and their feelings about sale of those medicines in general. They were encouraged to feel free to talk about anything that was interesting to them in their daily practice. Then they were asked about what they think they do best and what they found difficult in performing their usual pharmacy tasks. They were also asked how they deal with both responding to customers' symptoms and direct requests for medicines. The issue of quality of service was also discussed in the interview. Finally, the participants were asked to talk about what they do when supplying non-prescription medicines for customers in order to provide a good service.

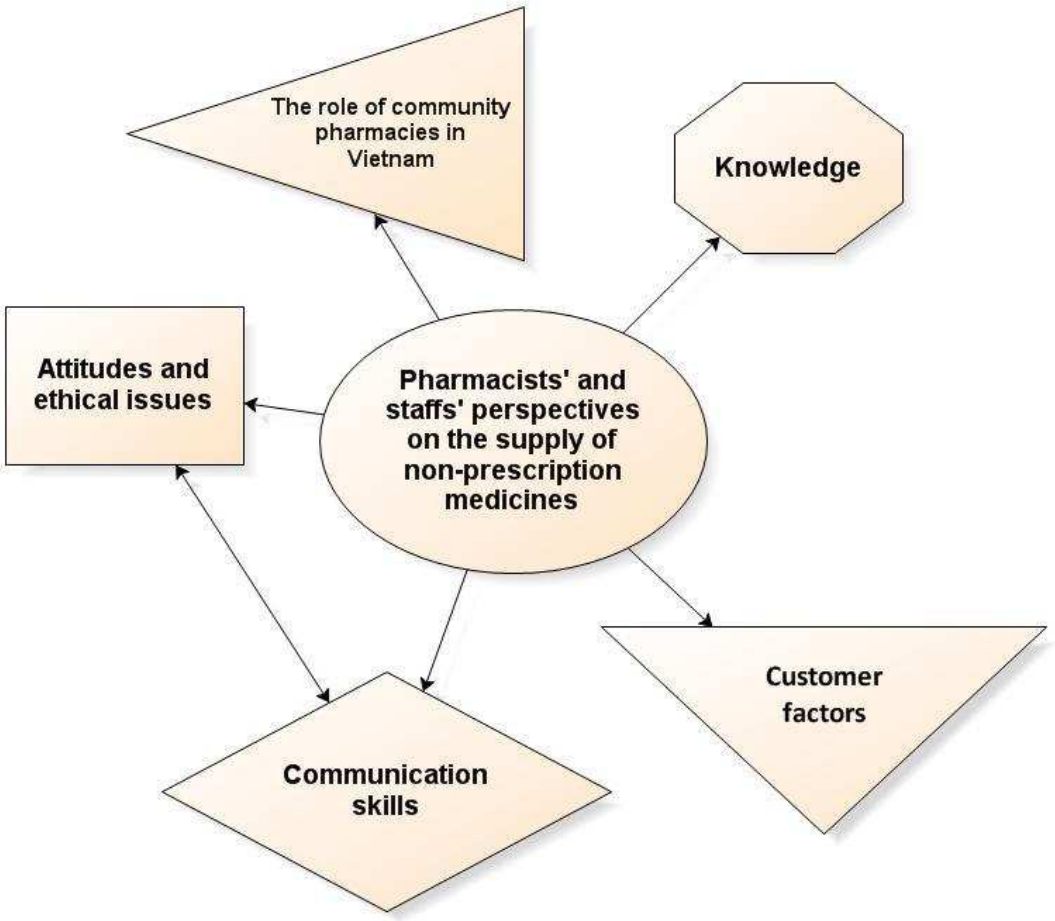

Figure 5- 1 Pharmacy staff perspectives of NPM supply

5.2 The roles of community pharmacies

This section focused on discussing pharmacy staff perspectives regarding their roles as the personnel in community pharmacies working in Vietnam. An in-depth understanding of these issues can support the analysis of other aspects in this research. Data were analysed and themes and subthemes emerged including pharmacies as a first choice for customers, pharmacy is different from other shops, pharmacy staff as psychologists, and that pharmacy staff perceived they have more power when selling non-prescription medicines as well as the reputation of their pharmacy and customer loyalty. These themes are presented in the figure 5.2 below.

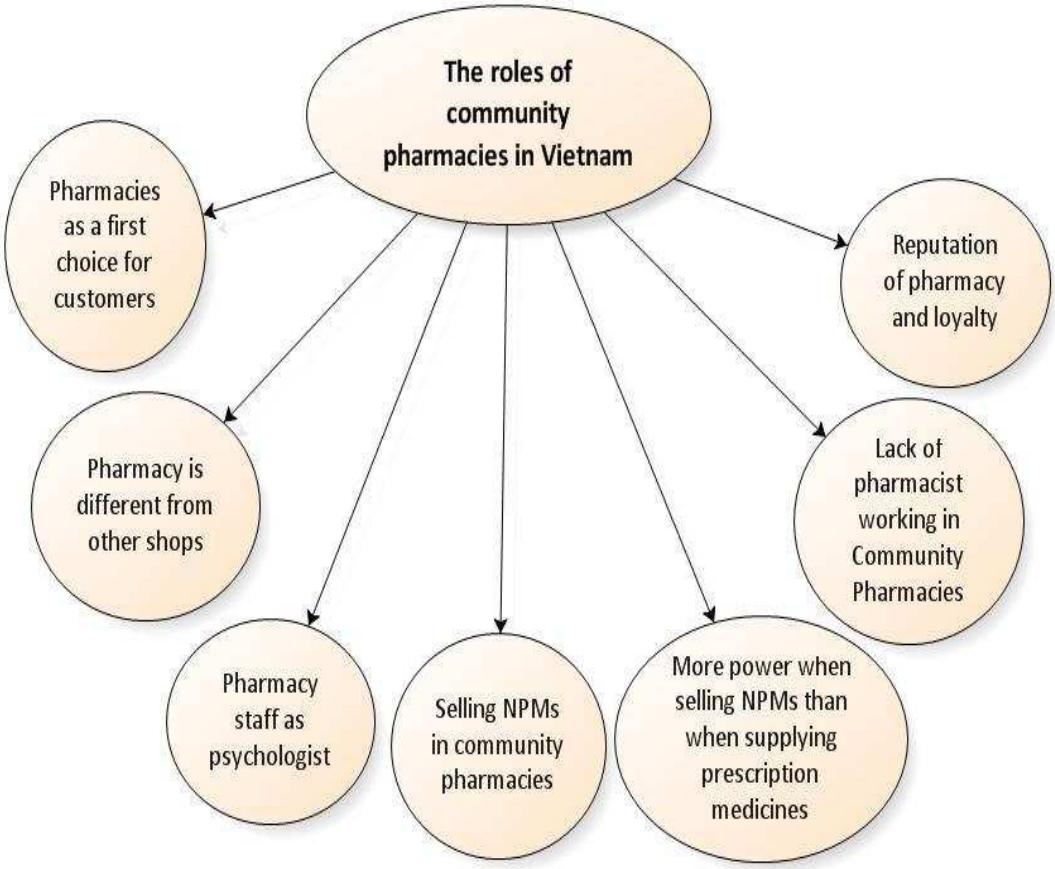

Figure 5- 2 Roles of community pharmacies in Vietnam

5.2.1 Community pharmacies as a first choice for health care

During the interviews, participants talked about the role of community pharmacies in the context of society in Vietnam. Community pharmacies were seen as a preferred place to seek advice for health issues. When people get health problems, the first place they are thinking about is the community pharmacy. This view is supported by the comment that with health sector reform, medicines sellers are often the first and only contacts of customers [219]. In the developing countries, the pharmacy is often the most accessible or even the sole point of access to health care advice and services [58]. However, this situation contrasts with developed countries where people often go to GPs when they have health issues [45].

> *As you know in Vietnam, pharmacy is the first place where people visit when they get some health problems. As a health expert, I provide medicines and advice for patients' treatment as well as consultation for primary health care*
>
> Pharmacist P2.2 F

> *In my pharmacy, most of customers come for OTC medicines. Customers seem to prefer pharmacies to hospitals. Except for children who should go to see doctors, adult customers tend to go to pharmacy first when they have health problems*
>
> Pharmacy assistant P 3.2 F

Previous research in Vietnam has shown that more than 80% of people go directly to community pharmacies in Vietnam when they become ill [220]. The reasons are both cultural, such as peoples' habits and also due to the structure of the health care system in Vietnam where people have to pay either part of the cost as a co-payment when they have health insurance or pay in full where they don't have insurance (section 2.2.3). So, people seem to consider their costs when deciding whether or not to go to hospital whenever they

have got health problems. In most cases, they chose to go to the community pharmacy first to look for help. They just go to hospital when they suspect severe diseases or pharmacy staff have referred them for further diagnoses. Customers' considerations were explained in more detail by participants during the interview progress as stated below:

> *In Vietnam, people prefer community pharmacies to hospital. The main reason is that it saves their waiting times and more time is spent on their consultation and discussion in community pharmacies. Moreover, detailed instructions including doses, timing of medicines and other advice are given by pharmacy staff in community pharmacies whilst doctors are too busy to do those tasks. As you know, people are afraid of asking questions at the doctors but they feel more comfortable asking and discussing with pharmacy staff. So, customers tend to go to community pharmacies first whenever they have any health problems.*
>
> Pharmacist P2.2 F

> *However, people prefer pharmacy to hospital. So they tend to go to the pharmacy when they have health problems. Purchasing medicines in community pharmacies for treating diseases can save waiting time and costs for customers. Sometimes, not going to hospital can prevent customers from being contacted and caught transmitted diseases in hospital.*
>
> Pharmacy assistant P4.2 F

Participants pointed out that saving customers' waiting time and costs of healthcare are main factors impacting on their decision when choosing healthcare providers. Moreover, participants stated that it is not easy for customers to ask many questions when talking with doctors; also the fact that they have a more comfortable feeling when communicating with pharmacy staff is also an encouraging factor for customers choosing a community pharmacy.

However, for some suspected cases, I advise customers go to see GPs and have a diagnosis. On that situation, some customers try to convince me selling medicines for them because they do not want to go to hospital for many reasons. Firstly, it saves their waiting time; secondly, it saves their money; finally, they believe in me. As you know, going to hospital costs a lot of money and for some customers, it is out of their range.

Pharmacist P2.1M

As you know, minor diseases are treated by using OTC medicines meaning that customers can save their waiting times in clinics or hospitals. Moreover, the amount of money spending for unnecessary diagnoses can be saved. In addition, customers have an opportunity to discuss closely with pharmacy staff and share their emotions/feelings. As a health expert, I provide OTC medicines for customers' treatment. It is not only customers' disease being treated but also saving their times and money.

Pharmacist P1.2 F

From pharmacists' and pharmacy assistants' perspectives, community pharmacies are preferred for many reasons. The first and the most important issue is expenditure. Customers have to pay either part or all of their health care costs and this is considered to have the most impact on their decision about where to go for healthcare. How they can save their money is a key factor for choosing types of health care providers. Pharmacy staff pointed out that using community pharmacy saves customers' money and avoids waiting time in the hospital. For minor conditions, instead of spending more money for unnecessary tests, customers can get their medications easily, for a small amount of money, in the community pharmacy. Moreover, customers need only spend a few minutes in their community pharmacy to get their medication, rather than spending hours waiting in hospital. Overall, community pharmacies in Vietnam were considered as the first choice of customers whenever they developed any health problems.

5.2.2 Pharmacy is different from other retailers

Pharmacy staff considered pharmacies as being different to other retailers. These differences were in both the characteristics of customers attending pharmacies and the perception that medicine is a special type of goods; also that counselling about medicines is a special type of services requiring more input and expertise than others.

> *People come to community pharmacy because they got health problems and they are not feeling well. So, the way we communicate with those customers is absolutely different with typical customers from other shops.*
>
> Pharmacist P1.2 F

> *Customers come to community pharmacies with their health concerns and they are likely to be vulnerable to anxiety and depression. So, having good communication skills helps us overcome these above difficulties.*
>
> Pharmacy assistant P5.4 F

> *However, medicines are absolutely different to other goods or services and pharmacy customers are also different to customers from other shops. As a pharmacy staff, you are dealing with a special type of customers with health problems.*
>
> Pharmacist P1.1 F

Participants asserted that they treated customers in a different way compared with how customers are treated in other shops. Pharmacy staff must have particular knowledge and be good communicators. They must also have an appropriate attitude and ethical approach in supplying medicines to customers. Pharmacy staff felt communication in pharmacies needed to be tailored to the needs of customers including caring about their health. They felt that education for pharmacy staff needed to be focussed on quality in supplying medicines in community pharmacies.

5.2.3 Pharmacy staff as psychologists

It is an interesting point that pharmacy staff are considered to be psychologists in addition to their role as health care experts. This finding supports the results from a previous study which indicated that the role of the pharmacy staff was viewed in three different ways; as counsellors, doctor's assistant and businessman [59]. As mentioned in the previous section, customers coming to the community pharmacy behave totally differently when compared with customers in other shops. So the role of pharmacy staff is also different:

> *Do you know we are not only a health expert but also a psychologist? Our responsibilities include not only providing medicines but also psychological advice for customers' disease and treatment. It is easy for customers to imagine about the serious situation and negative results of their disease. So we usually give advice about psychological aspects that enable customers to believe in the medication and in positive outcomes.*
>
> Pharmacy assistant P5.3 M

Those quotes show that the role of pharmacy staff is identified as being both a health expert and a psychologist who provided not only medication for treating diseases but also psychological advice and support for customers. This role in the supply of medicines is different to staff in other shops in terms of taking responsibility for dealing with customer demands. Psychological aspects were mentioned here and refer to the ability of pharmacy staff when communicating with customers and delivering advice to help customers to reduce their stress and depression levels, as well as enabling them to think positively about their health conditions and recovery.

5.2.4 Selling non-prescription medicines in community pharmacies

There were some similarities and differences in the perspectives of pharmacy staff in terms of selling non-prescription medicines in community pharmacies. Pharmacy staff considered their job of dealing with non-prescription medicines as an independent task and it was perceived positively. Generally, participants said that selling non-prescription medicines is an interesting but not easy task.

> *Selling OTC medicines allows you to give the treatment decision independently without depending on GPs' indications. You can use medical knowledge and experience to decide by yourself which are the suitable medicines for customers' treatment. It is really exciting.*
>
> Pharmacist P1.2 F

> *Well! This is an interesting job in terms of supporting people. As you know, I can use my knowledge to help a lot of people to cure their disease. It is considered as a higher level job in society and we are respected by customers. So, I enjoy this job very much.*
>
> Pharmacy assistant P5.3 M

> *Oh! Selling OTC medicines is a chance to communicate with diverse customers. Each of them has their own style and characteristic so it is very interesting. Serving and satisfying their demands make me more excited.*
>
> Pharmacy assistant P1.4 F

Pharmacy staff were positive about the process of aiding a customer to purchase appropriate OTC medicines. However, some pharmacy staff were concerned about the time taken and the low profit margins in selling OTC medicines.

> *I do not see any enjoyment when selling OTC medicines because they are cheap and simple medicines that do not bring more profit for me on each transaction. In addition, I have to spend more time and invest a lot of my effort for each customer. I prefer selling prescription medicines which are more expensive and of higher value so that can bring more profit for my pharmacy.*
>
> Pharmacist P4.1 F

> *The selling OTC medicines means to support the customers' needs. Sometimes, when I want to increase turnover, I try to sell OTC medicines by convincing customers consume some supplement and vitamin products.*
>
> Pharmacy assistant P2.3 F

These extracts illustrate contrasting perceptions of some pharmacy staff and the need for them to make a living from the sale of medicines. They may not be so interested and excited about it without gaining more profit. It is a fact that gaining profit is the main purpose of running a business. However, running pharmacies and dealing with peoples' health are absolutely different from others businesses. The purpose of gaining profit is important, but customers' health and benefits are more important in terms of ethical issues. How pharmacy staff can keep a balance between their profit and customers' benefits is not an easy question to answer! However, when a customer-centred approach is adopted and the customer's benefit is considered as a first priority, pharmacy staff can provide suitable solutions for their challenges. So, selling non-prescription medicines was perceived in both positive and negative ways and the supply of those medicines in community pharmacies in Vietnam looks complex.

Some pharmacy staff did not report that selling non-prescription medicines was interesting or challenging but rather an easy task particularly in comparison with supplying prescription medicines.

> *As you know, selling OTC medicines is not difficult as they include supplement products, vitamin, pain relief and cold drugs. Counselling those medicines for customers is not too complicated in comparison with prescription medicines.*
>
> Pharmacy assistant P4.3 F

> *Well! In my opinion, according to the general feature of OTC medicines, they are considered safe and less harmful than prescription medicines. The counselling of these medicine groups is not as complicated as prescription groups such as cardiovascular, hypertension and neurological medicines.*
>
> Pharmacist P4.1 F

According to those pharmacy staff, selling non-prescription medicines is not as complicated as dealing with prescription medicines. Those OTC medicines were perceived as simple, safe and less harmful than prescription medicines. The consultations for NPMs were also perceived as not too difficult.

In contrast, some other pharmacy staff considered that supplying non-prescription medicines is not such an easy task:

> *Selling OTC medicines is more difficult than prescription as we have to consider carefully before giving any suggestions. For example, we have to check whether customers have got any chronic diseases such as high blood pressure, stomach ulcer, allergy with medicines or not.*
>
> Pharmacy assistant P3.2 F

> *Oh! I think selling OTC medicines requires more consultation from pharmacy staff for customers. As you know, it is totally different with prescription medicines where staff just follows doctors' indications, it takes more time for explanation when selling OTC medicines in order to convince customer to accept our suggestions. So I think selling OTC medicines is more challenge than prescription medicines.*
>
> Pharmacy assistant P4.4 F

Pharmacy staff have to take full responsibility for customers' safety and the supplied medication, so it is not an easy task.

> *Well! It is not an easy task. Firstly, you have to perform confidently when communicating with customers. How can you do? You should have sufficient medical and pharmaceutical knowledge to deal with every aspect of OTC medicines.*
>
> Pharmacy assistant P5.3 M

> *Actually, selling OTC medicines is a difficult task. It requires pharmacy staffs to master a broad range of diseases and medicines that enable them to serve customers' demands comfortably. If they have got insufficient knowledge, they will not identify diseases correctly and do their task confidently.*
>
> Pharmacy assistant P4.2 F

Those quotes show that some pharmacy staff perceived the supply of non-prescription medicines as a difficult task, because more time and effort were needed to be invested on the transaction in order to ensure a good service was provided to customers. Moreover, sufficient medical knowledge and communication skills are required to enable pharmacy staff to deal with their transaction confidently and comfortably.

Finally, some pharmacists and pharmacy assistants who had a more nuanced approach stated that selling non-prescription medicines is both an easy and a difficult task:

> *The selling of OTC medicines is both easy and difficulty. It is an easy task because it deals with minor conditions and we can easily counsel for customers treating their diseases. However, it is also challenging because we are in charge with the treatment outcomes as well as others side-effects that may probably occur when medication is used. We take full responsibility of OTC medicines provided for customers.*
>
> Pharmacy assistant P1.5 F

> *However, selling OTC medicines requires pharmacy staff having more responsibilities and we are in charge in the treatment outcomes for clients. So we can consider that selling OTC medicines creates more difficulties.*
>
> Pharmacist P3.1 F

For some participants, supplying non-prescription medicines was perceived as both an easy and a difficult task. It was an easy task because it is dealing with minor conditions and simple medicines that enable them to easily counsel customers. It was perceived as a difficult task because pharmacy staff and pharmacists have to take full responsibility for providing medicines and instructions. The way of giving advice and instructions needs to be more carefully considered in comparison with supplying prescription medicines.

5.2.5 More power when selling non-prescription medicines

Some pharmacy staff stated that they have more power when selling non-prescription medicines to customers than when providing prescription medicines. This is exemplified by them being able to make an independent decision about what they want to supply to meet customer demands and how the consultations can be delivered:

> *Selling OTC medicines allows pharmacy staff to consider and decide what medicines should provide and how to consult for customers freely. I feel that I have more power when selling OTC medicines in comparison with prescription medicines which follow the indications from doctors or GPs.*
>
> Pharmacist P3.1 F

> *As you know, feeling independent when choosing medicines and giving instruction for customers makes me enjoy my work.*
>
> Pharmacy assistant P3.4 F

> *Selling OTC medicines allows you to give the treatment decision independently without depending on GPs' indications. You feel that you have more power when counselling OTC medicines for patients. You can use medical knowledge and experience to decide by yourself the suitable medicines for customers' treatment. It is really exciting.*
>
> Pharmacist P1.2 F

Selling non-prescription medicines was perceived as an independent job that allows pharmacy staff to supply medicines and provide counselling and give their own opinions, without relying on GPs' instructions. It is considered as an interesting and exciting task, with pharmacy staff having more power and freedom when supplying non-prescription medicines to customers. The feeling of independently making decisions makes pharmacy staff enjoy the task and they liked having more power. However, they should be aware that more independence comes with more responsibility and this will help to ensure the quality of service provided to customers.

5.2.6 Lack of pharmacists working in community pharmacies

It is compulsory by law in Vietnam that a pharmacist is present in a community pharmacy during opening hours. However, there are concerns that this does not always happen:

> *Factually, approximately 80% of pharmacies in Hanoi are working without a pharmacist during working hours. It will affect to the service provided to customers.*
>
> Pharmacist P5.2 F

> *As I mentioned above, there are many problems in activities of community pharmacies in Hanoi in general. The first and most important problem is the lack of pharmacists serving OTC medicines while pharmacy staffs are not qualified enough both in medical knowledge and communication skills when dealing with customers.*
>
> Pharmacist P2.1 M

Participants stated that there were a high proportion of community pharmacies working without the presence of a pharmacist during working hours. It raised the concern about how community pharmacies can be run without a pharmacist.

In Vietnam there is an issue that working in community pharmacies does not attract so many pharmacists, especially the younger ones. Participants pointed out that young pharmacist prefer working in pharmaceutical companies, in sales and promotion, where they can earn a higher income in comparison with jobs in community pharmacies.

> *Finally, there are only few graduated pharmacists involved in working in community pharmacies. They prefer working for pharmaceutical companies with higher income rather than community pharmacies. Consequently, there is lack of pharmacists serving in community pharmacies which leads to the limitation on the service provided for customers. As you can see, if a pharmacy has pharmacists serving OTC medicines for customers, it will attract a lot of customers and gain reputation.*
>
> Pharmacist P2.1 M

The quality of pharmacy service provided was also questioned as a result of the lack of a pharmacist during the working hours.

> *Another problem is the lack of pharmacist serving in OTC areas. Do you know, sometimes many pharmacy staff did not feel confident when serving customers' demands without the support of pharmacists. If the pharmacist is present in pharmacy, I can refer to them any difficult cases. It should be better when having a pharmacist presenting in OTC counter.*
>
> Pharmacy assistant P1.4 F

From the presented information, the lack of pharmacists working in community pharmacies leads to some limitations in the services provided for customers. A study from Australia indicated that the involvement of pharmacists in OTC medicine sales was largely favoured as an opportunity to maintain control over supply and to advise on appropriate medicines usage [85].

5.2.7 Reputation of pharmacy and loyalty

Building up a reputation and getting more loyal customers will inevitably bring long term benefits for community pharmacies. What these benefits are, and how pharmacies can build up their reputations, were expressed from both pharmacists' and pharmacy assistants' perspectives. Participants stated that in order to build up the reputation of the pharmacy, pharmacy staff have to provide an excellent service and create a good relationship with customers:

> *The main purpose of serving customers is making customers happy and they will come back for several times and become loyal clients. So, serving customers carefully and closely is my intention. The belief of customers in the community pharmacy is an invaluable benefit.*
>
> Pharmacy assistant P5.4 F

> *When disease is cured, customers trust in their pharmacy and they may probably become a loyal customer. Then, whenever they have got health problem, they will go to your pharmacy asking for help.*
>
> Pharmacist P3.1 F

> *When correct disease is identified and right medicines are selected, the customers' disease is cured and they come back to my pharmacy, thanks me for my support, I am so proud of my contribution to community.*
>
> Pharmacy assistant P1.3 F

> *The best persuasive way is choosing the right medicines, for the right diseases and customer's condition being cured. Then they will trust in pharmacy staff and come back to pharmacy whenever they get any health problems.*
>
> Pharmacy assistant P5.4 F

Participants argued that identifying the right disease and choosing the correct medicines for a customer's treatment are the key issues. To do this successfully requires knowledgeable pharmacy staff. Moreover, having a positive attitude when serving customer demands is also another factor that contributing to the success of the transaction, as well as building up customer loyalty. The benefits from having many loyal customers were described in more detail:

> *When diseases are treated, customers trust in me and whenever they have got health problems, they always come back to request my supports.*
>
> Pharmacy assistant P3.3 M

> *Some customers respected my suggestions, trusted in me and recommended others customers to my pharmacy. It made me very happy.*
>
> Pharmacist P5.2 F

> *Over a long time, the close relationship between pharmacy and customers is built leading to long term benefits for my pharmacy.*
>
> Pharmacy assistant P1.3 F

Those quotes illustrate that building loyal customers will probably bring long term benefits to the pharmacy. Benefits come from loyal customers returning to the pharmacy whenever they have health problems. Moreover, other customers being recommended to a community pharmacy by those who are already loyal customers is also invaluable. Building up customer loyalty is an important duty of pharmacy staff in their daily practice in order to ensure the long term profits for community pharmacies.

However, it is not an easy task. It requires a lot of effort and positive attitudes from pharmacy staff to enables them to achieve their objectives:

> *Do you know building the trust between customers and staff is the most difficult thing? Not every customer agrees with and believes in what you said and suggested. So, making customer satisfactory requires a lot of effort.*
>
> Pharmacy assistant P3.4 F

This section discussed pharmacy staff perspectives on the roles of community pharmacies in Vietnam. Community pharmacies were considered as the first choice of customers whenever they have any health problems. People's considerations about health care costs impact on customers' decisions in choosing the type of health care providers to consult. Participants also pointed out that the community pharmacy in Vietnam is totally different from other kinds of shops because pharmacy staff are serving a special type of customer, many with health problems or concerns. The way pharmacy staff deal with customers is also different in comparison with others shops. It is an interesting point that pharmacy staff are considered to be psychologists over and above their roles as health care advisers. The problem of the lack of pharmacists working in community pharmacies is also discussed. Finally, the reputation of pharmacies and customer loyalty are described and discussed as important issues contributing to long terms benefits for community pharmacies.

In the next section, I would like to discuss the attitudes and ethical issues from the perspectives of the pharmacy staff, in terms of supplying non-prescription medicines in community pharmacies.

5.3 Attitude and ethical issues

This section presents and discusses pharmacy staff perspectives in terms of attitudes and ethical issues when dealing with customers purchasing non-prescription medicines in community pharmacies. Pharmacy staff performance can be considered as good or poor. It may also be considered in the context of positive or negative attitudes and whether or not they have an ethical approach. How attitudes and ethical issues impact on customer-staff transactions is also considered. The effect that attitudes and an ethical approach have on staff-customers relationship, customers' treatment outcomes as well as pharmacy reputation and customer loyalty will be described.

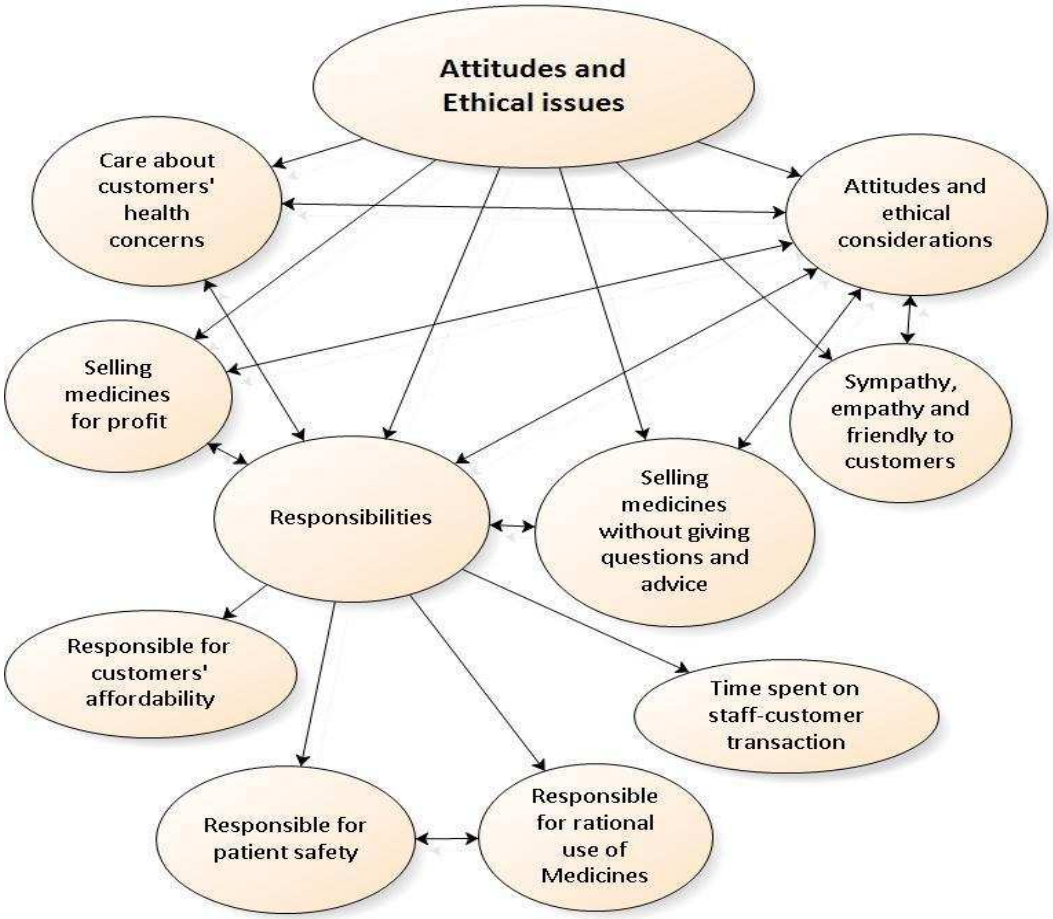

Figure 5- 3 Attitudes and ethical issues

5.3.1 Attitudes and ethical considerations

This section discusses pharmacy staff perspectives regarding attitudes and ethical considerations when supplying non-prescription medicines in community pharmacies. Attitudes and ethical approaches are considered as key factors contributing to the success of staff-customer transactions and providing benefits to both parties. The reasons why attitudes and an ethical approach are important are discussed. How both attitudes and an ethical approach have an effect on actual practice is reported. Finally, attitudes that pharmacy staff should have in order to ensure benefits for customers and profits for the pharmacy are discussed below:

5.3.1.1 Importance of attitudes and ethical issues

Community pharmacies are different with other shops, as suggested in section 5.2.2. Supplying medicines to customers is also different from selling other goods or services. Selling medicines in community pharmacies means that pharmacy staff are dealing with a special type of customer, since many are dealing with health problems. Requirements for the quality of pharmacy services provision to customers are also different in comparison with other goods and services. How pharmacy staff can provide good quality services and what factors impact on those pharmacy services were discussed in the participants' interviews. Attitudes and ethical issues were mentioned most often and with greatest intensity in the interviews. Pharmacy staff perceived that their attitudes and moral aspects play important roles in the success of customer-staff transactions as well as treatment outcomes and customers' welfare. Moreover, successful customer transactions lead to the building up of a positive reputation and long terms benefits for community pharmacies. In order to ensure the above success, the attitudes and ethical approach of pharmacy staff to customers require a higher level of attention and care:

In my opinion, ethical issue is the most important factor of pharmacy staff in general. When selling OTC medicines, if an ethical approach is not considered, they will sell medicines for their profit purpose without thinking about customers' benefits. On that case, it is very dangerous.

Pharmacist P5.1 F

The second factor is pharmacy staff attitudes when communicating with customers. Having positive attitudes plays an important role in the success of transactions. It also helps to build up the reputation for pharmacy and gain long term benefits.

Pharmacy assistant P1.4 F

In my opinion, ethical issues are the most important factors. Medical knowledge can be improved day by day, but ethical approaches are the key issues for pharmacists and pharmacy staff undertaking their daily activities, especially when dealing with OTC medicines. Medical knowledge cannot be conveyed to patients without having ethical approach.

Pharmacist P1.1 F

Participants stated that having an ethical approach leads to positive attitudes of pharmacy staff when communicating with customers. Positive attitudes motivate pharmacy staff to take greater responsibility when dealing with customers' demands. Pharmacy customers' benefits and treatment outcomes should be taken in to account as a result of an ethical approach and positive attitudes, otherwise profit will be considered as pharmacy staff priority. In the following sections, I would like to discuss more detail about the real situation of attitudes and ethics in actual practice in community pharmacies from the pharmacy staff perspectives.

5.3.1.2 Problems of attitudes and ethical issues

Attitudes and ethical issues are important factors contributing to the success of pharmacy customer-staff transactions as stated in the previous section. However, the actual practice in community pharmacies was not as good as expected:

> *The moral issue is also a big problem. Do you know some pharmacies pay so much attention to profits without thinking about customers? They try to sell as much medicines as possible and gain as much profit as they can. Consequently, customers' benefit and safety is ignored.*
>
> Pharmacist P2.2 F

> *However, there are many problems related closely to the quality of pharmacy service provided. The first and most important issue is the ethical problem. Pharmacists and pharmacy assistants sometimes pursue their profit purpose and forget their ethical responsibilities. They tried to gain as much profit as they can without considering the basis, essential tasks or quality of service provided for customers. Consequently, poor quality of service is provided leading to the limitation on treatment outcomes for customers.*
>
> Pharmacist P1.1 F

> *One more problem is the ethical approach. I do not think that the new generation of pharmacy staff is as good as previous ones in terms of taking their responsibility with pharmacy customers.*
>
> Pharmacist P2.1 M

Participants pointed out the negative attitudes of pharmacy staff pursuing profits without considering the ethical responsibilities and customers' benefits. For those pharmacy staff, profit was considered as the first priority. In their daily activities, some fundamental tasks and responsibilities for customers were ignored. Consequently, a poor quality of pharmacy service was provided, leading to some limitations on treatment outcomes and customers' welfare.

Participants also commented that the new generation of pharmacy staff was not as responsible as the previous generation in terms of involvement in their careers. They were unsure about the reasons for this perceived deficit but they supposed that modern life style and education and training were the probable main contributors to this problem.

5.3.2 Care about customers' health concerns

The notion of care about customers' health concerns can be described in broad terms. It is also discussed in relationship to the responsibilities of pharmacy staff in their daily practice. Listening to customers properly and spending sufficient time for transactions can be considered as signs of caring about customers' health concerns. Moreover, sharing emotions or feelings, approaching customers in an ethical manner, asking appropriate questions and giving suitable advice as well as showing sympathy and empathy to customers are all considered as caring about a customers' health.

This section focuses on discussing pharmacy staff perspectives regarding the important role, as well as the benefits, of caring about customers' health and how this leads to successful transactions in community pharmacies.

> *For me, listening to customers properly and sharing emotions and feelings are important experiences. Do you know patients are stressed and likely to be vulnerable to anxiety and depression? Their coming to community pharmacies is not only looking for medication but also for someone who listens and shares their concerns and emotion.*
>
> Pharmacy assistant P 5.4 F

> *If customers realise that their health concerns are cared and shared, they will trust in pharmacy staff and be your loyal customers.*
>
> Pharmacy assistant P 5.3 M

Pharmacy staff perceived that customers who are coming to the community pharmacy are looking for someone who is not only providing medicines for treating diseases but also someone with whom they can share stress, emotions, feelings and depression about their health conditions. So caring about customers' health concerns is an important duty of pharmacy staff in their daily practice. It is also considered as a responsibility that pharmacy staff should take on when dealing with customers. The above quotes indicated that pharmacy staff are aware of their duty as health experts and that caring about customers' health concerns is an important task. However, how it can be transferred from a perception into activities is still an unanswered question, as is the issue of 'what is the pharmacy staff performance like in actual practice?'

> *When counselling OTC medicines for customers, I provide not only detailed instructions about using medicines but also some other advice on primary health care such as avoid using alcohol or some specific foods or drinks that may probably interact with medicines used, doing exercise regularly or eating some healthy food etc. It takes a few minutes but customers feel that they are looked after and trust in the pharmacy. In the long time, a close relationship between pharmacy and customers is built and leads to long term benefit for my pharmacy.*
>
> Pharmacy assistant P 1.3 F

The term 'care about customers' health concerns' covers a broad range of tasks and issues. It could be as simple as listening to customers properly and using appropriate questioning skills as well as giving instructions not only about using medicines but also other health related advice. It can also involve taking responsibility for patient safety, rational use of medicines, and the time spent on a transaction as well as considering the customers' ability to pay or the affordability when choosing medicines for customers' use. Further exploration and analyses are presented below.

5.3.3 Responsibilities

This section discusses pharmacy staff perspectives regarding responsibilities when supplying non-prescription medicines for customers. The issues of responsibilities related closely to attitudes and ethical approaches of pharmacy staff in their daily practice. Time spent on staff-customer transactions was also considered as a responsibility of pharmacy staff. How participants perceived responsibilities and what responsibilities were performed are discussed in more detail in this section.

Participants generally perceived that supplying non-prescription medicines requires pharmacy staff taking on greater responsibilities for their customers. The accounts of responsibilities were described as different in comparison with when they were supplying prescription medicines:

> *As a pharmacy staff member dealing with OTC medicines, we have to fully show our responsibility for medication provided for customers, rather than prescription where a main part of the responsibility is shared by GPs.*
>
> Pharmacist P1.1 F

> *However, selling OTC medicines requires pharmacy staff to have more responsibility and we are in charge of the treatment outcomes for clients. So we can consider that selling OTC medicines is freely but more difficulties.*
>
> Pharmacist P3.1 F

> *Don't like selling prescription medicines, a pharmacy staff is a person who take full responsibility for the consultation on OTC medicines provided for customers.*
>
> Pharmacist P1.2 F

Those quotes illustrate that supplying non-prescription medicines requires pharmacy staff to take greater responsibilities in comparison with when supplying prescription medicines,

when GPs are seen as in charge of treatment outcomes. When dealing with non-prescription medicines, pharmacy staff are in charge of, and take full of responsibility for, the medicines and consultations provided for customers. The responsibilities referred to cover a broad range of tasks including asking questions to clarify what diseases someone may be presenting with, listening to customers properly to collect sufficient information, choosing appropriate medicines for customers' treatment, giving suitable and sufficient advices that enables patients to use medicines safely and effectively:

> *As a pharmacist dealing with OTC medicines, you are in charge of both the medicines delivered and treatment outcomes for customers. So, you have to explain more and give instructions as detail as you can.*
>
> Pharmacist P 4.1 F

> *Spending enough time for discussion between customers and staff members should be taken on every transaction. Asking as much questions as they can and giving instructions as detailed as possible are the responsibilities that pharmacy staff have to perform on their transactions.*
>
> Pharmacist P 1.2 F

Generally, pharmacy staff perceived that taking greater responsibilities should be considered as part of their daily practice when dealing with customers purchasing non-prescription medicines. Some essential tasks showing responsibilities, such as asking questions and giving instructions, were suggested. Other aspects related closely to responsibilities of pharmacy staff including rational use of medicines, patient safety and customers' affordability as well as the time spent on staff-customer transactions, are discussed in more detail in the following sections.

5.3.3.1 Responsibility for patient safety

When supplying medicines for customers' treatment, safety for patients is the first and the most important factor to be considered [75]. Pharmacy staff, as health experts, have to consider every aspect related closely to patient safety such as allergy to medicines, side-effects or adverse drug reactions of medicines provided, interactions with others medicines as well as reactions with some kinds of foods or drinks that may occur when using medications. Those issues should be taken into account when selecting and deciding which medicines are more appropriate for customers' use. Furthermore, when severe diseases are suspected, customers should be advised to go to hospital to see GPs for further diagnoses, in order to ensure the safety for patients.

Using medicines has both positive and negative sides. Besides the positive influence on treating patients' diseases, medicines might cause some adverse drug reactions or side-effects for customers. Medicines can be chosen to minimise the negative side and maximise the positive treatment outcomes for patients. Choosing appropriate medicines requires pharmacy staff to take greater responsibility for patient safety in their daily practice. Medical knowledge and communication skills or advice giving skills are also discussed as complementary factors that enable pharmacy staff to ensure customer safety. The importance of safety was discussed during the interviews and pharmacy staff were aware of what they should do in order to ensure patient safety:

> *Oh! Safety for patients is the first priority when selling OTC medicines for customers' use. As a pharmacy staff member, we have to master all the information about medicines not only the indications but also the side-effects and warning of the medicines.*
>
> Pharmacy assistant P 5.3 M

> *The instructions should be as detailed as possible even for some medicines that customers have used before. The doses, forms of medicines, time taking and side-effects of provided medicines should be given again for the purpose of safety and efficiency.*
>
> Pharmacist P 1.2 F

> *Selling OTC medicines is more difficult than prescription as we have to consider carefully before giving any suggestions. For example, we have to check whether customers got some chronic disease such as high blood pressure, stomach ulcer, allergy to medicines or not. For OTC medicines, pharmacy staff has to take full of responsibility with the treatment outcomes*
>
> Pharmacy assistant P 3.2 F

Pharmacy staff P 5.3 also emphasised about asking about customers' allergy history and considering other safer medicines for the patient if possible:

> *As you know, we are quite independent when supplying OTC medicines for customers so ensuring the safety and effectiveness is our responsibility. The historical allergy to medicines should be asked in our daily practice. Then consider about changing others safer medicines for the patient if possible.*
>
> Pharmacy assistant P 5.3 M

Participants perceived the importance of the role of ensuring customer safety. Taking greater responsibility for safety issues means that pharmacy staff have to ask questions to clarify patients' medical history, allergy to medicines and information about any other chronic diseases, as well as master all the information about medicines intended to supply for customers. Information about medicines such as indications, contraindications, dosage, time taking medicines as well as side-effects or adverse drug reactions and interactions with other medicines and foods/drinks, should be taken in to account when choosing medicines and giving counselling to customers.

Referral of customers to GPs

Referral of customers to GPs, in some cases, was considered as the way to ensure the customer's safety. Pharmacy staff stated that when communicating with customers and in suspected cases, it should be better for customers to be advised to go to hospital and have further diagnoses in order to identify diseases correctly. Then appropriate medications could be given in order to ensure the treatment outcomes and customer safety:

> *when suspecting severe diseases and after careful consideration, I advised customers to go to hospital to see doctors or GPs to get diagnoses in order to identify diseases correctly, even if customers try to convince me to sell medicines to them.*
>
> Pharmacist P 1.1 F

> *In cases of the severity of diseases being suspected, customers should be advised to go to hospital or to see doctors. Do not provide medicines to customers in that case for any reasons even when they try to convince.*
>
> Pharmacist P 1.2 F

> *If I suspect that it is a severe disease, I will advise customers to go to hospital.*
>
> Pharmacy assistant P 2.3 F

Those quotes illustrate that participants are aware of ensuring safety for customers in uncertain cases. Customers should be advised to go to see GPs for further diagnoses that enable diseases to be correctly identified and appropriate medications to be prescribed. Pharmacy staff working in community pharmacies should be aware of their responsibility for customers' safety, especially when dealing with severe conditions or uncertain situations.

5.3.3.2 Responsible for rational use of medicines

Rational use of medicines is a key factor for patients' recovery when using medications. Diseases could not be treated without using medicines in appropriate ways. When the right medicines are selected for the right patients, rational use of medicines refers to the use of medications by patients including dosage, time taking medicines and the full course of medication being taken. It refers to patients' adherence or compliance with medications provided by health care experts. In order to ensure the safety, effectiveness and efficiency of medications, customers or patients should be aware of what they have to do when using medications. How can customers know about essential tasks they have to follow? Pharmacy staff are health care experts who take responsibility for the rational use of medicines for customers. How do pharmacy staff show the responsibility concerning the rational use of medicines? Those issues were discussed in more detail in this section.

Pharmacy staff talked about the problems that pharmacy customers had regarding medicines and their habits regarding the irrational use of medication:

> *People often think that OTC medicines are safe and can be used for a long time without considering their harmfulness. For those clients, they use medicines whenever they want to and for as long as they can.*
>
> Pharmacist P 1.1 F

> *Sometimes, customers did not take a full course of medicines or were not compliant with medication. Consequently, the diseases were not being treated. So, I advised customer to adhere to medication and they should be aware of taking time to see any improvement and they should be patient.*
>
> Pharmacist P 1.2 F

> *The second difficulty is the adherence when using medication. Customers tend to stop using medicines when seeing improvement after few days. In that case, we tried to convince customers to follow the full course of medication, but not all customers obeyed our advice.*
>
> Pharmacist P 2.1 M

> *Some customers only want to buy medicines for only 2-3 days of their treatment. In that case, I always advise patients to purchase a full course of medication to ensure the effectiveness of their treatment.*
>
> Pharmacist P 1.1 F

Those quotes are typical of the responses explaining pharmacy customers' irrational uses of medicines that are quite common. It comes from the customers' perception that non-prescription medicines are generally safe and can be used for a long time without any harm. It also comes from customers' misunderstanding of recovery and non-adherence to medications. Sometimes, customers do not want to purchase a full course of medications due to affordability or many other reasons. This is supported by the results from a previous study which indicated that more than 20% of medicines were used irrationally, which the combination between popular products with antibiotics and prescription corticosteroids [55].

Customers' overuse of medicines was also a problem. Pharmacist P 2.2 described the situation in which patients overused pain relief medicines:

> *Sometimes, they want to have a quick recovery and use double doses. Some people use pain relief medicines for their headache for a long time even the pain was cured.*
>
> Pharmacist P 2.2 F

Participants also commented on customers' irrational use of medicines when they requested prescription medicines, without having any indications or diagnosis from GPs. They said it was difficult for them to deal with those situations:

> *Sometimes customers request to purchase cardiovascular or hypertension medicines that need to be supplied on prescription. In that case, it is difficult to explain and advise them to go to see doctors and get their prescription. They try to convince me to sell medicines for their treatment.*
>
> Pharmacy assistant P 1.5 F

Those quotes illustrate the perceptions of pharmacy staff regarding irrational use of medicines in the Vietnamese context. Customers tend to stop using medicines within few days when seeing any improvement without taking the full course of medications. They thought that experiencing improvement means the disease were cured, but in fact it was not totally right. Diseases, for example infections, are only fully treated after taking a full course of medications. So in order to ensure the rational use of medicines, customers should be aware of adhering to instructions from health care experts. How can those patients know what they must do for optimal results? Pharmacy staff have to show their responsibility by introducing customers to the rational use of, and adherence to medications. Sometimes, when faced with poor customers who want to purchase medicines for only two to three days of their treatment, responsible staff have to advise customers to take the full course of treatment. Some customers used double doses of medicines, based on the misunderstanding of achieving a quick recovery. Advertisements and the public media also influenced customers' selection and irrational use of medicines (to be discussed in a later section of this chapter). The real situation of irrational use of medicines in community pharmacies is diverse and appears complicated.

Participants also discussed what they should do in order to minimise the irrational use and improve the rational use of medicines for customers:

> *So as an expert in primary health care, we have to explain to them about the side-effects as well as ADRs caused by medicines and advise them to avoid the overuse of these medicines. Sometimes, I refused to sell medicines to customers.*
>
> Pharmacist P 1.1 F

> *So, consideration should be warned for customers that they only take medication in case of treating diseases and it is used with right indication, to right people, with the right doses and in the right time and taking times.*
>
> Pharmacist P 5.1 F

> *I always remind customers the harm caused by the overuse of medicines and customers should be aware of ADRs and unexpected side-effect may occur as a result of overuse medicines. (For example "It can damage your liver or kidney")*
>
> Pharmacist P 2.2 F

These above pharmacists considered that greater care and responsibility should be taken into account when supplying and counselling people about medicines in order to ensure the rational use of medicines for customers. Counselling about indications, dosage, times for taking medicines and the importance of a full course of medications should be given clearly, so enabling customers to use the medication provided safely, effectively and conveniently. Moreover, warnings should be given to customers about side-effects, ADRs as a result of overuse or misuse of medicines.

5.3.3.3 Responsibility for customers' economic status and affordability

When supplying non-prescription medicines for customers, consideration should be taken not only of their rational use and patient safety but also about customers' economic status and whether they can afford the medicines on offer or they want to buy. As mentioned in section 5.2.1, customers in Vietnam consider their health care expenditure when they have health problems. Taking account of a customer's economic status and ability is an essential task that pharmacy staff need to incorporate into their daily practice. Pharmacy staff perceived the necessity of taking on this duty:

> *Thirdly, customers' economic ability can affect the selection of medicines. It doesn't matter for wealthy customers. However for poor people, medicine price and expenditure are important factors affecting their decision. Choosing suitable medicines for their disease, which are not too expensive is a difficult selection.*
>
> Pharmacy assistant P 3.4 F

> *When choosing medication, beside the effectiveness of treatment outcomes, I always consider about the cost-effectiveness of medicines so that not only the customers' disease is cured but they also save some money. Do you know, for some wealthy clients, expensive medicines do not a matter? However, for most customers, especially poor people, the price of medicines and their expenditure are important.*
>
> Pharmacy assistant P 1.3 F

> *One of these aspects is economic status. Customers come from different levels of wealth and have different type of demands. So, pharmacy staff should be able to realise how wealthy they are in order to provide the most suitable products or services to satisfy customers' status and demands.*
>
> Pharmacist P 1.1 F

Those quotes explain that people consider their expenditure and examine how this impacts to their decisions on medicines use. For wealthy people, it is easy for pharmacy staff serving their demands, as economic conditions do not matter. However, for retired and poorer people, considering and offering appropriate medicines, both in terms of treatment effectiveness and price, are key factors for building up positive relationships with customers and reputations for pharmacies. The reasons for pharmacy staff to consider customers' economic status and affordability of medicines being offered were pointed out. Then, participants' perceptions of what they should do in order to show their responsibility regarding customers' economic ability were discussed in more detail:

> *I think the typical feature of selling OTC medicines is choosing suitable medicines for customers' treatment not only about effectiveness but also reasonable price. It should not be too expensive in order to meet the customer's affordability.*
>
> Pharmacy assistant P 3.3 M

> *When selling OTC medicines, I always consider about customers' economic ability. Customers who come to my pharmacy are mainly in the middle class and poor people. So consideration should be taken not only about the treatment effect but also the price of medicines and their expenditure. Supplied medicines should have good treatment outcomes and a reasonable price. So, when choosing medicines, I always think about customer's affordability.*
>
> Pharmacy assistant P 3.4 F

> *In addition, customers' economic status should be considered when selecting medicines for their treatment. For poor people, choosing cheaper medicines but ensuring the treatment outcomes is the first priority that meets their effort.*
>
> Pharmacist P 4.1 F

It is an interesting point that some pharmacy staff referred to advising customers to avoid using medicines if it is not necessary. It is a rare opinion because pharmacy staff often exploit every opportunity to supply medicines for the purpose of turnover and profit.

> *However, for some poor or retired people, pharmacy staff should consider once carefully and provide them the medicines that can meet their demands not only about treatment effects but also about their affordability (economic ability). When it is not necessary to use some kinds of medicines, pharmacy staff should advise customers about saving their money for others more essential medications.*
>
> Pharmacist P 1.1 F

> *Well! Firstly, I selected and introduced suitable medicines for customer treatment not only about their diseases but also their economic ability. Sometimes, it is not necessary for customers to use medicines, so I advise customers take a rest and adjust their living habit rather than using medication.*
>
> Pharmacy assistant P 1.6 F

Customers' economic ability is a key factor influencing their decisions when purchasing medicines in community pharmacies. Pharmacy staff perceived that understanding about that issue and taking account of customers' economic conditions when selecting and counselling medicines for customers are important tasks. Thinking and showing pharmacy staffs' considerations of customers' ability to pay when selecting medicines are essential factors that enable them to develop close relationships with customers as well as building up the reputation of pharmacies.

5.3.3.4 Time spent on staff-customer transactions

Selling non-prescription medicines is different from supplying prescriptions, as discussed in previous sections. Pharmacy staff perceived that time spent on transactions relating to non-prescription medicines was also different in comparison with supplying prescription medicines. Participants commented that it takes more time for them to counsel customers who are purchasing non-prescription medicines as pharmacy staff are in charge of and take full of responsibility for treatment outcomes. So supplying non-prescription medicines requires more time explaining and giving advice to customers:

> *One typical feature when dealing with OTC medicines is that you have to talk more with pharmacy customers in comparison with supplying prescription medicines where you just follow doctors' indications and supply medicines on their demands. As a pharmacy staff dealing with OTC medicines, you are in charge of both the medicines delivered and treatment outcomes for customers. So, you have to explain more and give instructions in as much detail as you can.*
>
> Pharmacist P 4.1 F

> *Moreover, time spending for OTC medicines transaction should probably be longer than prescription medicines because we have to take time asking many questions to diagnose the diseases as well as giving instructions in detail that enable customers using OTC medicines safety and efficiency.*
>
> Pharmacist P 5.1 F

> *I think selling OTC medicines requires pharmacy staff spending more time to counsel for customers in comparison with prescription medicines. When selling prescription medicines, I just follow the doctors' indications. However, counselling for OTC medicines requires detailed explanations and advice.*
>
> Pharmacy assistant P 3.4 F

Participants perceived that they should spend sufficient time for non-prescription medicine transactions, as more time is needed to clarify the diseases and to give detailed instructions to customers. Moreover, being in charge of customers' treatment outcomes is also factor encouraging pharmacy staff to spend sufficient time on any given staff-customer transaction. However, there is an existence of attitudes considering that taking more time for non-prescription medicines transactions is a waste of time, time not well spent, as it does not bring more profit to the pharmacy business. Those pharmacy staff stated that if they spend more time on one particular non-prescription transaction, they will not serve as many customers as they want to. So there will be only a small number of customers being served in a period of time, and consequently they will not gain more turnover and profit.

> *I do not gain any enjoyment when selling OTC medicines because it is cheap and simple medicines that do not bring more profit for me on each transaction. In addition, I have to spend more time and lot of my effort for each customer.*
>
> Pharmacist P 4.1 F

> *Selling OTC medicines generally takes more time to explain and counsel the customer in comparison with prescription medicines but gain less profit.*
>
> Pharmacy assistant P 4.2 F

Time spent on staff-customer transactions is also an indicator showing the responsibility of pharmacy staff to customers. Some participants perceived the value of spending sufficient time for communicating with customers but some others did not. The problem of taking responsibility for time spent on transactions is discussed in more detail below.

5.3.4 Selling medicines without giving any questions and advice

Asking questions to identify and diagnose diseases and giving instructions for customers about using provided medications safely and effectively are essential tasks. Pharmacy staff generally perceived they needed to be aware of their responsibilities when selling non-prescription medicines to pharmacy customers as presented in the previous sections. They should also spend sufficient time on such transactions to enable pharmacy customers to obtain and understand information about using medicines effectively and conveniently. However, in actual practice, there were some limitations regarding taking responsibility for asking questions and giving advice as well as spending time with customers:

> *However, when the pharmacy is too crowded, we just supply medicines for customer's demands without spending time for consultation. There are many customers waiting for me so I cannot spend too much time on just one person.*
>
> Pharmacy assistant P 4.3 F

> *In some cases, if my pharmacy is too crowded, I will sell medicines immediately for customers without asking any questions and giving any advices. I know it is not good practice, but I have no choice because many people are waiting for me.*
>
> Pharmacist P 4.1 F

In practice, customers are often faced with the situation of obtaining medicines without being asked any questions or receiving any advice. This is supported by the findings from a previous study that indicated that no questions were asked in 55% of encounters and no advice was given in 61% of the transactions in community pharmacies in guidelines Vietnam [114]. How can pharmacy customers use medications safely and effectively without receiving sufficient information from pharmacy staff? In addition, how can pharmacy staff communicate with customers effectively without spending enough time on their transactions?

5.3.5 Selling medicines for profit

As discussed in previous sections such as responsibilities and time spent on transactions, pharmacy staff are aware of taking responsibility and time for pharmacy customers in order to ensure the rational use, patient safety, affordability and effectiveness of the provided medications. However, concerns have been raised about spending time on staff-customer transactions and pharmacy staff attitudes on asking questions and giving advice to customers. Questions have also been raised as to whether there is a difference between perception and actual practice and what is the difference.

Participants perceived that many pharmacists and pharmacy assistants paid too much attention to profit when supplying non-prescription medicines in community pharmacies:

> *As you know, supplying OTC medicines is a good chance for pharmacy staff selling medicines based on their own opinions and gaining profit.*
>
> Pharmacist P 1.2 F

> *Some pharmacy owners just focus their attention on profit. Consequently, there are some limitations to the service provided for customers.*
>
> Pharmacist P 5.1 F

> *However, many supply problems from others pharmacies in Hanoi occur every day due to many limiting factors. It comes from negative attitudes of pharmacy staff pursuing their profit purpose or limitations of the knowledge of staff members.*
>
> Pharmacy assistant P 1.4 F

Those quotes illustrate the intention of many pharmacy staff to focus on gaining profit when selling non-prescription medicines. Supplying non-prescription medicine is an

opportunity for pharmacy staff to promote and sell products independently and obtaining more profit. In fact, participants described many actual situations occurring in community pharmacies and how can pharmacy staff pursue profit in the diverse ways:

> *I think profit for pharmacy is the first factor affecting the supply of OTC medicines. When selling OTC medicines, I set a priority for which one can bring more profit introducing for customers.*
>
> Pharmacy assistant P 3.4 F

> *For example, I have even seen the situation that medicines were separated from boxes/blisters and mixed together in a plastic bag selling to customers so that they do not know what medicines are. The medicine price was increased unreasonably for pharmacies' profit. So, I think ethical approach is an important issue.*
>
> Pharmacist P 5.1 F

> *In some cases, I have to sell medicines for customers reluctantly even seeing unreasonable use because I do not want to lose customers.*
>
> Pharmacist P 4.1 F

> *Sometimes, customers ask pharmacy staff to sell them prescription medicines without having indications from doctors or GPs. In those cases, many pharmacies sold prescription medicines to customers for their profit without considering about legal regulations and moral issue.*
>
> Pharmacist P 5.1 F

There are many reasons used by pharmacy staff to explain their actions of pursuing profit when selling non-prescription medicines. The most common explanation is that pharmacy staff do not want to lose customers and so they just supply according to the customers' demands. Some community pharmacies supply prescription medicines on customers' requests without having prescriptions from doctors. The legal regulations and moral issues were ignored. Many pharmacies and pharmacy staff are selling medicines for customers by

separating capsules and tablets from their blisters and mixing all together in plastic bags, for each time taking medications. Prices of medicines have been increased unreasonably without pharmacy customers knowing. Consequently, there were limitations on pharmacy services provided and treatment outcomes for customers. Such behaviour raised the concerns about ethical issue as pharmacy staff focussed on pursuing profit, whilst ignoring ethical responsibility when supplying non-prescription medicines in community pharmacies.

However, there are many pharmacists and pharmacy assistants who still try to maintain a balance between gaining profit and satisfying customers' demands. They emphasised balancing between customers' benefit and pharmacy's profit as the best way to maintain long term value for community pharmacies:

> *One more difficulty is that we have to keep a balance between the customers' satisfaction and our profit. Pharmacy cannot work without profit but we have to make customers happy by offering reasonable priced of medicines and good services. Loyal customers, in the long term, are considered as sources of benefit for pharmacy.*
>
> Pharmacy assistant P 3.4 F

For those pharmacy staff, gaining profit along with satisfying pharmacy customers is the best way to develop and build up a positive reputation for pharmacies. However, pharmacies are running in an economic market, so pursuing profit is unavoidable. Health authorities should implement some management solutions that will help to control the price of medicine and protect customers' benefits and interests.

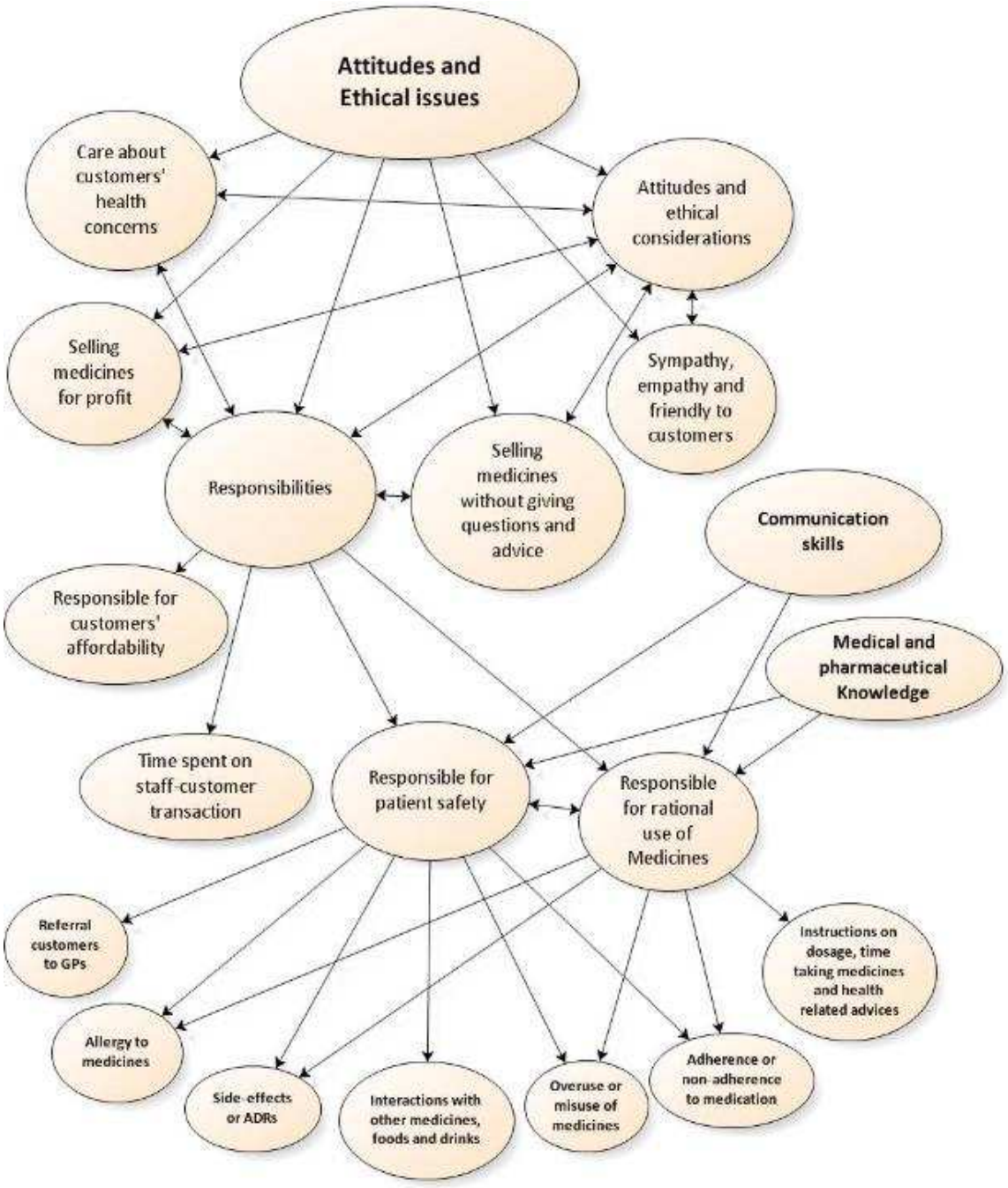

Figure 5- 4 Participants' perceptions of taking responsibility

The perceptions of pharmacists and pharmacy assistants regarding taking responsibility when dealing with customers purchasing non-prescription medicines in community pharmacies are presented in figure 5.4 above.

5.3.6 Attitudes of pharmacy staff

From both pharmacists' and pharmacy assistants' perspectives, they should have an ethical attitude and approach to their clients in order to ensure both customers' benefit and long term profit for community pharmacies. Participants were aware of what they should do in their daily practice in order to achieve their objectives:

> *The attitude of pharmacy staff is the first factor. As you know, an amiable attitude and being friendly is important when communicating with clients. Pharmacy staff should know how to reduce clients' tensions or stresses and encourage them optimistic about the improvement. When customers trust in their pharmacy, the disease is cured partly.*
>
> Pharmacist P2.2 F

> *I think the first one is pharmacy staff attitude and ethical approach. Staff should show their enthusiasm and friendly attitude when communicating with customers.*
>
> Pharmacy assistant P3.2 F

> *Communication skills are important for pharmacy staff when dealing with OTC transactions. As you know, when communicating with customers purchasing OTC medicines, I always show an open and friendly attitude to customers that enable them discuss with me easily and comfortably.*
>
> Pharmacist P5.1 F

Pharmacy staff perceived that their attitudes and ethical approach are important factors contributing to customer-staff transactions in community pharmacies. When communicating with customers, attitudes and ethical approaches should be performed in a positive manner so that pharmacy staff can be appreciated by customers.

Attitudes and ethical issues were also discussed in combination with communication skills. From the data analyses, some issues that emerged related closely to both communication skills and attitudes, including being open and friendly with customers; having amiable attitudes and providing sympathy to customers; sharing emotions/feelings, stress and depression as well as showing enthusiasm to customers and listening to customers properly were discussed. The relationship of those issues to each other is presented in the figure below.

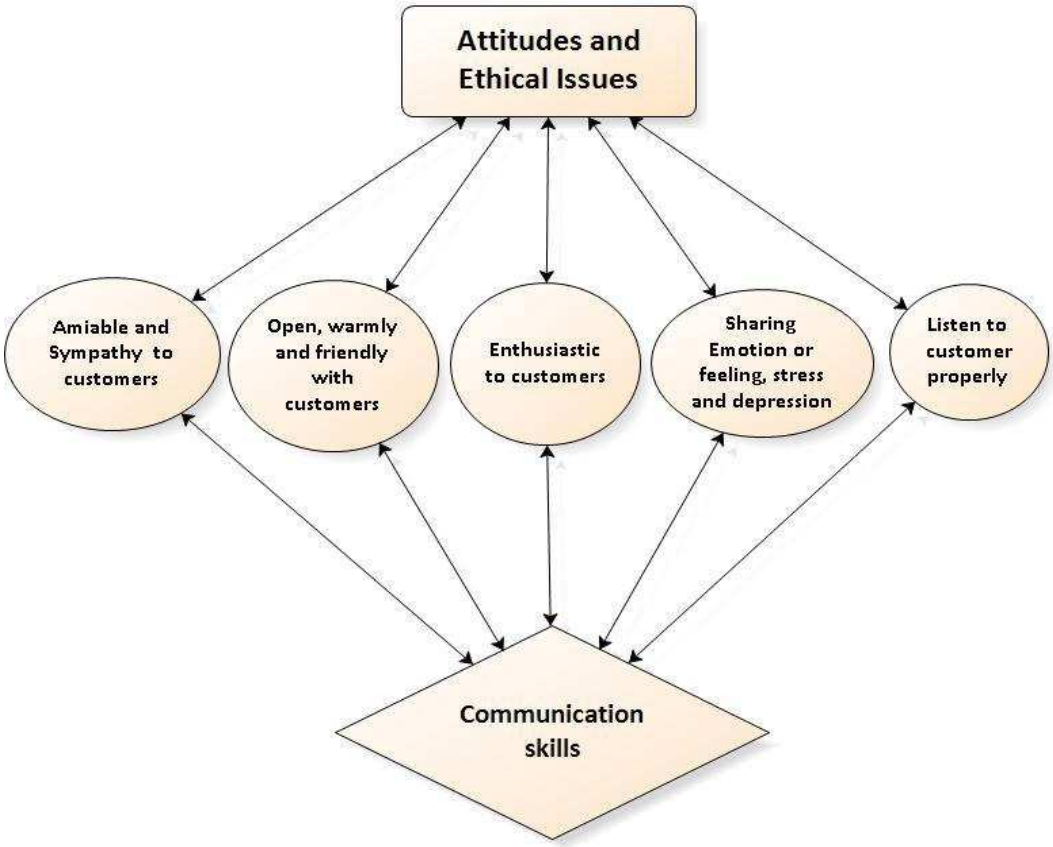

Figure 5- 5 Relationships between attitudes and communication skills

There is an overlap between attitudes and communication skills in terms of taking responsibility when serving customers' demands. The relationship between these two themes was expressed in a complementary manner.

Open, warmly and friendly with customers

Participants stated that it is important to show positive attitudes when communicating with customers. Greeting customers in an open and friendly environment enables customers to feel comfortable and to be able to communicate and share their health concerns with pharmacy staff. Participants described the important role of this positive attitude and how pharmacy staff can create an open, warm and friendly environment in their daily practice:

> *I think an open and friendly attitude is the first factor. It is important to make customers feel comfortable in the transaction that enables them to easily share their opinions and feelings with you.*
>
> Pharmacy assistant P2.3 F

> *A smile on your face, an open and friendly attitude is always performed when communicating with customers. We should create a very friendly environment for customer-staff discussion. When customers trust in your consultation, it is easy for them to take a full course of medication and obtain good treatment outcomes.*
>
> Pharmacist P1.2 F

> *When a transaction is in progress, pharmacy staff should create an open and friendly environment for their discussion that encourages customers to describe their symptoms comfortably. Asking about their disease, showing empathy and sharing difficulties are many aspects should be performed well on the transaction.*
>
> Pharmacist P3.1 F

Amiable attitudes and sympathy to customers

Customers come to community pharmacies with health problems and they are likely to be vulnerable to anxiety and depression, so the way of communicating with them is different in comparison with when they are in other shops. Participants perceived that having amiable and sympathetic attitudes are essential and contributes to building up good relationships with customers and the reputation of the pharmacy. As health experts, pharmacy staff should sympathise with customers about their health conditions and economic status. The amiable attitudes and sympathetic manner enable staff to serve customers' demands appropriately:

> *I think pharmacy staff should have an amiable attitude, be thoughtful and attentive to customers when serving customers' demands so that they feel comfortable and satisfied with their community pharmacy.*
>
> Pharmacy assistant P1.3 F

> *I think having an amiable attitude and willingness to respond to any queries from customers should be performed well in daily practice.*
>
> Pharmacy assistant P5.3 M

> *Pharmacy staff should have good knowledge and communication skills, sympathise with customers because patients visiting to their pharmacy are from different economic classes and some of them are poor students.*
>
> Pharmacist P5.2 F

These quotes illustrate pharmacy staff perceptions of the amiable attitudes and sympathetic manner they should display when communicating with customers. It is easier for customers to share their health concerns, emotions/feelings and stress about their conditions with an amiable and sympathetic staff member in a community pharmacy. Then, customers trust in the pharmacy and loyalty to the pharmacy are invaluable benefits for community pharmacies in the long term.

Sharing emotions/feelings, stress and depression

As presented in the previous sections, allowing customers to share their emotions, and discuss stress and depression are important duties of pharmacy staff when communicating with customers who are purchasing medicines in community pharmacies. This customer oriented, sensitive behaviour will enable them to reduce tension and anxiety about their illness. On the other hand, customers trust in pharmacy staff as a result of being cared about, being looked after is considered as a long term benefit for community pharmacies.

> *As you know, customers come to the pharmacy with their health problems and feel uncomfortable with their condition. As a health expert, pharmacy staff have to show the sympathy with customers like a psychologist.*
>
> Pharmacy assistant P3.3 M

> *Pharmacy staff have to spend time to listening to customer's talk, share emotions and feelings and even listen to customers' complaints without having negative reactions.*
>
> Pharmacy assistant P5.3 M

> *It is important to make customers feel comfortable about the transaction that enables them to easily share their opinion and feeling with you.*
>
> Pharmacy assistant P2.3 F

Participants perceived that sharing emotions, feelings and stress with customers should be an essential task of pharmacy staff. It allows customers to provide information about their health conditions comfortably. It will contribute benefits to both customers and pharmacies in the long terms.

Listen to customers properly

Listening to customers properly is considered as a positive attitude when communicating with customers. So it will be discussed in more detail in the upcoming sections. Here, it is discussed in the context of the attitudes and ethics of pharmacy staff in their daily practice. Listening to customers properly enables pharmacy staff to gain sufficient information about customers' symptoms and to clarify their understanding of the diseases under discussion.

> *Pharmacy staff should listen to customers properly. It means they have to spend time to listen to customer's talk, share emotions and feelings and even listen to customers' complaints without having negative reactions.*
>
> Pharmacy assistant P5.3 M

> *I always show an open and friendly attitude, listen to customers properly and share their emotions when communicating with customers. Advice should be given in as much detail as I can.*
>
> Pharmacy assistant P1.4 F

Listening to customers will be discussed in more detail in the next section under communication skills. In this part, listening to customers properly was perceived in the context of attitudes and ethics when serving customers' demands in community pharmacies. Participants commented on how they should listen to customers and discussed the benefits of listening to customers properly. Pharmacy staff should listen to customers attentively without having any negative reactions, even when being complained to or criticised. Participants were also aware of benefits for both parties by performing good listening to customers on their transactions.

Showing enthusiasm to customers

When communicating with customers who requesting non-prescription medicines in community pharmacies, showing enthusiasm is a way to create better communication and relationships between pharmacy staff and their customers. It may also be easier for customers to communicate with enthusiastic staff and enable them share their health concerns. Pharmacy staff discussed the importance of showing an enthusiastic attitude during their transactions with pharmacy customers:

> *Secondly, attitude of pharmacy staff plays an important role in the success of a transaction. Enthusiastic consultation for customers should be performed even when customers don't purchase medicines is a key issue on the communication.*
>
> Pharmacy assistant P3.4 F

> *I think pharmacy staff's attitude is the most important factor. Having positive attitudes, enthusiastic are the key issues to the success of staff-customer transaction.*
>
> Pharmacy assistant P3.2 F

> *Secondly it is the way of counselling. It should be enthusiastic, friendly and clearly that enables customers understanding of the instructions easily and comfortably.*
>
> Pharmacy assistant P4.3 F

It is desirable for customers to be served by an enthusiastic member of the pharmacy staff. Feeling comfortable enables customers to understand instructions and counselling from pharmacy staff more clearly and it may then be easier for them to adhere to the medication regime. Consequently, better treatment outcomes might be obtained for customers and the reputation of the community pharmacy enhanced as customer loyalty increased.

5.3.7 Summary

This section presented and discussed attitudes and ethical issues regarding pharmacy staff performance when selling non-prescription medicines in community pharmacies in Vietnam. From analysing interview data, the themes attitudes and ethical issues emerged with a high level of intensity. Many subthemes were also extracted, including care about customers' health concerns, responsibilities for patient safety, rational use of medicines, and time spent on transactions as well as selling medicines for profit. The findings showed that participants are generally aware of taking responsibility for customers. However, there still exist some problems in actual practice.

Attitudes and ethical issues were perceived as important factors contributing to the success of pharmacy staff-customers transactions in community pharmacies, when dealing with non-prescription medicines. Positive attitudes and an ethical approach encourage pharmacy staff to take greater responsibility for patient safety, rational use of medicines, taking into account customers' economic status as well as spending time on staff-customer transactions. In addition, considerations of allergy to medicines, ADRs and other health related advices could be taken into consideration as a result of positive attitudes and ethical approaches.

However, there were also some practical problems emerging from daily practice as a result of negative attitudes and ethical approaches. Supplying medicines purely for profit, selling medicines without asking any questions or giving any advice and not spending sufficient time on customer-staff transactions are real problems faced every day in community pharmacies. Concerns have been raised about the discrepancy between pharmacy staff perceptions and the actual practice in community pharmacies.

In terms of patient safety, it was perceived as an important issue and pharmacy staff have to take greater responsibility regarding safety when supplying medicines for customers. Many aspects related closely to patient safety such as allergy to medicines, side-effects or ADRs, interactions between medicines and some kinds of foods or drinks should be taken into account when selecting medicines for customers' treatment. When severe conditions were suspected, customers should be advised to go to hospital for further diagnosis in order to ensure the patient's safety.

When discussing the rational use of medicines, the issue of irrational use of medicines by customers was also discussed. Many aspects related closely to irrational use, including customers' misunderstanding about the harmfulness of non-prescription medicines, non-adherence to medications, overuse and misuse of medicines, customers requesting to buy medicines for only two to three days and customers asking to buy prescription medicines without having doctors' indications were presented. Pharmacy staff responsibilities regarding rational use of medicines for customers were also commented upon. Giving instructions and counselling for customers about indications, contraindications, dosage, times for taking medicines should be provided in as much detail as possible. Others health related advice including adherence to medications, avoiding overuse or misuse of medicines and some kinds of foods or drinks should be explained clearly in order to ensure the rational use of medicines and customer's safety.

When supplying medicines in community pharmacies, each customer's economic status and whether they can afford the medicines on offer should also be taken into account as a pharmacy staff responsibility when choosing and supplying medicines for that customers'

treatment. In Vietnam, health care costs are considered by customers whenever they have health problems. So, health care expenditure impacts on customers' decisions when choosing medicines for treatment. As health care experts, pharmacy staff should consider medicines which ensure the treatment outcome and are reasonably priced. However, it is not an easy task to do, as discussed in the problem of negative attitudes of pharmacy staff.

In terms of time spent on customer-staff transactions, participants perceived that they have to spend a lot of time for non-prescription medicine transactions as time is needed to clarify the diseases and to give detailed instructions for customers. However, in actual practice, some pharmacy staff did not spend sufficient time with customers. They explained that this was often due to objective reasons such as that the pharmacy was too busy and pharmacy staff could not spend sufficient time with any one person as many customers were waiting in the queue. In order to improve actual practice, pharmacy staff should be trained and be aware of the importance of building up relationships with customers and how this affects the reputation of the pharmacy.

Recommendations were generated from analysing and discussing data regarding attitudes and ethical issues of pharmacy staff working in community pharmacies. Attitudes and ethical issues emerged from the data with a high level of intensity as they were indicated as the first and most important issues for pharmacy staff in their daily practice. Generally, pharmacy staff are aware of their responsibilities and duties in community pharmacies in order to ensure the safe, rational and effective use of medications. However, there is a discrepancy between these perceptions and actual practice and that situation needs to be improved.

5.4 Communication skills

This section presents and discusses pharmacy staff perspectives in terms of communication skills when dealing with pharmacy customers purchasing non-prescription medicines in community pharmacies. From analysing the interview data, the theme communication skills emerged with many other subthemes. Discussing communication skills involve a broad range of issues including questioning skills, listening skills and giving advice. It was also classified as verbal and non-verbal communications. Many other issues such as body language, speech, posture, gesture, facial expression, eye contact, body movement are considered as belonging to non-verbal communication skills. The main theme of 'communication skills' and many other subthemes emerged from data analyses and are presented in figure 5.6 below:

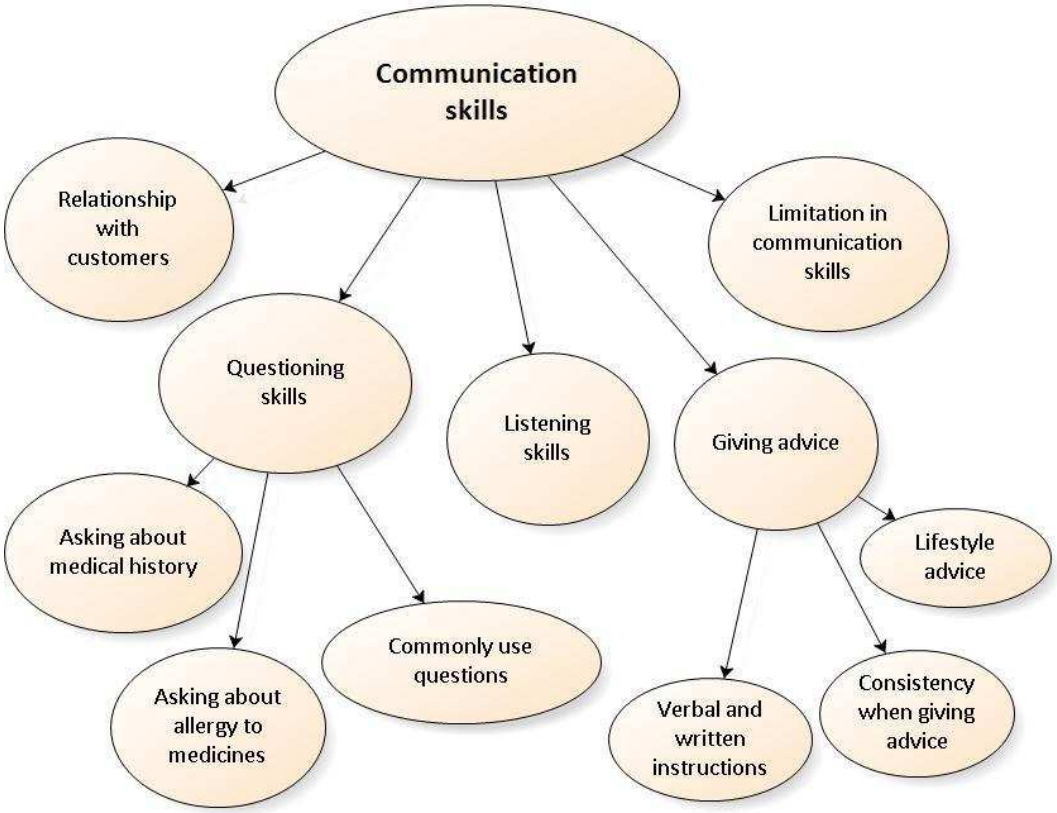

Figure 5- 6 Communication skills in community pharmacies

5.4.1 Importance of communication skills

During the interview, all participants were asked their opinion regarding the important thing(s) to consider when supplying non-prescription medicines in order to provide a good quality of pharmacy service for customers. Pharmacy staff perceived that communication skills were important aspects contributing to the success of customer-staff transactions. In some special cases or challenging situations, having good communication skills will support pharmacy staff dealing with difficulties and overcoming the tough cases or problem-solving as well:

> *In my opinion, communication skills play an important role on the success of OTC medicine transactions in community pharmacies. Pharmacy staff should have good communication skills. When a transaction is in progress, pharmacy staff should create an open and friendly environment for the discussion that encourages customers to describe about symptoms comfortably.*
>
> Pharmacist P 3.1 F

> *The second factor is communication skills. Selling medicines requires pharmacy staff having good communication skills in order to communicate with customers effectively and comfortably.*
>
> Pharmacy assistant P1.6 F

> *In my opinion, the first factor is communication skills. As a health expert, I have to put customers at ease from the beginning of the transaction that enables them to present their health concerns comfortably. Good communication skills help us build up a good relationship with customers.*
>
> Pharmacy assistant P5.4 F

> *Finally, communication skills play an important role when dealing with pharmacy customers. In terms of communication, pharmacy staff have to be open, friendly and show their empathy with customers in order to build up the trust between customers and pharmacy staff.*
>
> Pharmacist P 1.1 F

When dealing with customers requesting non-prescription medicines for their minor conditions, communication skills are considered as essential skills that enable pharmacy staff to serve customers' demands effectively and comfortably. The importance of communication skills for pharmacists, and other health care professionals, has been widely reported in the literature [221-225]. In addition, communication skills were also discussed as integral parts of the job, along with pharmaceutical knowledge, attitudes and ethical approaches in order to provide good pharmacy services for customers.

Transactions between pharmacy staff and customers in community pharmacies should be a two-way process as two-way communications allow both pharmacy staff and customers a chance to ask questions and offer responses. Both pharmacy staff and customers need to give and receive information and need to understand all of the information that is delivered. When a transaction is in progress, both verbal and non-verbal communications is employed and combined in order to maximise the effectiveness of communication. The use of verbal communication, such as words and voice, including tone, inflection and nuance in combination with non-verbal communication such as body language, posture, facial expression, eye contact and dress are all considered as important skills to contribute to the success of pharmacy staff-customers transactions.

Questions have been raised about how communication skills were performed in actual practice; how questions were asked; how advice was given and what listening skills were shown? Those issues are explored and presented in more detail below.

5.4.2 Questioning skills

Asking questions to identify diseases is an important duty of pharmacy staff in their daily practice. Diseases could not be identified or diagnosed correctly without asking appropriate questions and collecting sufficient information about patients' symptoms and other health problems. So asking questions is the first step of supplying medicines and counselling for customers and treating their diseases. It could also be a responsibility of pharmacy staff in order to ensure the rational use of medicines and patient safety. The important role of asking questions was prioritised by pharmacy staff:

> *I think the first one is questioning skills. Having good questioning skills enables pharmacy staff to deliver appropriate questions to identify diseases correctly.*
>
> Pharmacy assistant P4.2 F

> *Communication skills are also important factors when dealing with OTC medicines. Asking questions is an important skill that helps us to clarify diseases correctly. In addition, pharmacy staff should have an ability to listen to customer properly.*
>
> Pharmacist P 4.1 F

> *The second factor is questioning skills. Asking customers about their symptoms and severity of health problems in detail will help us to identify disease correctly.*
>
> Pharmacy assistant P5.4 F

Both pharmacists and pharmacy assistants stated that asking questions is the first step of supplying medicines and counselling for customers. Questioning skills play an important role to identify customers' diseases and cement the success of customer-staff transactions. In addition, asking appropriate questions in combination with positive attitudes will help

pharmacy staff develop a good relationship with customers. In the long term, having good relationships will bring benefit to both customers and the pharmacy.

However, how could appropriate questions could be asked and how should questioning skills be performed? Customers should be asked to describe their symptoms and health conditions in detail. The medical history should be asked clearly. Based on the responses, further questions can be delivered to clarify and identify diseases correctly. When selecting medicines for customer treatment, a few more questions about allergies to medicines could also be asked. The interactions between medicines used together and foods or drinks should be clarified in order to ensure the rational use and patients' safety.

The skills of asking questions should be considered. How open-ended, probing questions, leading questions and close-ended questions could be delivered and in what situations? Open questions should be asked to provide pharmacy customers an opportunity to describe their health conditions and symptoms freely, whilst closed questions can be used to confirm the situations with yes/no responses. Probing questions are used to explore the patient condition in a deeper manner and gain a better understanding about customers' health conditions. Those questions should be used appropriately to enable pharmacy staff to explore and to identify customers' diseases correctly. Other skills such as making eye contact, using the voice, and facial expressions appropriately should also be used to support the success of transactions.

5.4.2.1 Commonly employed questions

During the interviews, participants were asked about what happens when customers come to community pharmacies and describe their health conditions and ask for help. Most respondents stated that the first step of dealing with those situations is asking questions. However, the questions used here in community pharmacies are different from questions used in other shops in terms of identifying customers' demands. Medicines and health care consultations are different from other goods or services. Questions used in community pharmacies focus on health conditions and looking for solutions to improve customers' health. From analysing the interview data, pharmacy staff described many common questions that were used at the beginning of their transactions with pharmacy customers who come to community pharmacies, describing their symptoms and asking for support:

> *Well when customers come to my pharmacy, I firstly ask about their symptoms such as "would you describe your symptoms in detail?" and "How long have these symptoms present?" and "Did you try any medicines for treating these symptoms?"*
>
> Pharmacist P 2.2 F

> *Firstly, I ask customers about their age and symptoms and severity of symptoms. These questions include "are they old or young person, male or female?" and "whether she is pregnant or bread feeding"*
>
> Pharmacist P 1.1 F

> *Firstly, we have to listen to customers describing their symptoms. Then, based on their descriptions, I ask a few more questions to clarify symptoms and identify their diseases such as "would you describe more detail about symptoms?" and/or "how long and the severity of that symptom present?" and/or "did you use any medicines for your condition?"*
>
> Pharmacist P 2.1 M

Well normally, I ask customers many questions about their symptoms such as "would you describe the symptoms in detail?" and "do you have fever?" and "are there any medicines you have tried?" and/or "Do you have an allergy to any medicines?" and/or "whether they got stomach-ache or not".

Pharmacist P 3.1 F

Firstly, I ask customers about the person who will use the medication, their age, weight and symptoms in detail. Some chronic disease, are there any medicines have been tried and whether they have an allergy to any medicines should be asked clearly at the beginning of the transaction.

Pharmacy assistant P5.3 M

Participants stated that when customers come to community pharmacies, describe their symptoms and ask for support, some common questions were asked such as "Who will use medications?", "How old are they?" and "Would you describe the symptoms in detail". Those questions were asked to identify the person who will use medicines and whether they are an old person or a child, male or female and their health problems. Then based on the responses, a few more questions were asked including "How long have these symptoms been present?", "How severe are those symptoms?", "Have you got fever?" and "Did you get symptoms like these before?" Those questions were asked to identify the diseases and severity of conditions in order to select appropriate medications. Finally, many other questions should also be asked with the purpose of checking whether customers had an allergy to some particular medicines or interactions in order to ensure the patient's safety.

When asking questions, listening skills are also important in order to encourage customers to talk about their symptoms and health conditions comfortably.

Pharmacy staff were also interviewed about how they deal with the situations when customers are asking to buy some particular kinds of non-prescription medicines by name. Participants commented that it was also a common situation in community pharmacies and some questions should be delivered:

> *When customers come to my pharmacy with a blister or a name of medicine asking to purchase that medicine, I always ask them "who will use this medicines?" and/or "have you ever used that medicine before and how long have you been using that medicine?" and/or "are there any improvements?".*
>
> Pharmacist P 3.1 F

> *On that case, I ask customers questions such as "who will use this medication?" and "what the disease is?" and/or "are you using this medicine?" and/or "how long have you been using that medicine?" and/or "who recommended you this medicine?"*
>
> Pharmacist P 1.2 F

> *In that situation, I often ask customers whether they are using that kind of OTC medicines or have they ever used that medicine before? Or how long have they been using that medicine? Or are there any improvements?*
>
> Pharmacist P 1.1 F

Customers may probably know about the medicines requested. However, as health care experts, pharmacy staff should ask questions to confirm their understanding about health conditions and medicines. Participants suggested that the questions should focus on identifying the person who will use the medication, whether customers have ever used that medicine before or are they using other medicines and for how long and any improvement. Other questions, such as why customers want to buy that medicine and who recommended those medicines to them, should also be considered when asking customers during the transaction.

Pharmacist P 2.2 stated that she did not sell medicines immediately on customers' request. Instead of supplying medicines, some questions were asked to identify the patient and the reasons for requesting a particular medicine. She also asked questions to clarify the disease in order to confirm whether customers' demands are appropriate or not:

> *I do not sell medicines immediately on their request. Firstly, I ask some questions such as "who will use the medication?" and 'why they want to use that medicine?' The medicines can be used for customers or their family members. I also ask questions about their symptoms to clarify the disease and whether their requested medicines appropriate for disease.*
>
> Pharmacist P 2.2 F

However, there was not a performance like this in every case. In some situations, medicines were supplied on customers' requests without asking any questions (as discussed on section 5.3.4). Pharmacy staff commented that customers may probably be aware of requested medicines, so it was not necessary for them to receive further questions and advice. Actually, this is not good practice:

> *In some cases, if the pharmacy is too crowded, I will sell medicines immediately for customers without asking any questions or giving any advice. I know it is not good practice, but I have no choice because many people are waiting for me.*
>
> Pharmacist P 4.1 F

Pharmacist P 4.1 also argued about her performance by explaining that her pharmacy was too crowded and it was not easy for her to ask questions in every case, even she was aware of it not being good practice. Ideally, customers should be asked appropriate questions to confirm their understanding about diseases and requested medicines before being supplied.

5.4.2.2 Asking about a customer's medical history

Asking about a customer's medical history is an essential task in pharmacy practice that enables pharmacy staff to identify diseases correctly and ensures the rational use of medicines and patient safety. Obtaining sufficient information about customers' medical histories will support pharmacy staff when making appropriate treatment decisions and help customers to avoid unwanted side-effects. Participants discussed their responsibility for asking customers about their medical history:

> *Before selling medicines, I ask customers some questions about medical history such as their stomach ulcer, blood pressure or their career. Some medicines, for example antihistamines, have side-effects that make people feel drowsy when taking medicines, so they are advised not to be in work during that time.*
>
> Pharmacy assistant P3.2 F

> *Firstly, I ask them about symptoms, all the related issues. The medical history such as stomach ache, high blood pressure...etc. It will help to avoid some unwanted interaction between medicines.*
>
> Pharmacy assistant P3.3 M

> *Oh! Firstly, I ask customers "who will use medicines, adult or children?", and/or "are there any chronic diseases such as diabetes, hypertension, cholesterol…?" and asking about liver and kidney functions.*
>
> Pharmacy assistant P1.3 F

Customers should be asked about chronic diseases such as diabetes, hypertension, cholesterol and stomach ulcer, as well as liver and kidney function. The historical use of medicines should also be clarified in order to ensure the rational use of medicines and the patient's safety.

5.4.2.3 Asking about allergy to medicines

Asking pharmacy customers about allergy to medicines enables pharmacy staff to identify any unwanted reactions in advance. When choosing medicines for customers' treatment, it will be beneficial for pharmacy staff to be aware of patients' historical allergies. This will help to avoid or protect patients from allergies to medicines.

> *Well! Do you know some customers are too sensitive to medicines and easily to get allergy. It is difficult to tackle that situation. They suffer from allergy to medicines and could not use the full course of medication. So, we have to ask carefully about what kinds of medicines they were allergic to and select other safer medication for their treatment.*
>
> Pharmacy assistant P5.3 M

> *Do you know the thing I feel the most difficult is allergy to medicines. Patients are different and some of them are too sensitive to medicines and easily get an allergy. It is a challenge to identify allergy to medicines in advance because patients are different. So, facing patients who suffer from allergy to medicines is a struggle. How can we explain to customers about their allergy? It should be better to remind customers to pay attention to any possible allergy to medicines that may occur.*
>
> Pharmacy assistant P5.4 F

Participants stated that some patients are too sensitive with some particular kinds of medicines and it is easy for them to get or develop an allergy. Those patients seem not to adhere to medications as a result of their allergies. Consequently, their diseases could not be cured. It would be better to identify any allergy in advance, so asking customers about allergy to medicines is the responsibility of pharmacy staff. Then, safer medication should be delivered for customers' treatment. Moreover, asking about their allergy history is also the way to communicate closely and create a good relationship with customers.

Participants also commented on what they should do in the transaction with pharmacy customers in order to identify any allergy to medicines:

> *I always consider about side-effects of medicines when counselling for customers. I try to reduce interactions and side-effects by asking customers questions about their medical history and allergy to medicines in order to avoid unwanted side-effects for customers.*
>
> Pharmacy assistant P3.4 F

> *Secondly, asking about any chronic diseases that they may have suffered from and whether they had an allergy to any medicines before.*
>
> Pharmacist P 1.1 F

> *The allergy history to medicines should be asked in our daily practice. Then consider about changing to other safer medicines for the patient if possible.*
>
> Pharmacy assistant P 5.3 M

Pharmacy staff should be aware of their responsibility on asking questions about allergy to medicines when serving customers' demands. It is also the suitable way to protect not only customers from unwanted allergic reactions to medicines but also pharmacy staff and their reputation as well.

From participants' perceptions and the discussion presented above, some common questions which should be used in pharmacy practice, during the transaction between pharmacy staff and customers are summarised in the table below:

Table 5- 2 Questions which should be asked during customer-staff transactions

	Criteria or questions should be asked	Customers describe symptoms and ask for help	Customers asking to buy particular NPMs
1	Who will use medicines, adult or children, male or female?	✓	✓
2	How old are they? How heavy they are?	✓	✓
3	Would you describe your symptoms in detail?	✓	✓
4	How long have these symptoms been present?	✓	✓
5	Have you got fever?	✓	✓
6	How severe are those symptoms?	✓	✓
7	Did you get those symptoms like this before?	✓	✓
8	Whether she is pregnant or bread feeding	✓	
9	Did you try any medicines for treating these symptoms?	✓	
10	Are you allergic to any medicines?	✓	✓
11	Do you have any chronic diseases such as diabetes or hypertension?	✓	✓
12	Asking about liver and kidney functions.	✓	✓
13	Why do you want to use that medicine?		✓
14	Have you ever used that medicine before?		✓
15	How long have you been using that medicine?		✓
16	Who recommended you those medicines?		✓
17	Are there any improvements?		✓

In summary, asking questions is a first and most important step when pharmacy staff are serving customers' demands in community pharmacies. Participants perceived that having good questioning skills enables pharmacy staff to deliver appropriate questions to identify

diseases correctly. The medical history, allergies to medicines, side-effects and interactions could also be identified by performing appropriate questioning skills.

In daily practice in community pharmacies, questioning skills were performed by delivery of some common questions that were presented in table 5.2. There was a combination of open and closed questions of which some open questions such as “Would you describe your symptoms in detail?” were used to explore the customers’ health problems whilst close questions such as “Did you get those symptoms like this before?” were used to confirm the situation. Customers’ diseases could be identified correctly by asking and combining appropriate questions in the transactions.

After asking questions and receiving information about customers’ health problems, pharmacy staff need to summarise and reflect back to the customers what they have just been told in order to confirm and achieve a shared understanding. In that stage, the skills of paraphrasing, reflecting and summarising should be applied and performed well. Customers need to know that their health problems were understood correctly by pharmacy staff and it ensures the correct disease could be identified and appropriate treatment decision could be delivered. So it is necessary for pharmacy staff to confirm their understanding by asking customers some paraphrasing, reflecting and summarising questions to reflect what they have been told. Customers, on the other hand, will show their respect to pharmacy staff who have good questioning skills and deliver appropriate and sufficient questions.

5.4.3 Listening skills

Listening skills are also important factors contributing to the success of pharmacy customer-staff transactions. When the transaction is in progress, pharmacy staff should have the ability not only to ask appropriate questions but also to listen to customers properly. When a question was asked, pharmacy staff should allow customers plenty of time to talk about their health problems and listen to customers intently. It is important to listen to the customers' answers and avoid interrupting them. Customers should have an opportunity to describe their health problems and symptoms freely and comfortably. Consequently, sufficient information about the diseases can be collected that allows pharmacy staff to give appropriate treatment decisions. Moreover, listening to customers properly is also a way to show respect to customers and care about their health concerns. Having good listening skills will support pharmacy staff in building a good relationship with customers and improve customer loyalty. Pharmacy staff perceived the importance of listening skills when communicating with customers in community pharmacies:

> *As you know, asking customers about their symptoms and knowing how to listen to customers' responses properly, in order to collect sufficient information about their diseases, are essential roles of pharmacy staff. A successful pharmacy seller is a person who has a good listening skill and knows how to listen to customers effectively.*
>
> Pharmacist P 1.1 F

> *Asking questions is an important skill that helps us clarify diseases correctly. In addition, pharmacy staff should have abilities to listen to customer properly. It means they also have good listening skills.*
>
> Pharmacist P 4.1 F

> *Listening to customers properly is the first factor. Listening and encouraging customers to talk about their symptoms will help the pharmacy staff to collect enough information and identify diseases correctly. So, pharmacy staff should have good listening skills.*
>
> Pharmacist P 1.2 F

Those quotes illustrated and emphasised that a successful pharmacy staff member is a person who has good listening skills and knows how to listen to customers effectively.

The benefit of having good listening skills was perceived and how listening skills should be performed by pharmacy staff are presented below:

> *In my opinion, firstly, pharmacy staff should have good listening skills and know how to listen to customers properly in order to gain enough information to support their treatment decisions.*
>
> Pharmacist P 1.1 F

> *For me, I try to listen to customers properly and encourage them in providing as much information as they can.*
>
> Pharmacy assistant P5.3 M

> *The second factor is listening skill. Pharmacy staff should listen to customers properly. It means that they have to spend time to listen to customer's talk, share emotion and feeling and even listen to customers' complaints without having negative reactions.*
>
> Pharmacy assistant P 5.4 F

Those quotes suggest that pharmacy staff should listen to customers intently and properly. When the transaction is in progress, pharmacy staff have to listen to customers sharing

their health concerns, emotions and feelings properly and avoid interruptions. The listening skills were also discussed in combination with attitudes of pharmacy staff performing in the transaction (see section 5.3.6). In some special cases, pharmacy staff have to listen to customers' complaints without showing negative reaction.

However, the limitations of listening skills performed in actual practice should be considered in order to improve those skills for pharmacy staff. Poor listening performance as a result of not concentrating to listen to customers, jumping to conclusions or focusing on delivery and appearance only needs to be avoided. Moreover, other aspects such as attending skills using eye contact, body motion and attentive silence should be performed well in the transaction to encourage customers to talk about their health condition and to show respect to them. In addition, encouraging skills of pharmacy staff to motivate customers' talk should be improved. Finally, the levels of response of pharmacy staff to customers should be discussed. Pharmacy staff have to let customers know that they have heard what was said and can confirm information was received correctly. In that situation, reflective skills using paraphrasing, reflecting feeling and summative reflections should be performed well by pharmacy staff throughout transaction.

5.4.4 Giving advice

Giving advice is an essential and ordinary task of pharmacy staff in their daily practice in community pharmacies. Receiving appropriate and sufficient advice and counselling will help pharmacy customers to use their medications safely and effectively. The important role of giving advice was discussed:

> *I think the most difficulty is giving advice or consultation skills. How can we counsel for customers in the most persuasive way that enables them to trust in our instructions and follow our suggested medication?*
>
> Pharmacy assistant P 3.4 F

> *In my opinion, giving advice or instructions for patients may probably be the most important issue. The consultation includes not only the verbal but also the written instructions. The advice should be as detailed as possible.*
>
> Pharmacist P 2.2 F

Participants perceived that giving advice is the most important and difficult issue in pharmacy practice. Pharmacy customers could not use supplied medicines safely and effectively without receiving sufficient and appropriate advice. The skills of conveying counselling information in a persuasive way, that enables pharmacy customers to trust in provided medicines and to adhere to medications, is difficult to do effectively. The advice delivered including both verbal and written instructions should also be supplied and be as detailed as possible. Both verbal and written instructions can be used to complement and support each other in order to maximise the effectiveness of communication tools. In the positive aspect, pharmacy reputation and customer loyalty could be increased as a result of performing good advice giving skills. The extracts below illustrate the viewpoint:

The instructions should be as detailed as possible even for some medicines that customers have used before. Information about the doses forms of medicines, time for taking and side-effects of purchased medicines should be given again for the purpose of safety and efficiency.

Pharmacist P 1.2 F

The advice given should include both verbal and handwritten instructions that enable customers to use their medication easily and conveniently. The written instructions including indication, doses and time for taking medicines in a day should be clear, brief and are shown on boxes or blisters of medicines provided.

Pharmacy assistant P 1.4 F

Secondly, giving instructions as detailed as you can for medicines supplied. For example, we should provide instructions about doses, indication, form of medicine used, time for taking and side-effects as well as some special warning that enable customers to use their medication easily and conveniently.

Pharmacy assistant P5.3 M

5.4.4.1 Verbal and written instructions

Participants also discussed how the use of verbal and written instructions in combination to maximise the effectiveness of communication. The verbal instructions were known as an essential and traditional duty of pharmacy staff when supplying medicines for customers. Written instructions have been widely increased with the new changes of pharmacy staffs' roles in pharmacy practice in recent years. Written instructions should be used in combination with verbal advice to support customers using their purchased medicines.

The reasons why written instructions are important were discussed. It is the fact that most patients are naïve about medication and many anxious and do not concentrate on what they are told. Furthermore, all people forget at least part of what they are told. People

often misinterpret information of using medicines, and some information may be distorted. Consequently, receiving verbal instructions only leads to some limitations of using medicines and treatment outcome for customers. Handwritten instructions, on the other hand, will support customers in using their medicines effectively and conveniently. People can comfortably follow the brief, concise written information given or stuck directly on blisters or boxes of medicines about dosage, time taking medicines, and other warnings. The important role of written instructions was discussed in more detail below:

> *In terms of giving instructions, it should include both verbal and written instructions. The handwritten instructions are given on the blisters/boxes that enable customers to use their medication easily. As you know customers prefer written instructions as it is easily to forget verbal instructions.*
>
> Pharmacy assistant P 5.4 F

> *When giving advice, both verbal and written instructions should be given in detail, that enabling customers to use their medication safety, effectively and conveniently. The instructions should be handwritten on boxes or blisters of medicines. So customers can realise that they are served carefully.*
>
> Pharmacy assistant P 3.3 M

In addition, customers in Vietnam prefer written instructions to verbal advice:

> *Do you know in Vietnam, customers are quite lazy to read the instructions when using medicines? Instead of reading information along with medicines boxes, they prefer to follow handwritten instruction from GPs or pharmacy staff given on blisters. So, pharmacy staff should write very brief, clear and concise instructions on the medicine boxes or blisters that enable customers to use these medicines easily and conveniently.*
>
> Pharmacist P 1.1 F

Pharmacist P 1.1 also commented on the habit of pharmacy customers who are not interested in and are quite lazy to read supporting information along with medicine boxes.

Customers prefer handwritten instructions given directly in medicine blisters or boxes that enable them to use medications easily and comfortably. So, from pharmacy staff perspective, written instructions were perceived as an important factor informing the rational use of medicines, patient safety and customers' comfort.

5.4.4.2 Lifestyle advice

When supplying medicines for customers treating their diseases, both advice on medicine use and some lifestyle advice are important for customers' recovery. Providing some lifestyle advice along with medical advice will support customers in obtaining better treatment outcomes and avoid some unwanted interactions between medicines and some kind of foods or drinks. Participants suggested some common lifestyle advices giving in their daily practice:

> *When counselling OTC medicines, I provide customers with not only detailed instructions about using medicines but also some other advices on primary health care such as avoid using alcohol or some specific foods or drinks that may probably interact with medicines used, doing exercise regularly or eating some healthy food etc.*
>
> Pharmacy assistant P 1.3 F

> *Sometimes, it is very simple to remind customers taking their medicines with a full glass of still water and avoid using beer or alcohol during the medication time.*
>
> Pharmacist P 2.2 F

> *One more thing, I normally advise customers to avoid some special kind of foods and drinks when taking medicines that may cause the interaction between medicines and foods or reduce the treatment outcomes. Finally, do not forget to remind customers to come back to the community pharmacy after 3-5 days of using medicines and inform us of any improvement or even no improvement at all.*
>
> Pharmacist P 2.1 M

Sometimes, customers should be advised not to use medicines and should only adjust lifestyle or food intake in order to aid their recovery:

> *If it is not necessary to use medicines, I will advise customers to adjust their lifestyle, food intake and take more rest to get recovery. In that case, some customers understand about the situation and follow my advice.*
>
> Pharmacy assistant P 1.4 F

> *When counselling customers, not only medical issues but also some other health advice such as about healthy foods, should be given. In some cases, customers should be advised not to use medicines if it is not necessary. It will save customers' expenditure and build the reputation of the pharmacy.*
>
> Pharmacy assistant P 3.3 M

It is an interesting point that customers are sometimes being advised about not using medicines and to adjust their lifestyle and food intake to aid recovery. This contrasts with the attitudes of those pharmacists and pharmacy staff who exploited every opportunity to sell medicines for profit.

5.4.4.3 Consistency when giving advice

Customers also require consistency when purchasing medicines and during consultation. Participants stated that customers will not trust in pharmacy staff who provide customers with inconsistent advice and selection of medicines:

> *We have to be consistent about medications and our explanations as well. Customers will not trust an inconsistent selection of medicines and consultation. So, selling OTC medicines requires pharmacy staff to have good practical skills and to be consistent when giving advice to patients.*
>
> Pharmacy assistant P 5.3 M

5.4.5 Relationship with customers

There is a link between communication skills of pharmacy staff and their relationship with pharmacy customers. Communication skills are considered as a crucial tool to create and build up relationships with customers. Relationship building enables customers to tell pharmacy staff about their health problems and explain their own concerns; it promotes adherence and it prevents misunderstanding and conflict. It also enables customers to feel comfortable when discussing health problems with an unfamiliar person and to benefit fully from the transaction. The importance of creating good relationships with customers was perceived:

> *In my opinion, the first factor is communication skills. As a health expert, I have to put customers at ease from the starting point that enables them to present their real concerns. Good communication skills help us build up a good relationship with clients.*
>
> Pharmacy assistant P 5.4 F

> *We have to create a good relationship with customers, especially from the first time, that enables them to feel comfortable and trust in our pharmacy. They should be aware that we are willing to serve their demands and counsel for their use of medication.*
>
> Pharmacy assistant P 4.3 F

It is the fact that having a good relationship between pharmacy staff and customers will bring benefits to both parties. Communication skills were considered as an important tool contributing to building up good relationships with pharmacy customers. From the customers' side, having good relationships with the pharmacy prevents them from misunderstanding, experiencing conflicts with pharmacy staff and promotes patient adherence as well as having better treatment outcomes. From the community pharmacy side, it is easier for them to obtain a good reputation and customer loyalty as a result of having good relationships with customers.

5.4.6 Limitations in communication skills of pharmacy staff

The contribution of communication skills to the success of pharmacy staff-customers transactions was perceived to be a positive factor by most respondents. However, staff communication in actual practice in community pharmacies was not always so good. Participants also pointed out the limitations of pharmacy staff in performing communication skills in daily practice.

> *Secondly, communication skills of pharmacy staff are generally limited. They don't know how to communicate with customers effectively. As a result, this limitation affects the information that they want to convey to the customers and the treatment outcomes.*
>
> Pharmacist P 1.1 F

> *Communication skills are not being taught in schools of pharmacy, which leads to the limitation of pharmacist and pharmacy staff regarding those skills. Consequently, many difficulties occur in the transactions between pharmacy staff and customers as a result of communication problems.*
>
> Pharmacist P 4.1 F

> *Do you know some pharmacy staff have poor competence in both clinical knowledge and communication skills to serve customers' needs? Consequently, they are not confident when communicating with customers and providing good consultations. So, factors of medical knowledge and communication skills are key issues.*
>
> Pharmacy assistant P 5.3 M

Pharmacy staff commented on how poor communication skills impact on customers' understanding of medication and treatment outcomes. The consultation cannot be delivered appropriately and effectively without having good communication skills. The reasons leading to this limitation will be discussed in more detail in a later section.

In summary, communication skills play an important part in pharmacy staff-customer transactions, so it is important for pharmacy staff to gain the necessary skills to communicate well. The benefits of having good communication skills can be seen not only in the customers' treatment outcomes, prevention of misunderstanding and conflicts but also in establishing a pharmacy's positive reputation, customer loyalty and pharmacy profit.

The important benefits of having good communication skills were discussed. However, participants did not mention how to manage the transaction with pharmacy customers in two way communications. Moreover, the use of both verbal and non-verbal communications was not reflected by pharmacy staff. The use of verbal communication such as words and voice including tone, inflection and nuance in combination with non-verbal tools such as body language, posture, facial expression, eye contact and dress were also not mentioned. These omissions raised concerns about the content of education and training at pharmacy schools regarding communication skills. Pharmacy staff may probably perform their communication skills based on their own experiences and not on any education they have received.

5.5 Knowledge of pharmacy staff

This section presents and discusses pharmacy staff perspectives regarding their knowledge when dealing with pharmacy customers purchasing non-prescription medicines in community pharmacies. It is a fact that pharmacy staff could not perform their tasks in community pharmacies without mastering a fundamental understanding of medical and pharmaceutical knowledge. Such knowledge will be discussed in conjunction with communication skills, attitudes and ethics in order to reflect the entire pharmacy practice in community pharmacies. From participants' perspectives, the important role and requirements of knowledge of pharmacy staff are discussed. The limitations of knowledge in actual practice and the reasons leading to those limitations are also commented upon. Finally, the solutions that should be considered in order to improve the knowledge of pharmacy staff are also discussed.

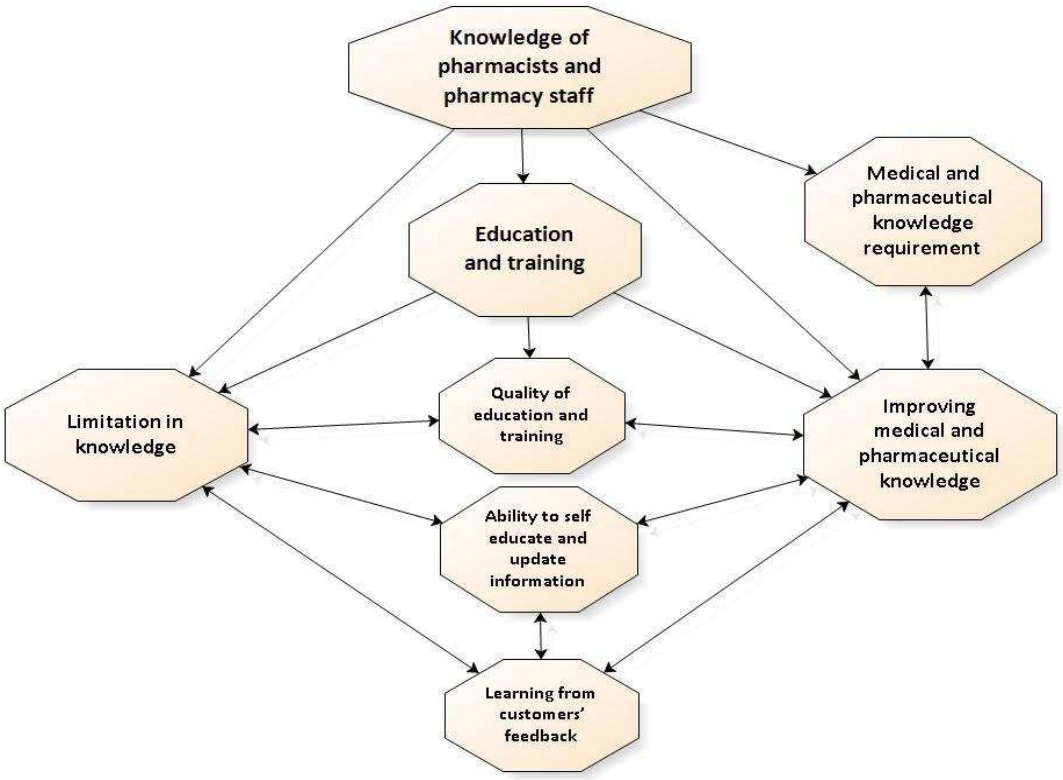

Figure 5- 7 Knowledge of pharmacy staff in community pharmacies

5.5.1 Medical and pharmaceutical knowledge requirements

When serving pharmacy customers who have minor conditions or are requesting to buy some particular kinds of non-prescription medicines, pharmacy staff medical and pharmaceutical knowledge needs to meet a certain level. Participants stated that it is essential for pharmacy staff to manage a broad range of medical and pharmaceutical knowledge on minor diseases and non-prescription medicines enabling them to serve customers' demands confidently and effectively.

> *In my opinion, medical knowledge of pharmacy staff is the first factor. It affects the quality of consultation provided for customers. If pharmacy staff did not have sufficient knowledge, they could not delivery good consultations.*
>
> Pharmacist P 4.1 F

> *The second factor is medical and pharmaceutical knowledge. Pharmacy staff should have a broad range of medical and pharmaceutical knowledge about diseases and medicines to cover every aspect of minor conditions that enable them to support customers' needs effectively and efficiently.*
>
> Pharmacist P 1.1 F

> *I think the medical knowledge of pharmacy staff is the first factor. Having good competence in terms of medical and medicine knowledge is essential for pharmacy staff to ensure the quality of consultation and customers' treatment outcomes.*
>
> Pharmacy assistant P 1.4 F

> *Finally, I think medical knowledge is also very important. Pharmacy staff should master all the information about medicines well that enable them to counsel customers comfortably and conveniently. The indications, contraindications, side-effects and others warnings should be given appropriately.*
>
> Pharmacy assistant P 3.2 F

Those quotes illustrate that medical and pharmaceutical knowledge plays an important part in contributing to the effectiveness of pharmacy staff consultations provided for customers. When dealing with pharmacy customers with minor conditions or requesting some particular non-prescription medicines, pharmacy staff should have sufficient knowledge to identify diseases correctly and select appropriate medicines as well as provide suitable advice or counselling for patient treatment. The medical knowledge is essential for pharmacy staff in order to identify customers' diseases, whilst pharmaceutical knowledge is used to support the selection of medicines and give instructions for customers to enable them to treat their diseases. Participants emphasised that pharmacy staff should have competence in both medical and pharmaceutical knowledge to deal with a broad range of minor conditions and non-prescription medicines. Pharmaceutical knowledge includes indications, contra-indications and form of medicines, dosage, and time for taking medicines, as well as side-effects and other warning about medication. It could be beneficial for customers being served by knowledgeable pharmacy staff.

> *In terms of medical knowledge, staff should have sufficient knowledge to provide counselling for customers in persuasive ways. Sometimes customers may not purchase medicines, however, if they saw that you are knowledgeable, they will come back to your pharmacy in the future.*
>
> Pharmacy assistant P 4.3 F

> *The third factor is medical knowledge. Pharmacy staff should have sufficient knowledge when working in the pharmacy. If customers feel that you are lack of competence, they will not come back your pharmacy anymore.*
>
> Pharmacy assistant P 2.3 F

Participants also stated that customers come back to community pharmacies as a result of communicating with knowledgeable pharmacy staff. So having sufficient knowledge will build up the reputation of, and bring long term benefit for, community pharmacies.

5.5.2 Quality of education and training

Participants perceived that there is a link between the quality of education and training with the knowledge of pharmacy staff who graduated from those pharmacy schools. From interview data, some participants complained that the poor quality of pharmacy services provided for pharmacy customers is a result of the poor quality of education and training from many educational organisations.

> *I think the quality of education and training for pharmacy staff did not meet the requirement of the society.*
>
> Pharmacist P 2.2 F

> *There were many aspects related to the supply of OTC medicines in community pharmacies in Hanoi and I have to say, it was not good services. Firstly, it was the limitation in medical knowledge of pharmacy staff in many community pharmacies as a result of poor quality of training in many educational organisations. Some pharmacy staff generally did not have sufficient knowledge to deal with a broad range of diseases and medicines. So, I do not think customers receive enough information for their treatment in many cases.*
>
> Pharmacist P 2.1 M

> *The second factor is medical knowledge. I am now so worried about the pharmacy staff knowledge in community pharmacies. Some of them do not have sufficient medical knowledge to deal with customers' demands properly. I don't know why, but the quality of education and training may probably be the main reason.*
>
> Pharmacist P 2.2 F

Pharmacists raised concerns about the pharmacy service that was delivered by some pharmacy staff in community pharmacies. It was reflected as a poor quality of pharmacy service provided for customers. The limitations in medical and pharmaceutical knowledge

were considered to be a result of poor quality education and training provided by some educational organisations. Pharmacy staff who graduated from those schools seemed to lack the knowledge to deal with a broad range of diseases and medicines.

The complaints about the quality of education and training in many educational organisations mainly came from the pharmacists interviewed and not their assistants. They are concerned about the situation and said that providing poor quality education and training leads to the limitations of knowledge and practical skills of pharmacy staff who graduated from those schools.

> *The second factor is medical knowledge of pharmacy staff. I don't think pharmacy staff in community pharmacies had sufficient medical knowledge to serve customers' needs in general. Many educational organisations have provided poor quality education and training. Consequently, pharmacy staff who graduated from those schools are not good enough in terms of medical knowledge and practical skills. So they could not provide a good consultation for customers.*
>
> Pharmacist P 3.1 F

> *The second problem is medical knowledge. I am concerned about the quality of education and training that many educational organisations provide now. Pharmacy staff who have graduated from those schools seems to be lack the fundamental knowledge needed for their daily practice. So, I am concerned about information they provide for customers.*
>
> Pharmacist P 2.1 M

> *Finally, poor medical knowledge of pharmacy staff is now also a big problem. I am now worried about the quality of training at some educational organisations.*
>
> Pharmacist P 1.1 F

> *Do you know, as a pharmacist, I am concerned about the recent situation of supply of medicines in community pharmacies? Pharmacy staff seems to be not good enough to deal with customers' demands. The quality of education and training may be a problem that leads to limitations in the competence of pharmacy staff.*
>
> Pharmacist P 2.2 F

The medical and pharmaceutical knowledge of pharmacy staff was perceived to be worse than expected in the daily practice in community pharmacies. The reasons for providing poor quality of education and training were also discussed further:

> *Some educational organisations focused on quantity of students rather than the quality of education or have commercialised the training activities. So this leads to some limitations in quality of education and affects to pharmacy practice or service given by pharmacy staff in a negative way.*
>
> Pharmacist P 5.2 F

> *Communication skills are not being taught in pharmacy schools, an omission which leads to the limitations of pharmacy staff concerning those skills. Consequently, many difficulties occur with the transaction between pharmacy staff and customers as a result of communication problems.*
>
> Pharmacist P 4.1 F

Participants pointed out that some educational organisations have commercialised their training activities and paid too much attention to the quantity of graduated students, rather than the quality of the education and training on offer. Consequently, the competence of pharmacy staff who graduated from those schools does not meet the professional requirements in terms of medical and pharmaceutical knowledge. Participants also stated that some subjects such as communication skills were not taught in schools of pharmacy, hence resulting in those limitations.

From those limitations mentioned, participants indicated that it is a necessity to enhance the competence of pharmacy staff by improving and strengthening the quality of education and training in pharmacy schools. Their suggestions were described in more detail below:

> *From my point of view, they should focus on communication skills and it should be added to the curriculum as a compulsory subject. They should also pay attention to training and updating medical knowledge for students and pharmacy staff.*
>
> Pharmacy assistant P 1.3 F

> *I think they should spend more time on training practical skills for students. The communication skills and selling skills should be in the curriculums for students as well. They should also pay attention to training and improving the medical knowledge of students.*
>
> Pharmacist P 2.2 F

> *The educational organisations should design their curricula in order to fit with the real practical situation in community pharmacies. They should focus more on practical skills and communication skills rather than on theoretical issues only.*
>
> Pharmacist P 5.1 F

Participants suggested that the training programmes should be designed in an appropriate manner in order to meet the society's requirements. This means that pharmacy staff who graduated from those pharmacy schools should have sufficient knowledge and competence to serve customers' demands confidently and comfortably. Participants asserted that the practical skills should be paid more attention and more time is needed for training in practical activities. Communication skills should be added to the curricula as a compulsory subject for all pharmacy students. Medical and pharmaceutical knowledge should also be updated regularly for pharmacy staff and students to enable them to counsel customers effectively and safely.

5.5.3 Ability to self educate and update information

The lack of knowledge of pharmacy staff and the reasons leading to that problem were discussed. The responsibility of educational organisations for improving the knowledge and practical skills of pharmacy staff and students was also mentioned. However, the important factors for improving the quality of pharmacy services delivered in community pharmacies depended mainly on pharmacy staff. Participants commented that pharmacy staff should have the ability to improve and update their knowledge and practical skills by themselves. The rationale to self-educate and update information was perceived and is described:

> *Improving medical knowledge and practical skills are essential responsibilities of pharmacy staff members working in community pharmacies.*
>
> Pharmacy assistant P 5.4 F

> *I think staff have to improve their medical knowledge continuously. Having good communication skills without sufficient medical knowledge doesn't ensure the success of transactions. So, improving medical knowledge regularly is important for pharmacy staff working in community pharmacies.*
>
> Pharmacy assistant P 3.3 M

> *I think pharmacy staff should have the ability to self-educated. They have to keep up to date with new information and medicines continuously and regularly. The knowledge related to indication, contraindication, doses as well as symptoms of diseases are added day to day, so staff should update new information regularly.*
>
> Pharmacy assistant P 1.6 F

Participants stated that pharmacy staff and pharmacists should have the ability to improve their knowledge and practical skills by themselves. They suggested that it should be a continuous process as new information about diseases and medicines are added regularly. The knowledge about diseases and medicines such as new symptoms, indications and contraindications, forms of medicines, and side-effects should also be updated day to day.

However, self-education and updating information is not an easy task. There are some objective and subjective reasons impacting on the improvement of pharmacy staff. Beside the subjective reason such as pharmacy staff attitudes, the objective reasons were given to explain the difficulties associated with self-education and updating information.

> *Secondly, there is a huge amount of OTC medicines in the pharmaceutical market and this total is added to by a numbers of new medicines each year. It is difficult for pharmacy staff to keep up to date with every new medicine. So, it will affect to the supply and consultation of pharmacy staff and their customers.*
>
> Pharmacist P 2.1 M

> *However, it is challenging for pharmacists and pharmacy staff that we are facing a lot of new brand names of one generic substance and it is difficult for us to keep up to date with all the new information. So, in order to serve customers quickly and effectively, pharmacy staff need to update as much new information as they can.*
>
> Pharmacist P 4.1 F

> *Finally, there are many new kinds of medicines launched in the pharmaceutical market every year, so it is hard for us to keep up to date with everything.*
>
> Pharmacy assistant P 4.4 F

Pharmacy staff explained their limited updating ability by giving objective reasons that there are many new medicines launched every year and it is difficult for them to keep up to date with the large volume of new information. Moreover, participants also described the lack of knowledge about herbal medicines as a drawback.

> *The knowledge of pharmacy staff about herbal products is limited even for a pharmacist like me. So we met some difficulties when introducing the use of these products to customers.*
>
> Pharmacist P 1.1 F

Participants also suggested some solutions that pharmacy staff should try in order to self-educate and update their medical and pharmaceutical knowledge. First of all, pharmacy staff were advised to use diverse sources including books, documents and public media to further their knowledge on diseases and medicines.

> *Pharmacy staff need to be up to date with a lot of new medicines from many other sources, not only on books and documents but also from public media in order to serve customers' demands better.*
>
> Pharmacist P 2.1 M

Secondly, peer-training was also a solution recommended by participants. Pharmacy owners, pharmacy staff should have seminars between pharmacies in order to share practical experience and new information about diseases and medicines.

> *Pharmacy staff should improve their knowledge on diseases and medicines by themselves. In terms of up to date new information, pharmacy owners should organise some seminars between pharmacies to discuss about new information as well as sharing practical experiences.*
>
> Pharmacist P 5.1 F

Finally, pharmacy staff were advised to attend short training course in communication skills and selling skills that enable them to communicate with customers effectively and confidently.

> *Communication skills are also an important factor. Pharmacists and pharmacy staff should participate in some short training courses about communication skills that enable them to improve their communicating ability.*
>
> Pharmacist P 5.1 F

5.5.4 Learning from customers' feedback

It was an interesting point that pharmacy staff could learn about treatment from customers' experiences. Participants stated that customer feedback was an invaluable source of information that helps pharmacy staff and pharmacists improve their knowledge and practical skills.

> *Well! It is interesting that I can learn from customers. Do you know, when customers come back, I always ask them about treatment outcomes from the previous consultation and supplied medicines. When customers talk about the effectiveness of medicines, I gain that information as treatment experience for the next customers who may probably suffer from the same conditions.*
>
> Pharmacy assistant P 1.5 F

> *One more experience is that I learn from customers. Whenever customers came back to my pharmacy and informed that the diseases were cured as a result of provided medicines and my consultation, I gained the information about disease and medicines for the next time when facing the similar cases. Sometimes, side-effects were described and I also learnt from customers' feedback.*
>
> Pharmacist P 1.2 F

> *Well! My experience is that I learnt from customers' experience. Do you know the reflections of customers on the effectiveness of medicines used are valuable for pharmacy staff? When customers came back to the pharmacy and talked about the effectiveness of medicines supplied, I gained that information as experience for the next customers. If customers said that it was a very good effective medicine, I could apply that medicine for clients having the same conditions.*
>
> Pharmacy assistant P 1.6 F

5.6 Customer factors

This section discusses pharmacy staff perspectives regarding the influence of customer factors on the supply of non-prescription medicines in community pharmacies. It is obvious that customer factors impact on the transaction between pharmacy staff and customers as well as customer decisions about medicines purchased. Actually, customers' requests for medicines affect what pharmacy staff supply for customers. Moreover, the media and advertisements have some influence on customers' selection of medicines. Customers also have the habit of using medicines suggested of others such as friends, neighbours and their relatives. The irrational use or overuse of medicines is also a difficult factor for pharmacy staff when serving customers' demands. Finally, customers' beliefs and adherence to medication as well as customers' trust in pharmacies and loyalty are important issues to contribute to the success of staff-customer transactions.

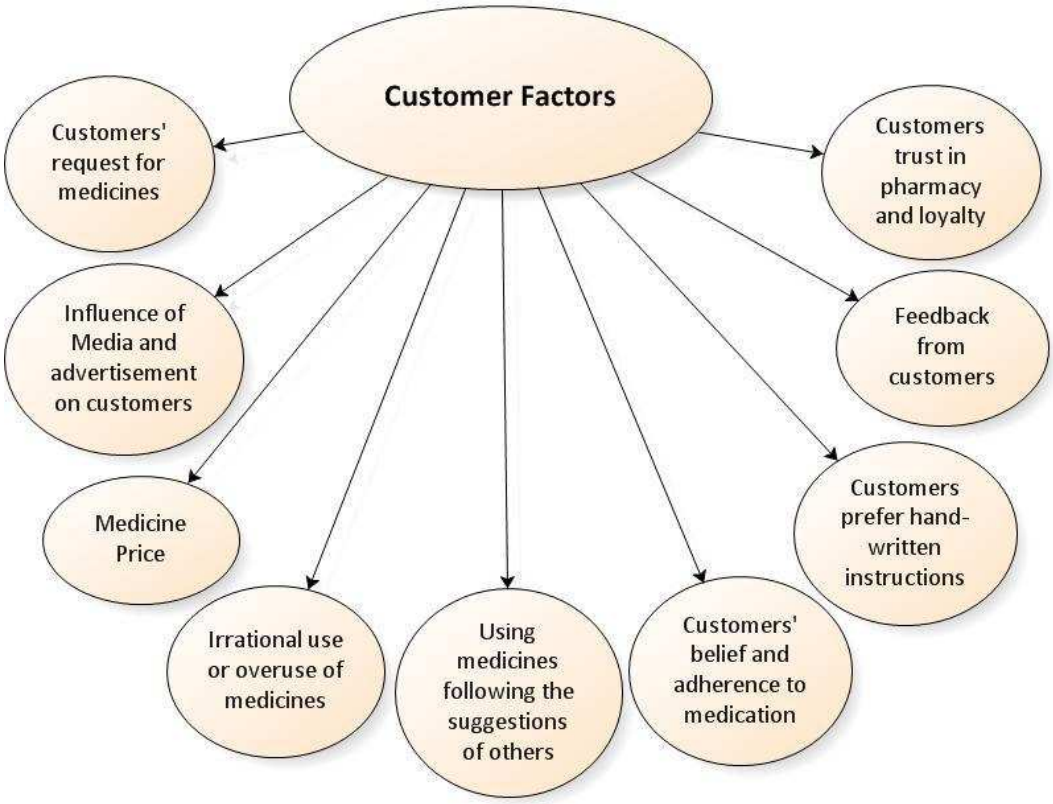

Figure 5- 8 Customer factors influence NPM supply

5.6.1 Customers' requests for medicines

Participants commented that customers' requests for medicines affect their selections of medicines and the consultation. Customers' requests for medicines by name are quite common and diverse and this impacts on the supply of non-prescription medicines and such requests require pharmacy staff, who are dealing with those situations, to flexible in order to be effective. A case study on dispensing medicines in pharmacies in Vietnam indicated that 94.9% of pharmacy customers decided by themselves which medicines to buy [55] . The diversity of customers' requests is described below.

> *Oh! It is quite common. Customers come to my pharmacy with a blister of medicine in hand and request to purchase that medicine.*
>
> Pharmacy assistant P 1.5 F

> *Oh! Selling OTC medicines depends on customers and their demands. Some customer came to pharmacy and said that "I don't want to go to hospital", so "Would you sell medicines to me?"; "Don't care about the price! Please tell me the good quality medicines! The key thing is my disease is being treated".*
>
> Pharmacy assistant P 2.4 F

> *One more difficulty is that when customers come to your pharmacy asking to buy a typical kind of medicines, but they don't remember the name of that medicine and try to describe the shape and colour of products. In that case, it is difficult for me to identify what medicines they need and how to serve their demands*
>
> Pharmacist P 3.1 F

> *Some customers come to my pharmacy and say that "I am a poor people, so could you sell me some cheaper medicines that can cure my disease?" So, selling OTC medicines should be appropriate for each situation.*
>
> Pharmacy assistant P 4.2 F

The requests from customers are diverse and wide-ranging so pharmacy staff need to be flexible and dynamic when dealing with such situations. However, pharmacy staff stated that they were struggling to handle in some cases when faced with tough customers or special demands. Economic ability and status should also be carefully considered when serving poor people.

5.6.2 Influence of media and advertisements on customers' selections

The advertising of medicines in the public media is also an important channel to provide information on using medicines for health care professions and their customers. However, there are some negative impacts of medicine advertisements on customers' selections of medicines they wish to use. Participants stated that customers tended to believe in advertisements rather than their professional advice. They described customers who request to purchase non-prescription medicines recently advertised on television without considering the irrational use or cost:

> *However, customers' choice is affected by public media like advertisements on television and other types of advertising. For OTC medicines, people tends to buy medicines following advertisements of medicines on television and ask pharmacy staff to sell them those medicines that they have heard of or read about in the public media from previous days.*
>
> Pharmacist P 2.1 M

> *After reading/watching the advertisement of a medicine in magazine or on television, customers come to community pharmacies asking to buy that medicine. In that case, it is taking more time for me to explain about the benefits and drawbacks of each medicine for customers to consider and decide what medicine is more suitable.*
>
> Pharmacist P 5.1 F

> *One typical difficulty is that customers are affected by advertising in the media. They tend to believe in advertisements rather than pharmacy staff. Sometimes, they want to buy medicines following advertisement on television for irrational use or overuse. So, as a health expert, I have to take time to explain for customers about appropriate use of medicines and side-effects or drawbacks of overuse. Some of them understand and follow my suggestions but others try to use medicines by themselves. I am struggling in some situations.*
>
> Pharmacy assistant P 4.3 F

> *Customers try to convince pharmacy staff selling OTC medicines that they have heard about from advertising. Sometimes, those medicines are too expensive and not as effective as they were advertised.*
>
> Pharmacy assistant P 1.4 F

Participants commented that medicine advertisements in the media influence on customers' selections and decisions relating to medicine use. Customers tend to make requests to pharmacy staff to sell them the medicines that they have heard of or seen on television or in magazines from previous days. Sometimes, customers request medicines without fully understanding them or wish to use them irrationally. It was often a struggle for pharmacy staff to deal with the situations.

Pharmacy staff felt these medicines are often more expensive and did not necessarily offer any benefits over similar non-prescription medicines. Participants stated that when customers request a recently advertised medicine, they needed to spend more time explaining the benefits and drawbacks so the customer is able to make an appropriate choice. However, not every customer followed their suggestions and they struggle in those situations. Generally, pharmacy staff perceived that media and advertising influenced customer requests for non-prescription medicines, resulting in staff spending more time explaining medicines to customers.

5.6.3 The price of medicine

A medicine's price was considered as an important factor affecting the customers' purchasing decision and the supply of non-prescription medicines for customers. Participants stated that customers tend to survey and compare the prices of their medicines at a few pharmacies and then request the lowest price from the pharmacy they used to visit. Participants' perceptions of the impact of medicine price on the supply of medicines were described in detail below.

> *In our country, I think medicine price is the most important issue for customer. If your medicine prices are more expensive than other pharmacies, customers will not come back to your pharmacy any more. However, if you offer a reasonable price, you will lose profit. So you have to keep balance when serving customers' demands.*
>
> Pharmacy assistant P 3.4 F

> *For OTC medicines, customers will consider about expenditure and it is difficult for them to agree when being offered expensive price.*
>
> Pharmacy assistant P 3.3 M

> *Medicine price is also important too. Customers tend to compare the medicine prices with others pharmacies. If your offered price is more expensive than others, your pharmacy will lose customers.*
>
> Pharmacy assistant P 4.3 F

> *I think the most important factor for our customers is medicine price. It is easier for customer to accept the cheaper medicine price. In our country, customers have to pay for their medicines so they are still considering the price of medicine.*
>
> Pharmacy assistant P 4.4 F

Those quotes show that offering the appropriate medicine price influences the supply of medicines and the relationship between pharmacies and customers. Sometimes, pharmacy reputation and customer loyalty could only be obtained by offering reasonable medicine prices.

5.6.4 Irrational use or overuse of medicines

When supplying non-prescription medicines in community pharmacies, it was difficult for pharmacy staff to deal with inappropriate demands from customers. Pharmacy staff stated that the irrational use of medicines by customers was common, as were the situations of overuses, misuse and underuse.

> *In my opinion, the most difficulty when selling OTC medicines for patients is that they decide by themselves what medicines to use and how long they will use those medicines and overuse medicines in some cases.*
>
> Pharmacist P 5.1 F

> *Some customers want to buy medicines for only 2-3 days of their treatment.*
>
> Pharmacist P 1.1 F

> *Sometimes, they want to have quick recovery and use double doses. Some people use pain relief medicines for their headache for a long time even when the pain was cured*
>
> Pharmacist P 2.2 F

> *Customers want to use medicines based on their own experiences without full understanding of disease and medication. They go to community pharmacy asking to purchase the medicines they want. In some cases, it is the wrong medicines for uncertain diseases*
>
> Pharmacist P 5.1 F

> *Another difficulty is tough customers. They want to use medicines in their own opinion without considering about pharmacy staff advice. Sometimes, they make inappropriate demands. It is a struggle to handle that situation.*
>
> Pharmacy assistant P 1.6 F

Those quotes illustrate that the irrational use of medicines by pharmacy customers were commonly observed. Participants commented that they were struggling to serve customers who made those inappropriate demands.

5.6.5 Using medicines following the suggestions of others

It is interesting that pharmacy customers in Vietnam seem to follow the suggestions of others when using medicines rather than accept the professional advice offered by pharmacy staff. Participants commented that customers' friends, neighbours and relatives have influence on their selection of medicines requested or used.

> *Customers tend to believe in their friend and neighbour rather than pharmacy staff. When customers come to my pharmacy and describe their symptoms, I chose suitable medicines and advised for their treatment, but they were still dubious and said 'my friends suggested me like this or like that'. It is difficult for me to convince customers in that situation.*
>
> Pharmacy assistant P 3.3 M

> *Sometimes, customers want to use medicines following their neighbour's suggestions. They said my neighbour's disease was cured by using this medicine and my disease is the same, so could you sell this medicine for me.*
>
> Pharmacy assistant P 5.3 M

> *Some customers said that "my relative used that medicine and his/her disease was cured and my health condition looks like the same. So, I want to buy that medicine to treat my disease.*
>
> Pharmacist P 2.2 F

Customers tried to convince pharmacy staff to sell them medicines being recommended by others without considering the rational use of such medicines. Pharmacy staff complained that it was difficult for them to explain the rational use, drawbacks of medications and persuade customers to follow their suggestions.

5.6.6 Customers' beliefs and adherence to medication

Participants commented that beliefs about medications affect customers' adherence to medicines and thus their treatment outcomes. It was reflected that when customers trust in medicines, it is easier for them to adhere to medication and obtain better treatment outcomes. Sometimes, customers' beliefs in medications are considered as psychological factors that contribute to their recovery.

> *When customers trust in provided medication, 50% of their disease will be cured.*
>
> Pharmacy assistant P 5.3 M

> *When customers trust in your consultation, it is easy for them to take a full course of medication and obtain good treatment outcomes.*
>
> Pharmacist P 1.2 F

> *When communicating with customers, I try to create the belief for patients that their diseases will be cured and they should be optimistic about the recovery. So whenever they believe in medication, their disease can be treated for 50%.*
>
> Pharmacy assistant P 3.3 M

However, customers' inappropriate beliefs also affect their use of medicines. Participants commented on customers' opinions of considering the use of medicines will be better than nothing even when medication was not necessary. Sometimes, customers stopped their medication after few days when seeing an improvement in their condition. They believe that seeing improvement means the disease was cured; a perception that is not totally correct. Customers' beliefs about that situation affected their adherence to medication and treatment outcomes. In that case, it is difficult for pharmacy staff to handle such customers and how to ensure the rational use of medicines and patient safety.

The second difficulty is the adherence when using medication. Customers tend to stop using medicines when seeing improvement after few days. In that case, we tried to convince customers to follow the full course of medication, but not all customers followed our advice.

Pharmacist P 2.1 M

Sometimes, customers believe that using medicines will be better than nothing, even when it is not necessary.

Pharmacist P 1.1 F

Participants also stated that they tried to convince pharmacy customers to follow the full course of medication as a responsible staff. However, they also commented that not all customers followed their advice. It can be concluded that customers' beliefs impact on the supply of medicines in community pharmacies, customers' adherence to medications and treatment outcomes.

5.6.7 Customers prefer handwritten instructions

Customers' preference for handwritten instructions affects the supply of medicines in community pharmacies. Participants perceived that customers prefer handwritten to verbal instructions and that is more convenient for customers to follow written instructions stuck on blisters or boxes of medicines.

> *Do you know in Vietnam, customers are quite lazy to read the instructions when using medicines? Instead of reading information along with medicines boxes, they prefer to follow handwritten instruction from GPs or pharmacy staff given on blisters. So, pharmacy staff should write very brief, clear and concise instructions on the medicine boxes or blisters that enable customers to use these medicines easily and conveniently.*
>
> Pharmacist P 1.1 F

> *In terms of giving instructions, it should include both verbal and written instructions. The handwritten instructions are given on the blisters/boxes that enable customers to use their medication easily. As you know customers prefer written instructions as they find it easy to forget verbal instructions.*
>
> Pharmacy assistant P 5.4 F

Participants claimed that it is easy for customers to forget what they were told verbally. Handwritten instructions, on the other hand, were recognised as more effective in terms of guiding pharmacy customers, use of their medicines. In addition, following brief, concise handwritten instructions stuck directly onto medicine blisters or boxes enables customers to use their medicines without being confronted by any complicated information. Finally, giving handwritten instructions is considered as the best way to show the responsibility of pharmacy staff to customers and to build up the good relationships with customers, the pharmacy's reputation and customer loyalty. A pharmacy's reputation obtained by giving detailed handwritten instruction, in the long term, is considered as an invaluable benefit for community pharmacies.

5.6.8 Feedback from customers

Customer feedback was considered as an invaluable source of information supporting pharmacy staff in improving their treatment experience as presented in section 5.5.4. Medication could be adjusted or changed appropriately for customer use based on their feedback.

> *If they said that there is no improvement after using that medicine, I will change another medicine for their treatment. However, if they have never used that medicine before, I will counsel how to use it carefully.*
>
> Pharmacist P 3.1F

> *Every day, we communicate with a lot of customers, but I try my best to remember about customers as much as I can. When customers come back, I normally ask them about their improvement, chat about their historical conditions and the next steps of treatment.*
>
> Pharmacist P 2.1 M

> *I think I can gain more experience from customers. When clients come back, I always ask them about whether the provided medicines had been effective or not and how do they feel about their medications. Then if customers said it is a quality medicine and appropriate for their disease or has good effectiveness, I will gain the information as my treatment experience for the next customers who suffers from the same condition.*
>
> Pharmacy assistant P 1.3 F

Customer feedback about using medicines from previous transactions provides essential clues for pharmacy staff when they are considering and choosing appropriate medicines for patient treatment. Participants stated that obtaining customer feedback should be a regular skill employed by pharmacy staff. When communicating with clients, pharmacy staff should encourage customers to provide feedback as much as possible from their medical conditions to their use of supplied medicines.

5.6.9 Customers' trust in the pharmacy and customer loyalty

Customers' trust in pharmacy and customer loyalty both impact on the supply of medicines in community pharmacies. It is easier for pharmacy staff serving loyal customers. Participants commented that customers' trust in their pharmacy leads to loyalty. Loyal customers come back to their chosen pharmacy whenever they have got health problems as do their friends, family members and neighbours who are also recommended to come to pharmacy; such networking are considered as invaluable benefits for pharmacy.

> *When disease is being cured, customers trust in pharmacy and they may probably become a loyal customer. Then, whenever they got health problem, they will go to your pharmacy asking for helps.*
>
> Pharmacist P 3.1 F

> *Some customers respected my suggestion, trusted in me and recommended others customers to my pharmacy. It made me very happy.*
>
> Pharmacist P 5.2 F

> *The second factor is building up the trust. When customers believe in pharmacy staff, it is easy for you to counsel and give instructions. As a health expert, you also feel comfortable when serving customers who are loyal customers.*
>
> Pharmacy assistant P 2.3 F

Participants suggested that building up the reputation and customers trust in their pharmacy are essential tasks. Pharmacy staff should be aware of the important contribution of reputation and customer loyalty to the long-term benefit of community pharmacies. Customers' trust in pharmacy and customer loyalty should be built up and regularly supported.

5.7 Summary

In this chapter, I have explored and discussed pharmacy staff perspectives regarding the supply of non-prescription medicines in community pharmacies in Hanoi. The findings indicated that the supply of non-prescription medicines was influenced by many factors, including the role of community pharmacies in Vietnam, the attitudes and ethical approaches of pharmacy staff, their knowledge and communication skills as well as customer-related factors. Those factors influenced the supply of non-prescription medicines solely or in combination and supplemented each other. The impact of these factors on the supply of medicines and quality of pharmacy service provided was discussed throughout this chapter.

The role of community pharmacies affects the supply of non-prescription medicines

Community pharmacies are preferred over other types of health care professionals in Vietnam. The pharmacy is the first choice of customers whenever they have got health problems. This preference was explained in many ways. Saving customers' expenditure is considered as one of the main reasons. Secondly, saving customers' waiting time is also an influence on their decision to go to a pharmacy rather than a hospital. Finally, it is not easy for customers to ask many questions when talking with doctors in hospitals the fact that they feel more comfortable when communicating with pharmacy staff also is a factor for customers choosing community pharmacy.

Participants perceived that community pharmacies are totally different from other shops. The special role of community pharmacies comes from the characteristics of pharmacy customers who have got health problems as well as taking into account medicines and counselling which are considered as special type of goods and services. Being aware of their

special role enables pharmacy staff to take greater responsibility when serving customers' demands and this performance impacts to the service provided for customers in community pharmacies.

In terms of supplying non-prescription medicines in community pharmacies, participants said that it is an independent and an interesting job, but some others raised a contrasting opinion in that they are not so excited about it without accessing more profit. When talking about their duty, some participants commented that it is an easy task. In contrast, some others considered that it is a difficult and challenging mission for pharmacy staff to take in charge of treatment outcomes for pharmacy customers. Interestingly, pharmacy staff stated that they have more power when supplying non-prescription medicines, as they can deliver treatment decisions and consultations independently, without relying on GP instructions, as they have to when supplying prescription medicines.

Participants commented that the lack of pharmacists serving in community pharmacies and considered this to be a drawback influencing the supply of non-prescription medicines. Some pharmacy staff stated that they were not confident when serving customers' demands without a pharmacist being present. The reputation and customers' trust in community pharmacies also impacted on the supply of medicines. It is more comfortable for pharmacy staff to serve loyal customers. Customers' trusts in their pharmacy and customer loyalty are considered as an invaluable and long term benefit for community pharmacies.

The attitudes and ethical approaches of pharmacy staff impact on the supply of medicines

The attitudes and ethical approaches of pharmacy staff were perceived as important factors impacting on the supply of non-prescription medicines in community pharmacies. It is indicated that the success of transactions between pharmacy staff and customers could not be achieved without such staff having positive attitudes and an appropriate ethical approach. However, the negative attitudes of pharmacy staff pursuing profits without considering their ethical responsibilities and customers' benefits exist in actual practice. Consequently, when a poor quality of pharmacy service was provided this leads to some limitations on treatment outcomes and customers' welfare.

Participants perceived that care about customers' health concerns and taking greater responsibility were important factors contributing to the quality of service supplied to customers. They commented that customers' who come to the community pharmacy are looking for someone who is not only providing medicines for treating diseases but also someone with whom they can share stress, emotions, feelings and depression relating to their health conditions. So caring about customers' health concerns is an important duty of pharmacy staff in their daily practice. When supplying non-prescription medicines, pharmacy staff have to take greater responsibility, as they are in charge of medicines and consultations provided for customers in comparison with supplying prescription medicines when GPs are in charge of customers' treatment outcomes. The responsibilities referred to include asking questions to clarify what diseases someone may be presenting with, listening to customers properly to collect sufficient information, choosing appropriate medicines for customers' treatment, giving suitable and sufficient advice that enables patients to use medication safely and effectively.

Participants also considered that taking responsibility for the rational use of medicines, patient safety, customers' affordability and time spent on transactions affects the supply of non-prescription medicines and the quality of service provided for customers. The safety of customers should be considered as the first priority and greater responsibility should be taken in order for rational use of medicines to take place. Customers' economic conditions should be considered when choosing appropriate medication for customer treatments. Participants stated that they should spend sufficient time for non-prescription medicine transactions as more time is needed to clarify the diseases and to give detailed instructions for customers. In such situation, pharmacy staff are in charge of and take full of responsibility for customers' treatment outcomes.

However, in actual practice, sometimes, pharmacy staff provided medicines without asking any questions and giving any advice or did not spend sufficient time for staff-customers transactions as a result of negative attitudes. Concerns have been raised about negative attitudes and ethical approaches from some pharmacy staff. This real situation also raised the concerns about the discrepancy between staffs' perceptions and the actual day-to-day practice in community pharmacies. Participants are aware of the important roles of attitudes and the ethical approach as well as taking responsibility in the transaction between pharmacy staff and customers. However, those attitudes and ethical issues were not always performed as well as expected. Some pharmacy staff focused on pursuing profit without taking ethical responsibilities and essential duties when serving customers' demands. Consequently, a poor quality of pharmacy service was provided.

The impact of communication skills on the supply of non-prescription medicines

Pharmacy staff perceived that when dealing with customers requesting non-prescription medicines for their minor conditions, communication skills are considered as important and essential skills that enable pharmacy staff to serve customers' demands effectively and comfortably. It is suggested that when the transaction in progress, both verbal and non-verbal communications should be employed and combined appropriately in order to maximise the effectiveness of communication.

In terms of questioning skills, it is considered as the first step to identify diseases and to provide medicines for customers' treatment. Diseases could not be identified or diagnosed correctly without asking appropriate questions and collecting sufficient information about patients' symptoms. The open, probing questions, leading questions and close questions could be employed and combined appropriately in order to maximise the effectiveness of questioning skills.

Listening skills were perceived as an important part of communication skills affecting the staff-customer transactions in community pharmacies. When a question was asked, pharmacy staff should allow customers plenty of time to talk about their health problems and to listen to customers intently. It is important to listen to the customers' answers properly and avoid interrupting. This will support pharmacy staff in collecting sufficient information about customers' health condition and should enable them to identify diseases correctly. However, the limitations of listening skills performed in actual practice as a result of not concentrating to listen to customers, jumping to conclusions or focusing on delivery and appearance only, should be considered. Finally, having good listening skills will support for staff to build a good relationship with customers and establish customer loyalty.

Pharmacy staff perceived that giving advice is the most important and difficult issue that impacts on customers' understanding and use of provided medicines as well as adherence to medications and treatment outcomes. Medicines could not be used safely and effectively without customers receiving sufficient and appropriate advice. The advice delivered should be both in the form of verbal and handwritten instructions to complement and support to each other in order to maximise the effectiveness of communication tools.

Participants suggested that advice should be given in both verbal and handwritten forms. It is a fact that most, if not all, people forget at least part of what they are told. People can comfortably follow the brief, concise written information given or stuck directly on blisters or boxes of medicines about dosage, time taking medicines etc. Moreover, customers in Vietnam prefer written instructions to verbal advice. So pharmacy staff should be aware of supplying customers both verbal and handwritten instructions that enable them to use medicines effectively. In addition, lifestyle advice such as doing exercise, adjusting lifestyle, avoiding some kinds of foods and drinks should be given in order to improve their treatment outcomes and prevent some unexpected interactions for customers.

However, participants also commented on the limitation of communication skills performed in actual practice that influenced a customer's understanding of medicines and treatment outcomes. The lack of communication skills was recognised and some pharmacy staff did not know how to communicate with customers effectively. The skills of performing good communication such as two ways process, using verbal and non-verbal communications were not reflected by pharmacy staff. This omission raised concerns about the content of education and training programmes at pharmacy schools regarding communication skills.

The influence of medical and pharmaceutical knowledge on the supply of medicines

Knowledge was perceived as an essential and fundamental factor influencing the supply of non-prescription medicines for customers in community pharmacies. Participants emphasised that pharmacy staff should have competence in both medical and pharmaceutical knowledge to deal with a broad range of minor conditions and non-prescription medicines. Medical knowledge is essential for pharmacy staff in order for them to identify customers' diseases, whilst pharmaceutical knowledge is used to support the selection of medicines and give instructions for customers to treat their diseases. It is reasonable to suggest it is beneficial for customers to be served by knowledgeable pharmacy staff.

However, in actual practice, some participants complained that poor quality of pharmacy services provided for pharmacy customers exists as a result of the poor quality of education and training provided by some educational organisations. Participants pointed out that some educational organisations have commercialised their training activities and paid attention to the quantity of graduated students produced rather than the quality of education and training. Consequently, the competence of pharmacy staff who graduated from those schools did not meet the society's requirements in terms of medical and pharmaceutical knowledge.

The findings indicated that it is necessary to enhance the competence of pharmacy staff by improving and strengthening the quality of education and training in pharmacy schools. Participants suggested that communication skills should be added as a compulsory subject for pharmacy students. Furthermore, educational organisations should pay more attention to practical skills; more time is needed for those activities. In addition, participants also

commented that pharmacy staff should have the ability to improve and update their professional knowledge and practical skills by themselves. In terms of self-education, pharmacy staff were advised to use diverse sources including books, documents and the public media to further their knowledge on diseases and medicines. Peer-training was also suggested as a feasible solution. Pharmacy owners, pharmacists and their staff should have seminars between pharmacies in order to share practical experience and new information about diseases and medicines. Finally, pharmacy staff are advised to attend short training course, for example, in communication skills and selling skills that enable them to communicate with customers effectively and confidently.

Participants also pointed out that pharmacy staff could learn about a treatment's effectiveness from their customers' experience. They suggested that customers' feedback is an invaluable source of information that will help pharmacy staff to improve their knowledge and practical skills. Asking customers about the effectiveness, treatment outcomes of previously provided medicines and their experience when using medicines will help pharmacy staff to learn and obtain invaluable information. It is also considered as a positive way to build up a good relationship with customers and enhance the reputations of community pharmacies.

Customer factors impact on the supply of non-prescription medicines

Participants reported that customers' requests for non-prescription medicines are common. Those requests impact on the supply of non-prescription medicines for such customers and this requires pharmacy staff to deal with those situations flexibly and effectively.

The medicine advertisements in the public media also influence customers' selections and decisions of medicine use. Pharmacy staff stated that customers tended to believe in advertisements rather than accept their professional advice. Customers often request to purchase non-prescription medicines recently advertised on television without considering their irrational use or cost. Participants commented that when customers request a recently advertised medicine, they needed to spend more time explaining the benefits and drawbacks so the customer could makes an appropriate and better choice.

In terms of irrational use of medicines, participants stated that the irrational uses of medicines by customers was common and the situations of overuses, misuse and underuse looked diverse. It was difficult for pharmacy staff to deal with inappropriate demands from customers. In addition, customers in Vietnam tended to follow the suggestions of others rather than follow pharmacy staff advice when using medicines. Participants commented that customers' friends, neighbours and relatives have significant influence on their selection of medicines. It was difficult for pharmacy staff to explain the rational use, drawbacks of medications and persuade customers to follow their suggestions.

Participants commented that customers' belief in their medications impact on their adherence to medicines and treatment outcomes. However, customers' inappropriate beliefs also affect their use of medicines. In this case, it is difficult for pharmacy staff to handle such customers and work out how to ensure the rational use of medicines and patient safety. Participants also stated that customers prefer handwritten to verbal instructions and that it is more convenient for customers to follow written instructions stuck on blisters or boxes of medicines. So pharmacy staff should be aware of that preference and deliver instructions appropriately.

CHAPTER SIX: SURVEY OF PHARMACY CUSTOMERS

6.1 Introduction

This chapter presents and discusses pharmacy customer views regarding the supply of non-prescription medicines in community pharmacies in Vietnam. Customers were asked to complete a questionnaire after they purchased medicines, which asked about their views of the service provided including questions asked and advice given by pharmacy staff. Data were collected within five minutes of completing the transaction. The questionnaires were checked immediately and respondents were reminded to respond to any unanswered questions in order to ensure all the questions were answered and avoid missing data.

Descriptive statistics (frequencies with percentages) are used to describe the responses to the survey. Chi-square tests were employed to explore associations between respondent characteristics such as gender, age group, education level and respondents' reports about pharmacy staff performance.

6.2 Descriptive results

Data were collected over three months (from May to August 2011) in five community pharmacies in Hanoi, Vietnam. Data were coded and entered in to SPSS version 19 for analysis. Data checking and cleaning were performed (Appendix 8) in order to ensure the quality of data.

6.2.1 Characteristics of respondents

The total number of pharmacy customers approached was 2,450 of which 505 respondents completed a questionnaire (response rate = 20.6%). The majority of respondents were women (n=311, 62%). The highest proportion of respondents (n=174, 34%) was aged between 30 and 39 years. The characteristics of respondents are presented in Table 6.1.

Table 6- 1 Characteristics of respondents (n=505)

Characteristic	Frequency	Percentage
Gender		
Male	194	38
Female	311	62
Age group		
18-29	86	17
30-39	174	34
40-49	99	20
50-59	75	15
60-69	60	12
70 and over	11	2
Educational levels		
Less than high school graduate	4	1
High school graduate (usually age 17)	176	35
Technical school* (age 17-19)	70	14
University or college graduate	232	45
Masters or other higher degree	23	5
Occupation		
Officer**	159	32
Retired	126	25
Teacher/lecturer	69	14
Health professional	17	3
Simple labourer***	77	15
Housewife	36	7
Unemployed	2	0.4
Others	19	4

*Technical school: a level of education between high school graduate and University (two year training)

**Officer: People who work for government organisations

***Simple labourer: People who are employed as a worker, a builder or doing manual work which does not require any specific level of education or skills.

In terms of educational levels of participants, nearly half of respondents are university graduates. As mentioned in chapter 4, the participating pharmacies are located in urban areas where there is a high concentration of government offices and companies. So the educational levels of participants may probably be higher than in other areas of Hanoi or other cities and rural areas of Vietnam. This figure may be representative of Hanoi, but not representative for the rest of Vietnam. Educational levels of respondents may have had an influence on their responses. However, data on numbers of university graduates in Hanoi or Vietnam on a whole is not available.

All respondents visited the community pharmacy to purchase non-prescription medicines, but one-sixth (n=83, 16%) also had a prescription dispensed during their visit. The mean number of non-prescription medicines purchased was 2.02 (SD: 0.922). Most respondents purchased only one or two medicines but some purchased five medicines or more on that one single occasion (Table 6-2).

Table 6- 2 Number of medicines bought by respondents (n=505)

Number of medicines bought	Frequency	Percentage
1	161	32
2	217	43
3	90	18
4	31	6
5 or more	6	1

There has a significant difference in age group by gender in those who participated in the study (χ_2 = 10.969, p = 0.027), men tended to be older than women (Table 6-3). The percentage of respondents was highest (34%) in the group aged 30 to 39 years for both men and women. There were no differences in educational level by gender (χ_2 = 3.489, p = 0.175).

Table 6- 3 Age groups and educational level by gender (n=505)

	Number (%) of respondents			
			χ2 value	***P-value***
	Male	**Female**		
All	194 (38%)	311 (62%)		
Age groups			10.969	0.027
18-29	31 (16.0)	55 (17.7)		
30-39	72 (37.1)	102 (32.8)		
40-49	47 (24.2)	52 (16.7)		
50-59	18 (9.3)	57 (18.3)		
60+	26 (13.4)	45 (14.5)		
Education levels			3.489	0.175
High school or lower	70 (36.1)	110 (35.4)		
Technical school	20 (10.3)	50)16.1)		
University or higher degree	104 (53.6)	151 (48.6)		

6.2.2 The non-prescription medicines transaction

Respondents were asked to report the contents of the transaction with pharmacy staff when they were sold medicines. They reported that they were most likely to report being told how to use the provided medicines verbally (n=437, 86%), asked to describe symptoms (n=350, 69%) or asked who would use the medicines (n=320, 63%) – Table 6.4. They were least likely to report being asked about allergies to supplied medicines (n=15, 3%), have any warnings explained (n=78, 15%) or be asked whether other medicines were being taken (n=96, 19%) at the same time.

Table 6- 4 Respondents' report of pharmacy staff performance (n=505)

	Yes		No	
	Frequency	Percentage	Frequency	Percentage
Asked who will use medicines	320	63	185	37
Asked to describe the symptom(s)	350	69	155	31
Asked how long the symptom have been present	211	42	294	58
Asked if any treatment has been tried	168	33	337	67
Asked if other medicines are being taken	96	19	409	81
Asked whether any allergies to medicines	15	3	490	97
Was told how to use the medicines	437	87	68	13
Warning about medicines were explained	78	15	427	85
Side-effects of medicines were described	124	25	381	75
Wrote instructions on the medicines' box	309	61	196	39

In terms of questions asked, nearly two-third (63%) of non-prescription medicine purchasers recalled when being asked 'who would use medicines' they were purchasing. Similarly, two-thirds (69%, n=350) of respondents were asked to describe their symptoms in the transactions. However, one-third (31%, n=155) of respondents did not receive any requests to describe their symptoms and nearly two-fifths (37%, n=185) of respondent were not asked 'who would use medicines' during their transactions. Furthermore, nearly three-fifths (58%, n=294) of respondents were not asked 'how long have the symptom present' and pharmacy staff did not ask respondents 'if any treatment has been tried already' on two-thirds (67%, n=337) of their transactions. In addition, four-fifths (81%, n=409) of respondents were not asked 'if other medicines are being taken' for the chronic diseases such as hypertension or diabetic at the time the current health problem occurred. Moreover, most respondents (97%, n=490) did not receive any questions related to allergies to medicines that customers may possibly have suffered in the past.

In terms of giving advice, eighty-six per cent (n=437) of respondents received verbal instructions and three-fifths (61%, n=309) of respondents received written instructions about how to use their medicines. However, this practical skill was not performed in every case and nearly two-fifths (39%, n=196) of respondents did not receive this type of instruction. Moreover, only 15% (n=78) and a quarter (25%, n=124) of respondents received an explanation about warnings and descriptions about side-effects of the medicines supplied respectively. The findings indicate that there are some limitations regarding the quality of service provided in community pharmacies in Hanoi, Vietnam in term of questioning and advice-giving.

6.2.3 Associations between customer reports and demographics

6.2.3.1 Respondents report of pharmacy staff performance by gender

As almost all of pharmacy staff are women (chapter 5, page 145). This may impact on the interaction between pharmacy staff and male or female customers. The interaction between female staff and female customers were perhaps more likely to be open. So, I wished to explore whether or not there was a difference between male and female respondents in reporting of pharmacy staff performance regarding the supply of NPMs in CPs.

Compared with men, women were more likely to report being asked who will use the medicine (χ^2 = 9.734, p = .001), to describe the symptoms (χ^2 = 17.279, p = .000), whether or not other medicines are being taken (χ^2 = 4.728, p = .029) and being told how to use the medicines (χ^2 = 12.845, p = .000) – Table 6.5. No other associations were found between gender and customers' reports. However, it is unknown whether there were differences in the service provided to men and women or differences in their recall of the transaction.

Table 6- 5 Respondents report of pharmacy staff performance by gender (n=505)

	Number (%) of respondents			
			χ2 value	***P-value***
	Yes	**No**		
Who will use medicines/medications			9.734	0.001
Male	106 (33.1)	88 (47.6)		
Female	214 (66.9)	97 (52.4)		
Asked to describe the symptom(s)			17.279	0.000
Male	113 (32.3)	81 (52.3)		
Female	237 (67.7)	74 (47.7)		
Asked how long the symptom have been present			0.072	0.789
Male	83 (39.3)	111 (37.8)		
Female	128 (60.7)	183 (62.2)		
Asked if any treatment has been tried			2.436	0.119
Male	56 (33.3)	138 (40.9)		
Female	112 (66.7)	199 (59.1)		
Asked if other medicines are being taken			4.782	0.029
Male	27 (28.1)	167 (40.8)		
Female	61 (71.9)	242 (59.2)		
Asked whether allergy to medicines			2.177	0.140
Male	9 (60.0)	185 (37.8)		
Female	6 (40.0)	305 (62.2)		
Was told how to use the medicines			12.854	0.000
Male	154 (35.2)	40 (58.8)		
Female	283 (64.8)	28 (41.2)		
Warning about medicines were explained			0.412	0.521
Male	33 (42.3)	161 (37.7)		
Female	45 (57.7)	266 (62.3)		
Side-effect of medicines were described			0.206	0.650
Male	45 (36.3)	149 (39.1)		
Female	79 (63.7)	232 (60.9)		
Wrote instructions on medicines' boxes			0.275	0.600
Male	122 (39.5)	72 (36.7)		
Female	187 (60.5)	124 (63.3)		

6.2.3.2 Respondents report of pharmacy staff performance by age group

People who are younger may be likely to be open and share their opinions, whilst older people may be likely to have more experiences of health condition they are talking about and to have already previously used the medicines that they are requesting or being recommended. So, I wanted to know whether or not there was a difference between the age groups of respondents in reporting of pharmacy staff performance regarding the supply of NPMs in community pharmacies. In order to investigate whether ages have influence on the report of respondents, I wanted to split respondents into two groups. Approximately half of respondent were aged over 40 and half under 40. Therefore, age group was analysed in these two groups and that why 40 were chosen as a delineator.

The respondents who were less than forty years old were more likely to report being asked how long the symptoms have been present (χ_2 = 3.484, p = 0.040) and asked if other medicines were being taken (χ_2 = 6.315, p = 0.012), compared with those aged over 40 years – Table 6.6. There was no association between age group and respondents' report of any of the other areas of questioning or advice giving.

Table 6- 6 Respondents report of pharmacy staff performance by age group (n=505)

	Number (%) of respondents			
	Yes	**No**	***χ2 value***	***p-value***
Who will use medicines/medications			1.128	0.288
Less than 40	171 (53.4)	89 (48.1)		
40 and over	149 (46.6)	96 (51.9)		
Asked to describe the symptom(s)			0.003	0.954
Less than 40	181 (51.7)	79 (51.0)		
40 and over	169 (48.3)	76 (49.0)		
Asked how long the symptom have been present			3.848	0.040
Less than 40	120 (56.9)	140 (47.6)		
40 and over	91 (43.1)	154 (52.4)		
Asked if any treatment has been tried			0.891	0.345
Less than 40	81 (48.2)	179 (53.1)		
40 and over	87 (51.8)	158 (46.9)		
Asked if other medicines are being taken			6.315	0.012
Less than 40	61 (63.5)	199 (48.7)		
40 and over	35 (36.5)	210 (51.3)		
Asked whether allergy to medicines			0.411	0.521
Less than 40	6 (40.0)	254 (51.8)		
40 and over	9 (60.0)	236 (48.2)		
Was told how to use the medicines			0.000	0.998
Less than 40	225 (51.5)	35 (51.5)		
40 and over	212 (48.5)	33 (48.5)		
Warning about medicines were explained			0.333	0.564
Less than 40	43 (55.1)	217 (50.8)		
40 and over	35 (44.9)	210 (49.2)		
Side-effect of medicines were described			0.302	0.582
Less than 40	67 (54.0)	193 (50.7)		
40 and over	57 (46.0)	188 (49.3)		
Wrote instructions on medicines' boxes			1.833	0.176
Less than 40	167 (54.0)	93 (35.8)		
40 and over	142 (46.0)	103 (52.6)		

6.2.3.3 Respondents report of pharmacy staff performance by educational level

Respondents with a higher educational level (university or higher degree) were more likely to report being asked who will use the medicines (χ_2 = 5.866, p = 0.015), asking if other medicines are being taken (χ_2 = 17.601, p = .000) and being given verbal instructions of how to use the medicines (χ_2 = 6.356, p = 0.012) compared with those reporting a lower level of education – Table 6.7. No associations were found between educational level and the other areas of questioning or advice giving.

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Table 6- 7 Respondents report of pharmacy staff performance by educational level (n=505)

	Number (%) of respondents			
	Yes	**No**	***χ2 value***	***p-value***
Who will use medicines/medications			5.866	0.015
Lower level of education	101 (31.6)	79 (42.7)		
University or higher degree	219 (68.4)	106 (57.3)		
Asked to describe the symptom(s)			0.570	0.450
Lower level of education	129 (36.9)	51 (32.9)		
University or higher degree	221 (63.1)	104 (67.1)		
Asked how long the symptom have been present			3.345	0.067
Lower level of education	65 (30.8)	115 (39.1)		
University or higher degree	146 (69.2)	179 (60.9)		
Asked if any treatment has been tried			0.220	0.639
Lower level of education	57 (33.9)	123 (36.5)		
University or higher degree	111 (66.1)	214 (63.5)		
Asked if other medicines are being taken			17.601	0.000
Lower level of education	16 (16.7)	164 (40.1)		
University or higher degree	80 (83.3)	245 (59.9)		
Asked whether allergy to medicines			0.007	0.933
Lower level of education	6 (40.0)	174 (35.5)		
University or higher degree	9 (60.0)	316 (64.5)		
Was told how to use the medicines			6.356	0.012
Lower level of education	146 (33.4)	34 (50.0)		
University or higher degree	291 (66.6)	34 (50.0)		
Warning about medicines were explained			0.191	0.662
Lower level of education	30 (38.5)	150 (35.1)		
University or higher degree	48 (61.5)	277 (64.9)		
Side-effect of medicines were described			0.339	0.560
Lower level of education	41 (33.1)	139 (36.5)		
University or higher degree	83 (66.9)	242 (63.5)		
Wrote instructions on medicines' boxes			1.156	0.282
Lower level of education	104 (33.7)	76 (38.8)		
University or higher degree	205 (66.3)	120 (61.2)		

6.3 Respondents' evaluation of pharmacy staff performance

Respondents were also asked to indicate their level of agreement with 14 items on five-point Likert scales (ranging from strongly disagree to strongly agree). The respondents indicated their confidence in the pharmacy service provided by pharmacy staff with around two-thirds agreeing that suitable medicines were selected for their treatment (n=350, 69%), clear language was used (n=364, 72%) when communicating with customers and health advice was given about their conditions (n=309, 61%) – Table 6-8. However, they were less sure that enough time was spent with them (n=203, 40% agreed), that their views and opinions were respected (n=211, 42% agreed) or that the staff cared about their health concerns (n=239, 47% agreed).

Table 6- 8 Respondents' evaluation of pharmacists and pharmacy staff performance (n=505)

	Percentage of respondents		
	Disagree [a]	**Unsure**	**Agree [b]**
Care about customers' health concerns	12	41	47
Spent as much time as necessary with customer	24	36	40
Suitable medicines were selected for the treatment	3	28	69
The staff had good communication skills	8	43	49
Some health advice was given for customers' condition	19	20	61
Customers' view and opinions were respected	10	48	42
Staff had the knowledge to deal with minor diseases	5	36	58
Pharmacy staff used clear language	8	20	72
Pharmacy staff are not trustworthy	78	20	2
Pharmacy staff seem unwilling to help	72	25	3
Pharmacy staff were friendly	8	35	57
Staff seem to lack the knowledge to help me select OTC medicines	73	25	2
Pharmacy staff were too busy to help me	55	35	10
Overall, I am satisfied with pharmacy service provided	16	26	58

Disagree [a] = Number of respondents selecting strongly disagree and disagree
Agree [b] = Number of respondents selecting agree and strongly agree

6.4 Respondent opinions about selecting a community pharmacy

An open question asked pharmacy customers about why they chose to buy medicines at this pharmacy. There were many reasons given including the location of the pharmacy, medicine price, trust in the pharmacy staff attitudes, good counselling, the reputation of the pharmacy, recommendation of others. Around ten per cent (n=51) of respondents had only one reason with most reporting a number of reasons for their choice of pharmacy.

The most often given reason for choosing a pharmacy was having open, friendly and enthusiastic staff; over half of respondents (52%) stated this reason –Table 6-9. Nearly as many respondents (49%) stated the convenient location of the pharmacy influenced their choice. However, medicine price was also an important factor influencing customers' decision about which pharmacy they preferred, nearly a quarter of respondents (24%) gave this reason. Other reasons for choosing the pharmacy where they provided good counselling, customers had a good relationship with staff or trust in the pharmacy, and that the pharmacy has large and had a good reputation.

Table 6- 9 Customers' reasons for selecting the pharmacy where they purchased the medicines (n=505)

No	Reasons for selecting pharmacy	Frequency	Percentage
1	Convenient location (proximity to home, work, office)	247	49
2	Price - including reasonably priced	123	24
3	Good relationship with staff/ trust in pharmacy	156	31
4	Open, friendly and enthusiastic staff	262	52
5	Good counselling	115	23
6	Large pharmacy with good reputation	59	12
7	Recommended by others	11	2

6.5 Discussion

There are two main types of NPM transactions in community pharmacy, one where the customer describes a symptom and ask for a suitable medicine and the other which is a direct request for a medicine. This study includes a mixture of these types of transactions and they have resulted in different responses from pharmacy staff. The first should involve deeper questioning and the seconds more of a confirmation that the medicine is suitable for the patient and their conditions.

A key factor in individual reports of events is recall bias. Recall bias occurs where respondents remember only partial details of an experience – the longer time since the event, the greater likelihood they would not recall their experience of the event correctly [204]. However, this survey data were collected within five minutes of the completion of the NPM transaction, so the impact of recall bias is likely to be minimal.

6.5.1 Respondents report of non-prescription medicines transaction

6.5.1.1 Staff questioning of customers

In terms of questions asked, nearly two-thirds (63%) of non-prescription medicine purchasers recalled when being asked 'who would use medicines' they were purchasing. It is a simple but very important question that should be asked at the beginning of a conversation between pharmacy staff and customers that enables staff to clarify exactly who the person is needs the medications. The users may include a child, an older person or the person in the pharmacy. Identify exactly who will be the person using the medications may probably the most important issue for pharmacy staff to consider. It will help staff to choose the right forms and doses of medicines for the right person. Similarly, two-thirds (69%, n=350) of respondents were asked to describe their symptoms in the transactions. However, in actual practice, nearly one-third (31%, n=155) of respondents did not receive

any requests to describe their symptoms and nearly two-fifths (37%, n=185) of respondent were not asked 'who would use medicines' during their transactions. Furthermore, nearly three-fifths (58%, n=294) of respondents were not asked 'how long have the symptom present' and pharmacy staff did not ask respondents 'if any treatment has been tried already' on two-thirds (67%, n=337) of their transactions. These are simple but key questions for pharmacy staff to ask as help them to identify diseases correctly and decide whether or not particular medicines may be suitable for patients.

In addition, four-fifths (81%, n=409) of respondents were not asked 'if other medicines are being taken' for the chronic diseases such as hypertension or diabetes at the time the current health problem occurred. Moreover, most respondents (97%, n=490) did not receive any questions related to allergies to medicines that customers may possibly have suffered in the past. It should be better for pharmacy staff to know about patients' historical allergies prior to making medical decisions and recommendation for customers. This information will help to avoid some unexpected interactions between medicines use and allergies or side-effects when supplying medicines for patients. So, the situation of lacks of questioning commonly occurred in actual practice regarding the supply of NPMs in community pharmacies in Vietnam.

The results of lacking questions asked and advice given from this study is supported by the findings from previous studies that indicated that no questions were asked in 55% of encounters and no advice was given in 61% of the transactions in community pharmacies in Vietnam [114]. A study in the Czech Republic found that around one quarter of patients were not given any information during the supply of medicines in the pharmacy [87]. Smith indicated that in over half the consultations in community pharmacies no more than two

questions were asked and the majority (79%) of the pharmacists' questions were closed. Sixty-two per cent of consultations included no open questions and the lack of open questions would restrict the opportunity for customers to raise issues of concern [157]. The limitation of questioning in community pharmacies in Vietnam was similar to the findings from many other countries.

6.5.1.2 Advice-giving

In terms of giving advice, eighty-six per cent (n=437) of respondents received verbal instructions. The instructions were also written on the medicines' boxes/blisters for pharmacy customers enabling them to be reminded about the directions for use and three-fifths (61%, n=309) of respondents received written instructions about how to use their medicines. This is a similar figure with a finding from an Australia's study indicated that 84% of pseudo-patients received verbal instruction when requesting analgesic medicines in community pharmacies [18]. However, a study in India found that most clients did not receive appropriate advice or medicines that there was a need for interventions to improve the quality of care [104]. In addition, advice given in a community pharmacy is almost wholly focused on product recommendation and use [80]. Smith (1992) stated that the information giving in consultations is focused around products to exclusion of the symptoms suggests that many opportunities for health promotion may be lost [157].

The important role of written instruction was discussed. It is easy for people to forget what they have heard from verbal instructions and it is easier to be reminded with written instructions. People prefer written instructions to verbal. However, this practical skill was not performed in every case and nearly two-fifths (39%, n=196) of respondents did not receive this type of instruction. The result from Smith's study (1997) also indicated that only

39 per cent of patients received oral counselling on one or more issues concerning their dispensed medication [226]. Moreover, only 15% (n=78) and a quarter (25%, n=124) of respondents received an explanation about warnings and descriptions about side-effects of the medicines supplied respectively. Pharmacy customers should be made aware of some unwanted side-effects prior to using medicines so that they do not easily get surprise when they occur. Moreover, knowing about side-effects will help pharmacy staff and customers looking for solutions to minimise the harmfulness. In order to ensure the effectiveness and safety of using medicines, providing written and detailed instructions should be considered as essential skills of pharmacy staff in their daily practice at community pharmacy. So the advice-giving in community pharmacy in Vietnam was not always as good as expected and similar to the situation in many other countries.

A study conducted to develop criteria to measure the appropriateness of advice-giving in community pharmacies in the UK indicated that the developed criteria allow researchers to identify dimensions of both appropriate and inappropriate advice provided in community pharmacies and provide the basis for education and training initiatives as a result of the research [11]. This pointed out the importance of advice-giving and initiatives to improve the quality of consultations in community pharmacies. This could also be a pattern for other countries to follow including Vietnam.

Overall, pharmacy staff did not always offer a very good service for customers when supplying non-prescription medicines in community pharmacies in Vietnam in terms of asking about people who will use medications, their symptoms and allergies to medicines as well as explaining about side-effects and other warnings of provided medicines. The findings indicate that there are some problems regarding the quality of service provided in community pharmacies in Hanoi, Vietnam.

6.5.2 Associations between customer reports and demographics

In term of respondents' report of pharmacy staff performance by gender, compared with men, women were more likely to report being asked who will use the medicine (χ_2 = 9.734, p = 0.001), to describe the symptoms (χ_2 = 17.279, p = 0.000), whether or not other medicines are being taken (χ_2 = 4.728, p = .029) and being told how to use the medicines (χ_2 = 12.845, p = 0.000). No other associations were found between gender and customers' recall.

Regarding the age group, the respondents who were less than forty years old were more likely to report being asked how long the symptoms have been present (χ_2 = 3.484, p = 0.040) and asked if other medicines were being taken (χ_2 = 6.315, p = 0.012), compared with those aged over 40 years. There was no association between age group and respondents' report of any of the other areas of questioning or advice giving.

In term of educational level, respondents with a higher educational level (university or higher degree) were more likely to report being asked who will use the medicines (χ_2 = 5.866, p = 0.015), asking if other medicines are being taken (χ_2 = 17.601, p = 0.000) and being given verbal instructions of how to use the medicines (χ_2 = 6.356, p = 0.012) compared with those reporting a lower level of education. No associations were found between educational level and the other areas of questioning or advice giving.

6.5.3 Respondents' evaluation of pharmacy staff performance

6.5.3.1 Pharmacy staff attitude

Nearly half (47%, n=239) of respondents agreed that pharmacy staff care about customers' health concerns, and around two-fifths (41%, n=211) of respondents agreed with the idea that their views and opinions were respected during the transaction in community pharmacies. However, over half of the respondents disagreed and were unsure about whether or not their health was appropriately cared for, or their views were respected by pharmacy staff. A Study from Ethiopia (2011) indicated that the attitude and practice of drug dispensers in pharmacies regarding emergency contraception was inadequate resulted in the limitation of service provision [112]. This deficiency might affect the trust customers place in their pharmacy staff. As a good quality member of staff, he (she) has to show his (her) special attention to customers' health concerns and respect their views/opinions as well as performs his (her) in the way that customers can appreciate. The findings indicated that there is a problem in the quality of pharmacy service provision in community pharmacies in Hanoi, Vietnam regarding the attitudes of pharmacy staff when dealing with customers purchasing non-prescription medicines. It is suggested that pharmacy staff should pay attention to their attitudes in terms of caring about customers' health concerns and respecting customers' views/opinions in order to attract customers and gain more benefit from their commercial activities.

In Australia, behaviour of community pharmacists and their staff in relation to standards was measured by conducting pseudo-patron visits to participating pharmacies. The results demonstrated a significant improvement in the quality of service delivered by staff in community pharmacies from a rate of 47% to 70% ($p < 0.01$) in the management of requests involving non-prescription medicines [15]. The use of pseudo-patron visits, as a training tool with immediate feedback, was an acceptable and effective method of achieving changes in practice [15, 16]. This could also be applied for pharmacies in Vietnam.

6.5.3.2 Respondents' evaluation of pharmacy staff knowledge

Nearly three-fifths (58%, n=295) of respondents agreed that pharmacy staff had the knowledge to deal with minor diseases and two-thirds (69%, n=350) of them claimed that suitable medicines were selected for their treatment. However, a high proportion of respondents were still unsure about pharmacy staff's knowledge. One-third (36%, n=184) and a quarter (27%, n=141) of respondents were unsure whether staff had sufficient knowledge to deal with minor diseases and whether suitable medicines were selected for customers' treatment respectively. A study examining characteristics, knowledge and regulatory practices of specialized drug shops in Sub-Saharan Africa indicated that staff had poor knowledge on key aspects of treatment such as medicine dosage and side effects [227]. Smith (2009) indicated that knowledge of pharmacy staff was judged to be poor in community pharmacies in Vietnam, antibiotic dispensing was high and advice-giving and referral was low [3, 115]. In addition, the knowledge and practice of drug dispensers in Addis Ababa, Ethiopia regarding emergency contraception was inadequate and resulted in the limitation of service provided for customers [112]. Concerns have been raised about pharmacy staff knowledge of diseases and the medicines they were dealing with. As an expert dealing with minor ailments and non-prescription medicines, pharmacy staff has to perform well so that customers trust in them. If customers trust in pharmacy staff then this might help to improve medicines adherence as well as the safety and effectiveness of medications being used. In addition, diseases and medicines knowledge is one of important indicators should be considered and assessed when evaluating the quality of pharmacy service provided from community pharmacies.

In term of knowledge intervention, findings of a training intervention study to strengthening pharmacy practice in Vietnam indicated that after interventions, pharmacy staff knowledge was significantly improved on most of the measured indicators. Knowledge of dehydration symptoms for diarrhoea increased from 19% to 88%, and for side effects of emergency contraceptive pills increased from 27% to 77% [228]. So, further training intervention to improve the knowledge of pharmacy staff should be considered in community pharmacies in Vietnam.

6.5.3.3 Pharmacy staff communication skills

Over two-thirds (72%, n=364) of respondents stated that pharmacy staff used clear language when communicating with customers and nearly three-fifths (57%, n=285) of respondents agreed that staff were friendly during their transaction. However, there was still a proportion of respondents (36%, n=181) who were unsure whether staff were friendly with them or not and fifty per cent of them were unsure about pharmacy staff communication skills. In the UK, there is empirical evidence that the supply of OTC medicines is not always guideline compliant [100], with poor communication between pharmacy staff and customers being a major cause of non-compliance with guidelines [6]. As an expert on medicines use, pharmacy staff should be aware that communication skills play an important role in their daily practice. In order to communicate with customers effectively, pharmacists and pharmacy staff have to improve their expertise not only on medical knowledge, but also communication skills. Moreover, having good communication skills can help pharmacy staff convey medication information to customers easily and effectively as well as building the reputation for pharmacies.

6.5.3.4 Time spending on the transaction

In terms of time spent on the transaction, two-fifths (40%, n=203) of respondents claimed that pharmacy staff spent sufficient time for their transaction. However, it was noted that one-third (36%, n=181) of respondents was unsure and a quarter (24%, n=121) disagreed with this statement raising a concern about whether pharmacy staff spent enough time on their consultation or not. From the results, 10% (n=52) of respondents asserted that pharmacy staff were too busy to help customers when dealing with non-prescription medicines. The finding from Smith's study (1992) indicated that fifty-six per cent of consultations were less than two minutes long [157]. As a responsible pharmacy staff, he (she) has to spend sufficient time for their conversation with pharmacy customers.

6.5.3.5 Factors influencing the supply of non-prescription medicines

From customers' evaluation, many factors influencing the supplying of non-prescription medicines in community pharmacies were assessed including attitudes, communication skills and knowledge of pharmacy staff. Previous findings from the literature also indicated that attitude, knowledge and communication skills are main factors contributing to the quality of pharmacy service provided in community pharmacies [229, 230]. In addition, questions asked, advice given and time spent on the transaction also have an influence on the supply of non-prescription medicines in community pharmacies. These factors can be used to compare and contrast with the results from interview and observational studies in order to validate and triangulate the findings of this research project.

6.5.4 Respondent opinions of selecting community pharmacy

When being asked the reasons for selecting of community pharmacies serving customers' demands, some reasons were pointed out as main factors influence customers' decisions. These are the convenient location of the pharmacy, medicine price; trust in pharmacy, staff members' attitudes; good counselling; the reputation of the pharmacy and customers were recommended that particular pharmacy by others. Those factors will be used to triangulate and validate with the results from the observations and interviews in order to provide the entire picture of non-prescription medicines supply in community pharmacies in Vietnam.

6.5.5 Summary

From the survey study, the findings revealed that the pharmacy service provided in community pharmacies in Hanoi, Vietnam was not as well as expected and it related closely to factors such as attitude and communication skills as well as the knowledge of pharmacy staff. The findings from customers' report and evaluation indicated that the supplying of non-prescription medicines or the quality service provision in community pharmacies have some limitations and need to be improved for the benefit of patients.

CHAPTER SEVEN: DISCUSSION AND CONCLUSION

7.1 Introduction

This chapter discusses and triangulates the findings from observations at five community pharmacies, interviews with 22 pharmacists and pharmacy assistants and a survey of 505 pharmacy customers regarding the supply of non-prescription medicines in community pharmacies in Hanoi, Vietnam. The real-life situation regarding the supplying of non-prescription medicine and the factors that impact on the interactions between pharmacy staff and customers in community pharmacies were investigated. In this study, the mixed methods design has been used with an aim to obtain different but complementary data in order to better understand the area being investigated. A triangulation approach was used with multi methods and data sources that is qualitative (observations and interviews) and quantitative (survey) that were all combined in a single study in order to validate the entire findings.

The results from the three sources of data, together with the similarities and differences across the analyses, are compared and contrasted in order to develop a better picture of non-prescription medicines supplied by Vietnamese community pharmacies. The triangulation of the research findings are presented in Figure 7-1 below.

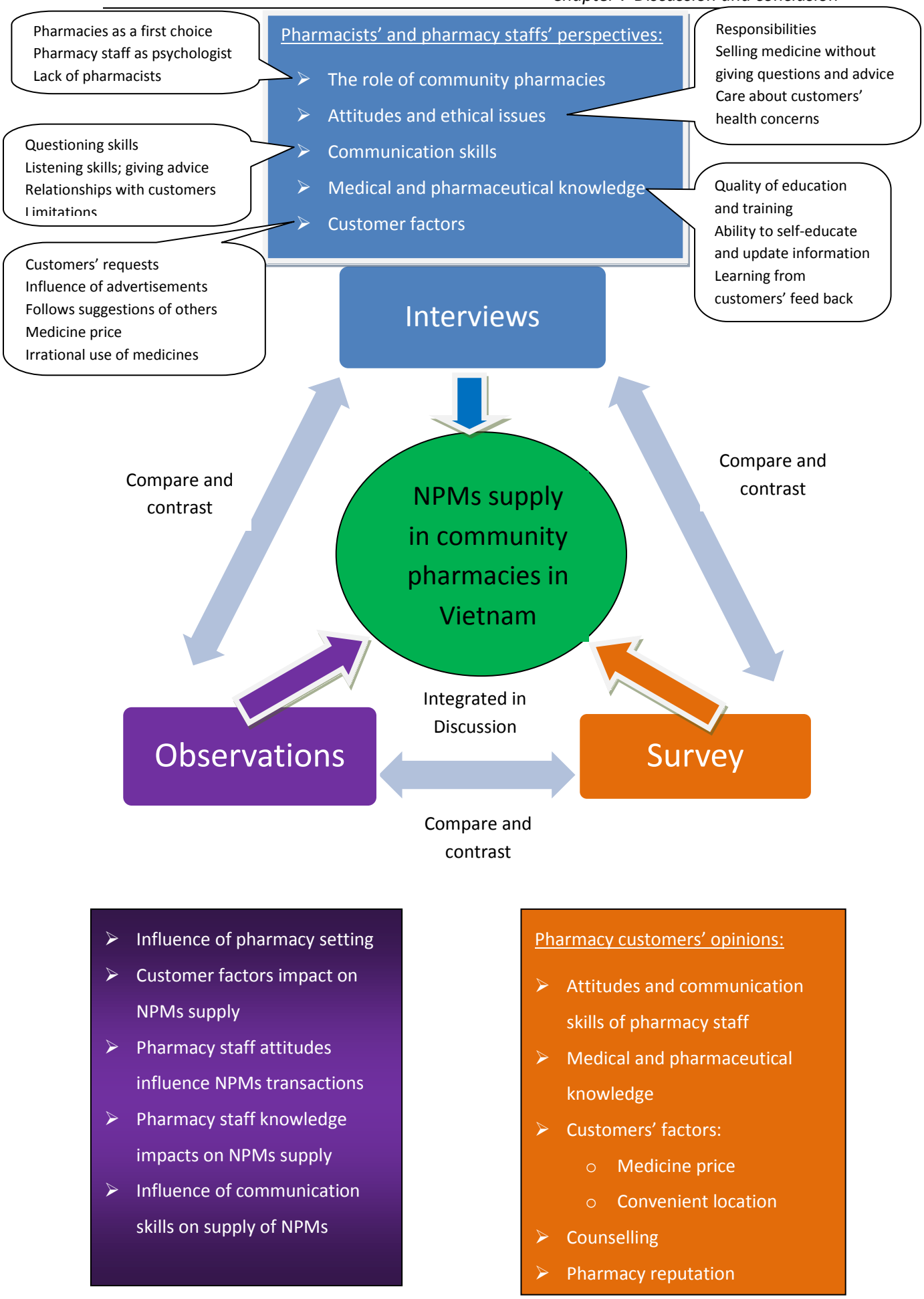

Figure 7- 1 Triangulation of the research findings

7.2 Factors impacting on the supply of non-prescription medicines

The results from the three sources of data and analyses indicated that there are some similarities and differences found when investigating NPM transactions from different perspectives. From the observations, interviews and survey research, the supplying of non-prescription medicines was affected by many factors including the influence of the pharmacy setting; customer factors; attitudes of pharmacy staff; pharmacy staff knowledge and communication skills. In addition, the convenient location of the pharmacy, medicine price, good counselling and the reputation of the pharmacy also have considerable influence on customers' selection of pharmacies and staff-customer transactions in community pharmacies. This section compares, contrasts and discusses the results in the light of the literature in order to triangulate and validate the findings for the whole research project. The detailed discussions are presented below.

7.2.1 The similarities and confirmations

7.2.1.1 Pharmacy staff attitudes impact on the supply of non-prescription medicines

The observations indicated that pharmacy staff attitudes appear to significantly influence the interactions between pharmacy staff and customers and the supply of non-prescription medicines in community pharmacies (section 4.4). Positive attitudes drove the pharmacy staff to take greater responsibility and care when dealing with a customer's demands and this resulted in successful staff-customer transactions. A study from Ethiopia indicated that the knowledge, attitudes and practice of drug dispensers in pharmacies regarding emergency contraception was inadequate, resulted in the limitation of service provision [112]. Similarly, the results from a study in the UK showed that patients considered whether pharmacists were able to answer questions satisfactorily, being knowledgeable, giving customers the opportunity to ask questions, taking their concern seriously and

making sure of their degree of understanding about the counselling [76]. From the interview data analysis, attitudes and ethical issues were mentioned most often and with greatest intensity. Pharmacy staff stated that the success of the transactions between staff and customers could not be achieved without having positive attitudes and an appropriate ethical approach. Participants perceived that care about customers' health concerns and taking greater responsibility were important factors contributing to the quality of service provided for customers. From the survey research and customers' evaluation of non-prescription medicines supply, attitudes of pharmacy staff were considered as the main factor impacting on the quality of the pharmacy service provided for customers. Over half of the respondents disagreed and were unsure about whether or not their health was appropriately cared for, or their views were respected by pharmacy staff. The findings from the three sources of data and analyses confirmed that pharmacy staff attitudes are important factors impacting on staff-customer interactions and the supplying of non-prescription medicines in community pharmacies.

7.2.1.2 The influence of communication skills on the supply of NPMs

From the interview analysis, interviewees perceived that when dealing with customers requesting non-prescription medicines for their minor conditions, communication skills were considered important and essential skills contributing to the success of staff-customer transactions. Moreover, having good communication skills enabled pharmacy staff to serve customers' needs effectively. From the survey, customers' evaluations indicated that communication skills were a major factor, along with attitudes of pharmacy staff, influencing the quality of the pharmacy service provided. From the observation, communication skills appear to have a significant influence on staff-customer interactions and the success of those transactions. In the UK, there is empirical evidence that the supply

of OTC medicines is not always guideline compliant [100], with poor communication between pharmacy staff and customers being a major cause of non-compliance with guidelines [6]. The findings from the three sources of data analyses showed that communication skills play an important role in, and influence upon NPM transactions.

7.2.1.3 The influence of pharmacy staff knowledge on the supply of NPMs

Pharmacy staff could not perform their tasks in community pharmacies without a good knowledge of NPMs and their appropriate use. From the interview research, participants commented that when serving pharmacy customers who had minor conditions or were requesting to buy some particular kinds of non-prescription medicines, the medical and pharmaceutical knowledge of pharmacy staff needs to meet a certain level. Pharmacy staff should have sufficient knowledge to identify diseases correctly and select appropriate medicines as well as provide suitable advice or counselling for patient treatment and to promote health and improve wellbeing. From the survey, staff knowledge was considered as a significant factor influencing the quality of the pharmacy service provided for customers. One-third (36%, n=184) and a quarter (27%, n=141) of respondents were unsure whether staff had sufficient knowledge to deal with minor diseases and whether suitable medicines were selected for customers' treatment respectively. Such lack of knowledge leads to limitation of service provided for customers. The findings from the observations also indicated that the pharmacy staff knowledge has a significant influence on customer-staff transactions. Smith (2009) indicated that knowledge of pharmacy staff was judged to be poor in community pharmacies in low and middle-income countries, including Vietnam, antibiotic dispensing was high, and advice-giving and referral was low [3, 115]. Previous findings from the literature also indicated that attitude, knowledge and communication skills are the main factors contributing to the quality of pharmacy service provided in

community pharmacies [229, 230]. The findings from the three sources of data confirmed that medical and pharmaceutical knowledge influences the interactions between pharmacy staff and customers in community pharmacies.

7.2.2 Differences and complementary factors

From each data source collected, many different aspects were explored and described that could be complementary to other factors presented in previous sections in order to reflect the entire situation of the supply of non-prescription medicines. Those aspects could be the influence of the pharmacy setting (observations) research; the typical roles of pharmacists and pharmacy staff (interviews); and reasons for selecting a particular community pharmacy (survey).

7.2.2.1 The influence of pharmacy settings on staff-customer interactions

From observations, it was recognised that pharmacy settings have a significant influence on customers' psychology and the interactions between pharmacy staff and customers at the medicine counter. The number of serving counters in the community pharmacies may have a positive influence on customers' satisfaction. More counters and more pharmacy staff serving customers reduce customers' waiting time; customers appeared to be more pleasant when being served quickly. Moreover, more time could also be invested for each transaction leading to ensure sufficient information is collected from, and provided for, customers leading to a better quality consultation. Furthermore, customers who were worried about their discussions being overheard by others should have the option of a more private area to discuss their needs. Customers' embarrassment was perceived to be influenced by a lack of privacy in the consultation [216]. They wanted pharmacists to provide dispensing, advice on medications and private consultation areas [76]. From the

literature, Anderson et al. (2004) indicated that there is a need to consider privacy and confidentiality surrounding advice giving [83]. Barber and Smith (1994) also indicated that privacy is an important aspect of quality of care. If pharmacists are to develop their advisory role, then discussions with clients about their problems with over the counter medicines must clearly take place in a private area [217]. In addition, modern facilities and equipment such as large and tidy shops, as well as computers and management software, also appear to have a significant impact on customers' trust in pharmacies and their transactions. Overall, the development of appropriate interactive areas is an important factor influencing the transaction between pharmacy staff and customers in community pharmacies.

7.2.2.2 The roles of community pharmacies in Vietnam

Understanding the roles of community pharmacies in Vietnam can support the analysis of other aspects in this research and help to understand research problems better and more deeply. The interviews with pharmacy staff indicated that pharmacies in Vietnam were considered as the first choice of customers when they have health problems. This finding is supported by the viewpoint from 'the WHO UNESCO FIP Pharmacy Education Taskforce' which indicated that in the developing country context, the pharmacy is often the most accessible or even the sole point of access to health care advice and services [58]. In the UK, Noyce (2007) indicated that the community pharmacy sector is now being recognised by the government as a mainstream contributor to primary care and public health [82]. Pharmacies and pharmacy staff in Vietnam were preferred to other health care professional sources for many reasons such as saving customers' health care costs, less waiting time than in hospital and the feeling of being more comfortable when communicating with the pharmacy staff in pharmacies.

From interview data, community pharmacies were considered by participants as different from other types of shops because they are dealing with special types of customers with health problems as well as a special type of goods and that providing counselling about diseases and medicines is also a special type of service. Customers coming to community pharmacies with health problems, have different needs and demands for goods and services than when going to other shops. The ways of communicating with pharmacy customers are also totally different in terms of caring about their health concerns, asking questions, listening and giving advice to customers. It requires a certain level of communication skills and knowledge as well as positive attitudes and ethical approaches by pharmacy staff.

The different feature of pharmacies leads to the special role of pharmacy staff. The interviewees pointed out the interesting point that pharmacy staff are considered to be psychologists in addition to their role as health care experts who provided not only medication for treating diseases but also provided psychological advice and support for customers. This finding complements the findings from a previous study in Vietnam that indicated that the role of the pharmacy staff was viewed in three different ways as: counsellors, doctor's assistant and business person [59]. Pharmacy staff were expected to understand the customers' psychology, for example to express concern when they revealed their worries and not to ask questions in an inquisitive manner [231]. Psychological aspects refer to the ability of staff to help customers to reduce their stress and depression as well as enabling them to think positively about their health conditions and recovery.

Pharmacy staff perspectives vary in terms of selling non-prescription medicines to customers. It is considered as an easy task on the one hand and a difficult duty on the others hand. It is also viewed as an interesting job in terms of communicating and supporting people and treating diseases. However, for some participants, supplying non-prescription medicines is also a method of increasing turnover and gaining more profit. From the participants' point of views, selling non-prescription medicines in Vietnam looks diverse and complex as a result of these different perspectives. Interestingly, pharmacy staff stated that they have more power when supplying non-prescription medicines as they can deliver treatment decisions independently, without relying on GP instructions, as they have to when supplying prescription medicines.

7.2.2.3 Customer factors that impact on staff-customer interactions

The results from observational study indicated that customers' complex and diverse demands/requests have an influence on pharmacy staff reactions and responses. The irrational use of medicines, having special demands, using medicines following the suggestions of others, and tough customers were all considered as customer factors that impact on customer-staff transactions. In addition, the results from the interviews also indicated that the influence of advertisements, customers considering about the price of medicines and customers' trust in their pharmacy and their loyalty all considerably influence the transactions and pharmacy staffs' decisions when serving customers' demands. From the survey study, the convenience of pharmacy locations, reasonably priced medicines, being a large pharmacy with a good reputation were pointed out by pharmacy customers together with pharmacy staff attitudes, knowledge and communication skills, as the factors impacting on their consideration and selection of community pharmacies.

7.2.3 Associations between customer reports and demographics

There is a significant difference between male and female respondents in reporting of pharmacy staff performance. The interaction between female staff and female customers were perhaps expected to be more likely to be of an open nature. Female respondents were more likely to report being asked who will use the medicine (67% compared with 33% of men), to describe the symptoms (68% compared with 32% of men), whether or not other medicines are being taken (72% compared with 28% of men) and being told how to use the medicines (65% compared with 35% of men).

People who are younger may be expected to be open and share their opinions with staff, whilst older people may be likely to have more experience of using medicines. The respondents who were less than forty years old were more likely to report being asked how long the symptoms have been present (57% compared with 43%) and asked if other medicines were being taken (64% compared with 36%), compared with those aged over 40 years.

In term of educational level, people who have a higher level of education and training may probably talk more about their transaction with pharmacy staff. Respondents with a higher educational level (university or higher degree) were more likely to report being asked who will use the medicines (68% compared with 32%), asking if other medicines are being taken (83% compared with 17%) and being given verbal instructions of how to use the medicines (67% compared with 33%) compared with those reporting a lower level of education. No associations were found between educational level and the other areas of questioning or advice giving.

7.3 Pharmacies' practical problems

The results from observations, interviews and survey research also indicated some limitations and practical problems regarding the supply of non-prescription medicines via community pharmacies.

7.3.1 The discrepancy between what pharmacy staff say and what they do

There was a gap between pharmacy staff perceptions and actual practice in terms of attitudes. From the interviews with pharmacists and pharmacy assistants, participants indicated they were aware of the important roles of attitudes and an ethical approach as well as taking responsibility in the transaction between pharmacy staff and customers. However, in actual practice, sometimes, pharmacy staff provided medicines without asking any questions or giving any advice during their staff-customer transactions. From the observations, when being asked to sell non-prescription medicines, over half of the performances 56% (132/234) of pharmacy staff mainly focused on the sale and acted in business manner, rather than concentrating on customers' health and concerns. No questions were asked about who will use the medicine, why they wanted to purchase that medicine and the customer's health condition; no advice was given about how to use the medicines. Time spent on those transactions was limited. This is supported by the finding from a previous study that indicated that no questions were asked in 55% of encounters and no advice was given in 61% of the transactions in community pharmacies in Vietnam [114]. The findings from a study in Sweden indicated that no questioning occurred for 108 (37%), no information for 75 (26%) and no counselling occurred with 53 (18%) of the medicines supplied [232]. A study from the Czech Republic also showed that approximately a quarter of respondents stated that during the transaction in the pharmacy they were not given any piece of information regarding the supplied medication [87].

Additionally, interviewees also commented that attitudes and ethical issues were not always acknowledged as well as expected in terms of showing positive attitudes and ethical approaches when dealing with customers' demands. From the survey study, one-third (31%, n=155) of respondents did not receive any requests to describe their symptoms from pharmacy staff; 37% (n=185) of respondents were not asked the question "who will use medicines/medication?"; nearly three-fifths (58% n=294) of respondents said that they were not asked the question "how long have the symptoms been present?"; four-fifths (81%, n=409) of respondents were not asked "are any other medicines are being taken?" and most participants (n=490, 97%) did not receive any questions related to allergies to medicines that customers may possibly have suffered in the past. Moreover, 14% of respondents did not receive verbal instruction about supplied medicines and two-fifths (39%, n=196) of respondents did not receive written instructions during their transactions. Overall, the pharmacy staff knowledge and awareness of what they have to do did not ensure that they performed well in their daily practices.

The discrepancy between awareness and actual practice was also found in a previous study which indicated that even though 74% of pharmacists and drug sellers know that they should not treat sexually transmitted diseases (STD) patients in pharmacies, 84% actually did [114]. A gap between knowledge identified in the interviews and practical skills assessed by the visit was found in Anderson's study (1993). The results indicated that 62 per cent of pharmacists said that they would ask about severity and symptoms, but only 6 per cent actually asked the 'mystery' customer (researcher). Twenty-two per cent said that they would asked questions about the timing of symptoms, but only 8 per cent actually asked 'mystery' customer [233]. A previous study in Vietnam also indicated that one-fifth

(20%) of pharmacy staff stated that they would dispense antibiotics for management of childhood acute respiratory infections at pharmacies, but in practice, four-fifths (83%) of pharmacies dispensed antibiotics for this condition. In addition, in the questionnaire, over half (53%) of the pharmacy staff stated that they would ask the patient about their difficulty with breathing, but in practice, questions related to difficulty with breathing were asked in less than 10% of the encounters [115]. The discrepancy between awareness and actual practice of pharmacy staff commonly occurred in community pharmacies in Vietnam.

Taking greater responsibility was perceived positively by pharmacy staff. Caring about customer health concerns, taking responsibilities for patient safety, rational use of medicines and customer affordability were perceived clearly by participants in the interview research. However, in the observations, pharmacy staff did not perform those tasks in 56% of the transactions when being asked to supply non-prescription medicines. In the interviews, some participants also commented on the situations of some pharmacy staff supplying medicines without considering their ethical responsibilities. Pursuing profit was occurring in some community pharmacies and this leads to limitations on the quality of the pharmacy service provided to customers. Many pharmacies and pharmacy staff are selling medicines for customers by separating medicines from their packaging blisters and mixing (the pills and tablets) all together in plastic bags for each time of day that the customer will be taking medications. The prices of medicines have also been increased unreasonably without pharmacy customers knowing. This raises concerns about ethical attitudes and responsibilities of pharmacy staff in their daily practice.

The discrepancy between perceptions and actual practice in community pharmacies is presented in the figure below:

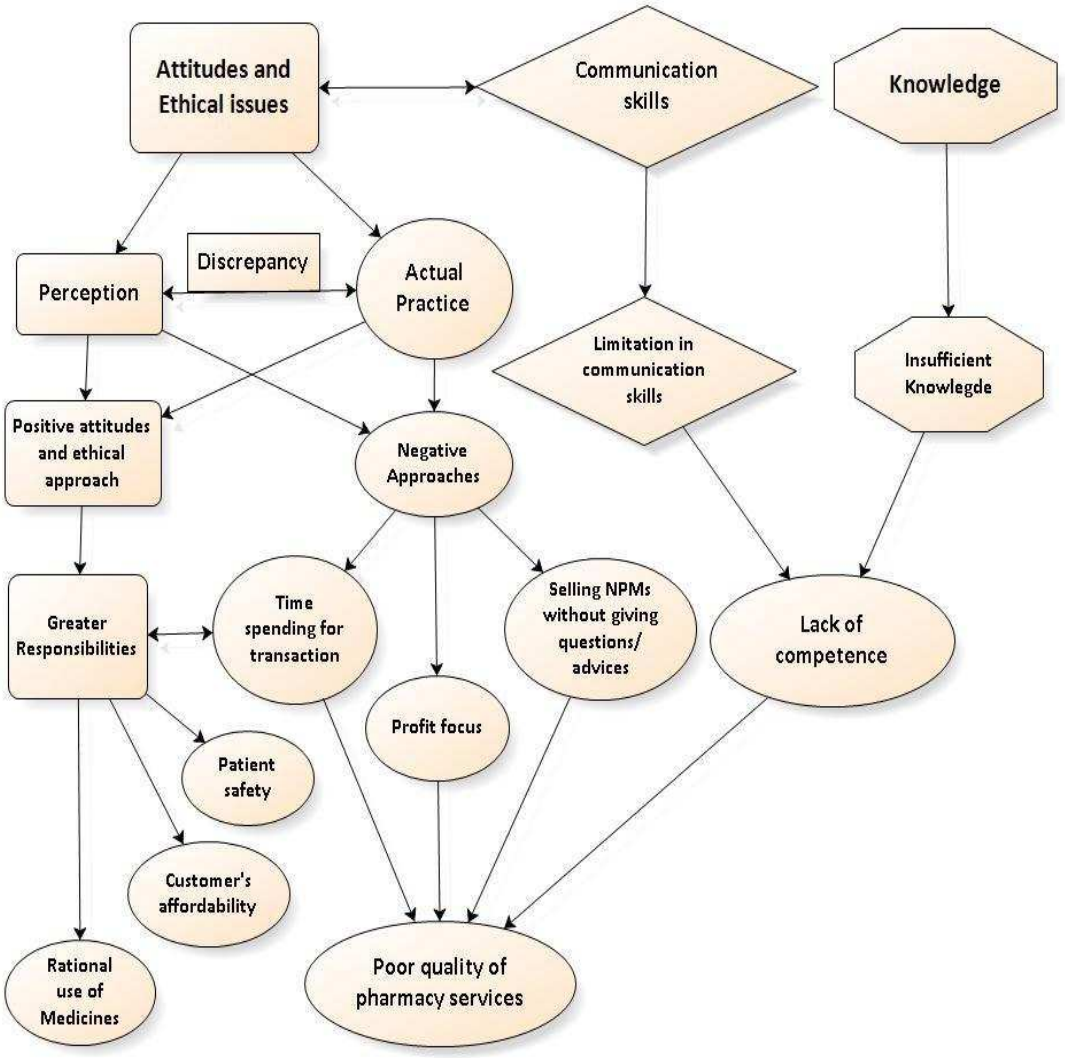

Figure 7- 2 Discrepancy between perception and actual practice

Pharmacy staff were aware of the importance of having positive attitudes and knew how to perform those tasks in positive ways. However, interviewees commented that they did not always perform as well as expected in terms of showing positive attitudes and having an ethical approaches when dealing with customer demands. This viewpoint is supported and confirmed by the findings from observations and survey studies.

In terms of time spent on customer-staff transactions, interviewees perceived that they have to spend a large amount of time for non-prescription medicine transactions, as time is

needed to clarify the diseases and to give detailed instructions for customers. However, in actual practice, some pharmacy staff did not spend enough time with customers as stated by some interviewees and concluded from some observations. From the survey study, it was noted that one-third (36%, n=181) of respondents was unsure and a quarter (24%, n=121) disagreed with the statement that sufficient time was spent on their transaction. In addition, 10% (n=52) of participants asserted that pharmacy staff were too busy to help customers, when dealing with NPMs.

7.3.2 The awareness of short-term profit only

The discrepancy between what pharmacy staff said and what they did, as well as the limitations of pharmacy practice, may probably come from their awareness of focusing on just short-term profit rather than obtaining both short-term and long-term benefit. From the interview research, participants pointed out the situations of supplying medicines for profit purpose, such as providing medication without asking any questions and not giving any advice. The findings from previous study also indicated that no questions were asked in 55% of encounters and no advice was given in 61% of the transactions in community pharmacies in Vietnam [114]. Sometimes, medicines were separated from the boxes or blisters and supplied for customers at a higher price as a consequence of negative attitudes and profit motivation. Ethical responsibilities and long-term benefits were ignored as customers' trust in the pharmacy, customer loyalty and the pharmacy's reputation were not considered. Pharmacy staff attitudes are considered as important factors impacting on the success of pharmacy customer-staff transactions, as discussed in the previous sections. However, the pharmacy practice problems were also mentioned as the result of negative attitudes and pharmacy staff focus on just short-term profit rather than both short-term and long-term benefits.

7.3.3 Poor performance as a result of education and training

In terms of medical and pharmaceutical knowledge, from customers' evaluation, one-third (36%, n=184) of respondents were unsure whether staff had sufficient knowledge to deal with minor diseases and over a quarter (27%, n=141) whether suitable medicines were selected for customers' treatment. A study from Ethiopia indicated that the knowledge and practice of drug dispensers in pharmacies regarding emergency contraception was inadequate, resulted in the limitation of service provision [112]. The findings also indicated that insufficient knowledge of pharmacy staff related closely to poor education and training. From the survey research and customers' evaluations, there was still a proportion of respondents (36%, n=181) who were unsure whether staff were friendly with them or not and fifty per cent of customers were unsure about pharmacy staff communication skills. Interviewees also pointed out the limitations of pharmacy staff communication skills in daily practice, suggesting that their performance was not always so good.

From the interview research, some pharmacists commented that the poor use of knowledge and sub-standard performance of communication skills as well as quality of pharmacy services provided for pharmacy customers, are the result of poor quality education and training from many educational organisations. Participants pointed out that some educational organisations have commercialised their training activities and paid too much attention to the quantity of graduated students rather than the quality of their education and training. Consequently, the competence of pharmacy staff who graduated from those schools did not meet the society's requirements in terms of knowledge and practical skills.

7.3.4 The quality of pharmacy service provision regarding the supply of NPMs

From the results discussed above, it is indicated that there were limitations in pharmacy service provision regarding the supply of NPMs in community pharmacies in Vietnam. A study by Smith et al. assessing nine characteristics of quality of advice/consultation in community pharmacies and the results showed that less than half of consultations achieved satisfactory scores on a minimum of three-quarters of the criteria which were assessed [67]. Poor performance of pharmacy staff, illustrated by a lack of questions being asked and advice was given remaining unoffered in the transactions commonly occurred in daily practice in community pharmacies in Vietnam. Time spent on staff-customer transactions was also limited in many situations, due mainly to the pharmacy staff, in many situations, focusing on serving as much customers as they could in the shortest period of time in order to gain more turnover and profit without considering the quality of service provision, the pharmacy's reputation and customer loyalty. These negative attitudes and the profit focus of pharmacy staff were considered as the main factors influencing the pharmacy staffs' responses and the quality of pharmacy service provision. Poor quality education and training was also an influence on staff performance and service provision. In the light of the literature relating to the assessement of quality of care (*structure, processes* and *outcomes)* [66]*,* negative attitude of pharmacy staff is incresasing the likelihood of poor performance of pharmacy staff. Poor performance of pharmacy staff is increasing the likelihood of poor treatment outcomes for patients. So, the quality of pharmacy service provision in community pharmacies in Vietnam has many problems and needs to be improved for the benefit of customers.

7.4 Improving the responsible supply of non-prescription medicines

From the discussions, some feasible solutions could be recommended in order to improve the responsible supplying and selling of non-prescription medicines in community pharmacies in Vietnam. Those solutions focus on four main areas including educational organisations, health authorities and policy makers, researchers as well as pharmacists and pharmacy assistants. In addition, some recommendations come from the role of community pharmacies in Vietnam and customer factors need to be considered in order to provide entire solutions for pharmacy practice improvement.

7.4.1 Implications of attitude intervention

If pharmacy staff are aware that both short-term and long-term benefits could be obtained by having more positive attitudes and taking greater responsibility when dealing with customers, they will perform their tasks more willingly and effectively. The reason why attitude intervention is mentioned here comes from the findings explored in this research project. Poor performance of pharmacy staff and practical problems, in many situations, did not come from the issue of lack of knowledge, but probably have arisen from the negative attitudes and the inefficient taking up of their responsibilities by the pharmacy staff. In the past, educational interventions and regulation enforcement were mentioned and implemented as solutions to improve pharmacy practice in community pharmacies in Vietnam [120, 121]. However, sufficient knowledge and regulation enforcement cannot be conveyed and transferred into practice if pharmacists and pharmacy staff are unwilling to change. The findings from Smith's study (2009) also indicated that educational interventions alone were insufficient in achieving the wide-ranging improvements to practice that may be desired. This highlights the need for wider influences on the behaviour of pharmacists and their staff to be taken into account [4]. Pharmacy staffs are only likely to

perform well when they realise both the short-term and long-term benefits that can be obtained as a result of exhibiting positive attitudes, accepting responsibilities and spending sufficient time on customer-staff transactions. It should be better for pharmacy staff to be aware of all the benefits that could be obtained, once willing to perform their duties positively.

Pharmacy staff should be aware of balancing the desire of obtaining both short-term and long-term profits for their business. How can they do this? Pharmacy educators and the health authorities should point out the long-term benefits along with short-term profit for pharmacy students, pharmacy staff and that could only be obtained as a result of taking positive attitudes and greater responsibility for customers in their daily practice. In order to achieve this, the positive attitudes, responsibility of pharmacy staff and time spent on staff-customer transactions need to be performed and invested in appropriately and efficiently.

So, pharmacy educators should indicate that both short term and long term benefits could be obtained by taking positive attitudes and ethical approaches, together with greater responsibility when serving customers' demands in community pharmacies. This view holds for pharmacy students' training curricula and pharmacists or pharmacy assistants on re-training programmes. So training for pharmacy students that deals with taking greater responsibility on patient safety, rational use of medicines, time spent on staff-customer transactions and consideration of customers' affordability should all be in the students' educational curricula. Other aspects related to attitudes and communication skills should also be added to pharmacy training programmes such as how to be open and friendly with customers, how to be amiable and show sympathy to customers, the need to share emotions, feelings and stress as well as being enthusiastic and listening to customers

properly. Finally, some health related advice such as avoiding the overuse or misuse of medicines and warning about the use of some kinds of foods or drinks with medicines, and allergies to medicines, should be added to training programmes.

In terms of health authorities, they should implement some management solutions for both controlling and encouraging pharmacy staff to perform their work with positive attitudes, taking an ethical approach and taking greater responsibilities in their daily practice in order to ensure the safe, rational use and effectiveness of medicines supplied to customers.

7.4.2 Implications for educational organisations

In terms of education and training, the training programmes in pharmacy schools should be designed and applied appropriately in order to meet society's requirements. First of all, communication skills and counselling skills should be added to the curricula as compulsory subjects in pharmacy schools, both for teaching pharmacy students and re-training for pharmacy staff. This viewpoint is supported by research conducted by Watson et al. (2007) using theory-based communication skills' training for medicine counter assistants, which indicated that communication performance improved following training, as well as increased information exchange in non-prescription medicines supply [10]. Questioning skills, listening skills and giving advice need to be considered as essential and fundamental components of training for pharmacy students. The skills of two ways communication, using verbal and non-verbal communication, should also be taught. Many issues related to verbal communication, such as words and voice including tone, inflection as well as non-verbal dimensions like body language, posture, gesture, facial expression, eye contact and body movement all need to be considered when designing teaching programmes. The skills of using open, probing questions, leading questions and closed-ended questions, as well as

listening to customers properly, and the skills of giving advice such as verbal and written instructions, should also be taught. Finally, more and more time needs to be invested to encourage pharmacy students to practice and apply those skills which they have been taught.

A study conducted to develop criteria to measure the appropriateness of advice-giving in community pharmacies in the UK indicated that the developed criteria allowed researchers to identify dimensions of both appropriate and inappropriate advice provided in community pharmacies and provide the basis for education and training initiatives as a result of the research [11]. This pointed out the importance of advice-giving and initiatives to improve the quality of consultations in community pharmacies. This could also be a pattern for other countries to follow, including Vietnam.

In terms of knowledge and practical skills, new subjects such as customer psychology, patient safety, communication skills and counselling skills should be added to educational programmes pertaining to the pharmacy industry. In addition, some short training courses should be designed in order to help pharmacy staff to keep up to date with new information of diseases and medicines. Pharmacy educators should also develop and apply some new management software in order to provide support for pharmacy students practicing, and pharmacy staff performing their dispensing activities effectively.

The typical features of pharmacy customers, and the roles of community pharmacies in comparison with other shops, need to be distinguished and emphasised for pharmacy students and pharmacy staff. The special role of pharmacy staff as psychologists, beside their role of health care experts, needs to be highlighted and emphasised. Therefore, the

appropriate attitudes and ethical approaches of pharmacy staff, when dealing with customers, need to be trained and guided for pharmacy students. The appropriate attitudes and ethical approaches should be detailed on training programmes by highlighting such issues as taking responsibility for customer safety, rational use of medicines, customers' affordability and time spent on the transaction, as well as care about customers' health concerns (as stated in previous sections). Pharmacy students and pharmacy staff should also be aware of their independent role and that they have more power when serving non-prescription medicines in community pharmacies and this status requires them to take greater responsibility and care. Furthermore, educational organisations should point out the short term and long term benefits for pharmacy staff and pharmacy students, as a result of taking time and performing with positive attitudes to communicate and build up good relationships with customers. Such desirable behaviour will almost certainly result in positive outcomes for the reputation of pharmacies and for customer loyalty.

7.4.3 Implications for pharmacy staff in community pharmacies

Pharmacy staff should be aware of and have the ability to keep up to date with new information. Learning and updating knowledge and practical skills should be considered as a key pharmacy staff responsibility and they should have to do this continuously. Peer-training among community pharmacies, pharmacists and their staff members could also be a good solution to improve their experience and practical skills. Pharmacy owners, pharmacists and their pharmacy assistants should organise seminars between pharmacies in order to share practical experience and new information about diseases and medicines. In addition, taking some short-training courses in communication skills, selling skills and updated knowledge need to be undertaken on a regular basis. Importantly, pharmacy staff should be aware of the value of learning from customers' feedback. Gaining treatment experience from customers' feedbacks should be done continuously.

In addition, developing appropriate interactive consultation areas and allocating more pharmacy staff to serve customers' demands regarding the supply of non-prescription medicines, are initiatives that need to be considered and funded by pharmacy owners and pharmacists who are running and managing community pharmacies. Having appropriate interactive consultation spaces for customer-staff transactions, and sufficient pharmacy staff serving customers' demands that enable pharmacy customers to feel pleasant and pharmacy staff to counsel comfortably are important factors contributing to the success of the transactions.

7.4.4 Implications for researchers

Researchers should conduct more studies in the area of community pharmacies and pharmacy practice in Vietnam that can provide evidence to support pharmacy educators to design their training programmes appropriately and feasibly. Some subjects can be updated and added to training programmes based on the findings from conducting the research. The findings from research also support for policy makers designing new policies and for them to adjust implemented policies feasibly. Studies have also suggested that multi-component intervention in education and regulatory enforcement were effective in changing the knowledge and reported practice of pharmacy staff in community pharmacies intervention [120-122, 228]. Findings of a training intervention study, designed to strengthen pharmacy practice in Vietnam, indicated that after interventions, pharmacy staff knowledge was significantly improved on most of the measured indicators. For example, knowledge of dehydration symptoms for diarrhoea increased from 19% to 88%, and for the side effects of emergency contraceptive pills increased from 27% to 77% [228]. So, multi-intervention research should be conducted continuously.

It can be seen from work in the UK and Australia that simulated patient visits with feedback are acceptable to UK pharmacists as a method of improving the quality of consultations for OTC medicines [8] and the use of pseudo-patron visits, as a training tool giving immediate feedback, was an acceptable and effective method of achieving changes in the practice of dealing with non-prescription medicines in community pharmacies in Australia [16]. So, conducting such research in community pharmacies in Vietnam should be initiated.

7.4.5 Implications for health authorities and policy makers

The findings from this research suggested that health authorities should focus their monitoring activities on attitudes and ethical issues of pharmacy staff working in community pharmacies. They should also implement some guidelines for pharmacy staff to help them to take responsibility for ensuring the rational use of medicines, patient safety and time spent on the transaction. It can be learnt from the Australian government that the Quality Care Pharmacy Support Centre (QCPSC) has established and developed a system for monitoring quality standards relating to the provision of non-prescription medicines to consumers in the community pharmacies as a joint venture between the Universities of Australia and the Pharmacy Guild of Australia. The data generated by such a system create a feedback mechanism for policy decision-making in the area of quality use of medicines for non-prescription medicines, which is of critical importance to the health and safety of consumers [14]. In addition, co-operation between health authorities, researchers and educational organisations needs to be developed closely and responsibly.

7.5 Dissemination of the findings

This current research was undertaken with the intent of producing a thesis for submission for the award of a PhD degree, but it is also important to try to disseminate research results to wider parties, including the academic community, educational organisations, health authorities and health care professionals. Findings will be disseminated to participating pharmacies and participants. Various aspects of the research have been reported to a wider audience in the form of peer reviewed posters and oral presentations at conferences and peer reviewed publications. I intend to produce further papers for publication in the future to ensure that the findings of the study are disseminated to audiences who might find such data inform their own research and practice.

7.6 Strengths and limitations

7.6.1 Strengths

To my knowledge, this is the only study that has employed a mixed methods approach to investigate the supply of non-prescription medicines in community pharmacies in Vietnam. The findings from this study are trustworthy as the results from three sources of data and analyses (observations, interviews and survey studies) were triangulated and validated by comparing, contrasting, confirming and complementing in order to provide strong conclusions and recommendations.

The important strength was that this study used a combination of two powerful qualitative research methodological approaches (observations and interviews), alongside a quantitative survey study, to enhance the credibility of the findings. The fieldwork observations enabled a personal first-hand account of how the supply of non-prescription medicines was being performed and managed alongside the provision of other pharmacy services. The interviews with pharmacists and pharmacy assistants allowed them to share their experiences of supplying and selling non-prescription medicines in their own words, which permitted their views to be studied in more depth. The survey research, on the other hand, allowed the provision of non-prescription medicines in community pharmacies to be evaluated and reflected on objectively by pharmacy customers, immediately following a consultation. The triangulation of direct observation with accounts provided by participants in the interviews and pharmacy customers' reports and evaluations in the survey study provided a powerful means of understanding the complexity of supplying non-prescription medicines in community pharmacies in Vietnam.

To my knowledge, this is the first study that has pointed out the limitations of negative attitudes of pharmacy staff in community pharmacies and the need to implement attitude intervention in order to improve the service provision. This shortfall comes as a result of pharmacy staff being solely focused just on short-term profit rather than both short- term and long term benefits, a deficit that could be changed by encouraging those staff members to have a more positive attitude and to take greater responsibility when serving customers' demands regarding the supplying and selling of non-prescription medicines. An attitude intervention is recommended as a sustainable solution for improving the quality of pharmacy services and the competence levels of pharmacy staff in community pharmacies in Vietnam. Pharmacy educators, researchers, health authorities and policy makers should intervene to change attitude of pharmacy staff and pharmacy students by pointing out both the short-term and long-term benefits that can be obtained by adopting positive attitudes and taking greater responsibility when dealing with customers.

In this study, the role of pharmacy staff as psychologists was also pointed out. So, the subject of customer psychology should be included in pharmacy curricula. In addition, communication skills and counselling skills are recommended as compulsory subjects in pharmacy schools both for teaching pharmacy students and the re-training of pharmacy staff. This is also the first study that mentioned that pharmacy staff in Vietnam should gain and learn about treatment experience from customers' feedback.

7.6.2 Limitations

This research project was conducted in five community pharmacies in an urban area of Hanoi, the capital city of Vietnam. From the five pharmacies observed, 22 pharmacists and pharmacy assistants and 505 pharmacy customers were recruited for interviews and survey studies. Although this study gives a snapshot of what is occurring in community pharmacies in Hanoi regarding the supply of non-prescription medicines, it would be better to have a bigger sample size that would enable the findings to generised to the whole population. However, those working in other pharmacies in Vietnam will be in similar situations to those reported here and therefore will be able to learn from this study.

Another well-known limitation to fieldwork observations is the unknown effect of the researcher's presence on the pharmacy staff's behaviour and customers during staff-customers interactions. Pharmacy staff may have also felt pressure to perform to a higher standard as they were aware of being observed by this researcher, a fellow pharmacist. Spending a few days prior to the commencement of the study in community pharmacies enabled participants to get used to the researcher being present. By applying this approach, it was intended to reduce the extent to which pharmacy staff might have been tempted to modify their behaviour as they would have become accustomed to the presence of the researcher.

When selecting transactions to be observed, I immediately selected the next transaction that occurred after I had completed my notes on the previous one. As I had to spend time for taking notes, the immediate next transaction between pharmacy staff and customer could have been missed. So, this limitation may have an influence on the representative of data collected. However, there is no knowledge of what the next transaction could be;

therefore how long it takes me to complete the note is random. So, the impact of selecting transactions to be observed on data colection is likely to be minimal.

My professional background as a pharmacist would have influenced what I perceived as important or relevant in the field and consequently what was recorded. In this way, my own professional prejudices may have also affected my interpretation of the phenomena under study. To address this, attempts were made to remain neutral during data collection and analysis. Regular discussions with supervisors, who were also pharmacists, helped me to consider various viewpoints. Moreover, I have provided a detailed description of my data collection and analysis methods. I have also presented adequate fieldwork data to enable the reader to make his or her own judgements of the findings of this research.

7.7 Future research

The findings from this study have pointed out a number of factors impacting on the supply of non-prescription medicines in community pharmacies in Hanoi, Vietnam. The attitudes and ethics of pharmacy staff were considered as important factors, along with other aspects such as pharmacy settings, customer factors, pharmacy staff knowledge, communication skills, and the convenience of locations, medicine prices and the pharmacy's reputation. However, the intensity of each factor affecting the supply of non-prescription medicines to pharmacy customers needs to be identified. So, based on the findings from this study, a new questionnaire should be developed and factor analysis and multi-regression analysis could be considered in future research in order to identify which factors are more important and their intensity in terms of impacting the services provided for customers. So feasible solutions and interventions can be followed up and implemented

in order of priority to improve the responsible supply and the quality of non-prescription medicines supply appropriately and effectively.

As mentioned in the limitations section, five pharmacies in urban Hanoi were investigated and further research into the real situation of supplying and selling non-prescription medicines in different community pharmacies such as those located in rural areas is needed. In addition, a larger sample size could be considered and conducted that enable the findings to be generalised to a wider population.

Research to investigate the quality of pharmacy education and training and what factors impact on the quality of training and pharmacy practice in community pharmacies, should also be considered. Findings could provide scientific evidence for educational organisations designing and implementing more feasible educational interventions and programmes in schools of pharmacy.

Finally, a long term project that attempts to improve the competence of pharmacy staff working in community pharmacies in Vietnam should be considered. In the next five to ten years, the author, on behalf of the Hanoi University of Pharmacy, would like to carry out a research project that will be designed to enhance the quality of services delivered by community pharmacies in Hanoi, Vietnam.

7.8 Conclusion

In this thesis, the supply of non-prescription medicines via community pharmacies in Hanoi, Vietnam was carefully investigated and evaluated. The triangulation approach and mix-methods were employed in this study in order to provide reliable and trustworthy findings and conclusions. Results from three sources of data - observations, interviews and survey studies - were compared, contrasted, complemented and confirmed. The findings provided valuable insights into factors influencing the supply of non-prescription medicines in community pharmacies and how the service provision could be improved for the benefits of customers.

The findings indicated that the attitudes of pharmacy staff were the major factor influencing the supply of non-prescription medicines in community pharmacies. This process was also affected by the medical and pharmaceutical knowledge and the communication skills of pharmacy staff. The influence of the pharmacy settings, customer factors such as customers' complex and diverse demands, the irrational use of medicines, using medicines following the suggestions of others, and tough customers were all significant factors that impacted on staff-customer transactions. Being conveniently located, pharmacy offering reasonably priced medicines and being a large pharmacy with a good reputation were also considered to be important factors impacting on customer selection of community pharmacies.

One further interesting point was that pharmacy staff are considered, and are required to be psychologists in addition to their role as health care experts, who provided not only medication for treating diseases but also provided psychological advice and support for customers. Also of note is that pharmacy staff perceived that they have more power when

supplying non-prescription medicines as they can delivery treatment decision independently without relying on a GP's instructions, as they have to when supplying prescription medicines.

The results of this research show that there are limitations in pharmacy service provision and there is a discrepancy between pharmacy staff perceptions and actual practice in terms of attitudes. Poor performance, in many situations, did not come from the issue of lack of knowledge; rather it probably resulted from the negative attitudes of pharmacy staff. Such negative attitudes of pharmacy staff are likely to be related to their focus on just short-term profit rather than focusing on a balance between short-term and long-term benefits. So positive attitudes, taking greater responsibility, customer loyalty and long-term benefits were ignored. Poor performance of pharmacy staff, to some extent, was also affected by their education and training. Some educational organisations have commercialised their training activities and paid too much attention to the quantity of graduated students rather than the quality of their education and training.

This study has important implications for the improvement of the supply of non-prescription medicine in Vietnam including the identified needs for attitude interventions and training. New subjects should be added to the pharmacy students' curricula and training should be developed for pharmacy staff in areas such as communication skills, customer psychology, selling skills and patient safety. For pharmacy staff, gaining treatment experience from customers' feedback and keeping up to date with new information should be a continuous activity. Close co-operation between health authorities, policy makers and researchers needs to be developed in conducting further research and implementing appropriate policies in order to improve the service provision in CPs in Vietnam.

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APPENDIX ONE: Health care system in Vietnam

PART 1 THE FUNDAMENTAL INFORMATION

1. LOCATION:

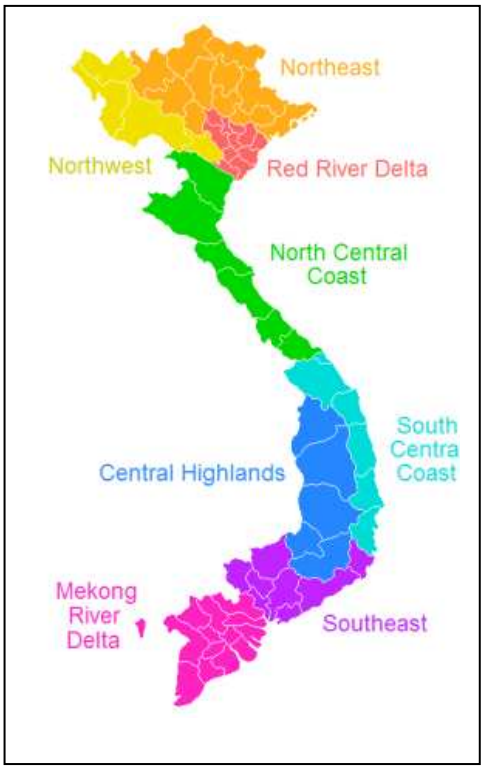
Vietnam is located in the South East Asia area, including countries located in Southern China, Eastern India and Northern of Australia, wide 4,494,047 km ² and includes 11 Nationals: Brunei, Cambodia, Timor-Leste, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam. In 2004, population of the whole area up to 556.2 million.

Vietnam is a country on the Indochinese Peninsula, Pacific coast. Vietnam has a land border with China (1,281 km) Laos (2130 km) and Cambodia (1228 km) and 3444 km long coastline contiguous to Gulf of Tonkin, East Sea and Gulf of Thailand. On the map, strip of land Vietnam Men with S-shaped, extending from latitude 23°23 'North to 8°27 'North, 1650 km long north-south direction, the largest land mass 500 km at the narrowest nearly 50 km.

Maps referenced:
https://www.google.com.vn/search?q=map+of+southeast+asia&source=lnms&tbm=isch&sa=X&ei=61plUpypDZC20QXjjYGQDg&ved=0CAcQ_AUoAQ&biw=1280&bih=672

2. VIETNAM ADMINISTRATIVE UNITS

Socialist Republic of Vietnam



Vietnam has a total area 331,212 km², including approximately 327,480 km² land and more than 4200 km² internal sea marine with more than 2800 islands, beach reef large and small, near and offshore, including Changsha and Paracel which Vietnam claimed; have the local marine, territorial waters, The exclusive economic and continental shelf Government of Vietnam is determined almost three times the land area around 1 million km². North consists of plateaus and delta Red River; Central is a coastal lowland, the plateau in Truong Son Mountain Range And the Southern delta Delta. Vietnam is the highest point 3143 m at peak Fansipan, The Hoang Lien Son mountain. Area farmland constitute 17% of the total land area of Vietnam.

According to Decree No. 92/2006/ND-CP dated 07 September 2006 of the Vietnamese Government, data by region of Vietnam was divided into 6 main socio-economic regions in Vietnam Statistical Yearbook 2008, instead of 8 ones as in the past (see map beside) .

Table 1 Surface area and population of some Asian countries in 2010

	Surface area (Thous.km2)	*Population mid-year 2010 (Mill.pers)*	*Density (Persons/km2)*	*Percent Urban (%)*
Vietnam	331.2	86.9	263	30
Thailand	513	68.1	133	31
Singapore	0.6	5.1	7526	100
Malaysia	330	28.9	87	63

Table 2 Number of administrative units as of 31 December 2011 by province

	Cities under provinces	*Urban districts*	*Towns*	*Rural districts*	*Wards*	*Town districts*	*Communes*
Whole country	55	47	48	548	148	623	9050
Red River Delta	11	17	7	94	400	120	1932
Northern midlands and mountain area	10		8	120	126	143	2275
North Central area and Central coastal area	15	6	12	138	303	148	2467
Central Highlands	5		4	52	77	47	598
South East	2	19	9	39	356	37	479
Mekong River Delta	12	5	8	105	186	128	1299

(*Statistical yearbook of Vietnam 2011*)

PART 2 HEALTH CARE SYSTEMS IN VIETNAM

1. STATISTICAL INDICATORS ON HEALTH IN VIETNAM

1.1. Explanation of terminology, content of some statistical indicators on health

Health establishment is the place where patients are examined, treated and taken care of, including hospital, sanatorium and rehabilitation hospital, regional polyclinic, commune health center (grassroots-level health unit), medical service unit in offices, enterprises and other health units.

• *Hospital* is a health establishment with the coverage: having specialized wards, surgeon rooms, testing room, equipment for disease diagnosis, health staff like doctors, physicians, nurses, etc. Its functions are to take care of people's health, examine and treat in-patients and outpatients, disease prevention, educate health for people, study and train staff. Hospitals must be recognized by the Ministry of Health and are classified by management levels such as provincial hospitals or district hospitals. Hospital may be general or specialized one.

• *Sanatorium and rehabilitation hospital* is a health establishment receiving those who need to be improve health.

• *Regional polyclinic* is a health establishment to examine and treat people in the district, town or a group of communes.

• *Commune health center (grassroot-level health unit)* is the first place to provide health care services including primary health care, first aid, protection of mothers and children, family planning, discovering and reporting epidemic diseases to the upper level.

• *Medical service unit in offices, enterprises* is a health establishment giving examination, treatment and medicine to the staff of the offices or enterprises.

• *Other health units* are the health establishments such as tuberculosis, dermatology and venereology, vision testing units, leprosy treatment center, and antenatal clinic.

Patient bed is the bed used for patients during their treatment at the health establishments. This excludes beds for persons on duty, and beds in the examining and waiting rooms.

1.2. Some statistical indicators on Health

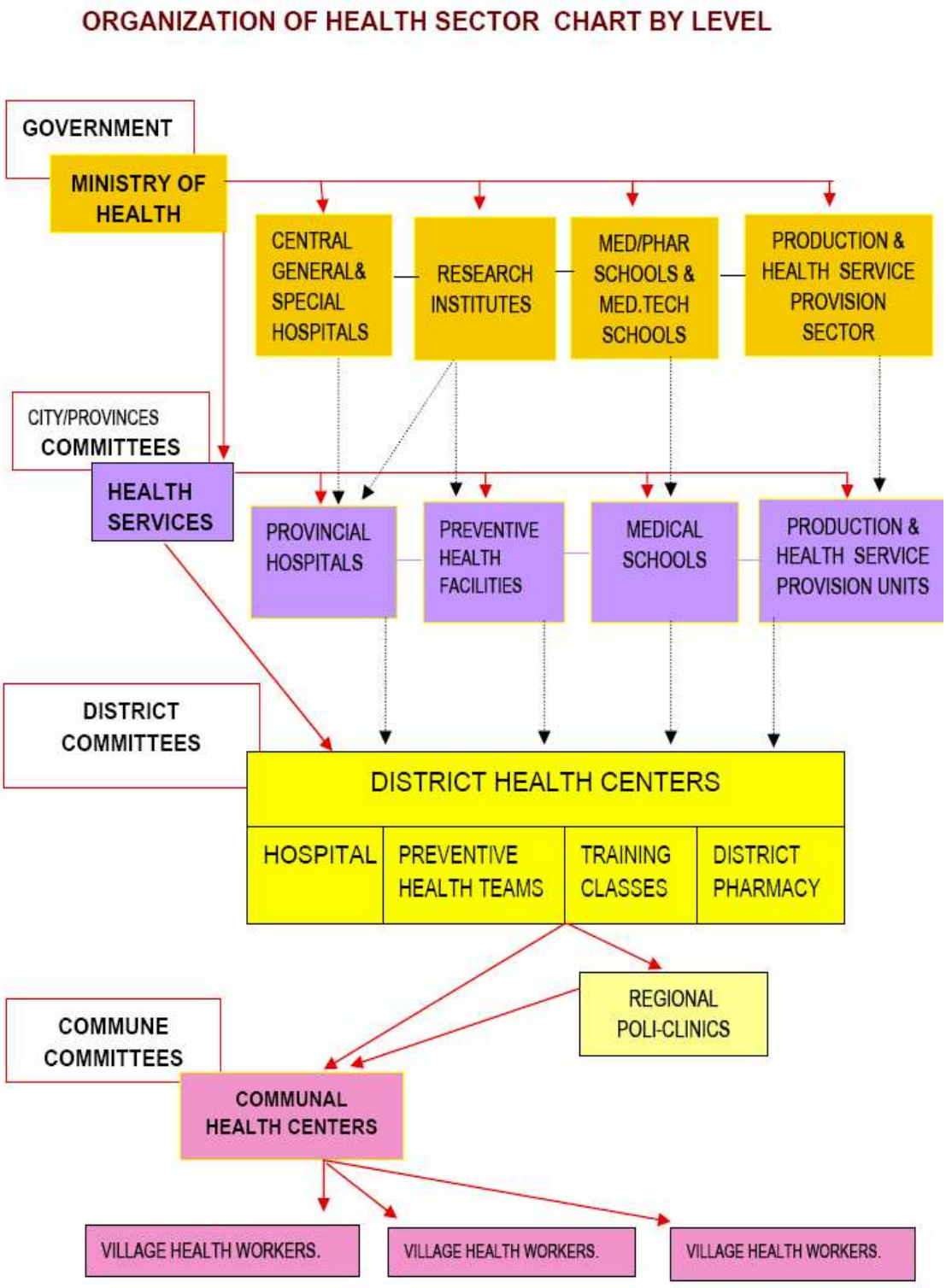


Table 3 Life expectancy and birth rate in 2011

	Birth rate (%)	*Death rate (%)*	*Nature increase rate (%)*	*Life expectancy at birth (year)*		
				Total	Male	Female
Vietnam	17	7	1.0	74	72	76
Thailand	15	9	0.6	69	66	72
Singapore	10	4	0.6	81	78	83
Malaysia	21	5	1.6	74	72	77

Table 4 Number of health establishments (*)

	2000	**2005**	**2008**	**2009**	**2010**	**2011**
TOTAL (Unit)	13117	13243	13460	13450	13467	13506
Hospital	835	878	974	1002	1030	1040
Regional polyclinic	936	880	781	682	622	620
Sanatorium & rehabilitation	92	53	40	43	44	59
Medical service units in communes	10271	11382	11627	11689	11738	11757
Medical service units in enterprises	918	769	710	710	710	710

(*) Excluding private establishments

Table 5 Number of health establishments in 2011 by management level (*)

		Total	Under direct management of health industry		Under others
			Ministry of Health	Provincial department of health	
TOTAL	Units	13506	46	12679	781
	Index (Previous year=100)-%	100.3	97.9	100.1	103.7
Hospital	Units	1040	43	971	26
	Index (Previous year=100)-%	101.0	102.4	100.5	118.2
Regional polyclinic	Units	620	2	600	18
	Index (Previous year=100)-%	99.7	100.0	98.5	163.6
Sanatorium & rehabilitation	Units	59	1	31	27
	Index (Previous year=100)-%	134.1	100.0	93.9	270.0
Medical service units in communes	Units	11757		11047	710
	Index (Previous year=100)-%	100.2		100.2	100.0
Medical service units in enterprises	Units	710			710
	Index (Previous year=100)-%	100.0			100.0
Others	Units	38	2	36	
	Index (Previous year=100)-%	92.7	100.0	92.3	

(*) Excluding private establishments

Table 6 Number of health establishments under provincial department of health in 2008 by province (*)

	TOTAL	*Of which*			
		Hospital	*Regional polyclinic*	*Sanatorium and rehabilitation hospital*	*Medical service unit in communes*
Whole country	12679	971	600	31	11047
Red River Delta	2752	212	68	7	2454
Northern midlands and mountain area	2944	193	221	7	2517
North Central area and Central coastal area	3286	225	132	11	2912
Central Highlands	848	71	49	2	722
South East	1025	113	36	2	872
Mekong River Delta	1824	157	94	2	1570

(*) Excluding private establishments

Table 7 Number of patient beds (*)

Units: *Thous.beds*

		2000	2005	2008	2009	2010	2011
TOTAL	Units	192.0	197.3	219.8	232.9	246.3	266.7
	Index (Previous year=100)-%	98.0	100.5	104.2	106.0	105.7	108.3
Hospital	Units	110.7	127.0	151.8	163.9	176.6	195.5
	Index (Previous year=100)-%	100.7	102.2	106.3	108.0	107.7	110.7
Regional polyclinic	Units	9.4	9.3	8.7	8.1	7.7	7.7
	Index (Previous year=100)-%	90.4	103.3	94.4	93.2	94.7	100.6
Sanatorium & rehabilitation	Units	12.2	7.7	4.3	4.9	5.0	6.3
	Index (Previous year=100)-%	93.1	96.3	97.8	111.8	103.4	125.8
Medical service units in communes	Units	49.1	51.2	53.0	54.4	55.3	55.6
	Index (Previous year=100)-%	99.6	96.9	101.4	93.2	101.6	100.6
Medical service units in enterprises	Units	8.3	5.4	5.0	5.0	5.0	5.0
	Index (Previous year=100)-%	78.3	65.9	100.0	100.0	100.0	100.0
Patient bed per 10000 inhabitant (Bed)	Units	24.7	17.7	19.6	20.7	22.0	24.0
	Index (Previous year=100)-%	96.7	100.6	104.3	105.6	106.3	106.3

(*) Excluding private establishments

Table 8 Number of health staffs (*)

Units: *Thous.pers*

		2000	2004	2005	2006	2007	2008
Medical staff							
Doctor per 10000 inhabitant (Pers.)	Units	5.0	6.1	6.2	6.3	6.4	6.6
	Index (Previous year=100)-%	104.2	105.2	101.6	101.6	101.6	103.9
Doctor	Units	39.2	50.1	51.5	52.8	54.8	57.3
	Index (Previous year=100)-%	105.7	106.1	102.7	102.6	103.8	104.6
Physician	Units	58.8	49.2	51.6	55.4	60.3	65.1
	Index (Previous year=100)-%	99.2	101.0	100.9	98.4	100.0	102.0
Nurse	Units	46.2	49.2	51.6	55.4	60.3	65.1
	Index (Previous year=100)-%	101.5	103.0	104.8	107.5	108.9	107.8
Midwife	Units	14.2	17.5	18.1	19.0	20.8	23.0
	Index (Previous year=100)-%	104.4	107.6	103.5	105.1	109.4	110.4
Pharmaceutical staff							
Pharmacists of high degree	Units	6.0	5.6	5.6	5.5	5.7	5.8
	Index (Previous year=100)-%	103.4	99.3	99.8	98.4	103.8	102.6
Pharmacists of middle degree	Units	7.8	9.1	9.5	10.8	12.4	13.9
	Index (Previous year=100)-%	109.9	94.0	104.8	113.3	114.7	112.4
Assistant pharmacist	Units	9.3	7.9	8.1	7.9	8.5	8.6
	Index (Previous year=100)-%	100.0	84.4	102.5	97.0	108.4	100.9

(*) Excluding private establishments

Table 9 Number of medical staffs under provincial department of health

In 2011 by province (*)

	Doctor	*Physician*	*Nurse*	*Midwife*
Whole country	50400	52525	74362	26610
Red River Delta	11479	9726	15434	4629
Northern midlands and mountain area	7742	12100	11833	4199
North Central area and Central coastal area	10257	11918	14717	6429
Central Highlands	2980	2501	4653	1873
South East	9141	4905	16066	4323
Mekong River Delta	8801	11375	11659	5157

(*) Excluding private establishments

Table 10 Number of pharmaceutical staffs under provincial department of health

In 2011 by province (*)

	Pharmacists of high degree	Pharmacists of middle degree	Assistant pharmacist
Whole country	3752	19257	4725
Red River Delta	1099	2950	1833
Northern midlands and mountain area	489	2714	575
North Central area and Central coastal area	614	3298	981
Central Highlands	120	1007	146
South East	563	2863	597
Mekong River Delta	867	6425	593

(*) Excluding private establishments

APPENDIX TWO: Approval letter for the study

MINISTRY OF HEALTH
Hanoi University of Pharmacy

No.: 658/HĐĐĐ
For approval of Ethics Committee

SOCIALIST REPUBLIC OF VIETNAM
Independence-Freedom-Happiness

Hanoi, 29 December 2010

APPROVAL OF ETHICS COMMITTEE

In – Biomedical and Social Research

Pursuant to decision No: 203/QĐ-DHN dated 29th May 2009 for establishing of Ethics Committee for approving science and technology protocols.

Base on the minutes of the meeting of Ethics Committee dated 8th December 2010.

The following study project was approved by Ethics Committee on ethical aspects:

1. Study project: "***An investigation of quality of supply of non-prescription medicines in community pharmacies in Hanoi-Vietnam***".
2. Principal investigator: Do Xuan Thang, Msc.
3. The presiding office: The University of Nottingham, School of Pharmacy.
4. Place of conducting research: Hanoi-Vietnam.
5. The study period: 06 months

Date of approval: 9th December 2010

President of Ethics Committee

TRƯỜNG ĐẠI HỌC DƯỢC HÀ NỘI
HIỆU TRƯỞNG

Prof. Le Viet Hung PhD

Secretary of Ethics Committee

Nguyen Manh Pha PhD

APPENDIX ONE: APPROVAL LETTERS FOR THE STUDY (Vietnamese version)

BỘ Y TẾ Trường Đại học Dược HN	CỘNG HOÀ XÃ HỘI CHỦ NGHĨA VIỆT NAM Độc lập - Tự do - hạnh phúc
Số : 658 / HĐĐĐ *V/V Chấp thuận các vấn đề ĐĐNCYSH*	*Hà Nội, ngày 29 tháng 12 năm 2010*

CHẤP THUẬN (CHO PHÉP) CỦA HỘI ĐỒNG ĐẠO ĐỨC TRONG NGHIÊN CỨU Y SINH HỌC

* Căn cứ Quyết định số 203/QĐ-DHN ngày 29 tháng 5 năm 2009 của Hiệu trưởng trường Đại học Dược HN về việc thành lập Hội đồng Đạo đức trong nghiên cứu Y sinh học của các đề tài.

* Trên cơ sở biên bản họp Hội đồng Đạo đức trong nghiên cứu Y sinh học ngày 08 tháng 12 năm 2010 (có biên bản kèm theo) .

Nay, Hội đồng Đạo đức trong nghiên cứu Y sinh học của trường Đại học Dược Hà nội chấp thuận (cho phép) về các khía cạnh đạo đức trong nghiên cứu đối với đề tài:

1. Tên đề tài: **Nghiên cứu chất lượng hoạt động cung ứng thuốc không kê đơn OTC tại một số nhà thuốc trên địa bàn Hà Nội - Việt Nam.**
2. Chủ nhiệm đề tài: ThS. Đỗ Xuân Thắng
3. Cơ quan chủ trì đề tài: Trường Đại học Dược Nottingham Vương Quốc Anh
4. Địa điểm triển khai nghiên cứu: Tại Hà Nội – Việt Nam
5. Thời gian nghiên cứu: 06 tháng

Ngày chấp thuận (cho phép): 09 tháng 12 năm 2010.

Chủ tịch Hội đồng	Thư ký hội đồng
HIỆU TRƯỞNG TRƯỜNG ĐẠI HỌC DƯỢC HÀ NỘI	
PGS.TS. Lê Viết Hùng	**TS. Nguyễn Mạnh Pha**

(English version)

APPENDIX THREE: Participant information sheet

Title of Project: **An investigation of non-prescription medicines supply in community pharmacies in Vietnam**

PARTICIPANT INFORMATION SHEET

(For pharmacists and pharmacy staff)

We would like to invite you to take part in a research study. Before you decide whether you want to be involved in the study, it is important that you understand what the study is about and what taking part will mean to you. Please take time to read the information carefully. Talk to others about the study if you wish. This information sheet tells you the purpose of this study and what will happen to you if you take part. Please ask us if there is anything that is not clear or if you would like more information and take time to decide whether or not you wish to take part.

What is the purpose of the study?

This study aims to explore in depth the sale of non-prescription or over the counter (OTC) medicines in community pharmacies in Hanoi, Vietnam.

The overall aim of this study is to investigate and evaluate the quality of non-prescription or OTC medicine supply in term of knowledge and practical skills (questions, advice and counselling skills given by pharmacy staff) in community pharmacies in Hanoi, Vietnam.

Why have I been asked to participate in the study?

We have chosen five community pharmacies, their pharmacists and staff to take part in this study. We are interested in observing the pharmacist and staff selling OTC medicines and speaking to them about their experiences of selling non-prescription medicines.

Do I have to take part?

Taking part in this study is entirely your choice. You do not have to take part in the study. Only make a decision once you have had the chance to read this information sheet and asked us any questions you might have. The researcher will describe the study and go

through this information sheet, which is yours to keep. The researcher will then ask you to sign a consent form to show you have agreed to take part (you will be given a copy to keep). You are free to withdraw at any time, without giving a reason.

What will happen to me if I take part?

If you agree to take part in this study:

Observations: the researcher will spend a period of one week observing you (pharmacist & pharmacy staff) during your normal work at your pharmacy.

Interviews: You will be invited to take part in an interview. The researcher will ask you questions about your opinions on the quality of supply of OTC medicines delivered in pharmacy. You will have the opportunity to choose the venue, time and date that you want the interview to take place. You will be sent a letter confirming the details of your interview. If you are unable to make your interview appointment for whatever reason, don't worry. Please let us know and we will arrange a more suitable time. Interviews are expected to last between 30 minutes to one hour, and with your permission, will be audio-recorded. Also with your permission we may use direct quotes from the interview material in any publication of the results but you will not be identified.

Can I change my mind once I have signed the consent form?

If you have agreed to take part in the study, and for whatever reason you are unable to or change your mind and want to withdraw, that is absolutely fine. If you initially decided not to take part, and would now like to be involved that is OK too. All you need to do is contact us and let us know.

Will I be paid for taking part in the study?

No, you will not receive any money for taking part in this study. Your participation is on a voluntary basis.

What are the possible benefits of taking part?

It is unlikely that you will benefit directly from taking part in the study, however the information collected as part of this study may help improve the quality of OTC medicine supply through the design of training materials or information for pharmacists, pharmacy staff and customers.

What are the risks of taking part in this study?

This project involves a researcher observing you at work. This study also involve in interview. We believe that the risks of taking part in this project are minimal.

What happen if something goes wrong?

If you have any concerns or complaints concerning any aspect of this study, please speak to the researcher who will do his best to answer your questions (contact Do Xuan Thang on Tel No: 00 44 (0)115 9513417(in the UK) or mobile 0913229565 (in Vietnam) or email paxtd@nottingham.ac.uk).

If you would prefer to have your complaint with academic persons or you would like to make a formal complaint, you may contact the academic supervisors of this project.

Academic Supervisors	Email
Professor Claire Anderson	Claire.Anderson@nottingham.ac.uk
Dr Helen Boardman	Helen.boardman@nottingham.ac.uk

Will the information provided be kept confidential?

All information which is collected about you during the course of this research will be kept confidential, and any private information about you will have the name, address and any other identifying features stored separately so that you cannot be recognised.

Will the information be handled and stored safely?

The overall responsibility for handling any information you provide during the course of this study lies with Do Xuan Thang. The information you provide us will be held on secure password protected computers, researcher's laptop and/or in a locked and secure drawer or filling cabinet in the office at the University of Nottingham.

Who will have access to the data collected during the study?

Only the research team involved and the University (for Research Governance purposes) will have access to the collected data. The data collected will be stored at the University of Nottingham for 7 years following completion of the study.

What will happen to the results of the study?

We will send you a short summary of the findings of this study. We will also present results at conferences and write journal articles so that other people can learn from our study. No findings will have any of your personal information.

Who is organising and funding this research?

This study is being organised by Do Xuan Thang as a part of a requirement for completion of an educational qualification (PhD) at University of Nottingham. This study is conducted under the supervision of Prof Claire Anderson and Dr Helen Boardman from School of Pharmacy, University of Nottingham.

This research project is funded by Vietnamese government, Ministry of Education and Training (MOET).

Who has reviewed this study?

Before any research project is allowed to go ahead, it has to be checked by a Research Ethics Committee to protect your safety, rights, wellbeing and dignity. They make sure that the research is fair. This project is supported by pharmacy owners who have given us permission to do this study in their pharmacies.

Who should I contact for further information?

If you need further information about this study please feel free to contact us on the details provided below:

Name of researcher: **Do Xuan Thang**,

Tel No: 00 44 (0)115 9513417(in the UK) or mobile 0913229565 (in Vietnam)

Email: paxtd@nottingham.ac.uk

PhD student, School of Pharmacy, University of Nottingham, UK

Thank you for reading this information sheet

Please don't hesitate to ask me any questions if you need to

APPENDIX THREE (VIETNAMESE version)

Tên đề tài: **Nghiên cứu hoạt động cung ứng thuốc không kê đơn (OTC) tại hệ thống nhà thuốc trên địa bàn Hà nội, Việt nam**

THÔNG TIN CHO NGƯỜI THAM GIA VÀO NGHIÊN CỨU

(Cho dược sỹ và cán bộ dược tại nhà thuốc)

Chúng tôi rất vui được mời Anh(chị) tham gia vào nghiên cứu này. Trước khi Anh(chị) quyết định tham gia, điều quan trọng là anh(chị) hiểu nghiên cứu này nghiên cứu về vấn đề gì và việc tham gia của Anh(chị) là như thế nào. Xin hãy dành thời gian đọc những thông tin này một cách cẩn thận. Trao đổi với những người khác về nghiên cứu nếu anh(chị) muốn. Bản thông tin này giới thiệu với anh(chị) về mục tiêu của nghiên cứu này và điều gì sẽ đến với anh(chị) khi tham gia vào nghiên cứu. Xin hãy hỏi chúng tôi nếu có điều gì đó chưa rõ hoặc nếu anh(chị) cần thêm thông tin và thời gian để quyết định có tham gia vào nghiên cứu hay không.

Mục tiêu của nghiên cứu này là gì?

Nghiên cứu này nhằm có sự hiểu biết một cách sâu sắc về thực trạng bán, cung ứng thuốc không kê đơn (OTC) tại hệ thống nhà thuốc tại Hà nội, Việt nam.

Mục tiêu khái quát của nghiên cứu này là đánh giá chất lượng hoạt động cung ứng thuốc không kê đơn (OTC) trên các tiêu chí về kiến thức và kỹ năng thực hành (những câu hỏi, lời khuyên và kỹ năng tư vấn được đưa ra bởi dược sỹ và nhân viên nhà thuốc) tại hệ thống nhà thuốc tại Hà nội, Việt nam.

Tại sao tôi lại được đề nghị tham gia vào nghiên cứu?

Chúng tôi lựa chọn năm nhà thuốc và một số dược sỹ, nhân viên giúp việc tại nhà thuốc tham gia vào nghiên cứu này. Với tư cách là người cung cấp thuốc không kê đơn OTC và dịch vụ liên quan tới thuốc OTC, anh(chị), nhà thuốc của anh(chị) và các nhân viên nhà thuốc đều có thể tham gia vào nghiên cứu. Chúng tôi quan tâm tới việc quan sát hoạt đông

của dược sỹ và nhân viên nhà thuốc trong việc cung ứng thuốc OTC và trao đổi với họ về kinh nghiệm liên quan tới dịch vụ mà họ cung ứng.

Tôi có phải tham gia vào nghiên cứu?

Tham gia vào nghiên cứu hoàn toàn là sự lựa chọn của anh(chị). Anh(chị) cũng có thể không tham gia vào nghiên cứu. Chỉ đưa ra quyết định một khi anh(chị) có cơ hội đọc thông tin được cung cấp và hỏi chúng tôi bất kỳ câu hỏi nào mà anh(chị) thấy cần. Người nghiên cứu sẽ mô tả nghiên cứu này và đi dọc bản thông tin này, mà bạn sẽ giữ một bản. Chúng tôi sẽ đề nghị anh(chị) ký vào bản đồng ý tham gia vào nghiên cứu (anh(chị) sẽ được giữ một bản). Anh(chị) cũng hoàn toàn có thể rút khỏi nghiên cứu vào bất kỳ thời gian nào mà không cần phải đưa ra bất cứ lý do gì.

Điều gì sẽ xảy ra khi tôi tham gia vào nghiên cứu?

Nếu anh(chị) đồng ý tham gia vào nghiên cứu này:

Nghiên cứu quan sát: Người nghiên cứu sẽ dành một khoảng thời gian là một tuần quan sát anh(chị) (dược sỹ và nhân viên nhà thuốc) trong thời gian làm việc bình thường tại nhà thuốc của anh(chị).

Nghiên cứu phỏng vấn: Anh(chị) sẽ được mời tham gia vào một buổi phỏng vấn. Người nghiên cứu sẽ hỏi các câu hỏi về ý kiến của anh(chị) về chất lượng hoạt động cung ứng thuốc OTC tại nhà thuốc. Anh(chị) sẽ có cơ hội lựa chọn địa điểm, thời gian cho buổi phỏng vấn. Anh(chị) cũng sẽ nhận được thư xác nhận chi tiết về buổi phỏng vấn. Nếu như anh(chị) không thể thực hiện buổi phỏng vấn như đã sắp xếp vì bất cứ lý do gì, xin đừng lo lắng. Xin hãy cho chung tôi biết và chúng tôi sẽ thu xếp một thời gian phù hợp với anh(chị). Thời gian cho buổi phỏng vấn thường là từ 30 phút tới 1 giờ và được ghi âm lại với sự cho phép của anh(chị). Cùng với sự cho phép của các anh(chi), chúng tôi có thể trích dẫn thông tin từ dữ liệu phỏng vấn cho luận án và các bài báo nhưng sẽ không nêu tên trực tiếp của anh(chi).

Tôi có thể thay đổi ý kiến một khi tôi đã ký vào bản cam kết tình nguyện tham gia nghiên cứu?

Nếu anh(chị) đã đồng ý tham gia vào nghiên cứu, và vì bất cứ lý do gì anh(chị) không thể tham gia hoặc thay đổi ý kiến và muốn rút khỏi nghiên cứu, điều này là hoàn toàn bình thường. Nếu lúc đầu anh(chị) đã quyết định không tham gia, và bây giờ lại muốn tham gia vào nghiên cứu, điều này cũng rất tốt. Tất cả những gì Anh(chị) muốn, xin hãy liên lạc với chúng tôi và cho chúng tôi biết.

Tôi có được trả tiền cho việc tham gia vào nghiên cứu?

Không, anh(chị) sẽ không nhận được tiền cho việc tham gia vào nghiên cứu. Sự tham gia của anh(chị) vào nghiên cứu là hoàn toàn tự nguyện.

Những lợi ích gì có thể có từ việc tham gia vào nghiên cứu?

Chúng tôi không thể nói là nghiên cứu này sẽ mang lại lợi ích trực tiếp cho anh(chị), tuy nhiên, những thông tin chúng tôi có được từ nghiên cứu này có thể giúp cho việc nâng cao chất lượng hoạt động cung ứng thuốc tại hệ thống nhà thuốc trong tương lai thông qua việc thiết kế thông tin và phương tiện để đào tạo cho dược sỹ và khách hàng.

Những nguy hại có thể có từ việc tham gia vào nghiên cứu?

Trong nghiên cứu này, người nghiên cứu sẽ tham gia vào việc quan sát hoạt động của anh(chị) tại nhà thuốc. Nghiên cứu này cũng bao gồm việc mời anh(chị)tham gia vào buổi phỏng vấn. Chúng tôi tin tưởng rằng, những nguy hại từ việc tham gia vào nghiên cứu là không đáng kể.

Điều gì sẽ xảy ra nếu có vấn đề gì đó không đúng?

Nếu anh(chị) có bất kỳ quan ngại hoặc thắc mắc liên quan tới bất kỳ khía cạnh nào của nghiên cứu, Xin hãy trao đổi với người làm nghiên cứu, người mà sẽ cố gắng trả lời các câu hỏi của anh(chị) một cách tốt nhất (liên hệ Đỗ Xuân Thắng theo số 0913229565 hoặc email paxtd@nottingham.ac.uk).

Nếu anh(chị) muốn chia sẻ thắc mắc với một ai đó hoặc anh chị muốn có thắc mắc mang tính chính thống, anh(chị) có thể liên lạc với cán bộ hướng dẫn khoa học của dự án này.

Cán bộ hướng dẫn khoa học	Email
Giáo sư Claire Anderson	Claire.Anderson@nottingham.ac.uk
Tiến Sỹ Helen Boardman	Helen.boardman@nottingham.ac.uk

Những thông tin đã cung cấp sẽ được giữ bí mật?

Những thông tin thu thập được từ anh(chị) trong quá trình nghiên cứu sẽ được giữ bí mật, và bất kỳ thông tin nào liên quan tới tên, địa chỉ của anh chị và các đặc điểm nhận dạng khác sẽ được lưu giữ riêng biệt để giữ bí mật và không ai có thể nhận ra anh(chị).

Thông tin sẽ được bảo quản và lưu gữi an toàn?

Người thực hiện nghiên cứu (Đỗ Xuân Thắng) sẽ có trách nhiệm lưu giữ và bảo quản những thông tin thu thập được từ quá trình nghiên cứu. Những thông tin anh(chị) cung cấp sẽ được lưu giữ trong máy tính, laptop của người nghiên cứu có mật khẩu hoặc trong hệ thống tủ có khóa của người nghiên cứu tại trường ĐH Dược Nottingham.

Ai là người có thể tiếp cận dữ liệu trong quá trình nghiên cứu?

Chỉ có thành viên nhóm nghiên cứu có thể tiếp cận nguồn dữ liệu nghiên cứu. Thông tin được thu thập sẽ được lưu giữ bởi người nghiên cứu tại trường Đại học Dược Nottingham trong thời gian 7 năm sau khi hoàn thành nghiên cứu.

Điều gì sẽ đến đối với kết quả nghiên cứu?

Chúng tôi sẽ gửi thông tin tóm tắt về kết quả nghiên cứu tới anh(chị). Chúng tôi cũng sẽ trình bày kết quả nghiên cứu tại các hội nghị khoa học và viết bài đăng báo để mọi người có thể học được từ nghiên cứu của chúng tôi. Không một kết quả nào sẽ nêu thông tin cá nhân của anh(chị).

Ai là người tổ chức thực hiện và tài trợ cho nghiên cứu này?

Nghiên cứu này được tổ chức thực hiện bởi nghiên cứu sinh Đỗ Xuân Thắng như là một phần trong yêu cầu cho việc hoàn thành chương trình đào tạo tiến sỹ Dược tại trường Đại học Dược Nottingham. Nghiên cứu này được thực hiện dưới sự hướng dẫn của Giáo sư Claire Anderson và Tiến sỹ Helen Boardman từ trường Đại học Dược Nottingham.

Nghiên cứu này được thực hiện với nguồn học bổng của Bộ giáo dục và đào tạo Việt nam Ministry of Education and Training of Vietnam (MOET).

Ai sẽ xem xét nghiên cứu này?

Trước khi nghiên cứu này được cho phép triển khai, nó sẽ được kiểm tra bởi Hội đồng đạo đức trong nghiên cứu để đảm bảo quyền lợi, tính an toàn và sự thoải mái cho anh(chị). Họ phải đảm bảo rằng nghiên cứu này có tính công bằng, hợp lý. Nghiên cứu này cũng nhận được sự hỗ trợ từ các dược sỹ, chủ nhà thuốc, những người đã cho phép chúng tôi thực hiện nghiên cứu này tại nhà thuốc của họ.

Ai là người tôi có thể liên hệ để biết thêm thông tin?

Nếu anh(chị) cần thêm bất cứ thông tin gì về nghiên cứu này xin hãy vui lòng liên hệ với chúng tôi theo địa chỉ được cung cấp chi tiết dưới đây:

Tên người nghiên cứu: **Đỗ Xuân Thắng**, Tel: 00 84 (0) 913229565

Email: paxtd@nottingham.ac.uk

Nghiên cứu sinh tiến sỹ, Trường Đại học Dược Nottingham, Vương Quốc Anh

Giảng viên Trường Đại học Dược Hà nội, Bộ môn Quản lý & Kinh tế Dược

Cảm ơn Anh(chị) đã dành thời gian đọc bản thông tin này

Nếu anh(chị) có bất cứ câu hỏi nào, xin đừng e ngại, hãy hỏi chúng tôi

(English version)

APPENDIX FOUR: Consent form

CONSENT FORM

Title of Project: **An investigation of non-prescription medicines supply in community pharmacies in Vietnam**

Name of researcher: Do Xuan Thang

Please initial the box at the end of each statement:

1. I confirm that I have read and understand that information sheet for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my legal rights being affected. ☐
3. I understand that relevant data collected during the study, may be looked at by responsible individuals from The University of Nottingham. I give permission for these individuals to have access to this data. ☐
4. I give my consent for the interview to be audio-recorded and the observation as described in the information sheet. ☐
5. I give my consent for anonymised direct quotes to be used in reports and publications. ☐
6. I agree to take part in the above study. ☐

_____	_____	_____
Name of Participant	Date	Signature
Do Xuan Thang	_____	_____
Researcher	Date	Signature

When completed, 1 for participant; 1 for researcher

Patient identification number for this study:

APPENDIX FOUR (Vietnamsese version)

The University of Nottingham

BẢN CAM KẾT TÌNH NGUYỆN THAM GIA NGHIÊN CỨU

Tên đề tài: **Nghiên cứu hoạt động cung ứng thuốc không kê đơn (OTC) tại hệ thống nhà thuốc trên địa bàn Hà nội, Việt nam**

Tên người nghiên cứu: Đỗ Xuân Thắng

Xin hãy tích vào các ô ở cuối mỗi tình huống sau:

1. Tôi xác nhận là tôi đã đọc và hiểu những thông tin về nghiên cứu trên đây. Tôi đã có cơ hội cân nhắc các thông tin, hỏi các câu hỏi và nhận được câu trả lời thỏa đáng. ☐
2. Tôi hiểu rằng sự tham gia của tôi là tự nguyện và tôi có thể rút khỏi nghiên cứu bất cứ lúc nào mà không phải đưa ra bất cứ lý do giải thich gì. ☐
3. Tôi hiểu rằng dữ liệu thu thập được từ quá trình nghiên cứu có thể được xem bởi các cá nhân có trách nhiệm từ trường Đại Học Dược Nottingham, Vương Quốc Anh.Tôi cho phép các cá nhân trên có thể tiếp cân các thông tin đó. ☐
4. Tôi đồng ý cho phép ghi âm cuộc phỏng vấn và quan sát tại nhà thuốc như đã nêu trong phần thông tin cung cấp. ☐
5. Tôi đồng ý cho phép việc trích dẫn không nêu tên được sử dụng trong các báo cáo và các bài báo được phát hành. ☐
6. Tôi đồng ý tham gia vào nghiên cứu trên. ☐

_____ _____ _____

Tên người tham gia nghiên cứu Ngày Chữ ký

Đỗ Xuân Thắng _____ _____

Tên người nghiên cứu Ngày Chữ Ký

Sau khi hoàn thành, 1 bản cho người tham gia nghiên cứu; 1 bản cho người nghiên cứu

Mã của người tham gia vào nghiên cứu:

APPENDIX FIVE: Observation sheet **(English version)**

OBSERVATION SHEET

Date:……Time……Note: ……

Location……

Code	**Headings**	**Client:**	
		Descriptions	Reflections
0	Requests from customers		
1	Clarify/identify patients		
2	Seek information about symptoms/condition of patients (including how long and severity that symptoms have been present)		
3	Obtain patient's medication history and/or current medication treatment being used/tried		
4	Select medicines for patient's treatment		
5	Provide advice for the use of selected/recommended medicines		
6	Others counselling or advice provided		
7	Communication skills applied: Verbal, non-verbal, style		

APPENDIX FIVE (Vietnamese version)

BẢNG ĐỊNH HƯỚNG QUAN SÁT TẠI NHÀ THUỐC

Ngày:…… Thời gian ……Note: …….

Địa điểm ……

No	**Nội dung**	**Khách hàng:**	
		Mô tả	Reflections
0	Yêu cầu của khách hàng		
1	Xác định ai là người sẽ sử dụng thuốc		
2	Tìm kiếm những thông tin về triệu chứng bệnh của người bệnh (bao gồm thời gian xuất hiện triệu chứng và mức độ nặng nhẹ)		
3	Tìm hiểu tiền sử sử dụng thuốc của người bệnh và/ hoặc liệu pháp điều trị đang được sử dụng		
4	Lựa chọn thuốc cho việc điều trị của bệnh nhân		
5	Hướng dẫn sử dụng thuôc đã lựa chọn/giới thiệu, cung ứng		
6	Một số lời khuyên hoặc tư vấn khác được đưa ra		
7	Các kỹ năng giao tiếp đã áp dụng: ngôn ngữ và phi ngôn ngữ, phong cách giao tiếp		

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APPENDIX SIX: Interview schedule **(English version)**

Semi-structured interview schedule

(For pharmacist and pharmacy staff)

Today, we are talking about OTC medicines and I would like to ask you questions about supplying OTC medicines for customers.

1. How do you feel about sale of OTC medicines in general?
2. Would you please tell me some of your experiences selling OTC medicines in community pharmacy?
3. What do you enjoy about selling OTC medicines? How do you feel?
4. What do you think you do best and/or find most difficult when selling OTC medicines?
5. What happens when customers come to pharmacy and describe their symptoms/conditions or ask for help?
6. What happen when customers come to your pharmacy with a direct request for a non-prescription medicine?
7. In your opinion, what are factors that affect to the quality of the pharmacy service delivered when supplying OTC medicines in your community pharmacy?
8. In your opinion, what do you think is the most important thing to consider when supplying non-prescription medicines for patients?
9. In your opinion, what should pharmacists and pharmacy staff do when supplying OTC medicines for patients in order to ensure a good quality service?
10. What do you generally think about the real situation of non-prescription medicines supply in community pharmacies in Hanoi?

Discuss some issues raised from observations.

Personal information

1. Interviewee's gender: ☐ Male ☐ Female

2. Interviewee's age?

   ☐ 20 to 25 ☐ 40 to 49

   ☐ 26 to 29 ☐ 50 to 59

   ☐ 30 to 39 ☐ 60 – 69

3. Interviewee's degree (what training did they have?):

   ☐ Masters or higher degree

   ☐ Pharmacist

   ☐ Assistant pharmacist

   ☐ Shop assistant

4. How long have you been working in community pharmacy?

   ☐ Less than 1 year ☐ 1 to 3 years

   ☐ 3 to 5 years ☐ 5 to 10 year

   ☐ 10 to 20 years ☐ More than 20 years

5. How long have you been working in this community pharmacy?

   ☐ Less than 1 year ☐ 1 to 3 years

   ☐ 3 to 5 years ☐ 5 to 10 year

   ☐ 10 to 20 years ☐ More than 20 years

APPENDIX SIX (Vietnamese version)

Kế hoạch phỏng vấn bán cấu trúc

(Cho dược sỹ và nhân viên nhà thuốc)

Hôm nay, chúng ta sẽ trao đổi về thuốc OTC và tôi muốn hỏi anh (chị) một số câu hỏi về cung ứng thuốc OTC cho khách hàng.

1. Anh (chị) cảm thấy việc bán thuốc OTC nói chung có đặc điểm gì?
2. Anh (chị) có thể kể một số kinh nghiệm đáng chú ý của mình khi bán thuốc không kê đơn tại nhà thuốc?
3. Điều gì làm anh chị hứng thú khi bán thuốc OTC? Anh (chị) cảm thấy thế nào?
4. Điều gì anh (chị) nghĩ là mình đã làm tốt và/hoặc điều gì là khó khăn khi bán thuốc OTC?
5. Khi khách hàng tới nhà thuốc, mô tả triệu chứng bệnh và đề nghị sự giúp đỡ, Anh(chị) thường giải quyết như thế nào ?
6. Khi khách hàng tới nhà thuốc hỏi mua một số loại thuốc không kê đơn nào đó, Anh(chị) thường giải quyết như thế nào?
7. Theo ý kiến của anh (chị), những yếu tố nào ảnh hưởng tới chất lượng dịch vụ dược khi cung ứng thuốc OTC tại các nhà thuốc?)
8. Theo ý kiến của anh (chị), điều gì là quan trọng nhất khi cung ứng thuốc không kê đơn OTC cho khách hàng?
9. Theo ý kiến của anh (chị), dược sỹ và nhân viên nhà thuốc nên làm gì khi cung ứng thuốc OTC cho khách hàng để đảm bảo cung ứng chất lượng dịch vụ tốt?
10. Anh (chị) có đánh giá chung như thế nào về thực trạng cung ứng thuốc OTC hiện nay tại Hà nội?

Trao đổi một số vấn đề nổi lên từ nghiên cứu quan sát.

Thông tin cá nhân

1. Giới tính: Nam ☐ Nữ ☐

2. Tuổi của người được phỏng vấn?

☐ 20 đến 25 ☐ 40 đến 49

☐ 26 đến 29 ☐ 50 đến 59

☐ 30 đến 39 ☐ 60 đến 69

3. Bằng cấp/đào tạo của người được phỏng vấn:

Thạc sỹ hoặc cao hơn ☐

Dược sỹ đại học ☐

Dược sỹ trung cấp ☐

Dược tá ☐

4. Anh (chị) đã làm việc trong lĩnh vực dược cộng đồng được bao lâu?

Ít hơn 1 năm ☐ 1 đến 3 năm ☐

3 đến 5 năm ☐ 5 đến 10 năm ☐

10 đến 20 năm ☐ Nhiều hơn 20 năm ☐

5. Anh (chị) đã làm việc tại nhà thuốc này được bao lâu?

Ít hơn 1 năm ☐ 1 đến 3 năm ☐

3 đến 5 năm ☐ 5 đến 10 năm ☐

10 đến 20 năm ☐ Nhiều hơn 20 năm ☐

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APPENDIX SEVEN: Questionnaire (English version)

QUESTIONNAIRE

(For pharmacy customers to evaluate the quality of services received in community pharmacies)

Thank you for agreeing to complete this questionnaire about your experiences of buying non-prescription or OTC medicines at community pharmacies. Our goal is to investigate the supply of non-prescription or OTC medicine in community pharmacies in Hanoi, Vietnam.

Note: Non-prescription or OTC medicines are all medicines on "Non-prescription medicine list" established by Ministry of Health of Vietnam in July 2009.

The questionnaire should only take 5-10 minutes to complete. Your opinion are important to us in finding out customers views of the service provided at community pharmacies, and we hope that they will help improve the service in the future.

Section I. We would now like to ask a few general questions about the non-prescription or OTC medicines you bought today. There are no right or wrong responses; we just interested in your opinion.

1. **Why did you come to the pharmacy today?**

☐ For prescription medicines (with a prescription from doctor)

☐ For non-prescription or OTC medicines

☐ For both prescription and non-prescription medicines

☐ Other purpose, please describe: _____

2. **How many different non-prescription or OTC medicines did you buy today? Please tick one box.**

☐ One

☐ Two

☐ More than two→please tell us how many different OTC medicines: ____

3. **Why did you choose to buy the OTC medicines at this community pharmacy today?**

……
……
……

Section II. In this section, we want to know your opinion of the service that you received today. Please tick to the box that best describes your opinion.

	Statements	Yes	No
1.	I was asked about the person who will be using the non-prescription medicine(s).		
2.	I was asked to describe the symptom(s) that I want to treat with OTC medicines.		
3	I was asked to describe how long the symptom(s) have been present.		
4	I was asked if any treatment has been tried already.		
5	I was asked if any other medicines are being taken.		
6	I was asked whether any allergies to medicines occurred.		
7	I was told how to use the medicines by the staff.		
8	Warnings about the medicine(s) were explained to me.		
9	Side-effects of the medicine(s) were described to me		
10	The staff wrote on the medicines box/blisters how to use the medicine(s).		

For this part, there are 14 statements below. For each one, please circle the number that best describes your opinion.

	Statements	Strongly disagree	Disagree	Unsure	Agree	Strongly Agree
1	The pharmacy staff seemed to care about my health concerns.	1	2	3	4	5
2	The staff took as much time as was necessary with my purchase.	1	2	3	4	5
3	Suitable medicine(s) were selected for the treatment requested.	1	2	3	4	5
4	The staff had good communication skills.	1	2	3	4	5
5	I was given some health advice relevant to the condition I am treating with the medicines.	1	2	3	4	5
6	The pharmacy staff respected my views and opinions.	1	2	3	4	5
7	Pharmacy staff had the knowledge to deal with minor symptoms (e g. colds, headaches…	1	2	3	4	5

8	Pharmacy staff talked to me using clear and understandable language.	1	2	3	4	5
9	Pharmacy staff are not trustworthy.	1	2	3	4	5
10	Pharmacy staff seem unwilling to help.	1	2	3	4	5
11	Pharmacy staff were friendly with me today.	1	2	3	4	5
12	Pharmacy staff seem to lack the knowledge necessary to help me select an OTC medicine.	1	2	3	4	5
13	Pharmacy staff was too busy to help me.	1	2	3	4	5
14	Overall, I am satisfied with pharmacy service provided today.	1	2	3	4	5

Section III. Personal information

In this section, we would now like to know some of brief personal information. You will not be identified from the information you provide.

1. Your gender: ☐ Male ☐ Female
2. What is your current age?

☐ 18 to 29 years ☐ 40 to 49 years ☐ 60 – 69 years

☐ 30 to 39 years ☐ 50 to 59 years ☐ 70 years or older

3. Education completed (tick one box):

☐ Less than high school graduate

☐ High school graduate

☐ Technical school

☐ University or College graduate

☐ Masters or other higher degree

4. Your occupation:

☐ Officer ☐ Health profession

☐ Teacher/lecturer ☐ Housewife

☐ Simple labour ☐ Retired

☐ Unable to work due to poor health ☐ Unemployed

Other: _____

Thank you very much for completing this questionnaire!

APPENDIX SEVEN

(Vietnamese version)

BỘ CÂU HỎI PHỎNG VẤN

(Cho khách hàng đánh giá chất lượng dịch vụ đã nhận được từ nhà thuốc)

Cảm ơn Ông (bà), anh (chị) đã đồng ý hoàn thành bộ câu hỏi này hỏi về kinh nghiệm của anh (chị) khi mua thuốc không kê đơn-OTC tại các nhà thuốc. Mục tiêu của đề tài này là nhằm nghiên cứu chất lượng dịch vụ cung ứng thuốc không kê đơn-OTC tại các nhà thuốc tại Hà nội, Việt nam.

Sẽ chỉ mất từ 5-10 phút để hoàn thành bộ câu hỏi. Ý kiến của Anh (chị) là rất quan trọng đối với chúng tôi trong việc tìm ra quan điểm của khách hàng về dịch vụ được cung ứng tại nhà thuốc, và chúng tôi hy vọng những thông tin này sẽ giúp cho việc nâng cao chất lượng dịch vụ cung ứng thuốc tại các nhà thuốc trong tương lai.

Phần I. Chúng tôi muốn hỏi một số câu hỏi chung về các thuốc không kê đơn-OTC mà Ông (bà), anh (chị) đã mua ngày hôm nay. Sẽ không có câu trả lời nào được cho là đúng hay sai; Chúng tôi chỉ quan tâm tới ý kiến của Ông (bà), anh (chị).

1. **Vì sao Ông (bà), Anh (chị) tới nhà thuốc ngày hôm nay?**

☐ Mua thuốc kê đơn (có đơn của bác sỹ)

☐ Mua thuốc không kê đơn OTC (tự mua)

☐ Mua cả thuốc kê đơn và thuốc không kê đơn OTC

☐ Mục đích khác, xin nêu rõ: _____

2. **Ông (bà), Anh (chị) mua mấy loại thuốc không kê đơn-OTC ngày hôm nay? Xin hãy đánh dấu vào một ô dưới đây.**

☐ Một loại thuốc

☐ Hai loại thuốc

☐ Nhiều hơn hai→Xin hãy chỉ rõ mấy loại thuốc OTC khác nhau: ____

3. **Tại sao Ông (bà), Anh (chị) đã chọn mua thuốc không kê đơn OTC tại nhà thuốc hôm nay?**

……
……
……
…….

Phần II. Trong phần này, chúng tôi muốn biết ý kiến của Ông (bà), Anh (chị) về dịch vụ mà Ông (bà), Anh (chị) nhận được hôm nay.

Xin đánh dấu vào ô mô tả ý kiến của Ông (bà), Anh (chị).

	Tình huống	Có	Không
1.	Nhân viên bán hàng đã hỏi tôi về ai sẽ là người sử dụng thuốc không kê đơn.		
2.	Tôi đã được yêu cầu mô tả các triệu chứng bệnh mà tôi muốn điều trị với thuốc OTC.		
3	Tôi đã được hỏi về thời gian xuất hiện các triệu chứng trên được bao lâu.		
4	Nhân viên nhà thuốc hỏi tôi đã thử điều trị gì chưa.		
5	Tôi đã được hỏi có đang sử dụng thuốc gì khác hay không.		
6	Tôi đã được hỏi có bị dị ứng với loại thuốc nào hay không.		
7	Nhân viên nhà thuốc đã hướng dẫn tôi cách sử dụng các thuốc đã được bán.		
8	Nhân viên nhà thuốc đã giải thích cho tôi những cảnh báo khi sử dụng thuốc.		
9	Nhân viên nhà thuốc đã khuyến cáo về một số tác dụng phụ của thuốc với tôi.		
10	Nhân viên nhà thuốc viết hướng dẫn sử dụng thuốc lên hộp/vỉ thuốc.		

Trong phần này, có 14 tình huống dưới đây. Với mỗi tình huống, xin hãy khoanh tròn vào số mà mô tả ý kiến của Ông (bà), Anh (chị).

		Theo ý kiến của Anh (chị)				
	Tình huống	Rất không đồng ý	Không đồng ý	Không chắc	Đồng ý	Rất đồng ý
1.	Nhân viên nhà thuốc có quan tâm tới sự lo lắng về sức khỏe của tôi.	1	2	3	4	5
2.	Nhân viên nhà thuốc đã dành nhiều thời gian cần thiết cho việc mua thuốc của tôi.	1	2	3	4	5
3.	Nhân viên nhà thuốc đã lựa chọn các thuốc phù hợp cho nhu cầu điều trị của tôi.	1	2	3	4	5
4.	Nhân viên nhà thuốc có kỹ năng giao tiếp tôt	1	2	3	4	5
5.	Tôi đã nhận được một số lời khuyên về y tế liên quan tới việc điều trị với thuốc.	1	2	3	4	5
6.	Nhân viên nhà thuốc đã tôn trọng quan điểm và ý kiến của tôi	1	2	3	4	5
7.	Nhân viên nhà thuốc có kiến thức để giải quyết một số bệnh thông thường (ví dụ cảm, dị ứng, đau đầu...)	1	2	3	4	5

8.	Nhân viên nhà thuốc đã trao đổi với tôi sử dụng ngôn ngữ rõ ràng và dễ hiểu.	1	2	3	4	5
9.	Nhân viên nhà thuốc không đáng tin cậy.	1	2	3	4	5
10.	Nhân viên nhà thuốc dường như không sẵn sàng giúp đỡ khách hàng.	1	2	3	4	5
11.	Nhân viên nhà thuốc đã thân thiện với tôi ngày hôm nay.	1	2	3	4	5
12.	Nhân viên nhà thuốc dường như thiếu kiến thức cần thiết để giúp tôi lựa chọn thuốc OTC.	1	2	3	4	5
13.	Nhân viên nhà thuốc đã quá bận rộn nên không thể giúp tôi	1	2	3	4	5
14.	Nói chung, tôi hài lòng về dịch vụ dược nhận được từ nhà thuốc ngày hôm nay.	1	2	3	4	5

Phần III. Thông tin cá nhân

Trong phần này, chúng tôi rất vui nếu Ông (bà), anh (chị) cung cấp một số thông tin cá nhân. Những thông tin Ông (bà) cung cấp sẽ được bảo mật.

1. Giới tính: ☐ Nam ☐ Nữ

2. Tuổi của anh (chị)?

☐ 18 đến 29 tuổi ☐ 50 đến 59 tuổi

☐ 30 đến 39 tuổi ☐ 60 đến 69 tuổi

☐ 40 đến 49 tuổi ☐ 70 tuổi và lớn hơn

3. Trình độ học vấn (điền vào ô phù hợp):

☐ Chưa tốt nghiệp phổ thông trung học ☐ Đại học hoặc cao đẳng

☐ Tốt nghiệp phổ thông trung học ☐ Thạc sỹ hoặc cao hơn

☐ Trung cấp

4. Nghề nghiệp:

☐ Nhân viên văn phòng ☐ Đã nghỉ hưu

☐ Giáo viên/Giảng viên ☐ Nhân viên y tế

☐ Lao động phổ thông ☐ Người nội trợ

☐ Không đủ sức khỏe để làm việc ☐ Người không có việc làm

Others: _____

Trân trọng cảm ơn Ông (bà), anh (chị) đã giúp hoàn thành bộ câu hỏi!

APENDIX EIGHT: Data checking and cleaning

DATA CHECKING AND CLEANING

1. Data checking

Random sample of customers checked for data entry errors. 5% of 505 customers = 35

No	Customer no	Errors found	Action
1	12	No	
2	20	No	
3	72	No	
4	79	No	
5	117	No	
6	126	No	
7	138	No	
8	145	No	
9	146	No	
10	171	Questions q1.7, q1.8, q1.9,q1.10 got value 4 instead 1 for yes or 2 for no.	Amended q1.7 got value 1 q1.8 got 2, q1.9 got 2 and q1.10 got 1
11	173	No	
12	174	No	
13	175	No	
14	178	No	
15	180	No	
16	181	No	
17	209	No	
18	231	No	
19	246	No	
20	251	No	
21	256	No	
22	275	No	
23	278	No	
24	333	No	
25	336	No	
26	337	No	
27	341	No	
28	370	No	
29	388	No	
39	391	No	
31	414	No	
32	425	No	
33	431	No	
34	470	No	
35	499	No	

Data entry errors = 1 / 35 customer lines

2. Data cleaning

+ Firstly, the questionnaire IDs were within the range 1 to 505 of the distributed questionnaires.

+ All the collected questionnaires were checked carefully two times before entering in to SPSS and researcher went from question No 1 to question No 505.

- In the first time: all the questionnaires (in Vietnamese version) were checked during the collected time and before transferring in to English version. Researcher observed pharmacy customers answering the questions and reminded them for any unanswered questions in order to avoid some missing values.
- In the second time, researcher checked English version again before entering data in to SPSS.

+ All questions were checked for values outside the possible ranges:

The values were checked by two ways:

- Directly checked on inputted data
- Produced frequency tables

Gender: all the values got 1 for male and 2 for female. No others values were found.

Age groups: all the values were on the range from 1 to 6. No others values were found.

Education groups: all the values were on the range from 1 to 5. No others values were found.

Occupation: all the values were on the range from 1 to 9. The value other coded 9 includes some explanations such as student, army officer and policeman.

+ For question 1 about reasons to come to pharmacy: all the values were on the range from 1 to 3.

+ For question 2 about how many OTC medicines were bought: all the values were on the range from 1 to 5. No others values were found

+ Question 2: checked values more than two were on the range from 3 to 5.

+ Question 3, the following amendment was made: “close to my house” was changed to “Near my house”; “cheap price” was changed to “reasonable price”; “I trusted in pharmacy staff” was changed to “trustworthy”.

+ Ten yes/no questions from fact1 to fact10 were checked: all the values got 1 for yes and 2 for No. No others values were found. Ten frequency tables also stated that no other values were found.

+ For fourteen Likert scale questions: all the values were on the range from 1 to 5.

Questions opi1, opi2, opi4, opi5, opi6, opi7 and opi8 were checked and all the values were in range from 1 to 5. Frequency tables also stated that no other values were found.

Questions opi3 and opi11 were checked and all the values were in range from 2 to 5.

Questions opi9, opi10, opi12, opi13 and opi14 were checked and all the values were in range from 1 to 4. Frequency tables also stated that no other values were found.

No others values were found

+ All the questions were checked for missing data. No missing data were found.

(English version)

APPENDIX NINE: Pharmacy study Poster

What do you think about the supply of Non-prescription medicines in Community pharmacies?

We are currently conducting some research into the supply of Non-prescription medicines in community pharmacies.

You may be observed when communicating with pharmacists or pharmacy staff. Whether you agree or decline, you may be invited to take part in this study – It is entirely optional.

For further details please contact:

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APPENDIX NINE (Vietnamese version)

Anh (chị) có suy nghĩ gì về việc cung ứng thuốc không kê đơn tại các nhà thuôc?

Chúng tôi đang triển khai nghiên cứu về hoạt động cung ứng thuốc không kê đơn tại các nhà thuốc.

Chúng tôi có quan sát việc giao tiếp của nhân viên bán thuốc với Anh (chị). Anh (chị) được mời tham gia vào nghiên cứu này – Việc tham gia là hoàn toàn tự nguyện.

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